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IMPACT OF FRAMING DEPRESSION ON ILLNESS PERCEPTIONS AND COPING STRATEGIES

A Thesis submitted in partial fulfillment of the requirements for the degree Master of Arts

> Department of Psychology Western Kentucky University Bowling Green, Kentucky

> > By Abby McGinnis May 2024

IMPACT OF FRAMING DEPRESSION ON ILLNESS PERCEPTIONS AND COPING STRATEGIES Abby McGinnis

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ABSTRACT

IMPACT OF FRAMING DEPRESSION ON ILLNESS PERCEPTIONS AND COPING STRATEGIES

The current study aimed to adopt an experimental design used by Schroder et al. (2023) to investigate how framing of depression (as a disease vs a functional signal) impacts illness perceptions and coping strategies. Participants were given the Depression Anxiety and Stress Scale (DASS-42) to assess depression severity and prime participants for the framing condition. Each condition had five videos describing depression and the corresponding frameworks. Perceived control, timeline, and causes of depression were measured using the Illness Perception Questionnaire (IPQ-R). Participants were given the brief-COPE questionnaire to measure coping strategies, such as avoidant and problem-focused. There were no differences between the two framing conditions on illness perceptions and coping strategies. Both framing conditions had higher than average perceived controllability and believed in more environmental causes than biological. Both conditions engaged in more problem-focused coping than avoidant coping. Higher levels of depression were linked to more avoidant coping, weaker beliefs about personal control over depressive symptoms, higher beliefs that depression was chronic, and higher beliefs in environmental and biological causes of depression. There were also significant correlations between problem-focused coping and perceived controllability, with individuals engaging in more adaptive coping when they believed they could control their depression.

Key words: Depression, Framing, Mindsets, Illness Perception, Coping

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Introduction

According to the National Institute of Mental Health, depression is one of the most common mental disorders affecting 8.3% of the United States adult population. High levels of depression were found to be associated with increased feelings of hopelessness and suicidal ideation (Ribeiro et al., 2018). Individuals with depression hold negative beliefs about themselves, the world, and the future and were found to have an overall negative self-concept (Beck, 1967; Hards et al., 2020). Having high self-criticism about oneself leads individuals to socially isolate, which causes interpersonal problems (Dinger et al., 2015). Somatic consequences of depression include high levels of inflammation in the body which leave people at risk for cardiovascular disease, stroke, diabetes, and obesity (Penninx et al., 2013). Due to depression being a common mental disorder and having harmful consequences, it is important to continue examining its causes and effective treatments.

Beliefs about the causes of depression have changed over time, impacting how depression is viewed and treated. Reali and colleagues (2016) found that depression is frequently framed as a disease. This biogenic framework has been associated with a reduction in personal responsibility and self-blame, which emphasizes pharmacological treatments (Deacon, 2013; Haslam & Kvaale, 2015; Reali et al., 2016). This framework looks at reduced serotonin and dysregulation in the brain as biological mechanisms for depression. With this framework, selective serotonin reuptake inhibitors (SSRIs) are the primary treatment to increase serotonin levels (Dale et al., 2015). However, studies found other causes, such as interpersonal problems (i.e., poor social skills, familial relationships) and environmental factors (i.e., stress), impacted depression as well (Hames et al., 2013; Nabeshima & Kim, 2013; Saveanue & Nemeroff, 2012;

Segrin, 2010). The biopsychosocial model is a framework that combines biological, socioenvironmental, and psychological risk factors that may foster and maintain depression, which utilizes both pharmacological and psychotherapy interventions (Schotte et al., 2006; Schroder et al., 2023). Psychotherapies addressed cognitive, interpersonal, and behavioral problems to help treat depression (Khalsa et al., 2011).

Another recent framework, the functional framework of depression, has been leading to an increase in resiliency and more adaptive coping responses (Schroder et al., 2023). This functional signal framework views depression as an adaptation to the perceived loss of essential resources that exceeds the individual's capacity (Beck & Bredemeier, 2016). In this model, depression serves an evolutionary purpose. Hollon and colleges (2021) discussed how cognitive-behavioural therapy (CBT) holds similar views on emotions serving an evolutionary purpose and how the reframing of thoughts can decrease maladaptive behaviors. In this theory, depression is a signal that lets an individual know something is wrong in their environment; and negative beliefs one holds about their depression can maintain or exacerbate depressive symptoms.

The main objectives of the present research are to further study how overarching framings of depression (a disease vs. a functional signal) impact specific perceptions and coping of depression. Specifically, I will examine these perceptions of depression: perceived controllability, perceived stability, and perceived locus of causes (internal vs. external). Coping refers to behavioral or psychological efforts to reduce or minimize distress (Carver, 1997). Some studies have addressed how people's beliefs about their health impacts their health outcomes and coping strategies (Aarts et al., 2015; Kelly et al., 2007; Skapinakis et al., 2020; Somerville et al., 2023). These studies found that individuals who had stronger emotional reactions to their

depression utilized maladaptive and avoidant coping strategies. These maladaptive behaviors, in turn, exacerbated their symptomology and led to an increase of symptoms. Similarly, how people frame/view their depression can have an impact on the type of coping strategies they engage in, which, in turn, can influence their symptoms. Much evidence suggests that maladaptive coping strategies such as self-blame, rumination, and engagement in dangerous activities are associated with greater levels of depression (Kelly et al., 2007). Likewise, avoidant coping strategies are associated with higher prevalence of depression, whereas active coping and adaptive positive coping strategies such as mindfulness, cognitive reframing, exercise, and journaling lead to lower levels of depression (Aarts et al., 2015; Skapinakis et al., 2020; Somerville et al., 2023). In all, based on the literature on various models of depression and their effects on utilization of treatments (Khalsa et al., 2011), it is important to further understand the effects of framing of depression on perceptions and coping of depression. The findings of the study could shed light on how framing interventions could be implemented to produce more adaptive perceptions and coping of depression.

Framing of Depression

Framing is the language that we use that impacts our perceptions of situations and events (Lakoff & Johnson, 1980; Lakoff & Johnson, 1999). Linguistic framing of depression affects the way an individual thinks about the nature and causes of their symptoms (Reali et al., 2016). Schroder and colleagues (2023) were one of the first studies to frame depression as functional and as serving an important purpose. The study directly manipulated the beliefs of the participant as either viewing depression through a biopsychosocial or functional framework. Participants were randomly assigned to watch videos describing depression as a functional signal. The

biopsychosocial framework looks at various risk factors that foster and maintain depression, such as biological, socio-environmental, and psychological factors (Schotte et al., 2006). In this model, depression is viewed as a disease which utilizes biological (medication) and psychological (psychotherapy) treatments. On the other hand, the functional signal framework views depression as an adaptation to the perceived loss of essential resources that exceeds the individual's capacity (Beck & Bredemeier, 2016). In this model, depression serves an evolutionary purpose and serves as a signal that something is missing in an individual's environment (Hollon et al., 2021; Nesse, 2019). The model is similar to cognitive-behavioral interventions that view emotions as signals in an evolutionary model and utilize treatments to help modify maladaptive behaviors to reach healthy levels of an emotion (Beck & Beck, 2021). Schroder and colleagues (2023) found that functional framing of depression was associated with positive impacts on efficacy, self-stigma, and beliefs compared to the biopsychosocial framing. Specifically, individuals in the functional signal condition were more likely to believe they could overcome their depression, had less self-stigma, and had more adaptive beliefs about depression. There are limited studies in the literature specifically addressing how framing impacts depressive symptoms.

A similar topic that has been reviewed more in the literature looks at stress mindsets and their effects on mental health. Stress mindset is typically defined as the beliefs about stress as enhancing/beneficial or debilitating/harmful for health, performance, and well-being, which influences an individual's reaction to stress (Crum et al., 2013). Crum and colleagues (Crum et al., 2013; Crum & Zuckerman, 2017) manipulated participants' stress mindset by having them watch different versions of videos about stress either enhancing or decreasing learning, health, well-being, and vitality. They found that individuals primed with a "stress-is-enhancing" mindset

(vs. "stress-is-debilitating") showed more adaptive responses to acute stress such as moderate cortisol reactivity (Crum et al., 2013) and sharper increases in growth hormones under challenging and threatening stress (Crum & Zuckerman, 2017). Individuals who utilized a "stress is enhancing" mindset were also more likely to use reappraisal rather than avoidance strategies to optimize their stress response to obtain their goals (Crum et al., 2020). Huebschmann and Sheets (2020) also found that when one believes that the effects of stress are enhancing rather than debilitating, they had greater health and well-being, although higher perceived stress was generally associated with more mental health concerns (Huebschmann & Sheets, 2020). Likewise, adolescents who believed that stress was beneficial were less prone to feel stressed during adverse life events (Park et al., 2017). There is also similar evidence that individual's mindsets about self-doubt can be influenced; and that shifting to a more positive mindset about self-doubt could diminish the negative effects of self-doubt on task engagement (Zhao & Chang, 2022). In all, there is increasing evidence that framing depression, stress, or even self-doubt as functional/beneficial or debilitating/harmful results in different health and behavioral outcomes.

Illness Perceptions

The Common-Sense Model (CSM) addresses how the perception of illness impacts an individual's emotional response to a health threat (Diefenbach & Leventhal, 1996). The model includes three central tenets: 1) the individual is an active problem solver, 2) the illness beliefs guide coping strategies and appraisals of outcomes, and 3) beliefs are highly subjective and do not always align with medical facts. The Illness Perception Questionnaire was developed as a quantitative assessment of the five components of illness beliefs: identity, consequences, timeline, control, and cause (Weinman et al., 1996). The identity component looks at an individual's self-report somatic symptomatology of an illness. Consequences address anticipated

repercussions of an illness, such as financial troubles and emotional distress. The recurrent nature of the illness and its chronicity are assessed in the timeline component. Perceived controllability of their illness and an individual's impact on their health status are also assessed. Lastly, causes look at individuals' beliefs about the origin of their illness, such as environmental, biological, or personal attributes.

Most of the literature applies this model to physical illnesses (Dempster et al., 2015; Giannousi et al., 2010; Hale et al., 2007; Knowles et al., 2011). Bear and colleagues (2021) were one of the first studies that applied the CSM model to psychological illness perceptions. The themes identified were consistent with the illness perception domains shown in the original CSM, which suggests a common conceptual structure between physical and mental health problems. They found parallels between how individuals perceive illness identity, cause, consequences, control, and timeline (Bear et al., 2021). A similar study found that depressive symptoms were associated with perceived treatment control, understanding, and timeline of the illness (Kelada et al., 2021): Individuals with higher levels of depression believed they had less control over their illness, less understanding of their illness, and believed their illness was chronic. Literature on illness perception describes how beliefs are shaped by an individual's experiences and therefore tend to vary, as well as change over time as new experiences are gained (Bear et al., 2021). Due to the novelty of utilizing the CSM model in mental health, there are few studies in the literature exploring perceptions of depression and how they could be linked to overall framings or mindsets of depression.

Perceived Personal Control

Perceived control is the belief that one can positively or negatively impact their health status (Weinman et al., 1996). Mixed findings were found in the literature on perceived control

and depression. Tan and colleagues (2002) found that greater perceived control was associated with less depression. Individuals who believed they had control over their life and over pain itself reported fewer depressive symptoms, compared to individuals who believed they had no control over their life. Likewise, other studies found an association between perceived control over depression and adaptive coping techniques (Kelly et al., 2007; Skapinakis et al., 2020). These studies found that people who believed they had no control of their depression utilized maladaptive coping strategies, such as avoidance, emotional dysregulation, substance use, and rumination. Similar research discussed how the belief that emotions were controllable led to less depressive symptoms (Ford et al., 2018; Somerville et al., 2023) and better overall psychological well-being (De Castella et al., 2013; 2018; Deplancke et al., 2022). These beliefs about the controllability of emotions were also associated with adaptive emotion regulatory strategies (Hong & Hangas 2021). Vuilliers and colleagues (2021) discussed how individuals who believe their emotions are uncontrollable lack motivation to use reappraisal due to their beliefs in the inability to alter their emotions.

Other studies, however, found no significant association between perceived control and depressive symptoms (Ogul & Gencoz, 2003). Aarts and colleagues (2015) even found opposing results where individuals with higher perceived control was associated with more depression; while those who believed their health status was controlled by an external locus of control was associated with less depression. The mixed findings might be due to how personal control was viewed. Some viewed having personal control over their health status positively and would utilize adaptive coping strategies (Kelly et al., 2007; Skapinakis et al., 2023), while others would place blame on themselves or negatively respond to the responsibility of their health status (Ogul & Gencoz, 2003).

Perceived Stability/Timeline

Timeline involves the individual's perceptions of the likely duration of their health problems, such as chronic, acute, or cyclical (Weinman et al., 1996). Timeline was found to be a significant predictor of depression, with chronicity increasing depression symptoms (Scerri et al., 2009). Individuals who viewed their depression as chronic experienced more depressive symptoms, compared to those who believed the symptoms were short-term. Kelly and colleagues (2007) found a relationship between perceived beliefs in a brief timeline for depression and lower levels of dangerous behaviors and problem solving. Similarly, beliefs that emotions were chronic predicted higher psychopathology and emotional dysregulation (Veilleux et al., 2021). This indicates that individuals who believed their emotions were acute engaged in emotional regulatory skills and had less psychopathology. Similarly, Tamir and colleagues (2007) discussed comparisons between individuals who believed their emotions were fixed versus malleable. They found that individuals with a fixed emotional mindset had lower well-being, higher depressive symptoms, and lower emotional regulation, compared to individuals who had a malleable mindset on emotions. People with malleable mindsets on emotions utilized more cognitive reappraisal in regulating their emotions (Tamir et al., 2007). Schroder and colleagues (2017) also found that individuals who believe that anxiety is malleable reported less psychological distress in response to stressful life events, compared to those who believe that anxiety cannot be changed.

Perceived Causes

Perceived causes are the individual's ideas about the likely origins of their illness (Weinman et al., 1996). Hansson and colleagues (2010) created a qualitative study addressing individual's beliefs about the etiology of their depression. The most common category of causes

was stress, such as work-related stress, family-related stress, and current life stressors. The second most common category stated was personality (Hansson et al., 2010). Age played a role in perceived causes, with young adults believing childhood experiences were the causes, middle aged individuals mentioning separations/divorce as the cause, and older adults attributing death of friends/relatives and loneliness as the cause (Hansson et al., 2010). Associations were found linking beliefs about the causes of depression to the type of treatments and coping strategies utilized by individuals (Barnwell et al., 2022; Scerri et al., 2009). Barnwell and colleagues (2022) found that individuals who believed in environmental causes supported psychotherapy, self-help methods, and dietary changes, whereas those who believed in a biological cause supported medication and exercise, and those who believed in personal attributes (i.e., personality, age) and bad luck did not support psychotherapy. Overall, the literature on illness perceptions and coping showed that higher perceived control, belief in acute timeline, and belief in environmental causes were related to more adaptive coping strategies (Barnwell et al., 2022; Kelly et al., 2007; Scerri et al., 2009; Skapinakis et al., 2020).

Current Study

The current study aims to adopt an experimental design used by Schroder et al. (2023) to investigate how framing of depression impacts illness perceptions and coping strategies. Regarding perceptions of depression, the study will focus on perceived controllability, stability, and causes. These variables will be assessed with the Illness Perception Questionnaire Revised version (IPQ-R, Moss-Morris et al., 2002). The Brief-COPE questionnaire will be utilized to assess participants' coping strategies such as avoidant and problem-focused strategies (Carver et al., 1989; Carver, 1997). Problem-focused strategies involve dealing with stress by taking action to resolve underlying causes; whereas avoidant coping involves denying, minimizing, and

avoiding dealing with stress. The study will also assess the relationships among the dependent variables. A moderating role of depression levels, measured by the Depression Anxiety and Stress scale (DASS-42) (Lovibond & Lovibond, 1995) will also be explored in the study.

Based on the literature review, the hypotheses of the study include: H1: The functional-signal framing will lead to more adaptive (problem-focused) coping responses than the biopsychosocial framing.

H2: The functional framing signal will lead to a higher perceived controllability of depression symptoms, compared to the biopsychosocial framework.

H3: The functional-signal framing will lead to a perceived acute timeline (i.e., lower perceived stability) of depression, compared to a biopsychosocial framework.

H4: The functional-signal framing will lead to higher beliefs in environmental causes (i.e., stress/worry, overworked, family problems) and lower beliefs in biological causes (i.e., hereditary, personality), compared to a biopsychosocial framework.

H5: The hypothesized effects above (Hs 1-4), i.e., the benefits of a functional-signal framing of depression, may be more significant for individuals with higher depression levels than for those with lower depression levels.

H6: Higher perceived controllability, lower perceived stability, and stronger belief in environmental causes of depression will have positive relationships with adaptive, problemfocused coping.

Methods

Participants and Design

Participants consisted of 153 university students (79.1% female, 18.3% male, 2.6% nonbinary) between the ages of 18 and 46 (M= 20.05, SD = 3.06). The original data included 162 students, but participants were excluded if they did not complete the study and if they were under the age of 18. The participants were recruited from undergraduate psychology courses at a moderate sized university in the southern part of the United States via the university's research management system. The sample consisted of 80.4% Caucasian, 7.8% African American, 3.9% Hispanic, 3.9% Native American, 2.0% Asian, and 2.0% Multi-Racial individuals. The study involved an experimental design where participants were randomly assigned to one of two depression framing conditions: biopsychosocial vs. functional signal.

Materials and Procedure

After completing the consent form, the participants completed a depression screener, Depression Anxiety Stress Scale, to assess their depression severity and to prime participants for the framing condition (Appendix A, Lovibond & Lovibond, 1995). After completing the screener, participants were randomly assigned to one of two framing conditions. Each condition had five videos describing the framework, with the first video being the same for both conditions describing depression symptoms (Appendix B). The biopsychosocial condition's primary message was that depression is a disease where there are important factors that place the individual at risk. The functional signal condition describes depression as an important function that signals an individual that something in their life needs more attention. Schroder and colleagues (2023) created the materials for the framing conditions and had given us permission to utilize the materials to further explore the topic. After the videos, participants did the illness perception questionnaire (IPQ-R) to measure the participant's perception of personal control, timeline, and causes (Appendix C, Moss-Morris et al., 2002). Then, participants were given the brief-COPE questionnaire to measure coping strategies, such problem-focused and avoidant (Appendix D, Carver et al., 1989; Carver, 1997).

Potential ethical concerns involved in the study were the direct manipulation of frameworks and having participants assigned to only one of the two framing conditions. However, based on the literature, the biopsychosocial model is the current framework that is being utilized in clinical settings. While the functional signal framework is novel, research has shown that this framework has positive benefits as well as the biopsychosocial model (Schroder et al., 2023). Since experimental manipulation was involved, participants were provided with a thorough debrief after completing the study that explained the experimental design and the different frameworks. Due to assessing various levels of depression and the priming screener, the debriefing information included resources to the counseling center on campus and resources to the 988-crisis line.

Please see below for details about the measures:

Depression Anxiety Stress Scale (DASS-42): The DASS is a 42-item severity scale for depression, anxiety, and stress (Lovibond & Lovibond, 1995). For this study, only the depression scaled was used with 14-items assessing severity levels of depression. Participants indicated on a scale from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time) on statements, such as "I felt sad and depressed" and "I felt I had lost interest in just about everything." The scores ranged from 0 to 42 with ranges including normal (0-9), mild (10-13), moderate (14-20), severe (21-27), and extremely severe (28+). The severity scale demonstrated good internal consistency (Cronbach's alpha= .91 in original study and .96 in current sample) (Lovibond & Lovibond, 1995).

Illness Perception Questionnaire (IPQ-R): The IPQ-R was created to assess the five components of the Common-Sense Model: identity, consequences, timeline, control, and causes (Diefenbach & Leventhal, 1996); Moss-Morris et al., 2002). This study specifically looked at

perceived control (6 items), perceived timeline (10 items), and perceived causes (18 items). For all items, participants were asked how much they agree or disagree with the statements (1=strongly disagree, 5= strongly agree). Sample items of personal control statements included "There is a lot which I can do to control my symptoms" and "The course of my depression depends on me." Sample timeline questions included "My depression will last a short time" and "My depression is likely to be permanent rather than temporary." Sample causes included "Stress/Worry", "Hereditary-it runs in my family", and "family problems." Internal consistency included: personal control (Cronbach's alpha= .73 in original study and .63 in current study), perceived timeline (Cronbach's alpha= .52-.82 in original study and .65-72 in current study) (Moss-Morris et al., 2002). Ranges of alphas are shown to represent the different categories of perceived causes.

Brief-COPE Questionnaire: The Brief-COPE is 28-item self-report measure to assess coping strategies, such as problem-focused, emotion-focused, and avoidant (Carver et al.,1989; Carver, 1997). The study utilized 16-items from the questionnaire with only problem-focused coping and avoidant coping statements. Participants rated statements they believed described them (1= I haven't been doing this at all, 4= I've been doing this a lot). Examples of problem-solving includes "I've been taking action to try to make the situation better" and "I've been giving up on trying to deal with it" and "I've been using alcohol or other drugs to make myself feel better." Internal consistency included: problem-focused coping (Cronbach's alpha = .62-.80 in original study and .86 in the current sample) and avoidant coping (Cronbach's alpha = .63-.71 in original study and .70 in the current sample) (Carver et al.,1989). Ranges of alphas are shown

in the original study due to the reliability of multiple subscales within the problem-focused and avoidant coping scales being recorded in the article.

Results

| | Biopsychosocial Condition | | Functional Signal Condition | | | | |
|--------------------------|----------------------------------|------|-----------------------------|------|----------|-------------|-----------|
| | Mean | SD | Mean | SD | Possible | t (p-value) | Cohen's d |
| | | | | | Ranges | | |
| Perceived Control | 22.55 | 2.81 | 21.73 | 3.07 | 0-30 | 1.74 (.042) | .281 |
| Perceived Timeline | 16.81 | 5.16 | 16.92 | 4.20 | 0-30 | 138(.445) | 022 |
| Environmental | 11.54 | 2.25 | 10.82 | 2.28 | 0-15 | 1.95(.026) | .316 |
| Causes | | | | | | | |
| Biological Causes | 6.29 | 1.68 | 6.45 | 1.75 | 0-15 | 59(.277) | 094 |
| Problem-Focused | 20.50 | 5.28 | 20.34 | 5.25 | 0-32 | .185(.427) | .030 |
| Coping | | | | | | | |
| Avoidance Coping | 14.85 | 3.90 | 15.85 | 4.01 | 0-32 | -1.56(.060) | 253 |

Table 1: Multiple t Test Comparisons of Main Variables

Multiple Independent-samples *t* tests were conducted to examine the effects of the framing of depression on perceived control, perceived timeline, causes, and coping strategies (problem-focused, avoidant). There were no significant differences between the biopsychosocial and framing signal condition on coping strategies and perceived timeline (*ps* > .060, see Table 1). Before Bonferroni corrections, individuals in the biopsychosocial condition (*M* =22.55, *SD* =2.81) had higher perceived controllability of depression compared to the functional signal condition (*M* = 21.73, *SD* = 3.07), *t* (152) = 1.74, *p* =.042, Cohen's *d* = .281. Similarly, individuals in the biopsychosocial condition (*M* = 11.54, *SD* = 2.25) believed in more environmental causes (i.e., stress/worry, overworked, family problems) of depression significantly more than the framing signal condition (*M* =10.82, *SD* = 2.28), *t* (152) = 1.95, *p* =.026, Cohen's *d* = .316. However, with the Bonferroni corrections the significance level of 0.05

was adjusted based on the 6 tests performed to a significance level of 0.01. Based on a 0.01 significance level, the *t* test results were all found to be non-significant. There were no interaction effects between the framing conditions and depression levels on any of the outcome measures either, ps > .05. For depression levels, individuals were in the mild (5.9%), moderate (35.3%), severe (22.2%), and extremely severe (36.6%) ranges.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------|---|-------|--------|--------|--------|--------|--------|
| 1 Depression Levels | 1 | 249** | .498** | .192* | .314** | 106 | .587** |
| 2 Perceived Control | | 1 | 409** | 025 | 192* | .216** | 158 |
| 3 Perceived Timeline | | | 1 | .330** | .526** | 144 | .358** |
| 4 Environmental Causes | | | | 1 | .345** | .031 | .039 |
| 5 Biological Causes | | | | | 1 | 088 | .306** |
| Problem-Focused Coping | | | | | | 1 | .172* |
| 7 Avoidance Coping | | | | | | | 1 |

Table 2: Correlation Table

**: significant at the .01 level (2-tailed). *: significant at the .05 level (2-tailed).

Pearson *r* correlations were conducted to assess the relationship between depression levels and the outcome variables (see Table 2). There were significant positive correlations between depression levels and the following measures: avoidant coping (r = .59, p < .001, 95% CI [.47, .68]), perceived timeline (r = .50, p < .001, 95% CI [.37, .61]), environmental causes (r= .19, p = .017, 95% CI [.03, .34]), and biological causes (r = .31, p < .001, 95% CI [.16, .45]). Individuals with high levels of depression tended to engage in more avoidant coping, had higher beliefs their depression was chronic, and believed in more environmental and biological causes of depression. There were significant negative correlations between depression levels and perceived control (r = .25, p = .002, 95% CI [-.39, -.09]). Individuals with higher levels of depression tended to believe they had less control over their depressive symptoms. There was no significant correlation between depression levels and problem-focused coping (p = .193).

| Causes | Percentages | Causes | Percentages |
|---|-------------|-------------------|-------------|
| Stress/Worry | 86.3% | Chance/Bad Luck | 31.4% |
| My Emotional State (i.e., feeling down, | 86.2% | Ageing | 28.1% |
| lonely, anxious, empty) | | | |
| My Mental Attitude (i.e., thinking | 76.5% | Accident/Injury | 22.3% |
| about life negatively) | | | |
| My Own Behavior | 66.7% | Poor Past Medical | 20.2% |
| | | Care | |
| Overworked | 65.4% | Alcohol | 16.3% |
| Hereditary | 60.8% | Smoking | 13.1% |
| Family Problems | 56.3% | Pollution | 12.5% |
| Diet/Eating Habits | 47.0% | Altered Immunity | 8.5% |
| My Personality | 37.9% | Germ/Virus | 4.6% |

Table 3: Causal Beliefs of Depression

Pearson *r* correlations were also done to assess the relationships between the outcome measures: illness perceptions and coping strategies (see table 2). A significant positive correlation was found between problem-focused coping and perceived controllability (r = .22, p = .007, 95% CI [.06, .36]). Individuals who believed they had control over their depression engaged in more problem-focused coping. There was no significant correlation between coping strategies and perceived timeline and causes (ps > .076). The top three beliefs of causes of depression for both conditions were Stress/Worry (86.3%), Emotional States (86.2%), and Mental Attitude (76.5%, see Table 3).

Discussion

The study found no differences between the biopsychosocial condition and the framing condition on illness perceptions and coping strategies. Both conditions had higher than average beliefs in perceived controllability, with individuals believing they had more control over their depression. Both conditions believed in more environmental than biological causes of depression. Individuals thought that being stressed, overworked, and having family problems caused their depressive symptoms more than their genes or personality. Individuals believed that the top three causes of depression were stress, their emotional state (i.e., feeling down, anxious, empty), and their mental attitude (i.e., thinking negatively about life). Both conditions engaged in more problem-focused coping than avoidant coping. Hypothesis 6 was found to be partially supported with higher perceived controllability having a positive relationship with problemfocused coping. Individuals who believed they could control their depression tended to engage in more problem-focused coping. However, there was no relationship between problem-focused coping and perceived timeline and beliefs in environmental causes. Individuals with high levels of depression had more beliefs that their depression was chronic and caused by environmental and biological causes compared to those with lower levels of depression. Similarly, individuals with higher levels of depression engaged in more avoidant coping and believed they had less control over their depressive symptoms than those with lower levels of depression. These results were expected since people who believe they have less control over their symptomology will engage in more avoidance than problem-focused coping strategies.

The implications of this study will help further the research on the framing of depression, illness perceptions, and adaptive coping strategies. The functional signal framework is a recent topic in the literature that has not been fully explored yet. The framework is similar to a Cognitive Behavioral Theoretical background which addresses the functionality of emotions and their impacts on an individual's behavior, with the intent to decrease maladaptive behaviors through restructuring cognitive beliefs. The topic of illness perceptions is also under-studied in the realm of mental health issues and has typically been examined relating to physical health. The study thus helps further the research on illness perceptions of depression. In the study, both

framing conditions led to higher-than-average perceived controllability which was found to have a positive relationship with more adaptive coping. Further research should look more into the perceived controllability of depression since individuals tended to engage in more adaptive coping when they believed they could control their depression.

Some limitations of the study included not using a sample of individuals with only high levels of depressive symptoms. We observed no interaction effects of depression levels and framing conditions on the results. This indicates that levels of depression did not influence the effects of the framing condition on the outcome variables. However, there were relationships found between high levels of depression and more avoidant coping, higher beliefs in chronicity of depression, higher beliefs in environmental and biological causes of depression, and less perceived control of depression. Another limitation was not obtaining a highly generalizable sample with the majority of participants being female and Caucasian college students. Future research should look further into perceptions of depression in diverse samples since perceptions may differ based on cultural factors.

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APPENDIX A

Depression Anxiety and Stress Scale (DASS-42), Depression Scale

Please read each statement and choose a number 0,1,2, or 3 which indicates how much the

statement applied to you over the past week. There are no right or wrong answers. Do not spend

too much time on any statement.

0 = did not apply to me at all

1= applied to me to some degree, or some of the time.

2=applied to me to a considerable degree, or a good part of the time,

3= applied to me very much, or most of the time

- 1. I couldn't seem to experience any positive feeling at all.
- 2. I just couldn't seem to get going.
- 3. I felt that I had nothing to look forward to.
- 4. I felt sad and depressed.
- 5. I felt that I had lost interest in just about everything.
- 6. I felt I wasn't worth much as a person.
- 7. I felt that life wasn't worthwhile.
- 8. I couldn't seem to get any enjoyment out of the things I did.
- 9. I felt down-hearted and blue.
- 10. I was unable to become enthusiastic about anything.
- 11. I felt I was pretty worthless.
- 12. I could see nothing in the future to be hopeful about.
- 13. I felt that life was meaningless.
- 14. I found it difficult to work up the initiative to do things.

APPENDIX B

Video Transcripts

Video 1: Transcript: <u>https://youtu.be/weY6OamluxE</u>

"Hi, I'm Dr. Schroder, I'm a clinical psychologist. And before we get started talking about how you're feeling today, I'd like to talk with you a little bit about depression. Now, depression is an experience that looks a little bit different for everybody, but most commonly involves feeling very sad, down, or low for an extended period of time, and having a hard time enjoying things you typically enjoy. Some people with depression notice that they feel very irritable, others have a hard time concentrating or remembering things. Sometimes people notice changes in their eating or sleeping routines. And sometimes people feel very disconnected from other people. And finally, some people even start thinking about death and suicide."

Disease like any other script

Video 2a Transcript: https://youtu.be/RBmZF8age5A

"The one thing I'd like you to remember is that depression is not your fault. It's a disease, just like cancer or diabetes. Now, we've learned a lot about depression in the last 100 years. People used to think that depression was somebody's fault, or a character flaw. We now know that that's not true. It's nobody's fault for having depression"

Video 3a Transcript: https://youtu.be/y2v0-mDVMrg

"Thanks to advances in scientific research, we now know that depression is a legitimate medical disorder, just like cancer or diabetes. In fact, every disease has biological, environmental, and behavioral components to them. In diabetes, the pancreas doesn't produce enough insulin, which

is a hormone in the body that helps us regulate sugar. In addition to someone's DNA or genetic risk for developing diabetes, other risks include not getting enough physical exercise, having high blood pressure, and being overweight."

Video 4a Transcript: https://youtu.be/aFBKcukC31U

"Likewise, there are several components that increase the risk for developing depression. We know that there's a genetic component to depression, as it tends to run in families. There are certain brain chemicals that help regulate mood and stress that seem to be abnormal in depression. Life experiences, like being bullied or traumatized, also increase the risk. And even thinking patterns like black-and-white thinking increase the risk for developing depression as well."

Video 5a Transcript: <u>https://youtu.be/ujJ0BqUGdnQ</u>

"As an example, let's say someone's been depressed for about 3 months and they're having a hard time keeping up work. The experience of depression – having a low mood, feeling exhausted, having trouble concentrating – all might be related to the risks that this person carries. For instance, they might have a family member with depression, increasing their genetic risk. Or they might've had some life experiences that increased their risk, such as a traumatic event, or maybe they were bullied growing up. This person might have an "all-or-none" or black-and-white thinking pattern, which might have caused them to interpret a recent mistake at work as being a catastrophic failure as a person. All of these components might have increased the risk for them developing depression."

Depression is a signal script

Video 2b: Transcript: <u>https://youtu.be/ZqpvSz2yg8k</u>

"The one thing I'd like you to remember is that depression is not your fault. It's a signal that serves an important function. Now, we've learned a lot about depression in the last 100 years. People used to think that depression was somebody's fault or a character flaw. We now know that that's not true. It's nobody's fault for having depression."

Video 3b Transcript: <u>https://youtu.be/kg7HFLDD_7c</u>

"Thanks to advances in scientific research, we now know that depression serves an important function of letting us know that something needs more attention. In fact, every emotion has a specific job to do. Fear lets us know that we're in danger. It helps start the fight/flight/freeze response and helps us get out of life-threatening situations. Sadness serves an important function of letting us know that we've lost something very meaningful to us, and we have to process that loss. It also is a signal to other people that we're not doing well."

Video 4b Transcript: https://youtu.be/aaLrkc2pWHY

"So just like emotions, depression also serves a really important function. Depression is a signal that something in our lives needs more attention. Depression is telling us that something is not working for us, and our needs are not being met. So we might need to make some changes, perhaps in our daily routines, our relationships, our work environments, even maybe our thinking patterns. Depression is telling us that something needs more attention. And what that is not always obvious, which can help keep depression around for a longer period of time.

Video5b Transcript: https://youtu.be/ZLacaBUIQSY

"As an example, let's say someone is in a relationship where their needs are not being met. The experience of depression – having a low mood, feeling exhausted, having trouble concentrating – might be signaling to the person that something within the relationship needs shifting. Maybe that person needs to have a difficult conversation with their partner, letting them know that their boundaries are being violated, or that their needs are not being met. Sometimes depression is telling them to leave the relationship – that might be the best option in some cases. Either way, just like emotions, depression is never random, and it's our body's way of telling us that something is off. When we experience depression, a part of ourselves is fighting for a change."

APPENDIX C

Illness-Perception Questionnaire-Revised

Personal Control

We are interested in your own personal views of how you now see your current depression.

Please indicate how much you agree or disagree with the following statements about your

depression. (1= Strongly Disagree, 5= Strongly Agree)

*Reverse score

- 1. There is a lot which I can do to control my symptoms.
- 2. What I do can determine whether my depression gets better or worse.
- 3. The course of my depression depends on me.
- 4. Nothing I do will affect my depression.*
- 5. I have the power to influence my depression.
- 6. My actions will have no effect on the outcome of my depression. *

Timeline

Please indicate how much you agree or disagree with the following statements about your depression.

- 1. My depression will last a short time. *
- 2. My depression is likely to be permanent rather than temporary.
- 3. My depression will last for a long time.
- 4. This depression will pass quickly.*
- 5. I expect to have this depression for the rest of my life.
- 6. My depression will improve in time.*
- 7. The symptoms of my depression change a great deal from day to day.

- 8. My symptoms come and go in cycles.
- 9. My depression is very unpredictable.
- 10. I go through cycles in which my illness gets better and worse.

Causes

We are interested in what you consider may have been the cause of your depression. As people are very different, there is no correct answer for this question. We are most interested in your own views about the factors that caused your depression rather than what others including doctors or family may have suggested to you. Below is a list of possible causes for your depression. Please indicate how much you agree or disagree that they were causes for you.

- 1. Stress or worry
- 2. Hereditary it runs in my family
- 3. A Germ or virus
- 4. Diet or eating habits
- 5. Chance or bad luck
- 6. Poor medical care in my past
- 7. Pollution in the environment
- 8. My own behavior
- 9. My mental attitude e.g. thinking about life negatively
- 10. Family problems or worries caused my illness
- 11. Overwork
- 12. My emotional state e.g. feeling down, lonely, anxious, empty
- 13. Ageing
- 14. Alcohol

- 15. Smoking
- 16. Accident or injury
- 17. My personality
- 18. Altered immunity

APPENDIX D

Brief-Cope Questionnaire, Problem-Focused and Avoidant Subscales These items deal with ways you've been coping with the stress in your life. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Please reach each of the following statements and rate the extent to which you believe each statement best describes you. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

- 1 = I haven't been doing this at all
- 2 = I've been doing this a little bit
- 3 = I've been doing this a medium amount
- 4 =I've been doing this a lot
- 1. I've been turning to work or other activities to take my mind off things.
- 2. I've been concentrating my efforts on doing something about the situation I'm in.
- 3. I've been saying to myself "this isn't real.".
- 4. I've been using alcohol or other drugs to make myself feel better.
- 5. I've been giving up trying to deal with it.
- 6. I've been taking action to try to make the situation better.
- 7. I've been refusing to believe that it has happened.
- 8. I've been getting help and advice from other people.
- 9. I've been using alcohol or other drugs to help me get through it.

- 10. I've been trying to see it in a different light, to make it seem more positive.
- 11. I've been trying to come up with a strategy about what to do.
- 12. I've been giving up the attempt to cope.
- 13. I've been looking for something good in what is happening.
- 14. I've been doing something to think about it less, such as going to movies,

watching TV, reading, daydreaming, sleeping, or shopping.

- 15. I've been trying to get advice or help from other people about what to do.
- 16. I've been thinking hard about what steps to take.

APPENDIX E

IRB Approval



REVIEW TYPE:

INSTITUTIONAL REVIEW BOARD OFFICE OF RESEARCH INTEGRITY OFFICE OF RESEARCH INTEGRITY

| DATE: | March 15, 2024 |
|------------------|--|
| TO: FROM: | Abby McGinnis, BA Western Kentucky University (WKU) IRB |
| PROJECT TITLE: | [2172758-1] Impact of Framing Depression on Illness Perceptions and Coping Strategies |
| REFERENCE #: | IRB# 24-247 |
| SUBMISSION TYPE: | New Project |
| ACTION: | APPROVED |
| APPROVAL DATE: | March 15, 2024 |

Thank you for your submission of New Project materials for this project. The Western Kentucky University (WKU) IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Exempt Review based on the applicable federal regulation.

Exempt Review

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by an implied consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

This project has been determined to be a MINIMAL RISK project.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Robin Pyles at (270) 745-3360 or Robin.Pyles@wku.edu. Please include your project title and reference number in all correspondence with this committee.

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Type of document: ['Thesis']

Title: Impact of Framing Depression on Illness Perceptions and Coping Strategies

Keywords (3-5 keywords not included in the title that uniquely describe content): Depression, Framing, Mindsets, Illness Perceptions, Coping

Committee Chair: Dr. Qin Zhao

Additional Committee Members: Dr. Christopher Peters Dr. Michelle Durham

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