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THE ROLE OF SELF-EFFICACY IN THE RELATIONSHIP BETWEEN EXPERIENTIAL AVOIDANCE AND ANXIETY

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THE ROLE OF SELF-EFFICACY IN THE RELATIONSHIP BETWEEN EXPERIENTIAL AVOIDANCE AND ANXIETY

BY

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ABSTRACT

Anxiety disorders are the most prevalent of the mental health disorders. A common method used in efforts to relieve anxiety is experiential avoidance, which is the avoidance of distress by any physical or mental means. Contrary to the belief that experiential avoidance is helpful, studies have instead demonstrated engaging in experiential avoidance worsens anxiety. Academic self-efficacy (an individual's belief in their own scholastic capabilities) has also been associated with anxiety. Low academic self-efficacy has been shown to increase anxiety, especially with college students. While there are similarities between experiential avoidance and self-efficacy, little research has been reported on this topic. Studies have not yet explored the relationship between experiential avoidance, anxiety, and academic self-efficacy. The current study used descriptive analyses to explore the relationship among these variables. This study also hypothesized that increased experiential avoidance is a significant predictor of higher anxiety in both a full sample of participants and a subsample of participants with moderate to high anxiety. Furthermore, it was hypothesized that academic self-efficacy will moderate the relationship between experiential avoidance and anxiety in both the full and partial sample of participants. Data was collected from college students at the University of Rhode Island. An exploratory analysis revealed that experiential avoidance was positively correlated with anxiety and self-efficacy was negatively correlated with both experiential avoidance and anxiety. A linear regression analysis revealed experiential avoidance as a significant predictor of anxiety in both the full sample and partial sample of participants. Finally, a moderation analysis revealed that self-efficacy did not influence the relationship between experiential avoidance and anxiety in both the full and partial

participant sample. Limitations of the current study as well as future directions were discussed.

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Introduction

Statement of the Problem

Anxiety is natural response to stress; however, when experienced at extreme levels, anxiety may have a negative impact on an individual's quality of life. Anxiety disorders are the most prevalent of the mental health disorders, affecting approximately 30% of the global population at some point in their lifetime (Bandelow & Michaelis, 2015). In the United States, anxiety disorders are the most common of the mental illnesses (Maddux & Winstead, 2019) and demonstrate a significant gender disparity in their incidence. There is a higher ratio of lifetime anxiety diagnoses in women then in men. In addition, women who are diagnosed with an anxiety disorder are more likely than men to have a secondary anxiety diagnosis (McLean et al, 2011). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), anxiety disorders include Generalized Anxiety Disorder (GAD), panic disorder, specific phobia, agoraphobia, social anxiety disorder and separation anxiety, with GAD being the most common among them (American Psychiatric Association, 2013). The age-of-onset for anxiety disorders, while varying slightly for each disorder, generally tends to be in childhood or adolescence (Kessler et al., 2010).

Individuals living in the United States are particularly vulnerable to GAD diagnoses. Studies show that GAD is more prominent in high income countries than low- or middle-income countries (Ruscio et al., 2017). Between the publishing of the DSM-IV and the DSM-5, there has been a substantial cross-national increase in the number of GAD diagnoses, with the prevalence rate being 37-90% higher in the DSM-5 (Ruscio et al., 2017). This may partly be due to changes in diagnostic criteria; however, the trend of

anxiety is one that appears to be progressively worsening across time. The impact of GAD on the lives of people suffering from the disorder has been detrimental to their quality of life in areas such as education, career, and interpersonal relationships. While in the past GAD was thought to have a mild impact (Rapee, 1991), current findings indicate that it comes with a great deal of impairment (e.g., Bandelow & Michaelis, 2015, Goetther et al., 2020, Ruscio etal., 2017). Individuals suffering from GAD often experience impairments in areas including social life, work, and family responsibilities. They also report a lower quality of life in areas such as money, work, play, learning, creativity, and social relationships (Henning et al., 2007).

Experiential Avoidance

For many individuals, a means for coping with anxiety is avoidance of the anxiety-provoking object, situation, or event. Although avoidance is a commonly used coping mechanism, it is associated with increased symptoms of psychopathology (Pozzi et al., 2015). Individuals often prefer to use this strategy for its short-term benefits rather than engaging in behaviors such as cognitive restructuring, problem solving and approach coping skills which are known to increase satisfaction and well-being over the longer-term (Wilson & Murrell, 2004). Many individuals seek, not only to avoid situations that produce anxiety, but also to avoid the *emotional experience* of anxiety. The latter is a maladaptive emotional regulation strategy known as experiential avoidance.

Hayes and colleagues (1999) describe experiential avoidance as "an unwillingness to remain in contact with distressing thoughts, feelings, memories and other private events even when doing so creates harm in the long run." Experiential avoidance is also described as a strategy which serves to suppress the intensity of unwanted internal

experiences (Hayes et al., 1999). Experiential avoidance involves the use of physical and/or mental methods to escape potentially distressing situations. For example, a person who is fearful of going to a park may physically avoid any routes that come near to the park on their way to work (physical avoidance). They may also attempt to prevent themselves from thinking about things associated with parks, such as balls, dogs, and grass (mental avoidance). Both methods have the same objective -- to diminish negative emotions or pain.

Experiential avoidance is a core concept used in Acceptance and Commitment Therapy (ACT), a therapeutic framework derived from Cognitive Behavioral Therapy (CBT). ACT consists of six components: acceptance (allowing internal events to occur), values (recognizing what is most important), contact with the present moment (awareness of current experience), self as context (understanding that internal events do not define you), committed action (engaging in value-driven behaviors), and defusion (experiencing internal events as they are, not as cognition portrays them) (Coyne et al., 2011; Twohig & Levin, 2017). The goal of ACT is to strengthen psychological flexibility and acceptance, both of which target experiential avoidance (Rochefort et al., 2018). Psychological flexibility allows a person to be fully engaged in the present moment and to persist in behaviors that help them move towards their values even if the present moment involves distressing thoughts or emotions (Hayes et al., 2012). Within the ACT framework, these distressing thoughts and emotions are to be accepted. The notion of acceptance is the opposite of experiential avoidance. People who practice acceptance stay in contact with their thought and emotions, while people who engage in experiential avoidance do their best to reject or inhibit distressing internal experiences. Experiential avoidance results in

the lost opportunity for habituation to reduce negative emotions over time (Hayes et al., 2006; Werner & Gross, 2010). ACT utilizes both psychological flexibility and acceptance to decrease experiential avoidance in efforts to promote mental well-being and reductions in anxiety.

Experiential Avoidance and Anxiety

Although individuals engage in experiential avoidance with the goal of decreasing anxiety and distress, research shows that, over time, this strategy has the opposite effect. Multiple studies have demonstrated the negative impact experiential avoidance has on psychopathological symptoms and distress. In studies exploring the role of experiential avoidance in participants who have experienced traumatic events, researchers found that experimental avoidance was positively associated with worsened PTSD symptoms (Bashapoor et al., 2015; Kashdan et al., 2009; Ruiz-Párraga & López-Martínez, 2015). Studies have also found decreases in symptoms of depression to coincide with decreases in experiential avoidance (Sloan et al., 2017; Spinhoven et al., 2016). Experiential avoidance also operates as a mediator in the relationship between self-critical perfectionism and depression (Moroz & Dunkley, 2015).

Experiential avoidance also plays a central role in anxiety disorders (Hayes et al., 2006; Roemer & Orsillo, 2002). Borkovec and colleagues have proposed an avoidance theory in which worry, a prominent feature in GAD, serves as a cognitive avoidance response to fear. Thus, when physical avoidance is impossible, individuals may resort to using cognitive attempts, such as worry, to avoid or minimize perceived threats. This theory is supported by numerous studies linking experiential avoidance and anxiety disorders. In a research study examining the role of experiential avoidance and emotional

distress in treatment-seeking participants diagnosed with GAD, researchers found that participants with GAD reported higher levels of experiential avoidance than nonclinical controls (Lee et al., 2009). Worry is thought to temporarily reduce fear and should be negatively reinforced similar to traditional experiential avoidance (Borkovec et al., 2004). Although there is limited research on gender differences in experiential avoidance, a study by Panayiotou and colleagues (2017) discovered that women reported a greater reliance on using experiential avoidance as a coping method when associated with increased anxiety than did men.

Experiential avoidance has been found to be associated with other forms of anxiety as well. Kashdan and colleagues (2014) conducted a study where participants with social anxiety disorder (SAD) engaged in face-to-face social interactions for two weeks. Following the interactions, participants rated both their experiential avoidance and social anxiety symptoms. Results revealed that there was a positive association between momentary experiential avoidance and anxiety severity. While experiential avoidance alleviates anxiety in the short-term, it leads to more maladaptive behavior and worsening of the anxiety or distress in the long-term (Kashdan et al., 2009). Eustis and colleagues (2016) discovered that when treatment interventions targeted experiential avoidance (e.g., acceptance-based behavior therapy and applied relaxation), experiential avoidance predicted lower levels of worry and higher in an emerging adult population. Researchers found that anxiety sensitivity was positively associated to anxiety and post-traumatic stress symptoms only when the participants reported high levels of experiential avoidance behaviors (Bardeen, 2015). Similarly, a study done by Zvolensky and colleagues (2015) indicated that experiential avoidance was indirectly related to anxious arousal,

depression, and suicide through anxiety sensitivity. While there is a growing body of evidence supporting an association between anxiety and experiential avoidance, little is known about the mechanisms involved in this relationship.

Self-efficacy

Self-efficacy is a factor which may influence the relationship between anxiety and experiential avoidance. Self-efficacy is described as one's belief in their own capabilities. Self-efficacy has importance in human development as it exerts a strong influence on a person's actions. Researchers believe that self-efficacy affects four major psychological processes: cognitive, motivational, affective and selection. The effect self-efficacy has on cognitive processes can be seen in how one's perceptions of experience are altered when self-efficacy is low. Individuals with low self-efficacy often visualize scenarios in which they fail at the tasks they are attempting. Additionally, they may overthink tasks, resulting in poorer performance. This anticipation of negative outcomes deters them from wanting to attempt the task at all (Bandura, 1994). For example, a student with low self-efficacy may fear taking tests. They may fear doing badly, which then leads them to believe that there is no point in studying since they will do badly whether they study or not. As a result, they do not study and fail the test. This exemplifies the important influence of self-efficacy on achievement of one's goals.

Impairment in self-efficacy results in disruption in the motivational process through the influence it has on causal attributions. People with high self-efficacy attribute failed tasks to insufficient effort, while those with low self-efficacy attribute their failures to low ability. Feelings of incompetence can determine the goals that people set for themselves as well as the amount of effort they put forth (Bandura, 1994). Motivation is

what guides action, and if one believes that they are incompetent, motivation is diminished, achievement of goals is made more difficult, and negative emotions including anxiety and depression may result.

In a research study exploring the influence of self-efficacy on the affective responses of women exercising, researchers found that the high-efficacy group had a significantly more positive affect than the low-efficacy group (McAuley et al., 1999). Levels of self-efficacy impact people's beliefs in their own coping abilities. Individuals with high self-efficacy levels are less likely to ruminate on their ability to manage difficult situations, while those with low self-efficacy are more prone to dwell on potentially anxiety-provoking events. This negative rumination may provoke feelings of depression and anxiety (Bandura, 1994).

Self-efficacy is also largely influential in whether a person decides to participate in certain activities or situations. Individuals with high self-efficacy tend to be less selective of their environments because they are more confident in their coping abilities. People with low self-efficacy are more selective of the environments into which they place themselves. Consequentially, higher selectivity of environments limits access to positive social influences that may be essential to certain emotional, cognitive and interpersonal milestones. (Bandura, 1994). The student with test anxiety may feign sickness every time a test is scheduled and thus, their grades suffer, leading them to make the decision to avoid careers that involve taking tests. With this decision, the student limits their future not based on their preferences but on their fears.

Experiential Avoidance and Self-efficacy

Low self-efficacy's negative influence on motivation is the primary driver behind the relationship between self-efficacy and experiential avoidance. With low self-efficacy, motivation is diminished, leading to avoidance of situations that would make one feel incompetent. With experiential avoidance, there is a general avoidance of negative feelings. Regulation of negative emotions using experiential avoidance prevents positive corrective experiences and resultant self-efficacy (Werner & Gross, 2010). Despite these seeming connections, there is surprisingly little research that explores the relationship between experiential avoidance and self-efficacy. Shim and Ryan (2005) discovered that performance-avoidance goals (goals involving the avoidance of negative judgement of one's ability) were associated with low motivation after receiving low grades. In this study, college students were given grades early in the semester and were then asked to create a goal for themselves. Students with high grades tended to create goals involving mastery of the content, while students with low grades created performance-avoidance goals.

Despite the limited research on experiential avoidance and self-efficacy, there are some studies that explore the interaction between ACT and self-efficacy. Studies have shown that ACT can improve an individual's self-reported self-efficacy (Mehrdoost, 2013; Khashouei, 2017). The ACT model and methods to improve self-efficacy have been shown to be effective tools in decreasing experiential avoidance behaviors (Coyne et al., 2011; Ruiz, 2014). Experiential avoidance may also influence the level of confidence in coping skills. The experience of managing distressing thoughts and situations is needed to build coping skills. Lack of coping skill practice may lead to the

belief that one cannot handle a situation well. In other words, if one tries to avoid all situations in which there is a possibility of feeling any negative emotion(s), they will never gain confidence in their coping skills.

Self-efficacy and Anxiety

The influence that low self-efficacy has on psychological processes can be a key factor in the development of anxiety. When assessing the relationship between task importance and test anxiety, Nie and colleagues (2011) found that academic self-efficacy buffered the strength of the relationship between task importance and test anxiety, with the association between the two variables becoming weaker when self-efficacy was higher. The rumination associated with a lack of confidence can generate significant anxiety (Kuster, et al., 2012). Perceived ability in successful use of coping skills can affect levels of distress (Benight et al., 2002). In an experimental analysis of the relationship between self-efficacy and anxious arousal, researchers found that the perceived lack of coping skills coincided with high levels of distress (Bandura, 2007). When one believes that they cannot manage stress, they may feel as though they have no control over their situation (Ajzen, 2006). They may, as a result, fear danger in many situations within their environments. Worry about events with negative outcomes increases, even when the events are unlikely to happen. Because they feel that they cannot successfully cope in stressful situations, they believe they have no control (Endler et al., 2001). In a sample of college students, Sagone and Caroli (2014) found that high academic self-efficacy predicted a positive future self-concept which was associated with an increased perception of control in everyday life. In an attempt to prepare for events deemed out of one's control, individuals will continually fret over the possibility of the

stressful situation occurring. This continued rumination is a great source of anxiety and results in impaired functioning (Bandura, 1994). Yue (1996) found that among secondary school students, higher levels of self-efficacy predicted lower test anxiety, while lower levels of self-efficacy predicted greater test anxiety.

Clinicians and researchers have incorporated self-efficacy into their practices, presenting promising results. Goldin and colleagues (2012) explored whether cognitive reappraisal self-efficacy, defined as the confidence in one's ability to reframe one's perception of a situation, enhanced the effects of CBT for social anxiety disorder. The results demonstrated that incorporating cognitive reappraisal self-efficacy into CBT improved the treatment outcome for social anxiety disorder. There are numerous other studies demonstrating that self-efficacy can improve outcomes in medical and psychiatric settings such as increased exercise behavior (McAuley & Jacobson, 1991, Fuzhong et al.,2001), improved sleep quality (Park & Kim, 2019), reduced cognitive problems following trauma (Samuelson et al, 2017, Benight & Bandura, 2004), lower stress (Benight & Harper, 2002) and less anxiety (Goldin et al., 2012). Despite the recognition of the importance of self-efficacy in clinical practices, it is not officially incorporated in interventions such as ACT.

Studies have assessed many forms of self-efficacy, such as physical self-efficacy (Davis-Berman, 1990), emotional self-efficacy (Galla & Wood, 2012), coping self-efficacy (Benight et al, 2006), and academic self-efficacy (Chemers et al, 2001). Academic self-efficacy refers to a student's confidence in their ability to achieve academic tasks. A study by Zimmerman (2000) found that students with higher levels of self-efficacy will engage more, work harder, and persist longer when they encounter

difficulties. Academic self-efficacy is extremely important for students, especially in a college setting. Gender differences have also been observed in academic self-efficacy. While academic self-efficacy varies between men and women depending on the subject, overall research shows that men have higher self-efficacy in academic settings (Huang, 2013). Students are mainly evaluated by their academic achievements; therefore, much time and effort are often dedicated to improving grades. Students often base important life decisions, such as future careers, on their academic performance. In some instances, grades may even determine one's social group. Thus, academic self-efficacy may influence a variety of aspects within a student's life.

Current Study

People often engage in experiential avoidance to reduce distress in their lives. While this strategy may seem effective in allowing immediate relief from their distress, ultimately, this approach leads to more distress. Experiential avoidance may delay discomfort for a time, but eventually one does experience the distress (Hayes et al., 1999). Research shows evidence that engaging in experiential avoidance also intensifies the distress (Tyndall et al., 2018). Self-efficacy appears to exert an influence on experiential avoidance. People with high self-efficacy have the ability to refrain from experiential avoidance. The confidence in one's self may allow them to be capable of engaging in activities that create distress rather than avoiding these circumstances.

The aim of the present study is to examine the role of academic self-efficacy in the relationship between experiential avoidance and anxiety. The following hypotheses will be examined:

1) Descriptive analyses will be used to explore relationships among experiential avoidance, anxiety, and academic self-efficacy, as well as demographic variables (e.g., gender).
2) Experiential avoidance will be a significant predictor of anxiety both within:
    a. the full sample of participants, with higher experiential avoidance being associated with higher anxiety.
    b. a subsample of participants who reported moderate to high anxiety, with higher experiential avoidance being associated with higher anxiety.
3) Academic self-efficacy will moderate the relationship between experiential avoidance and anxiety within:
    a. The full sample of participants, with low self-efficacy associated with a stronger relationship and high self-efficacy associated with a weaker relationship.
    b. A subsample of participants who reported moderate to high anxiety, with low self-efficacy associated with stronger relationship and high self-efficacy associated with a weaker relationship.

Methods

Participants

Data was collected from undergraduate students at the University of Rhode Island (URI) (N=161, M_{age}=19.6 years, 88.8% female, 75.0% white, 25% minority).

Table 1: Demographic Information of Overall Sample

Variable	*N*	*%*
Ethnicity		
Hispanic or Latinx:	22	13.7%
Not Hispanic or Latinx	139	86.3%
Gender		
Female	143	88.8
Male	16	9.9
Trans male	1	0.6
Not listed	1	0.6
Race		
White	117	75.0
Black	10	6.4
Asian	6	3.8
American Indian/Alaskan Native	3	1.9
Native Hawaiian/Other Pacific Islander	1	0.6
Multi-racial	9	5.8
Other	10	6.4
Age		
18	36	22.4
19	46	28.6
20	43	26.7
21	24	14.9
22	5	3.1
23	3	1.9
24	4	2.5

Procedure

Participants were recruited through undergraduate psychology courses at URI. Flyers advertising the study were emailed to professors who offered the survey to their students for extra credit. Extra credit was available to students who did not wish to participate in the study via an alternative course assignment. Participation in the study

was voluntary; students were able to withdraw from the study at any time without repercussion.

Participants completed multiple online questionnaires. The present study used data from the demographics questionnaire, the Self-Efficacy Questionnaire (SEQ), the Generalized Anxiety Disorder - 7 Item (GAD-7), and the Multidimensional Experiential Avoidance Questionnaire.

Measures

Self-Efficacy Questionnaire (SEQ) The SEQ (Gaumer et al., 2016) is a 13-item questionnaire assessing a student's confidence in their history ability to achieve specific academic tasks (Axboe et al., 2016). The questionnaire uses a 5-point Likert scale with the response are a range from "Not very like me" (1) to "Very like me" (5). The questionnaire consists of two main components. The first component is the belief that ability can grow with effort, and the second is the belief in one's own ability to meet specific goals and expectations. Total scores range from 13 to 65 and are converted to a 0 - 100 point scale for easy interpretation, with higher scores indicating greater endorsement of self-efficacy (Gaumer et al, 2016).

The questionnaire was tested for reliability using Cronbach's coefficient alpha. The belief that ability can grow with effort subscale, which consists of 5 items, has a relatively high internal consistency (α=.805) (Gaumer et al.,2016). The belief in one's own ability to meet specific goal and expectations subscale, which consists of 8 items, also has a relatively high internal consistency (α=.841). Overall, the 13-item SEQ is highly reliable (α=.894) (Gaumer et al., 2016).

Generalized Anxiety Disorder-7 (GAD-7) The GAD-7 is a short 7-item self-report questionnaire measuring worry and anxiety symptoms using a 0-3 Likert scale. The response options are "not at all sure" (0), "several days" (1), "more than half the days" (2) and "nearly every day" (3). The total score ranges from 0-21 with a score greater than or equal to 10 being in the clinical range.

The GAD-7 has demonstrated good reliability (α=.89), with the internal consistency being very similar across different groups (Löwe et al., 2008, Spitzer et al, 2006). The GAD-7 also demonstrate good construct validity. There was adequate internal consistency between the GAD-7 measure and the 2-item depression module from the Patient Health Questionnaire (PHQ-2) (*r*=.64), the Rosenberg Self-Esteem Scale(*r*=-.43), life satisfaction questions from the demographic questionnaire (*r*=-.34) and resilience (*r*=-.29) (Löwe et al., 2008). The GAD-7 was also associated with many risk factors for anxiety such as gender, age, educational level, partnership, employment status and household income. The association with risk factors also supports its construct validity (Löwe et al., 2008).

Multidimensional Experiential Avoidance Questionnaire (MEAQ) The MEAQ is a 62-item measure used to assess experiential avoidance. Participants select one of the following response options: "strongly disagree", "moderately disagree", "slightly disagree", "slightly agree", "moderately agree", and "strongly agree." The items form six subscales: behavioral avoidance, distress aversion, procrastination, distraction and suppression, repression and denial, and distress endurance.

The MEAQ has strong discriminatory validity in relation to constructs such as neuroticism and negative affect compared to other measures of experiential avoidance.

The measure also demonstrates excellent convergent validity with measures of avoidance as well as mindfulness and acceptance-based constructs (Rochefort et al., 2018). The MEAQ's Cronbach coefficient (α=.91-.95) demonstrates good-excellent internal reliability in clinical, community, and student samples (Gámez et al., 2011; Rochefort et al., 2018).

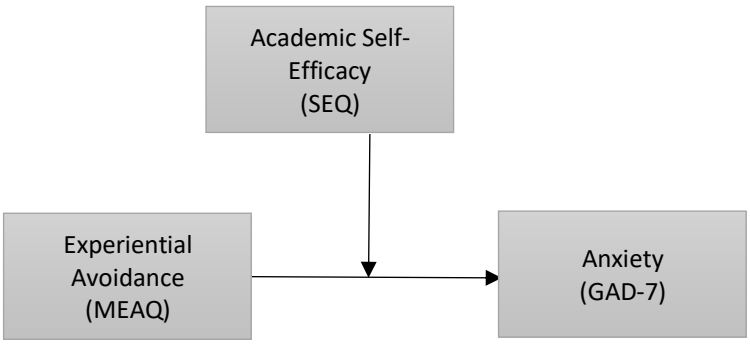
Results

Overview of Analyses

Preliminary descriptive analyses were conducted (see Table 2). Analyses were also conducted to determine whether assumptions such as normality, homoscedasticity and multicollinearity were violated. Normality was tested using the Shapiro-Wilk test. Results indicated that the dependent variable MEAQ was normally distributed (W=.044, p=.235). The scatterplot of standardized residuals visually indicated that assumptions of homogeneity of variance and linearity were met. Finally, as shown in Table 3, the correlation coefficients for the independent variables did not exceed .7 indicating that assumptions for multicollinearity were met. Further analyses were used to explore relationships among the MEAQ, the SEQ, and the GAD-7 as well as other demographic variables such as gender, socio-economic status, and age. A moderation analysis was then completed to assess, first, whether experiential avoidance is related to anxiety and, second, whether academic self-efficacy moderated the relationship between experiential avoidance and anxiety (See Figure 1). Analyses used the MEAQ to assess experiential avoidance, the SEQ to assess academic self-efficacy and the GAD-7 to assess anxiety. First, to ensure a relationship between MEAQ and GAD-7 existed, an initial regression analysis was conducted within a) the full sample and b) a subsample of participants who

reported moderate to high anxiety. In the second regression, SEQ was added as a covariate of the existing regression, and the effects were recorded.

Figure 1
Conceptual Model for Moderation



Correlational Analyses

A correlation analysis was conducted to examine the relationships among experiential avoidance, academic self-efficacy, and anxiety (see Table3). Results indicated that there was a negative correlation between academic self-efficacy and anxiety (r=-.159, p<.018) as well as between academic self-efficacy and experiential avoidance (r=-.283, p<.001) and a positive correlation between experiential avoidance and anxiety (r=.498, p<.000). An ETA coefficient test was also conducted to examine the relationships among gender, race, experiential avoidance, and anxiety. Results indicated a meaningful relationship between gender and anxiety shown by the small effect size (η^2=.02), however, there was no significant relationship between gender and experiential avoidance (η^2=.001). Results also showed a meaningful relationship between race and

experiential avoidance shown by a small effect size (η^2=.02), however, there was no significant relationship between race and anxiety (η^2=.01)

Table 2:
Descriptive Information for All Scales

Measure	**Mean**	**SD**	**Possible Range**	**Range**	**Skewness**	**Kurtosis**
MEAQ	209.90	38.97	62-372	107-304	-.144	.114
SEQ	78.01	14.30	0-100	29.23-100	-.412	-.101
GAD-7	14.86	6.22	0-21	7-28	.667	-.582

Table 3
Correlation Matrix of Primary Variables

	MEAQ	**SEQ**	**GAD-7**
MEAQ	1	-	-
SEQ	-.283**	1	-
GAD-7	.498**	-.159*	1

**p<.01
*p<.05

Linear Regression Using Full Sample

Next, a simple linear regression analysis was conducted to examine whether anxiety was a significant predictor of experiential avoidance. Results indicated that the experiential avoidance total score was a significant predictor of anxiety ($F(1,159)=53.88$, $p<.001$, $R^2=.25$). Further examination of the MEAQ subscales indicated that the Behavioral Avoidance, Distress Aversion, Procrastination, Repression & Denial and

Distress Endurance subscales were all significant predictors of anxiety while the Distraction & Suppression subscale was not (see Table 3).

Linear Regression Using Subsample of Moderate to High Anxiety Reporters

Another simple linear regression was then conducted on a subsample of participants who reported moderate to high anxiety to examine the relationship between experiential avoidance and moderate to high anxiety. Participants reporting GAD-7 scores between 10 and 14 were considered to have moderate anxiety symptoms and those who scored over 15 were considered to have severe anxiety symptoms. Similarly to the full sample, results indicated that experiential avoidance remained a significant predictor of anxiety in a subsample of participants with moderate to high anxiety ($F=60.10$, $p<.001$, $R^2=.32$). Further examination of the MEAQ subscales indicated that the Behavioral Avoidance, Distress Aversion, Procrastination, Repression & Denial, and Distress Endurance subscales were significant predictors of anxiety while the Distraction & Suppression subscale was not (see Table 4).

Table 4:
Regression Analysis for Anxiety and Experiential Avoidance

	Full Sample		**Subsample**	
	F-Value	P-Value	F-Value	P-Value
MEAQ Total	53.88	<.001	60.10	<.001
MEAQ Subscales				
Behavioral Avoidance	14.78	<.001	15.03	<.001
Distress Avoidance	47.21	<.001	64.67	<.001
Procrastination	18.90	<.001	16.59	<.001

Repression & Denial	36.58	<.001	35.27	<.001
Distress Endurance	11.59	<.001	13.77	<.001
Distraction & Suppression	3.21	<.001	3.25	.074

(Table 4 continued)

Moderation Analysis

A final regression analysis was conducted to examine if self-efficacy moderated the relationship between experiential avoidance and anxiety. As indicated in the previous results, experiential avoidance (IV) accounted for approximately 25% of the variance in anxiety (DV) (R^2=.25) in the full sample and was also a significant predictor of anxiety (b=.08, 95% CI[.058, .101]). Next, an interaction effect between experiential avoidance and academic self-efficacy was examined. Results indicated that the interaction was not significant in the full sample (b= .0001, 95% CI [13.95, 15.68], t=-.18, p=.858). Results in the subsample of participants with moderate to high anxiety were also not significant (b=-.0004, 95% CI[-.0017, .0009], t=-.56, p=.58). There were also no significant results found when using the MEAQ subscales as predictors (Table 5). These results indicate that academic self-efficacy did not have a moderating effect on the relationship between experiential avoidance and anxiety.

Table 5
Moderation Analysis for Experiential Avoidance

MEAQ Subscales		Beta Coefficient	T-Value	P-Value	Confidence Intervals
Behavioral Avoidance	Full sample	.0029	1.25	.21	[-.0017, .0075]
	Elevated Anxiety subsample	.0021	.90	.37	[-.0026, .0068]
	Full sample	-.0003	-.14	.89	[-.0042, .0037]

Distress Aversion					
	Elevated Anxiety subsample	.0001	.04	.97	[-.0038, .0040]
Procrastination	Full sample	-.0034	-.82	.41	[-.0116, .0048]
	Elevated Anxiety subsample	-.0042	-.95	.34	[-.0128, .0045]
Repression & Denial	Full sample	.0005	.12	.90	[-.0071, .0080]
	Elevated Anxiety subsample	.0015	.35	.73	[-.0071, .0101]
Distress Endurance	Full sample	.0001	.06	.95	[-.0044, .0047]
	Elevated Anxiety subsample	-.0009	-.35	.72	[-.0056, .0039]
Distraction & Suppression	Full sample	.0029	1.05	.29	[-.0026, .0084]
	Elevated Anxiety subsample	.0045	1.53	.13	[-.0013, .0104]

(Table 5 continued)

Discussion

The current study aimed to explore the relationship between experiential avoidance, academic self-efficacy, and anxiety. Exploratory analyses examined relationships among all variables as well as demographic variables such as gender, age, and race. It was hypothesized that experiential avoidance would be a significant predictor of anxiety in both a full sample of participants and a subsample of participants with moderate to severe anxiety. Academic self-efficacy was also expected to serve as a moderator in the relationship between experiential avoidance and anxiety.

As hypothesized, results indicated that there were strong relationships between academic experiential avoidance, self-efficacy, and anxiety. Inverse relationships were found between experiential avoidance and academic self-efficacy as well as academic self-efficacy and anxiety. This coincides with previous research demonstrating that

experiential avoidance results in low self-efficacy (Werner & Gross 2010), and that higher self-efficacy predicts lower test anxiety (Yue, 1996). A positive correlation was also found between experiential avoidance and anxiety, which is also consistent with research indicating that experiential avoidance is positively associated with worsened anxiety symptoms (Lee et al., 2009, Kashdan et al., 2014)).

A regression analysis of experiential avoidance as a predictor of anxiety was also conducted with the full sample of participants, as well as with a sample restricted to only those participants with moderate to severe anxiety. The analysis revealed that experiential avoidance was a significant predictor of anxiety in both groups. In addition, MEAQ subscales Behavioral Avoidance, Distress Aversion, Procrastination, Repression & Denial, and Distress Endurance were also significant predictors of anxiety in both the full sample and the moderate to high anxiety sample. These results support previous research indicating that experiential avoidance plays a central role in anxiety (Hayes et al., 2006; Roemer & Orisillo, 2002). Specifically, the present results lend support to the theory that worry is a cognitive avoidance response to fear (Borkovec et al., 2004). The presence of higher levels of experiential avoidance in individuals with anxiety disorders supports these claims (Lee et al., 2009; Panayiotou et al., 2017).

A final hypothesis explored whether academic self-efficacy moderated the relationship between experiential avoidance and anxiety. Research exploring these three variables suggested the possibility that academic self-efficacy may act as a moderator between the two variables. To our knowledge, this relationship between academic self-efficacy, experiential avoidance and anxiety had yet to be investigated prior to the current study. Contrary to hypothesis, findings revealed that, while experiential avoidance was a

strong predictor of anxiety, academic self-efficacy did not influence that relationship and, therefore, did not serve as a moderator. It is important to note that this self-efficacy measure specifically targeted confidence in one's academic abilities. While there is some research focused in the area of academic abilities, the majority of literature centered on self-efficacy does not focus on academic self-efficacy. Instead, literature broadly addresses self-efficacy or focuses on another (non-academic) facet of self-efficacy. Limiting self-efficacy to the academic domain may only be a partial representation of the potential impact of self-efficacy. Following this study, it may be beneficial to explore self-efficacy more broadly rather than focusing on academic self-efficacy as was done in the current study.

Limitations

Although the current study provides insight into the relationship between academic self-efficacy, experiential avoidance, and anxiety, there were some important limitations to note. One limitation was the homogeneity of the current participant sample. All participants were recruited from the same undergraduate psychology course at the University of Rhode Island. This may have contributed to reduced variability among the participants resulting in more homogenous responses. There was also a disproportionate number of female participants compared to male participants (88.8% v. 9.9%, respectively) which may have also contributed to a lack of variability in participant responses and limited generalization. There was also a restricted age range (18-24 years) with the majority of the participants being under the age of 21 (78.1%). The participants were also majority White (75%) with only 13.7% identifying as Hispanic or Latinx. The under representation of racial and ethnic groups indicates that results may not be

reflective of the general population. The homogeneity of sample of the current study may have impacted the variability in experiential avoidance, anxiety, and academic self-efficacy which, consequently, may have produced results that were not representative of the general population.

Given the self-report nature of the measures MEAQ, GAD-7 and SEQ, it is possible that some reporting bias occurred. Though the measures reported good reliability and validity, they are still vulnerable to exaggerated responses or socially desirable responding to avoid feeling embarrassed to reveal private details about anxiety, level of experiential avoidance, or self-efficacy. There was also a lack of variability in the method in which data was gathered, as the sole method used was self-reported data. This may have also led to response biases (e.g., social desirability bias, recall bias) in the results.

Future Directions

The current study provides insight into the relationships among academic self-efficacy, experiential avoidance, and anxiety and contributes to literature concerning the connections among these variables. Results indicate that while there is significant relationship among all variables, and experiential avoidance is a strong predictor of anxiety, academic self-efficacy was not found to moderate the relationship between experiential avoidance and anxiety. The highly predictive nature of experiential avoidance towards anxiety indicate that interventions geared toward reducing experiential avoidance may be effective in decreasing anxiety. The relationship between self-efficacy and both experiential avoidance and anxiety should be further explored to assess whether it may mediate the relationship between the two variables. While academic self-efficacy was not a moderator between the variables in this study, preliminary correlations as well

as linear regressions demonstrate relationships among all three variables. Previous research has demonstrated relationships between experiential avoidance and anxiety (as previously noted) as well as self-efficacy and anxiety with lower levels of self-efficacy associated with higher levels of anxiety (Muris, 2002; Yue, 1996). While the current research base exploring experiential avoidance and self-efficacy is not extensive, there is evidence that low self-efficacy may negatively influence, and therefore increase, the likelihood of experiential avoidance (Werner & Gross, 2019). Given the strong relationship between experiential avoidance and anxiety, future research should investigate other factors which may play a role in their relationship. Understanding the factors at play and the relationships among them will help to better develop effective interventions for anxiety disorders.

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