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COMPASSION FOR SELF-IDENTITY: AN EVALUATION OF A COMPASSION-BASED INTERVENTION FOR STIGMATIZED SEXUAL IDENTITIES

by

Du T. Nguyen

A dissertation submitted to the Graduate College in partial fulfillment of the requirements for the degree of Doctor of Philosophy Psychology Western Michigan University August 2021

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COMPASSION FOR SELF-IDENTITY: AN EVALUATION OF A COMPASSION-BASED INTERVENTION FOR STIGMATIZED SEXUAL IDENTITIES

Du T. Nguyen, Ph.D.

Western Michigan University, 2021

Sexual minority persons often experience notable negative mental and physical health disparities when compared to their heterosexual counterparts. According to the minority stress framework, it is posited that these discrepancies are due to additional, group-specific stressors that they experience beyond stress felt by the general population. One such minority stress variable that has received considerable attention is sexual stigma. Not only has sexual stigmatization been found to be related to negative mental and physical health outcomes, it has also previously been found to hinder adaptive emotion regulation.

Due to the minority stress felt by sexual minority persons, there is a risk for the high endorsement of felt stigma and the adoption of internalized stigmatization. Therefore, emotion regulation-focused interventions that address response modulation may be beneficial. Compassion-based interventions have been found to be effective in decreasing psychopathology and increasing resiliency. Utilizing a within subjects nonconcurrent multiple baseline design, this study evaluated the efficacy of a three-session self-compassion intervention to address felt sexual stigma, negative physical and psychological health, as well as promote well-being. Assessments were administered to participants (N = 12) during a four, five, or six-week baseline phase, weekly during the intervention phase, and at 3-month follow-up. Participants demonstrated a reliable decrease in perceived sexual stigma and increase in self-compassion, both of which was maintained during 3-month follow-up. Additionally, participants displayed a significant increase in self-esteem and decreases in their scores on measures for difficulties in emotion regulation and fear of negative evaluation at the end of the intervention phase, though only the reductions in difficulties in emotion regulation and fear of negative evaluation were maintain at 3-month follow-up.

These findings suggest that the brief compassion-based intervention evaluated in this study likely contributed to improvements in the two primary variables of interest. However, the failure to maintain improvements over time for several secondary health variables suggests that this intervention may function better as an important adjunctive treatment or as a first level intervention. Alternatively, it is possible that the brief therapy model may have impacted treatment outcomes. Future research should continue investigating the efficacy of compassion-based interventions in alleviating felt stigma and the potential these interventions have in disrupting the formation and development of internalized sexual stigma.

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Du T. Nguyen

TABLE OF CONTENTS

| ACKNOWLEDGEMENTS ii |
|------------------------------|
| LIST OF TABLES vi |
| LIST OF FIGURES vii |
| INTRODUCTION 1 |
| Significance of the Problem1 |
| Self-Compassion7 |
| Current Study 12 |
| Hypotheses 12 |
| METHOD 14 |
| Participants14 |
| Procedures 15 |
| Measures |
| Primary Outcomes 20 |
| Secondary Outcomes 21 |
| Analytic Strategy |
| RESULTS |
| Preliminary Analyses |
| Main Analyses |
| Group Level |

Table of Contents-Continued

| Individual Level |
|--|
| DISCUSSION |
| Key Findings |
| Limitations |
| Future Research |
| REFERENCES 110 |
| APPENDICES |
| A. Recruitment Flyer 127 |
| B. Online Posting |
| C. Informed Consent |
| D. Pre-Screening Interview |
| E. Alternative Treatment Options |
| F. Demographic Questionnaire |
| G. Stigma Consciousness Questionnaire 143 |
| H. Self-Compassion Scale – Short Form 145 |
| I. Rosenberg Self-Esteem Scale 147 |
| J. Difficulties in Emotion Regulation Scale – 18 149 |
| K. Patient Health Questionnaire – 15 152 |

Table of Contents-Continued

| L. Brief Fear of Negative Evaluation Scale | 154 |
|--|-----|
| M. World Health Organization Quality of Life Scale – Brief | 156 |
| N. Perceived Stress Scale 1 | 160 |
| O. Ruminative Responses Scale | 162 |
| P. Brief Symptom Inventory – 18 | 165 |
| Q. Western Michigan University Human Subjects Institutional Review Board Letter of Approval | 167 |

LIST OF TABLES

| 1. | Correlations Among Measured Variables Pre-Treatment | 28 |
|-----|--|------|
| 2. | Mean Scores for SCQ & SCS-SF | 32 |
| 3. | Pairwise Comparisons of SCQ from Pre-Intervention to 3-Month Follow-Up | 32 |
| 4. | Mean Scores for SCS-SF Subscales | 33 |
| 5. | Mean Scores for RSE & WHOQOL-BREF Domains | 36 |
| 6. | Pairwise Comparisons of RSE and WHOQOL-BREF Domains from Pre-Intervention to 3-Month Follow-Up | 37 |
| 7. | Mean Scores for DERS-18, PHQ-15, Brief-FNE, PSS, RRS, BSI-18 | 40 |
| 8. | Mean Scores for DERS-18 & BSI-18 Subscales | 41 |
| 9. | Pairwise Comparisons of DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 from Pre-Intervention to 3-Month Follow-Up | 42 |
| 10. | Individual Scores from Pre-Intervention to 3-Month Follow-Up for Hypotheses 1-3 Variables | . 97 |
| 11. | Individual Scores from Pre-Intervention to 3-Month Follow-Up for Hypothesis 4 Variables | 98 |

LIST OF FIGURES

| 1. | Flow of Participants & Assessment Schedule | 18 |
|-----|---|------|
| 2. | Group Change in SCQ & SCS-SF | 34 |
| 3. | P1 Change in SCQ & SCS-SF | 44 |
| 4. | P1 Change in RSE & WHOQOL-BREF Domains | 45 |
| 5. | P1 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 46 |
| 6. | P2 Change in SCQ & SCS-SF | 48 |
| 7. | P2 Change in RSE & WHOQOL-BREF Domains | 49 |
| 8. | P2 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 51 |
| 9. | P3 Change in SCQ & SCS-SF | 53 |
| 10. | . P3 Change in RSE & WHOQOL-BREF Domains | 54 |
| 11. | . P3 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 56 |
| 12. | . P4 Change in SCQ & SCS-SF | . 57 |
| 13. | . P4 Change in RSE & WHOQOL-BREF Domains | . 59 |
| 14. | . P4 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | . 60 |
| 15. | . P5 Change in SCQ & SCS-SF | . 62 |
| 16 | . P5 Change in RSE & WHOQOL-BREF Domains | . 63 |
| 17. | . P5 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | . 64 |
| 18. | . P6 Change in SCQ & SCS-SF | . 66 |
| 19. | . P6 Change in RSE & WHOQOL-BREF Domains | . 67 |

List of Figures-Continued

| 20. P6 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 69 |
|--|----|
| 21. P7 Change in SCQ & SCS-SF | 71 |
| 22. P7 Change in RSE & WHOQOL-BREF Domains | 72 |
| 23. P7 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 73 |
| 24. P8 Change in SCQ & SCS-SF | 75 |
| 25. P8 Change in RSE & WHOQOL-BREF Domains | 77 |
| 26. P8 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 78 |
| 27. P9 Change in SCQ & SCS-SF | 80 |
| 28. P9 Change in RSE & WHOQOL-BREF Domains | 81 |
| 29. P9 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 83 |
| 30. P10 Change in SCQ & SCS-SF | 85 |
| 31. P10 Change in RSE & WHOQOL-BREF Domains | 86 |
| 32. P10 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 87 |
| 33. P11 Change in SCQ & SCS-SF | 89 |
| 34. P11 Change in RSE & WHOQOL-BREF Domains | 90 |
| 35. P11 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 91 |
| 36. P12 Change in SCQ & SCS-SF | 93 |
| 37. P12 Change in RSE & WHOQOL-BREF Domains | 95 |
| 38. P12 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 | 96 |

INTRODUCTION

Significance of the Problem

Despite legal and cultural shifts in the past few decades within the United States towards a more inclusive and accepting stance towards lesbian, gay, bisexual, and queer (LGBQ) individuals, there remains concern regarding the negative social attitudes held both within and directed towards the LGBQ community. In a meta-analysis of the prevalence of LGB victimization, 44% of the overall sample reported perceived discrimination based on their sexual orientation (Katz-Wise & Hyde, 2012). The same researchers also found that, compared to a past comprehensive study (Berrill, 1992), there were several victimization types that have increased in prevalence (e.g., physical assault, being followed, etc.). Along a similar vein, the legal advancements in LGBQ rights has resulted in a resurgence in anti-LGBT legislation, perhaps most notably, religious exemption laws that permit targeted exclusion from providing services to LGBQ people (Kazyak et al., 2018). This may signify that anti-LGBQ discrimination has not diminished, but rather, evolved in its presentation (Meyer, 2016).

Though research on LGBQ health outcomes remains sparse, previous findings appear to indicate that LGBQ people face notable mental health disparities compared to their heterosexual counterparts (Buchmueller & Carpenter, 2010). LGBQ individuals are more likely to experience higher rates of depression and anxiety (Cochran et al., 2003), as well as face increased risk of both suicidal ideation and attempts (Hatzenbuehler, 2011; Daniel & Butkus, 2015). They also demonstrate higher rates of alcohol use and substance abuse (Institute of Medicine, 2011; Burgard et al., 2005).

Research also shows that the LGBQ community may be at increased risk for physical health conditions. A systematic review of research into health disparities across several different health domains found higher rates of reported asthma, obesity, arthritis, cardiovascular disease, and global physical health ratings for lesbian and bisexual women compared to heterosexual women (Simoni et al., 2016). Gay and bisexual men comprise the majority of HIV positive individuals living within the United States (Daniel & Butkus, 2015). Other researchers have found similar findings in the larger LGBQ community (Conron et al., 2010; Hatzenbuehler et al., 2013). The high prevalence in chronic mental and physical health issues is a significant indicator of functional limitations and disability (Fredriksen-Goldsen et al., 2012). In fact, LGBQ individuals are more likely than their heterosexual counterparts to describe their health as poor. (Baker & Beagan, 2014).

Due to these health disparities, it is evident that this population may benefit from increased access to healthcare resources. However, researchers have documented the difficulties LGBQ individuals encounter in accessing needed healthcare services (Buchmueller & Carpenter, 2010; Baker & Beagan, 2014). A large national survey of medical schools in the United States found that approximately one-third of schools did not include any specific training on LGBQ content (Obedin-Maliver et al., 2011). Of the schools that did include LGBQ content, the training was found to be limited. Bonvicini and Perlin (2003) identified common barriers to the patient provider communication include the provider's attitudes regarding the LGBQ community, their lack of medical training on LGBQ topics, their level of confidence in addressing LGBQ specific health needs, and incorrect clinical assumptions that are held regarding their LGBQ patients (e.g., family structures of their patients, sexual behaviors). LGBQ individuals who access healthcare frequently reported confronting both covert (e.g., microaggressions) and overt discriminatory behaviors from their providers after disclosing their sexual orientation (Platt & Lenzen, 2013; Durso & Meyer, 2013). Due to concerns regarding the resulting scrutiny and discrimination they may encounter, LGBQ individuals often withhold crucial medical information or avoid seeking needed care, despite the negative health consequences of doing so (Ogden et al., 2018).

Several frameworks have been proposed to explain the discrepancy in mental and physical health outcomes between LGBQ and heterosexual individuals. The framework that has received the most attention within research is the minority stress theory (Meyer, 2003). This theory offers a means to conceptualize stress processes in marginalized minority groups. It posits that LGBQ individuals may face increased risk of health consequences that follow from groupspecific minority stress antecedents due to their sexual minority status that are unique (i.e., require adaptations above and beyond what is required of the general population), chronic (i.e., remains a relatively stable presence due to underlying social structures), and socially based (i.e., relates to social processes and structural inequalities beyond individual experiences). Meyer (2003) makes further distinctions between distal and proximal minority stressors. Distal stressors (e.g., perceived discrimination) can be understood as predictors that demonstrate indirect effects on outcomes through proximal stressors (e.g., concealment/outness; Antonakis et al., 2012). This, in combination with general psychological processes may explain the development of negative health outcomes for individuals within the LGBQ community.

Meyer (2003) identified a number of minority stressors that have been widely reported to be associated with the mental health outcomes for people who belong to a sexual minority group. One of the most consistently discussed stressors is heterosexist discrimination, which consists of experiences of stigmatization, victimization, and differential treatment, resulting from the prevailing heteronormative culture that constructs the standard for "legitimate, authentic, prescriptive, and ruling social, cultural, and sexual arrangements" (p.13) around heterosexuality (Yep, 2003). Stigmatization and discrimination are interrelated concepts that are often discussed in conjunction, and occasionally used as interchangeable terms. However, Sayce (1998) argues that the important distinction lies in whether the focus is on the individuals who are demonstrating discriminatory actions, as is the case with discrimination research, or the recipients of these actions in stigma research. Link and Phelan (2001) offer a well-used conceptualization of stigma with five central components: a) people recognize and label differences in other people, b) dominant cultural beliefs lead to associations between labeled people and negative characteristics and stereotypes, c) separate categories are created to distance labeled people from in-group, d) labeled people face unequal outcomes due to discrimination and loss of status from categorization, and e) stigmatization is dependent on structural inequities that perpetuate social categorization, construction of stereotypes, and maintenance of discriminatory actions.

Stigmatization can be separated into enacted, felt, and internalized stigma. Enacted stigma describes external negative experiences, such as exclusion and other discriminatory actions, expressed toward individuals due to their stigmatized identity or perceived identity (Scambler, 2009). Researchers have consistently found that violent offenses that are motivated by bias towards one's sexual identity result in the victims facing heightened psychological distress when compared to similar non-identity related violent offenses (Burks et al., 2015; Herek et al., 1999).

Felt stigma, or stigma consciousness, can be defined as an individual's expectation regarding the probability that they will face enacted stigma, and typically includes modifications

in their behaviors and habits to avoid these consequences (Scambler & Hopkins, 1986). Sexual stigma demonstrates a unique difference from stigma felt by other minority groups. Unlike visible identities, sexual orientation can be concealed. There are a number of reasons individuals may choose to not disclose their sexual orientation. Identity development theories often focus on a linear trajectory of identity development that viewed disclosure of sexual orientation as a positive step towards openness and acceptance of one's identity and, conversely, suggests that non-disclosure is a product of uncertainty (Pachankis, 2007). However, some researchers have reframed non-disclosure or selective disclosure as potential methods of stigma management (Goffman, 1963), including as a means to avoid stigmatized and discriminatory actions (Dodge et al., 2012; Link et al., 1991) or to avoid being labeled as LGBQ (Severson et al., 2013; Benoit & Koken, 2012). The anticipation of stigma can lead to a fear of negative evaluation. Meyer (2003) posited that the expectation of rejection by the dominant culture is a determinant of mental health issues for LGBQ individuals. A study utilizing a sample of heterosexual and gay men found that gay men reported greater fear of negative evaluation and social anxiety compared to heterosexual men (Pachankis & Goldfried, 2006).

Lastly, internalized stigma, or self-stigma, describes the adoption of social value, beliefs, and negative attitudes as part of one's own value system and self-concept (Meyer & Dean, 1998; Ryan & Connell, 1989). Szymanski and colleagues (2008) asserted the need to recognize that internalized sexual stigma forms due to insidious external stigmatization and the necessity of attending to the social structures that maintain negative internalized experiences. Several terms have been used interchangeably to discuss this concept, including internalized homophobia and internalized homonegativity (Mayfield, 2001). Higher levels of self-stigma are associated with

lower self-esteem (Corrigan & Watson, 2002), lower reported quality of life (Markowitz, 2001), and less satisfaction within romantic relationships (Doyle & Molix, 2014).

Experiences of stigmatization also have been linked to adverse health outcomes via the mediation of emotion dysregulation (Burton et al., 2018; Rendina et al., 2017). Emotion regulation can be defined as the extrinsic and intrinsic processes that are responsible for an individual's expression and experience of their emotions (Gross, 1998, p.275). Inzlicht and colleagues (2006) found that when stigma was activated, participants demonstrated less ability to self-regulate their emotions. Similar to research of other minority groups, LGBQ individuals may be more likely to utilize maladaptive emotion regulation strategies, such as rumination, which is the tendency to continually focus on the cause and consequences of distressful situations (Szymanski et al., 2014; Nolen-Hoeksema et al., 2008). This increased likelihood in turning towards problematic coping may be due to the added burden of minority stress (Hatzenbuehler, 2009). For example, individuals who frequently experience stigmatization, as well as internalized stigma, may have heightened awareness of instances of discrimination or rejection, and, subsequently, endorse more ruminative thinking (Meyer, 2003).

The relationship between emotion regulation and psychological well-being depends largely on the context of stress (Aldao, 2013). Individuals who demonstrate greater maladaptive emotion regulation strategies are more susceptible to poorer outcomes when faced with significant stress compared to those who can more effectively regulate their emotional states (Westphal et al., 2010). Therefore, the depletory effects that stigma has on one's ability to effectively regulate one's emotions may make LGBQ individuals vulnerable to adverse health outcomes when they encounter stressful situations.

Self-Compassion

There has been more attention paid to compassion-based interventions in recent years. In a meta-analysis examining the efficacy of compassion-based interventions, Kirby and colleagues (2017) found significant differences on pre-post outcome measures for self-compassion, mindfulness, depression, anxiety, psychological distress, and well-being. Though the authors noted that the results were limited to nonclinical populations, there does seem to be a promising future for compassion-based interventions in addressing psychological well-being for both clinical and nonclinical populations.

Perhaps the most well-known evidence-based compassion-based intervention for clinical populations is Compassion-Focused Therapy (CFT; Gilbert, 2010). CFT was initially developed by Paul Gilbert (2000) to help individuals with high levels of self-criticism and shame form a more caring inner voice. The basis of the CFT model relies on the interactions between three affect regulation systems: threat protection (i.e., ability to identify and respond to threats in the environment), seeking and acquiring (i.e., reward/resource driven), and soothing (i.e., focus on affiliation). Gilbert (2014) posits that when these systems are not balanced, particularly when there is an overstimulation of the threat system and a lack of stimulation of the soothing system, individuals may have difficulty with self-criticism. CFT centers on the importance of self-compassion and the extension of compassion to others in order to cultivate feelings of acceptance and belongingness. CFT has been effective in treating a number of clinical disorders (Gilbert, 2010; Kelly et al., 2009).

Self-compassion may be an important component of stigma coping by enhancing adaptive emotion regulation (Finlay-Jones, 2017). Self-compassion is founded on the Buddhist

perspective and involves behaving with care towards oneself, particularly when confronted with personal suffering or inadequacies (Neff 2003a). As defined by Neff (2003b), self-compassion can be broken down into three main parts: self-kindness (versus self-judgment), common humanity (versus isolation), and mindfulness (versus overidentification).

Self-kindness is the extension of care and acceptance towards oneself, rather than approaching with self-criticism. It often entails treating oneself as one would treat others, as most people reported they tend to be kinder to others compared to themselves (Neff, 2003b). Common humanity is the recognition that one's own experience, particularly one's struggles, is part of the larger shared human experience, rather than separated. Viewing oneself as part of humanity may offset feelings of isolation and provide a sense of belongingness (Neff et al., 2007). Finally, mindfulness refers to a balanced present moment awareness without avoidance of or overidentification to one's struggles. Overly identifying with negative thoughts and feelings can lead to narrowing of focus (Smeets et al., 2014).

Interestingly, there is sparse research on the association between two of the most discussed concepts within compassion-based interventions – compassion (self-to-others relating) and self-compassion (self-to-self relating). While compassion for others is evaluated as a single construct, self-compassion is often analyzed across the three identified components (Shiota et al., 2006; Neff, 2003b). A fMRI study found that self-compassion and compassion for others were linked with similar neuronal activity (Longe et al., 2010), implying that there is a comparable process occurring when one responds in a compassionate manner to oneself or others. However, others have found weak to no association between self-compassion and compassion for others (Neff & Pommier, 2012), suggesting that one can hold a compassionate stance towards oneself

or others without demonstrating overall compassion. Further research is needed to improve understanding in the relationship between these two constructs.

Another important distinction to make is the difference between self-compassion and self-esteem. Neff and Vonk (2009) argue that self-esteem, particularly in Western culture, is conditional and unstable, relying on one's ability to favorably compare oneself to others across different qualities. Self-esteem remains a highly studied concept due to its association with positive psychological qualities. In a review of literature on high self-esteem, Baumeister and colleagues (2003), noted that self-esteem enhances persistence and willingness to experiment. However, in order to pursue self-esteem and avoid threats to self-worth, people are more likely to engage in maladaptive ways, including making excuses and avoiding blame after encountering failure, and to favorably compare themselves to out-groups in order to maintain their perceived social rank (Sherman & Kim, 2002; Aberson et al., 2000). Instead, self-compassion has been proposed to be a more conceptually sound means of examining self-to-self relating that is not dependent on self-worth (Neff, 2003a).

Self-compassion has consistently been found to be related to lower levels of psychopathology, including symptoms of depression, anxiety, and PTSD (Barnard & Curry, 2011; Thompson & Waltz, 2008). Additionally, several studies reported a link between selfcompassion and adaptive variables, including psychological well-being and emotional intelligence (Hollis-Walker & Colosimo, 2011; Heffernan et al., 2010). Self-compassion may also engender more resiliency by moderating the response to negative events (Leary et al., 2007; Meredith & Mark, 2011).

There are several cultural factors that have been examined in relation to self-compassion. No strong evidence has been found to indicate that self-compassion significantly varies between interdependent and independent cultures, though self-compassion was found to be predictive of well-being across cultures (Neff et al., 2007). Previous research has not identified any difference in self-compassion based on race/ethnicity or sexual orientation (Lockard et al., 2014). There is some preliminary evidence to indicate a correlation between age and self-compassion, with older individuals reporting greater self-compassion (Murn & Steele, 2020; Neff & Vonk, 2009).

Research has found that women in North America demonstrated slightly lower selfcompassion when compared to men (Yarnell et al., 2015). Yarnell and colleagues (2019) conducted a study to evaluate differences in both gender and gender role orientation on selfcompassion. Their findings suggest that gender role socialization may be a more crucial element than self-identified gender. More specifically, while they replicated previous findings that women tend to display lower self-compassion as compared to men, there were notable withingender group variance, with men and women who demonstrated more masculinity or greater flexible gender roles scoring higher in self-compassion than participants who were more feminine. This may perhaps be explained by the difference in socialization between masculine and feminine gender roles, with masculine role socialization reinforcing the prioritization of the self over relationships with others and feminine role socialization encouraging the prioritization of others over self (Jordan, 2010).

In a study evaluating a three-session self-compassion intervention aimed at female college students, Smeets and colleagues (2014) found improvements in self-reported self-compassion, self-efficacy, optimism, and mindfulness, suggesting that the intervention had

effectively enhanced the participants' ability to compassionately respond to personal suffering. In fact, in contrast to other emotion regulation strategies, self-compassion is most frequently examined in the context of response modulation, rather than as a strategy that targets cognitive modification prior to the activation of emotional responses (Gross, 2015).

Two separate studies of self-compassion interventions demonstrated similar findings. Dundas et al. (2017) also conducted a three-session course and supported Smeets and colleagues' earlier finding of increased self-efficacy and self-compassion, as well as significant reductions in anxiety and depression. Neff and Germer (2013) developed Mindful Self-Compassion (MSC), an eight-week program aimed at enhancing self-compassion. MSC was adapted from Mindfulness Based Stress Reduction (MBSR), a mindfulness-based intervention to reduce stress (Kabat-Zinn, 2013). The researchers found that participants in the MSC program had significantly larger prepost gains in mindfulness, self-compassion, and several psychological well-being outcomes compared to a control group. Notably, the gains observed in the MSC program were maintained at both 6-month and 1-year follow-ups. Other interventions that have included self-compassion as a core component have also noted reductions in rumination and perceived stress (Bluth et al., 2015; Bluth et al., 2016). Compassion-based interventions, particularly ones that emphasize selfcompassion, may be especially effective treatments for minority groups because of their potential to disrupt the process of stigma internalization by introducing an alternative skillset that emphasizes a non-judgmental and accepting stance.

Telemental health is a relatively new means to deliver psychotherapeutic care remotely. Its emergence helped to alleviate the growing demand on mental health providers and provided an additional avenue to access care (Shore, 2013). In particular, videoconferencing has displayed excellent promise and has been found to be equal or preferable in areas of patient satisfaction, clinical diagnostics, assessment, and treatment outcomes for a wide array of psychopathology (Hilty et al., 2013; Shore, 2013). For LGBQ individuals, telemental health may offer the unique advantage of decreasing the discomfort of presenting to in-person services, particularly if they are concealing their sexual identity (Whaibeh et al., 2020).

Current Study

These findings appear to indicate that treatments with an emphasis on self-compassion may have a positive impact on well-being. In fact, there is preliminary research to suggest that self-compassion may be a resilience mechanism for individuals with positive mental health, acting as a buffer against the development of psychopathology (Trompetter et al., 2017). There is limited evidence to support the efficacy of a self-compassion intervention and no available evidence of a virtual self-compassion intervention aimed at reducing reported sexual stigma.

The present study assessed the efficacy of a within subjects nonconcurrent multiple baseline design of a brief, three-session self-compassion intervention aimed at addressing sexual stigma related to sexual orientation for LGBQ individuals. The current study also aimed to investigate how the intervention may impact psychological and somatic symptoms, and wellbeing and resiliency. All assessments and treatment sessions were facilitated virtually by the primary student investigator. Based on the literature, the following hypotheses were formulated.

Hypotheses

Hypothesis 1. Participants who complete the intervention will demonstrate a significant reduction in reported stigma consciousness, conceptualized as felt stigma, when comparing their pre- and post-assessment scores and this reduction will be maintained at 3-month follow-up.

Hypothesis 2. Participants who complete the intervention will demonstrate a significant increase in self-compassion when comparing their pre- and post-assessment scores and this increase will be maintained at 3-month follow-up.

Hypothesis 3. Participants who complete the intervention will demonstrate a significant improvement in measurements of well-being (i.e., self-esteem and perceived quality of life) when comparing their pre- and post-assessment scores and these changes will be maintained at 3-month follow-up.

Hypothesis 4. Participants who complete the intervention will demonstrate a significant reduction in measurements of physical and psychological complaints (i.e., emotion dysregulation, somatic symptoms, fear of negative evaluation, perceived stress, ruminative thinking, and general distress) when comparing their pre- and post-assessment scores and these changes will be maintained at 3-month follow-up.

METHOD

Participants

The study utilized several different methods, including in-person flyer distribution (Appendix A) and online postings (Appendix B) on relevant listservs, social media platforms, and mass emails, to recruit throughout the state of Michigan. Recruitment targeted both LGBTQ+ specific (e.g., local LGBTQ+ centers) and non-LGBTQ+ specific locations (e.g., University posting). The participants earned a monetary compensation of \$20 for completing all treatment components, including 3-month follow-up.

Participants were required to (a) be at least 18 years old, (b) self-identify as LGBQ, a sexual minority, or questioning/unsure (c) be fluent in English, (d) have internet access in order to complete online assessments and attend intervention sessions, (e) deny current suicidality and psychotic symptoms at the pre-screening interview, (f) deny participation in psychotherapeutic or psychotropic treatment within the past eight weeks to address similar clinical complaints, (g) and score at least one standard deviation above the mean on a measure of stigma consciousness.

During the initial session, four prospective participants did not meet eligibility due to endorsement of current treatment and/or stigma consciousness scores of less than one standard deviation above the normative mean. From the initial sample, two participants were excluded from analysis for failing to complete weekly baseline surveys and subsequently discontinuing their participation due to reported conflicts with time commitment, indicating an attrition rate of

14%. Chi-square tests and one-way ANOVA procedures were utilized to ensure there were no notable differences in relevant demographic characteristics for the participants who discontinued as compared to participants who completed the intervention. Of the 12 participants who completed the intervention phase, 11 completed 3-month follow-up assessments. There was no significant difference between the one participant who did not complete the 3-month follow-up assessments and the participants who did complete the follow-up assessments. The final sample consisted of 2 cisgender men, 6 cisgender women, and 4 gender non-binary individuals. The average age was 25.75 years (SD = 6.51) and ranged from 18 to 35. 8 participants self-identified as White/Caucasian (66.7%), followed by 3 participants who identified as Multi-racial (25%), and 1 participant who identified as Indigenous (8.3%). With regard to sexual orientation, 8 participants self-identified as bisexual/pansexual (66.7%), 2 as gay/lesbian (25%), and 1 as questioning/unsure (8.3%). All 12 participants were current students, with 6 completing some college (50%). The remainder reported completion of a degree, with 4 participants who completed a bachelor's (33.3%), 1 who completed an associate's (8.3%), and 1 who completed a graduate degree (8.3%).

Procedures

Initial Session & Baseline. In the first portion of the study, participants met virtually via Webex with the student investigator to review the consent document (Appendix C), prescreening interview (Appendix D), and completed the full assessment battery to verify participation eligibility. The participants were then randomly assigned to either the four, five, or six-week baseline. They were assigned participant ID codes and given instructions of how to access and complete weekly brief assessments. Participants were also sent a list of alternative treatment options (Appendix E). Up to three email reminder prompts were sent if participants did not complete weekly assessments on the designated dates.

Intervention phase. The second portion consisted of the intervention. In this phase, participants completed the full assessment battery shortly prior to meeting virtually with the student investigator for the first intervention session. The three 60-minute intervention session were held on a biweekly basis. Each session included didactic psychoeducation on self-compassion and in-session experiential exercises (e.g., loving kindness mindfulness). Participants were assigned homework at the end of each session to practice and complete

In the first session, the participants were introduced to the term self-compassion and its three components, as defined by Neff (2003b). They were encouraged to share how they have coped with negative events that occur due to their sexual orientation. Afterwards, they explored self-criticism and practiced identifying their most salient self-critical thoughts regarding their sexual identity. The session ended with discussion regarding mindfulness skills and how to adaptively cope in times of distress. The participants were given two homework assignments to complete at least once every other day. The first assignment was to begin a self-compassion journal in which they were tasked with writing about negative events or thoughts regarding their sexuality in a way that emphasizes kindness, common humanity, and mindfulness. The second assignment was to practice loving-kindness mindfulness exercises centered around the three components of self-compassion that they should include in their journal.

The second session began with a discussion of the previous weeks. The participants were further introduced to the connection between self-criticism, the fear of failure, and motivation. They were encouraged to generate ideas of how self-compassion may function as a motivator and given time to create personalized phrases of self-compassion that center on the components of self-compassion regarding their sexual identity. The participants were encouraged to discuss how to adapt and integrate each phrase to specific difficult situations that they encounter throughout their week. The homework assignment was to continue journaling selfcompassionately and practicing loving kindness mindfulness exercises at least once every other day, as well as attempting to utilize the phrases they had generated in session when they encounter negative or difficult events throughout their week, particularly as it relates to minority stress experiences.

During the third and final session, the participant were encouraged to share experiences of their previous weeks. The session was comprised of reviewing the components of selfcompassion. The participants were asked to write a letter from the perspective of a person who is unconditionally accepting and compassionate regarding an issue that they are currently struggling with regarding their sexual orientation. The participants were encouraged to discuss and process the exercise. They were then encouraged to practice extending acceptance and compassion towards their own suffering.

Throughout the intervention phase, the participants were asked to complete weekly journal entries as homework assignments, which were uploaded to Dropbox. Additionally, the participants were instructed to continue completing weekly brief assessments during the intervention phase and the full assessment a week post-intervention.

3-month follow-up. In the last portion of the study, the participants were contacted via email to complete a final full assessment.



Figure 1. Flow of Participants & Assessment Schedule

Measures

All assessment measures were completed in Qualtrics. Participants each received a unique participation ID code that was used to access the Qualtrics survey, match responses, and was included in the exported data. The full assessment battery included all identified measures, excluding the pre-screening interview. There were four separate time periods within the study in which the full assessment battery was required to be completed (i.e., at the initial session, prior to the first intervention session, one week after the third intervention session, and at 3-month follow-up). The brief weekly assessments included the Stigma-Consciousness Questionnaire for Gay Men and Lesbians (SCQ) and the Self-Compassion Scale – Short Form (SCS-SF). The briefly weekly assessments were required to be completed eight, nine, or ten separate times during the study, depending on the baseline length (i.e., 3-5 completed during the baseline period, and 5 completed weekly during the intervention phase).

Pre-Screening Interview. A brief interview was administered after the participants' completion of the informed consent process by the student investigator to screen for participation eligibility. The interview assessed for the presence of current suicidal ideation, psychotic symptoms, and whether the participants were currently receiving psychotherapeutic or psychotropic treatment.

Demographic Questionnaire. Participants reported their age, gender identity, race, sexual orientation, highest level of education, and current education status in a demographic questionnaire (Appendix F) as part of the full assessment battery.

Primary Outcomes

Stigma-Consciousness Questionnaire for Gay Men and Lesbians (SCQ; Pinel, 1999). The SCQ (Appendix G) is a 10-item version of the original SCQ that has been extended to other marginalized groups. Respondents were asked to indicate their agreement using a Likert-type scale that ranges from 1 (strongly disagree) to 7 (strongly agree). It measures felt stigma, with higher scores reflecting greater stigma consciousness. A sample item is "Most heterosexuals have a lot more homophobic thoughts than they actually express." The current study modified the language of the questionnaire to include more consideration for other sexual minority groups. As part of participation eligibility assessed at the initial session, respondents were required to score at least one standard deviation above the mean (i.e., average score of 50) identified by Carvalho and colleagues (2011). Pinel (1999) reported good internal consistency ($\alpha = .81$). The internal consistency in the current study was found to be acceptable for both pre- ($\alpha = .76$) and post-intervention ($\alpha = 0.73$). The SCQ was included in both the full assessment battery completed in the initial interview, post-baseline, post-treatment, and at 3-month follow-up, as well as in the brief weekly assessments.

Self-Compassion Scale – Short Form (SCS-SF; Raes et al., 2011). The SCS-SF (Appendix H) is a 12-item scale that assesses both the positive and negative qualities of the components of self-compassion: Self-Kindness versus Self-Judgment (e.g., "I'm disapproving and judgmental about my own flaws and inadequacies"), Common Humanity versus Isolation (e.g., "When I fail at something that's important to me, I tend to feel alone in my failure"), and Mindfulness versus Over-Identification (e.g., "When I'm feeling down, I tend to obsess and fixate on everything that's wrong"). Each of the six qualities were examined as separate subscales. The SCS-SF has a Likert-type scale from 1 (almost never) to 5 (almost always). A total score was computed from the six subscales, with higher scores indicating greater self-compassion. Neff (2003b) offered the following as a basic guideline for scale interpretation: 10-25 = 1ow self-compassion, 25-35 = moderate self-compassion, 35-50 = high self-compassion. Internal consistency for the total SCS-SF score was good ($\alpha = 0.87$; Raes et al., 2011). The current study's internal consistency was good for pre-intervention ($\alpha = 0.87$) and excellent for post-intervention ($\alpha = 0.9$). The SCS-SF was included in both the full assessment battery and the brief weekly assessments.

Secondary Outcomes

Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965). The RSE (Appendix I) is a widely used global assessment of self-esteem. It consists of 10-items on a Likert-type scale from 0 (strongly disagree) to 3 (strongly agree), with higher scores indicating higher levels of selfesteem. RSE can be interpreted in three levels: 0-15 = 1 ow self-esteem, 15-25 = n ormal selfesteem, 25-30 = h igh self-esteem. In a college sample, mean score was found to be 22.13 (*SD* = 4.96; Knowlden et al., 2016). A sample item is "I feel that I'm a person of worth, at least on an equal plane with others." An excellent internal consistency was found for the scale ($\alpha = 0.91$). Item convergent (r = 0.57-0.79) and item discriminant validity (r = 0.27-0.52) assumptions were generally met (Sinclair et al., 2010). Excellent internal consistency was also found for preintervention ($\alpha = 0.91$) and post-intervention (0.94) for the current study. The RSE was included in the full assessment battery.

Difficulties in Emotion Regulation Scale – 18 (DERS-18; Victor & Klonsky, 2016). The DERS-18 (Appendix J) is an 18-item scale that evaluates six areas in which emotion

dysregulation may be observed: Nonacceptance of emotion responses (e.g., "When I'm upset, I feel ashamed with myself for feeling that way"), Difficulties engaging in goal-directed behavior (e.g., "When I'm upset, I have difficulty concentrating"), Impulse control difficulties (e.g., "When I'm upset, I lose control over my behaviors"), Limited access to emotion regulation strategies (e.g., "When I'm upset, I believe that wallowing in it is all I can do"), Lack of emotional clarity (e.g., "I have difficulty making sense out of my feelings"), and Lack of emotional awareness, which is reverse-coded (e.g., "I am attentive to my feelings"). The scale uses a 5-point Likert-type scale ranging from 1 (almost never) to 5 (almost always). A college sample showed a mean score of 39.34 (SD = 11.87; Cui et al., 2018). Similar to the original DERS, the DERS-18 has good internal consistency for the full scale ($\alpha = 0.89$), with subscale scores ranging from 0.79 to 0.89 (Hallion et al, 2018). In the current study, pre-intervention had good internal consistency ($\alpha = 0.85$) and post-intervention had acceptable internal consistency ($\alpha = 0.76$). The DERS-18 was included in the full assessment battery.

Patient Health Questionnaire-15 (PHQ-15; Kroenke et al., 2002). The PHQ-15

(Appendix K) is a 15-item screening tool for somatic symptoms (e.g., "Fainting spells") the respondents experienced in the past four weeks that they have found bothersome. The measure uses a Likert-type scale ranging from 1 (not bothered at all) to 3 (bothered a lot). Scoring interpretation utilizes three levels of somatization: 5-9 = mild somatization, 10-14 = moderate somatization, 15 or greater = severe somatization. The PHQ-15 has consistently demonstrated good internal consistency. The PHQ-15 demonstrated good internal consistency ($\alpha = 0.80$; Gierk et al., 2015). In the current study, pre-intervention had good internal consistency ($\alpha = 0.81$) and

post-intervention had acceptable internal consistency ($\alpha = 0.75$). This measure was included in the full assessment battery.

Brief Fear of Negative Evaluation Scale (Brief-FNE; Leary, 1983). The Brief-FNE (Appendix L) is a 12-item scale that measures the amount of concern that the reporter has in being negatively evaluated by others. The scale utilizes a Likert-type scale ranging from 1 (not at all characteristic of me) to 5 (extremely characteristic of me), with higher scores indicating greater fear of negative evaluation. A sample item is "I worry about what other people will think about me even when I know it doesn't make any difference." The Brief-FNE was found to have a high internal consistency. The Brief-FNE demonstrated a mean of 34.28 (SD = 10) in a large college student sample (Preston et al., 2021). The Brief-FNE had excellent internal consistency ($\alpha = 0.9$; Leary, 1983). Excellent internal consistency was found for pre-intervention ($\alpha = 0.91$) and post-intervention ($\alpha = 0.97$) for the current study. The Brief-FNE was included in the full assessment battery.

The World Health Organization Quality of Life Scale-Brief (WHOQOL-BREF; Skevington et al.1, 2004). The WHOQOL-BREF (Appendix M) is a 26-item abbreviated version of the original WHOQOL-100 assessment that examines quality of life and overall health. The WHOQOL-BREF consists of four domains: Physical Health (e.g., "How satisfied are you with your ability to perform your daily living activities?"; M = 66.8, SD = 14.55), Psychological Health (e.g., "To what extent do you feel your life to be meaningful?"; M = 73.5, SD = 13.72), Social Relationships (e.g., "How satisfied are you with your personal relationships?"; M = 73.18, SD = 17.09), and Relationship with the Environment (e.g., "How safe do you feel in your daily life?"; M = 72.8, SD = 14.16), as well as an additional 2-item examination of overall quality of life (e.g., "How would you rate your quality of life?"). Raw scale scores in each domain were transformed to a 0-100 scale, with higher scores indicating higher satisfaction in each domain. The WHOQOL-BREF demonstrated good internal consistency for the Physical ($\alpha = 0.82$), Psychological ($\alpha = 0.81$), and Environmental ($\alpha = 0.8$) domains. However, the Social domain demonstrated questionable internal consistency ($\alpha = 0.68$; Skevington et al, 2004). The current study's pre-intervention and post-intervention had acceptable or greater internal consistency in the current study for all domains ($\alpha = 0.72$ -0.89) except for the Social domain, which had questionable internal consistency ($\alpha = 0.61$). The WHOQOL-BREF was included in the full assessment battery.

Perceived Stress Scale (PSS; Cohen et al., 1983). The PSS (Appendix N) is a 10-item scale that measures perception of general stress to life situations. The instrument uses a Likert-type scale ranging from 0 (never) to 4 (very often), with higher scores indicating higher levels of perceived stress. A sample item is "How often have you found that you could not cope with all the things that you had to do?" Saunders-Scott and colleagues (2018) reported a mean of 17.59 (SD = 6.4) for an undergraduate sample. The researchers found good internal consistency ($\alpha = 0.84$ -0.86). In the current study, good internal consistency was found for both pre-intervention ($\alpha = 0.83$). and post-intervention ($\alpha = 0.85$). The PSS was included in the full assessment battery.

Ruminative Responses Scale (RRS; Treynor et al., 2003). The RRS (Appendix O) is a 22item that measures the extent to which participants respond in a ruminative way when feeling negative emotions. The measure uses a Likert-type scale ranging from 1 (almost never) to 4 (almost always), with higher scores indicating greater ruminative thinking. A sample item is "[How often do you] think about a recent situation, wishing it had gone better?" Nolen-Hoeksema and colleagues (1999) found a gender difference in a large community sample, with an average score of 42.01 (SD = 10.64) observed for women as compared to 39.63 (SD = 10.03) for men. The RRS was found to have excellent internal consistency ($\alpha = 0.9$; Roelofs et al, 2006). Both pre-intervention ($\alpha = 0.9$) and post-intervention ($\alpha = 0.87$) in the current study demonstrated good-excellent internal consistency. RRS was included in the full assessment battery.

Brief Symptom Inventory-18 (BSI-18; Derogatis, 2001). The BSI-18 (Appendix P) is an 18-item shortened version of the original Brief Symptom Inventory that measures general distress. The measure provides an overall Global Severity Index an examines three domains: anxiety (e.g., "Feeling tense or keyed up"), somatization (e.g., "Feeling weak in parts of your body"), and depression (e.g., "Feeling no interest in things"). Responders were asked to respond to what extent they were concerned about provided psychological complaints on a Likert-type scale ranging from 0 (not at all) to 4 (very much). Higher overall BSI scores indicate a greater level of general distress. A Global Severity Index (GSI) mean score of 8.41 (*SD* = 7.83) was reported for a student sample (Meijer et al., 2011). Good internal consistency has been found for the GSI ($\alpha = 0.83$), as well as the three scales: anxiety ($\alpha = 0.84$), somatization ($\alpha = 0.79$), and depression ($\alpha = 0.84$). In the current study, good internal consistency was found for pre-intervention ($\alpha = 0.88$) and post-intervention ($\alpha = 0.84$). The BSI-18 was included in the full assessment battery.

Analytic Strategy

SPSS 27.0 was used to examine the normality of the data, descriptive statistics, and for hypotheses testing. All analyses included the 12 participants who completed the intervention
phase, with the exception of the 3-month follow-up data, which included the 11 participants who completed the assessments. Numerical variables were reported as mean and standard deviation.

An overall score was calculated for each variable of interest based on recommended scoring practices, apart from the WHOQOL-BREF. Separate scores were recorded for each of the four different domains within the WHOQOL-BREF. Additionally, subscale scores were calculated for the SCS-SF, DERS-18, and BSI-18. Normality of the score distributions for each variable was assessed both visually by examining produced histograms and statistically with the Shapiro-Wilk test. The Shapiro-Wilk tests indicated that the variables of interest were normally distributed.

The assumption of sphericity was assessed by examining the Mauchly test of sphericity. While results indicate that the study's data did not violate the assumption of sphericity, the Greenhouse-Geisser correction continued to be utilized for primary analyses due to the recommendations by Maxwell and Delaney (2004) that noted Mauchly test error. Partial eta squared (η_p^2) effect size standards are based on Cohen's (1992) guidelines, with 0.2 = small effect size, 0.5 = moderate effect size, and 0.8 or greater = large effect size.

At the group level, a series of one-way repeated measures ANOVAs were conducted to inspect for any notable changes during the baseline period, throughout the intervention phase, post-intervention, and at 3-month follow-up for each variable of interest. One-way repeated measures ANOVAs test the mean differences of within-subject factors. At the individual level, both visual inspection and TAU-U analyses were utilized to examine changes measured for each variable of interest across each time period.

26

RESULTS

Preliminary Analyses

Pearson's correlation analyses were conducted to evaluate the association between variables of interest during pre-treatment. The direction for each significant correlation was as expected. Self-compassion (SCS-SF) demonstrated a strong negative correlation with stigma consciousness (SCQ) and the psychological health domain of WHOQOL-BREF and negatively correlated with difficulties in emotion regulation (DERS-18) and fear of negative evaluation (Brief-FNE). This suggests that as self-compassion increases, stigma consciousness, emotional dysregulation, and fear of negative evaluation decreases. Additionally, several of the measures for physical and psychological complaints were positively correlated with each other and negatively correlated with indicators for the different aspects of quality of life and self-esteem. All bivariate correlations are presented in Table 1.

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-------------------------|-------------|---------|---------|---------|-------|--------|---------|-------|-------|-------|--------|------|----|
| 1. SCQ 2. SCS-SF | - -0.62* | _ | | | | | | | | | | | |
| 3. RSE | -0.21 | 0.77** | - | | | | | | | | | | |
| 4. DERS-18 | 0.55 | -0.92** | -0.76** | - | | | | | | | | | |
| 5. PHQ-15 | -0.49 | 0.24 | -0.15 | -0.02 | - | | | | | | | | |
| 6. Brief-FNE | 0.20 | -0.75** | -0.78** | 0.89** | 0.20 | - | | | | | | | |
| 7. WHOQOL – Phys | 0.05 | 0.38 | 0.67* | -0.51 | -0.47 | -0.72* | - | | | | | | |
| 8. WHOQOL – Psych | -0.21 | 0.67* | 0.87** | -0.75** | -0.03 | 0.81** | 0.74** | - | | | | | |
| 9. WHOQOL – Social | 0.00 | 0.38 | 0.53 | -0.29 | -0.04 | -0.45 | 0.50 | 0.39 | - | | | | |
| 10. WHOQOL – Environ | 0.13 | -0.01 | 0.29 | 0.10 | -0.21 | -0.02 | 0.43 | 0.17 | 0.65* | - | | | |
| 11. PSS | 0.17 | -0.42 | -0.48 | 0.65* | 0.39 | 0.78** | -0.63* | -0.50 | -0.41 | -0.27 | - | | |
| 12. RRS | 0.02 | -0.48 | -0.52 | 0.64* | 0.38 | 0.85** | -0.82** | -0.57 | -0.51 | -0.11 | 0.75** | - | |
| 13. BSI-18 | -0.23 | -0.05 | -0.49 | 0.30 | 0.64* | 0.58 | -0.65* | -0.55 | -0.35 | -0.15 | 0.56 | 0.58 | - |

Table 1Correlations Among Measured Variables Pre-Treatment

Note: WHOQOL – Phys = WHOQOL-BREF Physical domain, WHOQOL – Psych = WHOQOL-BREF Psychological domain, WHOQOL – Social = WHOQOL-BREF Social domain, WHOQOL – Environ = WHOQOL-BREF Environment domain * p < 0.05, ** p < 0.01

Main Analyses

Group Level

Hypothesis 1

An initial one-way repeated measures ANOVA was performed to compare stigma consciousness (SCQ) scores during baseline period. Baseline SCQ scores were not found to be significantly different throughout the four-week, F(1.82, 5.45) = 0.58, p > .05, five-week, F(1.78, 5.33) = 0.46, p > .05, or six-week baselines, F(1.88, 5.63) = 2.05, p > .05, indicating that there was no mean change in SCQ scores during the baseline period. A second one-way repeated-measures ANOVA was conducted with eight weekly time points from pre-intervention to 3-month follow-up. Results showed that there was a significant decrease in SCQ from pre-intervention to follow-up, F(2.91, 29.12) = 19.76, p < .001, $\eta_p^2 = 0.66$, indicating a marked reduction in reported stigma consciousness at 3-month follow-up when compared to pre-intervention. Tables 2 shows mean scores for SCQ and Figure 2 shows a visual depiction of the group changes for each of the three baselines.

Examination of pairwise comparisons indicated that there was a reduction in SCQ mean score scores at every time point as compared to pre-intervention. Additionally, the SCQ mean score collected after the 3rd session was significantly different from the 1st session, p < 0.01 and the 2nd session, p < 0.05, indicating a consistent reduction in reported stigma consciousness after each session. There was no significant change in SCQ mean score from post-intervention to 3-month follow-up, p > 0.05. Table 3 provides pairwise comparisons for the primary time points for SCQ from pre-intervention to follow-up. These results support the hypothesis that participants who

completed the intervention displayed a significant reduction in stigma consciousness from preintervention to post-intervention, and the reduction was maintained at follow-up.

Hypothesis 2

Self-compassion (SCS-SF) scores were not found to be statistically significant during the four-week, F(2.25, 6.75) = 4.39, p > .05, five-week, F(1.32, 3.95) = 2.57, p > .05, or six-week baseline periods, F(1.07, 3.22) = 0.73, p > .05. A one-way repeated measures ANOVA conducted from pre-intervention to 3-month follow-up indicated that there was a significant increase in SCS-SF at follow-up, F(2.69, 26.93) = 16.62, p < .001, $\eta_p^2 = 0.62$. This result suggests that there was a marked improvement in self-compassion as measured from pre-intervention to 3-month follow-up change for each baseline.

Regarding the six SCS-SF subscales, there were significant changes in each subscale at 3month follow-up as compared to pre-intervention. Self-Kindness, F(3.22, 32.16) = 7.30, p < .001, Common Humanity, F(3.74, 37.44) = 4.83, p < .05, and Mindfulness, F(3.82, 38.18) = 4.42, p < .05, demonstrated marked improvements, while Self-Judgement, F(3.26, 32.57) = 10.91, p < .001, Isolation, F(3.40, 33.99) = 7.12, p < .001, and Over-Identification, F(3.07, 30.75) = 5.54, p < .05, had decreased. Tables 2-4 provides scores for SCS-SF.

Pairwise comparisons of the overall SCS-SF mean scores indicated that there was a consistent improvement at every time point as compared to the pre-intervention assessment. There were also significant increases in mean score reported after each subsequent session. No significant changes were observed from post-intervention to 3-month follow-up, p > 0.05. Table 3 provides primary pairwise comparisons for overall SCS-SF from pre-intervention to 3-month

follow-up. These results support hypothesis 2 by demonstrating that there was a significant improvement in overall self-compassion, as well as the three individual components of self-compassion, for participants who completed the intervention. The results also indicated that the improvements were maintained at 3-month follow-up. As observed in Figure 2, there is an observable trend wherein score reductions in SCQ correspond with improvements in SCS-SF.

As the three homework entries were centered on utilizing self-kindness, common humanity, and mindfulness to journal in a self-compassionate manner, additional bivariate correlational analyses were carried out to examine if there was an association between homework completion and change in overall self-compassion, as well as the separate subscales. five of the participants (42%) completed and submitted each assigned homework entry, while four participants (33%) completed two entries and three participants (25%) only completed one homework entry. Homework completion was found to be strongly correlated with positive change in self-compassion, r(10) = 0.77, p < 0.01. Homework completion was also found to demonstrate strong association to change in Self-Judgement, r(10) = -0.6, p < 0.05, Common Humanity, r(10) = 0.69, p < 0.05, and Over-Identification, r(10) = -0.64, p < 0.05.

Table 2Mean Scores for SCQ & SCS-SF

| | ~~~ | | | 95% CI | | |
|-----------|------|-------|-------|-------------|-------------|--|
| Variables | Time | М | SD | Lower bound | Upper bound | |
| SCQ | 1 | 51 | 1.84 | 49.76 | 52.24 | |
| | 2 | 40.73 | 5.04 | 37.34 | 44.11 | |
| | 3 | 41 | 5.93 | 37.01 | 44.99 | |
| SCS-SF | 1 | 28.09 | 8.36 | 22.48 | 33.71 | |
| | 2 | 40.64 | 10.25 | 33.75 | 47.52 | |
| | 3 | 39.82 | 9.87 | 33.19 | 46.45 | |

Note: $1 = \text{pre-intervention}, 2 = \text{one week after } 3^{\text{rd}} \text{ session}, 3 = 3\text{-month follow-up}$

Table 3

Pairwise Comparisons of SCQ from Pre-Intervention to 3-Month Follow-Up

| Variables | Time (A) | Time (B) | <i>M</i> difference | SE | Lower bound | Upper bound |
|-----------|----------|----------|---------------------|------|-------------|-------------|
| SCQ | 1 | 2 | 10.27** | 1.34 | 7.3 | 13.25 |
| | 1 | 3 | 10** | 1.5 | 6.65 | 13.35 |
| | 2 | 3 | -0.27 | 0.92 | -2.31 | 1.77 |
| SCS-SF | 1 | 7 | -12.55** | 1.92 | -16.83 | -8.26 |
| | 1 | 8 | -11.73** | 1.84 | -15.84 | -7.62 |
| | 7 | 8 | 0.82 | 1.13 | -1.69 | 3.33 |

95% CI

Note: 1 = Pre-Intervention, 2 = One week after 3^{rd} session, 3 = 3-month follow-up; * p < 0.05, ** p < 0.01

| Table | 4 |
|-------|-----------------------------|
| Mean | Scores for SCS-SF Subscales |

| Variables | Time | Μ | SD | Lower bound | Upper bound |
|---------------------|------|------|------|-------------|-------------|
| SCS-SF – Self-Kind | 1 | 4.64 | 1.96 | 3.32 | 5.96 |
| | 2 | 7.00 | 1.95 | 5.69 | 8.31 |
| | 3 | 6.82 | 2.40 | 5.21 | 8.43 |
| SCS-SF – Self-Judge | 1 | 7.73 | 1.85 | 6.49 | 8.97 |
| | 2 | 2.00 | 0.89 | 1.40 | 2.60 |
| | 3 | 2.27 | 1.01 | 1.60 | 2.95 |
| SCS-SF – Com Hum | 1 | 4.73 | 1.68 | 3.60 | 5.86 |
| | 2 | 6.45 | 2.30 | 4.91 | 8.00 |
| | 3 | 6.36 | 2.42 | 4.74 | 7.99 |
| SCS-SF – Isolation | 1 | 7.82 | 1.78 | 6.62 | 9.01 |
| | 2 | 5.55 | 2.16 | 4.09 | 7.00 |
| | 3 | 5.81 | 2.18 | 4.35 | 7.28 |
| SCS-SF-Mindful | 1 | 6.18 | 1.66 | 5.07 | 7.30 |
| | 2 | 7.55 | 1.57 | 6.49 | 8.60 |
| | 3 | 7.64 | 1.50 | 6.63 | 8.65 |
| SCS-SF – Over-Id | 1 | 7.91 | 2.21 | 6.42 | 9.40 |
| | 2 | 5.73 | 2.15 | 4.28 | 7.17 |
| | 3 | 6.82 | 2.09 | 5.42 | 8.22 |
| | | | | | |

95% CI

Note: SCS-SF - Self-Kind = SCS-SF Self-Kindness subscale, SCS-SF - Self-Judge = SCS-SF Self-Judgment subscale, SCS-SF - Com Hum = SCS-SF Common Humanity subscale, SCS-SF - Isolation = SCS-SF Isolation subscale, SCS-SF - Mindful = SCS-SF Mindfulness subscale, SCS-SF - Over-Id = SCS-SF Over-Id = SCS-

1 = pre-intervention, 2 = one week after 3^{rd} session, 3 = 3-month follow-up



Figure 2. Group Change in SCQ & SCS-SF

Hypothesis 3

Paired samples t-tests were conducted for the two time periods in the baseline. No difference in baseline scores were found for self-esteem (RSE), t(11) = -0.19, p > .05. Likewise, physical health (WHOQOL-BREF – Physical domain), t(11) = 0.89, p > .05, psychological health (WHOQOL-BREF – Psychological domain), t(11) = -1.12, p > .05, social relationships (WHOQOL-BREF – Social domain), t(11) = 1.16, p > .05, and relationship with the environment (WHOQOL-BREF – Environment domain), t(11) = 0.98, p > .05, also failed to demonstrate any difference in baseline scores. A subsequent ANOVA was then performed to examine three time periods (i.e., pre-intervention, post-intervention, 3-month follow-up) for both assessments. ANOVAs computed for the three time periods were not significant for either RSE, F(1.58, 15.76) = 5.09, p > .05, or the four WHOQOL-BREF domains: Physical, F(1.56, 15.6) = 2.93, p > .05, Psychological, F(1.32, 13.17) = 0.53, p > .05, Social, F(1.76, 17.55) = 0.13, p > .05, and Environment, F(1.8, 17.95) = 6.31, p > .05. Table 5 provides the mean scores for RSE and WHOQOL-BREF across the three time periods of interest.

Further steps were taken to re-assess both assessments at two time periods. Paired-sample t-tests were utilized to examine pairwise comparisons between pre-intervention and post-intervention, pre-intervention and 3-month follow-up, as well as post-intervention and 3-month follow-up. RSE demonstrated a significant increase, t(11) = -2.42, p < .05; d = 0.7, from pre-intervention to post-intervention. WHOQOL-BREF Environment domain was found to exhibit a significant increase, t(10) = -3.72, p < .01; d = 1.12, from pre-intervention to 3-month follow-up. These results provide partial support for hypothesis 3 by demonstrating that participants reported improved self-esteem scores one week after completing the intervention and that they also noted

improvements in their relationship with their environment at follow-up, as compared to preintervention. Table 6 provides the pairwise comparisons for the variables of interest.

| Variables | Time | Μ | SD | Lower bound | Upper bound |
|-----------|------|-------|-------|-------------|-------------|
| RSE | 1 | 15.82 | 6.74 | 11.29 | 20.34 |
| | 2 | 19 | 7.28 | 14.11 | 23.89 |
| | 3 | 18.27 | 7.71 | 13.09 | 23.45 |
| WHOPHYS | 1 | 62.01 | 17.81 | 50.05 | 73.98 |
| | 2 | 64.29 | 13.07 | 55.52 | 73.07 |
| | 3 | 69.14 | 17.27 | 57.54 | 80.75 |
| WHOPSYCH | 1 | 54.17 | 22.67 | 38.94 | 69.4 |
| | 2 | 56.77 | 20.66 | 42.89 | 70.65 |
| | 3 | 57.35 | 18.81 | 44.71 | 69.98 |
| WHOSOC | 1 | 59.9 | 12.29 | 51.64 | 68.15 |
| | 2 | 61.42 | 20.33 | 47.77 | 75.08 |
| | 3 | 60.98 | 20.77 | 47.02 | 74.93 |
| WHOENV | 1 | 64.64 | 14.16 | 55.12 | 74.15 |
| | 2 | 69.89 | 18.5 | 57.46 | 82.32 |
| | 3 | 72.73 | 16.83 | 61.42 | 84.04 |

95% CI

Table 5 Mean Scores for RSE & WHOQOL-BREF Domains

Note: WHOPHYS = WHOQOL-BREF Physical domain, WHOPSYCH = WHOQOL-BREF Psychological domain, WHOSOC = WHOQOL-BREF Social domain, WHOENV = WHOQOL-BREF Environment domain $1 = \text{pre-intervention}, 2 = \text{one week after } 3^{rd} \text{ session}, 3 = 3\text{-month follow-up}$

| | | | | | 95% | o CI |
|-----------|----------|-------------|---------------------|------|----------------|----------------|
| Variables | Time (A) | Time (B) | <i>M</i> difference | SE | Lower bound | Upper bound |
| RSE | 1 | 2 | -2.75* | 1.14 | -5.25 | -0.25 |
| | 1 | 3 | -2.45 | 1.19 | -5.11 | 0.21 |
| | 2 | 3 | 0.73 | 0.73 | -0.89 | 2.35 |
| WHOPHYS | 1 | 2 | 1.19 | 3.47 | -6.45 | 8.83 |
| | 1 | 3 | -5.17 | 5.41 | -17.23 | 6.88 |
| | 2 | 3 | -4.85 | 2.98 | -11.5 | 1.8 |
| WHOPSYCH | 1 | 2 | -2.74 | 3.6 | -10.66 | 5.19 |
| | 1 | 3 | -3.18 | 3.72 | -11.47 | 5.11 |
| | 2 | 3 | -0.58 | 1.76 | -4.5 | 3.34 |
| WHOSOC | 1 | 2 | -3.48 | 3.52 | -11.22 | 4.26 |
| | 1 | 3 | -1.08 | 3.46 | -8.78 | 6.62 |
| | 2 | 3 | 0.44 | 2.46 | -5.03 | 5.92 |
| WHOENV | 1 | 2 | -4.56 | 2.53 | -10.13 | 1.02 |
| | 1 | 3 | -8.09* | 2.18 | -12.94 | -3.24 |
| | 2 | 3 | -2.84 | 2.04 | -7.39 | 1.71 |

Pairwise Comparisons of RSE and WHOQOL-BREF Domains from Pre-Intervention to 3-Month Follow-Up

Note: WHOPHYS = WHOQOL-BREF Physical domain, WHOPSYCH = WHOQOL-BREF Psychological domain, WHOSOC = WHOQOL-BREF Social domain, WHOENV = WHOQOL-BREF Environment domain

1 = pre-intervention, 2 = one week after 3^{rd} session, 3 = 3-month follow-up, * p < 0.05, ** p < 0.01

Hypothesis 4

Table 6

Similar to the analyses conducted for hypothesis 3, two time periods (i.e., initial session and pre-intervention) were examined. Difficulties in emotion regulation (DERS-18), t(11) = -0.42, p > .05, somatic symptoms (PHQ-15), t(11) = -1.17, p > .05, fear of negative evaluation (Brief-FNE), t(11) = 0.36, p > .05, perceived stress (PSS), t(11) = -1.54, p > .05, ruminative responding (RRS), t(11) = -1.87, p > .05, and general distress (BSI), t(11) = -0.77, p > .05, were all found to have nonsignificant differences during the baseline period. When comparing the three time periods of interest (i.e., pre-intervention, post-intervention, 3-month follow-up), the DERS-18, F(1.38, 13.78) = 12.21, p < .01, $\eta_p^2 = 0.55$, Brief-FNE, F(1.48, 14.79) = 5.58, p < .05, $\eta_p^2 = 0.36$, and RRS, F(1.99, 19.9) = 4.08, p < .05, $\eta_p^2 = 0.29$, were found to exhibit a significant decrease at follow-up. Table 7 provides mean scores for the relevant variables at the three time points.

With regard to the DERS-18 and BSI-18 subscales, Lack of Emotional Awareness, $F(1.74, 17.37) = 4.49, p < .05, \eta_p^2 = 0.31$, and Limited Access to Emotion Regulation Strategies, $F(1.87, 18.67) = 5.26, p < .05, \eta_p^2 = 0.35$, both significantly decreased from pre-intervention to 3-month follow-up, indicating that participants who completed the intervention were likely to report greater awareness of their emotions and increased access to emotion regulation strategies when they experience difficult emotional experiences. BSI-18 Somatization subscale also demonstrated a significant reduction at follow-up, $F(1.95, 19.45) = 3.57, p < .05, \eta_p^2 = 0.26$. Table 8 provides mean scores for the DERS-18 and BSI-18 subscales.

Pairwise comparisons were examined for the DERS-18 and the subscales for DERS-18 and BSI-18 that had been previously found to have significant mean differences at follow-up. DERS-18 and its two relevant subscales (i.e., Lack of Emotional Awareness and Limited Access to Emotion Regulation Strategies) all displayed significant reductions at both post-intervention and 3-month follow-up as compared to pre-intervention. The pre-intervention and postintervention mean scores for the BSI-18 Somatization subscale were significantly different. However, the mean difference between the pre-intervention and follow-up was not found to be significant. Additional paired-samples t-test analyses were conducted to examine the assessments at two time periods. For the DERS-18 subscales, there were significant decreases in mean score for Lack of Clarity from pre-intervention to post-intervention, t(11) = 3.38, p < .01; d = 0.94, and from pre-intervention to 3-month follow-up for Nonacceptance of Emotion Responses, t(10) = 2.37, p < 0.05; d = 0.69. RRS mean scores were significantly different from pre-intervention to 3-month follow-up, t(10) = 2.88, p < .05; d = 0.87, suggesting that while there was not a significant decrease in ruminative responses shortly post-intervention, there were greater reductions as time passed. These results provide partial support for hypothesis 4. Fewer reductions in physical and psychological complaints were observed post-intervention and at 3-month follow-up than was expected. Of note, several significant reductions in variables of interest post-intervention did not maintain at follow-up. Table 9 provides all the pairwise comparisons for the variables of interest.

| | • | | · | 95% | 6 CI |
|-----------|------|-------|-------|-------------|-------------|
| Variables | Time | М | SD | Lower bound | Upper bound |
| DERS-18 | 1 | 49.18 | 13.58 | 40.06 | 58.3 |
| | 2 | 40.55 | 9.5 | 34.16 | 46.93 |
| | 3 | 40.91 | 10.99 | 33.53 | 48.29 |
| PHQ-15 | 1 | 9.64 | 5.41 | 6 | 13.27 |
| | 2 | 8.55 | 4.2 | 5.72 | 11.37 |
| | 3 | 9 | 5.14 | 5.55 | 12.45 |
| FNE | 1 | 41.82 | 13.78 | 32.56 | 51.07 |
| | 2 | 38.73 | 13.15 | 29.9 | 47.56 |
| | 3 | 37.36 | 11.55 | 29.6 | 45.13 |
| PSS | 1 | 22.45 | 6.52 | 18.08 | 26.83 |
| | 2 | 20.09 | 6.53 | 15.7 | 24.48 |
| | 3 | 19.82 | 6.93 | 15.17 | 24.47 |
| RRS | 1 | 55.73 | 11.59 | 47.94 | 63.52 |
| | 2 | 52.09 | 10.54 | 45.01 | 59.17 |
| | 3 | 49.18 | 12.69 | 40.66 | 57.71 |
| BSI | 1 | 17.27 | 10.56 | 10.18 | 24.37 |
| | 2 | 14.09 | 7.87 | 8.81 | 19.38 |
| | 3 | 14.27 | 9.07 | 8.18 | 20.36 |

Table 7Mean Scores for DERS-18, PHQ-15, Brief-FNE, PSS, RRS, BSI-18

Note: 1 = pre-intervention, 2 = one week after 3^{rd} session, 3 = 3-month follow-up

| - | | | | 95% | 6 CI |
|---------------------------|------|-------|------|-------------|-------------|
| Variables | Time | М | SD | Lower bound | Upper bound |
| DERS – Awareness | 1 | 8.55 | 3.17 | 6.41 | 10.68 |
| | 2 | 6.82 | 2.75 | 4.97 | 8.67 |
| | 3 | 7 | 2.83 | 5.1 | 8.9 |
| DERS – Clarity | 1 | 7.36 | 3.29 | 5.15 | 9.58 |
| | 2 | 5.82 | 2.27 | 4.29 | 7.35 |
| | 3 | 6.36 | 2.29 | 4.82 | 7.9 |
| DERS – Goals | 1 | 12.18 | 2.99 | 10.17 | 14.19 |
| | 2 | 11.18 | 3.43 | 8.88 | 13.49 |
| | 3 | 10.82 | 3.6 | 8.4 | 13.24 |
| DERS – Impulse | 1 | 5.18 | 2.68 | 3.38 | 6.98 |
| | 2 | 4.64 | 1.57 | 3.58 | 5.69 |
| | 3 | 4.55 | 2.02 | 3.19 | 5.9 |
| DERS – Nonacceptance | 1 | 7.09 | 3.42 | 4.79 | 9.39 |
| | 2 | 5.36 | 1.75 | 4.19 | 6.54 |
| | 3 | 5.73 | 2.76 | 3.87 | 7.58 |
| DERS – Strategies | 1 | 8.82 | 4.53 | 5.77 | 11.87 |
| | 2 | 6.73 | 3.23 | 4.56 | 8.9 |
| | 3 | 7.36 | 3.47 | 5.03 | 9.7 |
| BSI – Somatization | 1 | 4.09 | 3.88 | 1.48 | 6.7 |
| | 2 | 2.36 | 2.25 | 0.85 | 3.87 |
| | 3 | 3.73 | 3.07 | 1.67 | 5.79 |
| BSI – Depression | 1 | 8.64 | 6.45 | 4.3 | 12.97 |
| | 2 | 7.27 | 5.31 | 3.7 | 10.84 |
| | 3 | 7.73 | 6.25 | 3.53 | 11.92 |
| BSI – Anxiety | 1 | 5.83 | 4.61 | 2.91 | 8.76 |
| | 2 | 4.83 | 2.52 | 3.23 | 6.43 |
| | 3 | 5.75 | 5.28 | 2.4 | 9.1 |

Table 8 Mean Scores for DERS-18 & BSI-18 Subscales

Note: DERS – Awareness = DERS-18 Lack of emotional awareness, DERS – Clarity = DERS-18 Lack of emotional clarity, DERS - Goals = DERS-18 Difficulties engaging in goal-directed behavior, DERS - Impulse = DERS-18 Impulse control difficulties, DERS – Nonacceptance = DERS-18 Nonacceptance of emotion responses, DERS – Strategies = DERS-18 Limited access to emotion regulation strategies

1 = pre-intervention, 2 = one week after 3^{rd} session, 3 = 3-month follow-up

Table 9

Pairwise Comparisons of DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18 from Pre-Intervention to 3-Month Follow-Up 95% CI

| | | | | | J 5 K | |
|-----------|----------|-------------|---------------------|------|--------------|-------------|
| Variables | Time (A) | Time (B) | <i>M</i> difference | SE | Lower bound | Upper bound |
| DERS-18 | 1 | 2 | 9.08** | 2.38 | 3.85 | 14.31 |
| | 1 | 3 | 8.27** | 1.6 | 4.72 | 11.83 |
| | 2 | 3 | -0.36 | 1.63 | -3.98 | 3.26 |
| PHQ-15 | 1 | 2 | 0.83 | 0.94 | -1.23 | 2.89 |
| | 1 | 3 | 0.64 | 1.19 | -2 | 3.28 |
| | 2 | 3 | -0.45 | 0.82 | -2.29 | 1.38 |
| Brief-FNE | 1 | 2 | 3.17* | 1.01 | 94 | 5.4 |
| | 1 | 3 | 4.45* | 1.72 | 0.61 | 8.29 |
| | 2 | 3 | 1.36 | 1.19 | -1.28 | 4 |
| PSS | 1 | 2 | 2.5 | 1.16 | -0.05 | 5.05 |
| | 1 | 3 | 2.64 | 1.26 | -0.17 | 5.44 |
| | 2 | 3 | 0.27 | 1.29 | -2.59 | 3.14 |
| RRS | 1 | 2 | 3.42 | 2.18 | -1.38 | 8.21 |
| | 1 | 3 | 6.55* | 2.27 | 1.48 | 11.61 |
| | 2 | 3 | 2.91 | 2.24 | -2.08 | 7.9 |
| BSI-18 | 1 | 2 | 2.17 | 1.89 | -2 | 6.34 |
| | 1 | 3 | 3 | 2.02 | -1.51 | 7.51 |
| | 2 | 3 | -0.18 | 1.52 | -3.57 | 3.2 |
| | | | | | | |

Note: 1 = Pre-Intervention, 2 = One week after 3^{rd} session, 3 = 3-month follow-up; * p < 0.05, ** p < 0.01

Individual Level

Hypotheses 1-4

Participant 1 (P1) was a 19-year-old, white, bisexual, cisgender woman. She was a fulltime student, who at the time of her participation in the study, was staying with her family due to the pandemic. At the initial assessment, P1 scored a 51 on stigma consciousness (SCQ; 1.1 *SD* above the mean) and 43 on self-compassion (SCS-SF), indicating that she began at a high level of self-compassion based on Neff's (2003b) guidelines. She was assigned to the four-week baseline. Figure 3 provides a visual depiction of her SCQ and SCS-SF change over the weeks.

During the intervention, P1 described herself as "mostly out" with her family and friends, though she noted that she remained more reserved and careful about sexual identity management when she returned to her hometown. Throughout the intervention, P1 focused many of her experiential exercises and journaling on her relationship with a close family friend, who P1 expressed disappointment at realizing was not accepting of her bisexuality. While she continued to feel saddened by the family friend throughout the intervention, in the final session, P1 noted feeling less hindered by the family friend's non-acceptance, stating, "Her opinion doesn't change my identity or how I want to act."

When compared to her initial assessment, P1 demonstrated a marked reduction of 19 points (1.9 *SD* units) at post-treatment and 22 points (2.2 *SD* units) at 3-month follow-up. SCQ had a significant treatment phase ($\tau = 0.95$, p < 0.001) and full series ($\tau = -0.83$, p < 0.001). There was also a significant contrast between the SCQ baseline and treatment phase ($\tau = -0.94$, p < 0.01). SCS-SF also demonstrated a significant treatment phase ($\tau = 0.61$, p < 0.05). Figure 3 displays the changes in SCQ and SCS-SF for P1.

TAU-U analyses found that none of the SCS-SF subscales showed a significant change during the baseline phase for P1. Likewise, examination of the contrast between the baseline and treatment phase for all six subscales also did not show any significant changes. However, when examining the data points in a full series, Isolation was found to display a notable decreasing trend ($\tau = 0.45$, p < 0.05)



Figure 3. P1 Change in SCQ & SCS-SF

P1 did not demonstrate any notable trends from pre-treatment to post-treatment or followup for self-esteem (RSE), physical health, psychological health, social relationships, and relationship with the environment (WHOQOL-BREF domains) upon visual inspection and TAU-U analyses. She demonstrated a 5-point increase from initial assessment to follow-up for the two-item measure of overall quality of life. P1 remained within one *SD* of the mean previously reported for a college sample for each time point until the follow-up when her RSE score fell more than a standard deviation below the mean (1.24 *SD* units). Her final RSE score indicated a normal level of self-esteem. Additionally, as compared to normative data for WHOQOL-BREF, P1 remained within one *SD* of the mean for each time point of the Physical and Psychological domains, except for the second baseline points, when she fell 1.15 *SD* below the mean for Physical and 1.41 *SD* below the mean for Psychological. While P1 also demonstrated a moderate decrease from the first to the second baseline points for the Social domain (0.59 *SD* units), each time point remained within one *SD* of the mean. Lastly, P1 scored 1.26 *SD* above the mean for the Environment domain and this result was maintained at follow-up. Figure 4 shows a visual depiction of changes in RSE and WHOQOL-BREF domains.



Note: B1 = Baseline period 1 (i.e., pre-assessment), B2 = Baseline period 2, Post-TX = Post-treatment (i.e., one week after third session), F/U = 3-month Follow-up; WHOQOL = WHOQOL-BREF QOL, WHOPHYS = WHOQOL-BREF Physical domain, WHOPSYCH = WHOQOL-BREF Psychological domain, WHOSOC = WHOQOL-BREF Social domain, WHOENV = WHOQOL-BREF Environment domain

Figure 4. P1 Change in RSE & WHOQOL-BREF Domains

P1 did not demonstrate any significant change in difficulties in emotion regulation (DERS-18), somatic symptoms (PHQ-15), fear of negative evaluation (Brief-FNE), perceived stress (PSS), ruminative responding (RRS), and general distress (BSI-18) when the data was visually inspected. This was verified with further TAU-U analyses. P1 scored within the mean identified in previous studies with college samples for each time point of the DERS-18,

Brief-FNE, and PSS. There was an increase on the PHQ-15 from 7, indicative of mild somatization, to 20, severe somatization, from the first to the second baseline time point. Her scores remained in the severe range at both post-treatment and at follow-up. P1 also showed a similar very large increase in BSI-18 from the first to the second baseline time point, with a final score at follow-up that was 10 points higher (1.28 *SD* units) than at the initial assessment. By follow-up, P2's BSI-18 was 1.62 *SD* above the mean. Regarding RRS, P1 scored 1.13 *SD* and 1.03 *SD* units above the mean for the second baseline point and at follow-up, respectively. Figure 5 displays the changes in the discussed variables.



Figure 5. P1 Change in DERS-18, PHQ-15, FNE, PSS, RRS, & BSI-18

Participant 2 (P2) was a 23-year-old, white, first-generation, cisgender woman. P2 selfidentified as bisexual throughout her participation in the intervention. However, at follow-up, she chose to describe herself as bi/gay and had chosen "Gay/Lesbian" in response to the question "Which of the following best describes your sexual orientation?" P2 was a full-time graduate student who was staying with her family during the pandemic. P2 scored a 54 on stigma consciousness (SCQ; 1.4 *SD* above the mean) and a 35 on self-compassion (SCS-SF), which is indicative of moderate self-compassion. She was randomized to the five-week baseline.

P2 expressed frustration at her family's nonacceptance of her sexuality, sharing, "I feel like I have to keep reminding them." She described her family as "traditional" and stated that nonconformity was not encouraged. P2 also acknowledged during the intervention that she was highly self-critical about her self-identity, including of her sexuality. She often shared her experience with developing internalized homonegativity and how it had prevented her from expressing herself freely. At the start of the intervention, P2 reported that her primary coping strategy was to focus on her physical fitness and she noted not feeling low connection with others, particularly with people accepting of her sexuality. P2 noted that the experiential self-compassion exercises helped her to become less critical about her sexual identity and feel more open to forming supportive social connections. Notably, she inquired about similar available interventions in the final session.

P2 showed a significant reduction ($\tau = -0.83$, p < 0.05) of one *SD* unit in SCQ from the initial assessment to post-treatment. This change was maintained at follow-up. Her SCS-SF scores demonstrated an extremely similar pattern of change in the positive direction ($\tau = 0.83$, p < 0.05), indicating a growth in self-compassion from a moderate to high level observed through the course of her engagement with the current intervention. Figure 6 provides a visual depiction of her SCQ and SCS-SF change over the weeks.

Regarding the SCS-SF subscales, a significant decreasing trend was found for both Self-Judgement ($\tau = -0.71$, p < 0.05) and Over-Identification ($\tau = -0.75$, p < 0.01) in the treatment phase. Phase contrast analyses of the baseline and treatment phase showed that there was significant change from the baseline to the treatment phase for Self-Judgement ($\tau = -0.82$, p < 0.05), Isolation ($\tau = -0.9$, p < 0.01), and Over-Identification ($\tau = -0.95$, p < 0.01). Lastly, when examining full series, Self-Judgement ($\tau = -0.68$, p < 0.01), Isolation ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.69$, p < 0.01), and Over-Identification ($\tau = -0.61$, p < 0.01) were again found to show a notable decreasing trend.



Figure 6. P2 Change in SCQ & SCS-SF

Visual inspection of self-esteem (RSE) and WHOQOL-BREF domains revealed no significant changes. This was supported by TAU-U analyses. Of note, P2 endorsed an 8-point increase in the two-item measure of overall QOL from baseline to follow-up. All of P2's RSE scores remained within one *SD* of the previously identified mean, with the exception of post-

treatment, where she was 1.39 *SD* units above the mean. Her final RSE score indicated a high level of self-esteem. When examining the Psychological and Social domains of WHOQOL-BREF, P2 was in the mean range for all time points except for at the first baseline point (1.36 *SD* units above the mean) for the Social domain and the second baseline point for the Psychological domain (1.02 *SD* units above the mean). The Psychological domain had a moderate increase (0.61 *SD* unit) from the initial assessment to follow-up. The Social domain had a large increase (0.98 *SD* unit) from the initial assessment to the second baseline time point. This same degree of increase was also observed from the initial assessment to follow-up. For the Physical domain, P2 demonstrated greater scores for each time point as compared to previous normative data, ending in 1.86 *SD* units above the mean at follow-up. P2 was within the mean range for all time points in the Environment domain, with a moderate increase (0.66 *SD* unit) from the initial assessment to follow-up. Figure 7 shows the visual depiction of these variables.



Figure 7. P2 Change in RSE & WHOQOL-BREF Domains

For the remaining variables, P2 only demonstrated an observable decreasing trend for fear of negative evaluation (Brief-FNE). P2's Brief-FNE scores for both baseline points fell more than one SD below the previously reported normative mean. Her scores had fallen to over two SD below the mean by post-treatment and follow-up, demonstrating an overall moderate decrease (0.7 SD unit) in ruminative responding from initial assessment to follow-up. P2 showed consistent difficulties in emotion regulation (DERS-18) scores across each time point until follow-up, when her score moderately decreased 6-points (0.51 SD unit) from post-treatment. She was 1.38 SD units below the mean at follow-up, indicating that P2 likely had less difficulty with emotion regulation. P2's somatic symptoms (PHQ-15) and general distress (BSI-18) scores were unremarkable and indicated that she had minimal somatization symptoms and general distress. While P2 fell within one SD of the mean for each ruminative responding (RRS) time point, it is notable that her score showed a very large decrease of 17-points (1.69 SD units) from initial assessment to follow-up. There was a notable difference in perceived stress (PSS) scores from the first to the second baseline time points (1.25 SD units). P2's decrease in PSS measured at the second baseline point was maintained at post-treatment and follow-up, where she was found to be 1.34 SD units below the mean. Figure 8 displays a visual depiction of these variables



Figure 8. P2 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 3 (P3) was a 29-year-old, white, gay, cisgender man. He was a part-time student who, at the time of the study, was living alone. He was also the father to a young child. At the initial assessment, P3 scored a 51 on stigma consciousness (SCQ; 1.1 *SD* above the mean) and a 27 on self-compassion (SCS-SF), which indicates a moderate level of self-compassion. He was randomized to the five-week baseline.

At the first session, P3 reported that he had publicly come out to his family and friends on a social media platform at the end of the baseline phase. Prior to this, he had only disclosed his sexual orientation to a few close people within his life. Throughout the treatment phase, P3 reported that his lack of disclosure regarding his sexual orientation had negatively affected his ability to build trusting and secure relationships with others, resulting in him feeling socially isolated. He also noted his struggle with self-acceptance due to his role as a father, stating, "There's little room in the gay community for someone like me." At the end of the intervention, P3 shared his belief that the intervention had helped him to develop a more empathetic and accepting view of his self-identity.

P3 demonstrated a significant decreasing trend for SCQ ($\tau = -0.61$, p < 0.05) and increasing trend for SCS-SF ($\tau = 0.71$, p < 0.05) in the treatment phase. Similarly, there was a significant change in the full series for both SCQ ($\tau = -0.67$, p < 0.01) and SCS-SF ($\tau = 0.45$, p < 0.05). Additionally, the contrast between the baseline and treatment phases for SCQ was also statistically significant ($\tau = -0.88$, p < 0.05). P3 showed a very large (1.4 *SD* unit) in SCQ from initial assessment to follow-up. For SCS-SF, P3 showed a 6-point increase from initial assessment to follow-up and remained at a moderate level of self-compassion. Figure 9 depicts these results.

SCS-SF subscale Self-Kindness was found to have a statistically significant change in the treatment phase ($\tau = 0.61$, p < 0.05) in the predicted direction. Self-Kindness ($\tau = 0.52$, p < 0.05) and Isolation ($\tau = -0.53$, p < 0.05) also demonstrated a significant increasing and decreasing trend, respectfully, for the full series.



Figure 9. P3 Change in SCQ & SCS-SF

P3's RSE did not demonstrate a significant change from pre- to post-treatment. All selfesteem (RSE) time points remained at more than one *SD* below the mean, with the exception of the second baseline point, which was found to be 2.24 *SD* below the mean. His final RSE score indicated he had a low level of self-esteem. WHOQOL-BREF measure of overall QOL demonstrated a 4-point increase from the initial assessment to follow-up. Visual inspection of the WHOQOL-BREF domains showed that only the Physical domain had a consistent negative trend. The Physical domain was within one *SD* of the mean at the initial assessment. However, there was a very large 21.43-points reduction at the second baseline (1.47 *SD* units). The remaining two points also remained below one *SD* of the mean, with the follow-up showing a very large 1.96 *SD* units decrease from the initial assessment. The Social domain also exhibited this same pattern, with the first baseline point falling within one *SD* of the mean and subsequent points falling below one *SD* of the mean. Interestingly, there was also a very large decrease in P3's scores (1.95 *SD* units) from the first to the second baseline points. At follow-up, P3's Social domain score was 1.36 *SD* below the mean. As compared to the normative data, P3 fell below two *SD* of the mean for all four points for the Psychological domain and were relatively consistent from pre- to post-treatment. Follow-up scores for the Psychological domain fell 2.32 *SD* below the mean. The Environment domain demonstrated a similar pattern as RSE, with each point falling below one *SD* of the mean, except for the second baseline point, which fell 2.05 *SD* below the mean. Figure 10 provides a visual depiction of these variables.



Figure 10. P3 Change in RSE & WHOQOL-BREF Domains

P3 demonstrated an observable positive trend for ruminative responding (RRS), with the first baseline point at 1.33 SD above the mean and the other three points above two SD from the mean when compared to a normative mean reported for men. From the initial assessment to the post-treatment and follow-up, there was a very large 1.56 SD unit increase. Similar to previously examined variables, there appeared to be consistent change from the first to the second baseline. P3 remained within one SD of the mean for each point, except for the second baseline point (1.32 SD above the mean). P3 had elevated general distress (BSI-18) scores when compared to a previously identified mean for a student sample. All of the time points for BSI-18 were at least two SD above the mean, with the highest being the second baseline point, which was 3.4 SD above the mean. All perceived stress (PSS) data points were over one SD above the mean and there was only a 1-point decrease (0.16 SD unit) from the initial assessment to follow-up. Fear of negative evaluation (Brief-FNE) scores remained above one SD of the mean from pre- to posttreatment. However, at follow-up, P3's Brief-FNE score was found to be 0.97 SD from the mean, indicating a small 0.3 SD unit decrease from the initial assessment. Lastly, somatic symptoms (PHQ-15) did not exhibit a noticeable trend from baseline to the treatment phase and P3 showed a moderate level of somatization at both the initial assessment and at follow-up. Figure 11 displays the time points for these variables.



Figure 11. P3 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 4 (P4) was a 32-year-old, white, pansexual, cisgender man. He had previously completed his associate's degree and was in the process of earning a second degree. P4 lived with a roommate at the time of his participation in the study. At the initial assessment, P4 scored a 54 on stigma consciousness (SCQ; 1.4 *SD* above the mean) and a 27 on self-compassion (SCS-SF), indicative of a moderate level of self-compassion. He was assigned to the six-week baseline.

At the start of the intervention, P4 reported that he often struggled with his sexual orientation. Particularly, P4 shared that while he had a stronger preference for men, he had never engaged in a same-gender relationship and had recently faced a disheartening rejection. P4 reported that he was greatly affected by social rejection, noting feeling low self-confidence and highly critical of his own attributes. P4 reported finding benefit in the current intervention, especially in the loving kindness exercise because "it helped me to soften my critical side."

Visual examination and TAU-U analyses showed significant trends for SCQ ($\tau = -0.7, p < 0.01$) and SCS-SF's ($\tau = 0.47, p < 0.05$) full series. Additionally, both SCQ ($\tau = -0.88, p < 0.01$) and SCS-SF ($\tau = 0.83, p < 0.01$) also showed significant contrasts between the baseline and treatment phases. At post-treatment, P4 had exhibited a very large 13-point decrease (1.3 *SD* units) in SCQ from the initial assessment. While there was a small increase of 4-points (0.3 *SD* unit) at follow-up, P4 remained within one *SD* of the mean. P4 also remained within the moderate level of self-compassion throughout pre- and post-treatment, as well as at follow-up. Figure 12 shows the visual depiction of the SCQ and SCS-SF scores.

With regard to the SCS-SF subscales, both Self-Judgement ($\tau = -0.49$, p < 0.05) and Isolation ($\tau = -0.55$, p < 0.01) displayed a significant decreasing trend for their full series. Isolation also showed a significant decrease specifically in the treatment phase ($\tau = -0.82$, p < 0.01). Self-Kindness ($\tau = 0.79$, p < 0.05) and Self-Judgement ($\tau = -0.75$, p < 0.05) demonstrated notable contrasts between the baseline and the treatment phase in the expected directions.



Figure 12. P4 Change in SCQ & SCS-SF

There were no observable trends for either self-esteem (RSE) or the WHOQOL-BREF domains upon visual inspection. P4's RSE scores all fell over one *SD* below the mean. His final score indicated low self-esteem. P4's scores on the Environment domain of the WHOQOL-BREF remained within one *SD* of the mean for each time point, with a small decrease (0.44 *SD* unit) from the initial assessment to post-treatment and follow-up. Besides the second baseline point, which fell 1.4 *SD* below the mean, the other three Physical domain points fell within one *SD* of the mean. P4 displayed markedly low scores on the other two WHOQOL-BREF domains when compared to normative data. The Psychological domain was particularly low, with all the time points over three *SD* below the mean, except for at post-intervention. The post-intervention score was 2.62 *SD* below the mean and was a large increase (0.91 *SD* unit) from the initial assessment. There was a small increase (0.49 *SD* unit) from the initial assessment of the Social domain to the second baseline point and post-treatment, which were both 1.84 *SD* below the mean. However, P4 demonstrated a decrease back to the original point at follow-up (2.33 *SD* below the mean). Figure 13 displays the scores for RSE and WHOQOL-BREF.



Figure 13. P4 Change in RSE & WHOQOL-BREF Domains

There were no significant changes observed for the variables measuring physical and psychological complaints. P4 had consistently low scores on the somatic symptoms (PHQ-15), indicating mild somatization across all four time points. Difficulties in emotion regulation (DERS-18) scores all fell over one *SD* above the mean, except for at post-treatment (0.9 *SD* above the mean). There was a very small decrease (0.17 *SD* unit) from initial assessment to post-treatment, which was not maintained at follow-up. Fear of negative evaluation (Brief-FNE) and perceived stress (PSS) time points all fell over one *SD* above the mean. Small decreases from initial assessment to follow-up were observed for both Brief-FNE (0.3 *SD* units) and PSS (0.47 *SD* unit). With the exception of post-treatment, which fell 1.93 *SD* above the mean, the other time points for RRS all fell above 2 *SD* of the mean. From initial assessment to post-treatment, there was a medium size decrease (0.6 *SD* unit) in P4's scores. At follow-up, P4 gained 2-points, indicating a small increase (0.2 *SD* unit) from post-treatment to follow-up. A large increase

(1.02 *SD* units) was observed from the first to the second baseline point for general distress (BSI-18; 2.89 *SD* above the mean). P4's BSI-18 scores showed a large decrease at post-treatment (0.89 *SD* unit), which fell 1.99 *SD* above the mean. However, P4 again fell over two *SD* above the mean at follow-up. Figure 14 shows these variables across the four time points.



Figure 14. P4 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 5 (P5) was an 18-year-old, white, cisgender woman. She self-identified as pansexual at the initial assessment. However, in subsequent assessment periods, she described herself as bisexual. P5 was a full-time student and, at the time of the study, was living in a dorm suite with two roommates. P5 scored a 57 on stigma consciousness (SCQ; 1.7 *SD* above the mean) and a 24 on self-compassion (SCS-SF), which indicates low self-compassion. She was assigned to the six-week baseline.

P5 reported that she was only out to a few people in her life, noting that she does not feel comfortable with others knowing. She expressed fear at social rejection. While P5 stated that she

had become more open-minded regarding sexual diverseness, she also shared that she still struggled to fully accept the range of sexuality that she has experienced in college. Throughout the course of the intervention, P5 focused her attention on enhancing her flexible views on others' sexuality, as well as her own. She reportedly found that the experiential exercises helped her to practice identifying more kind ways to respond to her own insecurities regarding her sexual orientation.

As can be seen in Figure 15 of the changes in SCQ and SCS-SF, there are significant changes in both variables in the predicted directions. Both SCQ ($\tau = -0.75$, p < 0.01) and SCS-SF ($\tau = -0.82$, p < 0.01) demonstrated a significant change in the treatment phase. A significant trend for the full series was also observed for SCQ ($\tau = -0.81$, p < 0.001) and SCS-SF ($\tau = 0.65$, p < 0.01). Additionally, SCQ ($\tau = -0.96$, p < 0.01) and SCS-SF ($\tau = 0.77$, p < 0.05) had a significant contrast between the baseline and treatment phases. P5 had a very large 16-point (1.6 *SD* units) decrease in SCQ from the initial assessment to follow-up, where she fell 0.1 *SD* above the mean. P5 also showed a substantial growth of 17-points from initial assessment to follow-up, indicating a change from low to high self-compassion.

The Self-Kindness ($\tau = 0.61$, p < 0.05), Mindfulness ($\tau = 0.61$, p < 0.05), and Over-Identification ($\tau = -0.61$, p < 0.05) subscales of SCS-SF had significant change in the expected direction during the treatment phase. Self-Kindness ($\tau = 0.66$, p < 0.001), Mindfulness ($\tau = 0.56$, p < 0.01), and Over-Identification ($\tau = -0.43$, p < 0.05), along with Self-Judgement ($\tau = -0.47$, p < 0.05), also demonstrated significant trends in their full series. Lastly, Self-Kindness ($\tau = 0.79$, p < 0.05) and Mindfulness ($\tau = 0.83$, p < 0.01) showed significant contrasts between the baseline and treatment phases.


Figure 15. P5 Change in SCQ & SCS-SF

Self-esteem (RSE), as well as the Psychological and Social domains of the WHOQOL-BREF demonstrated similar trends. For all three, there were notable increases from the first to the second baseline time points, with the latter three points all residing within one *SD* of the mean. Additionally, RSE (2.02 *SD* units), the Psychological domain (2.25 *SD* units), and the Social domain (0.98 *SD* unit) all showed large-very large increases from initial assessment to the follow-up. P5's final RSE score indicated a normal level of self-esteem. For the Physical domain of WHOQOL-BREF, the first baseline point and post-treatment both resided within one *SD* of the mean, while the second baseline time point and follow-up fell at least one *SD* above the mean. Notably, there was a very large increase (1.72 *SD* units) observed from the first to the second baseline time points for the Physical domain. There was also a very large increase (1.96 *SD* units) when examining the change from the initial assessment to follow-up. P5's Environment domain scores resided within one *SD* of the mean at the baseline time points. At post-treatment, his score increased a substantial 28.12-points (1.99 *SD* units compared to initial assessment) and fell 1.04 *SD* above the mean. This result was maintained at follow-up. Of note, in the brief measurement of overall QOL, P5's score showed an increase of 5-points from the initial assessment to follow-up. Figure 16 depicts these changes.



Figure 16. P5 Change in RSE & WHOQOL-BREF Domains

P5's difficulty in emotion regulation (DERS-18) scores remained above one *SD* of the mean for both baseline time points and returned to within one *SD* of the mean at post-treatment and follow-up, indicating a very large (1.74 *SD* units) decrease from the initial assessment to follow-up. After P5 completed the intervention, he had a decrease in his somatic symptoms (PHQ-15) score to 5, indicating mild somatization. However, this result was not maintained at follow-up and he returned to a moderate level of somatization. The fear of negative evaluation (Brief-FNE) initial assessment score was observed to be over one *SD* of the mean. At the second baseline time point and post-treatment, P5's scores were observed to be within one *SD* of the

mean, indicating a large decrease (0.9 *SD* unit) from the initial assessment to post-treatment. The degree of change was not maintained at follow-up, with only a small decrease (0.2 *SD* unit) observed at the last time point when compared to initial assessment. The second baseline time point and post-treatment for PSS were over one *SD* of the mean. At follow-up, P5's perceived stress (PSS) score decreased 9-points from post-treatment, representing a very large decrease (1.41 *SD* units). The first baseline time point for ruminative responding (RRS) was markedly elevated (2.25 *SD* above the mean) compared to previous identified norms. There was a large decrease (0.94 *SD* unit) from the first to the second baseline time points. This same degree of change was observed at follow-up. Lastly, the initial score for general distress (BSI-18) was over one *SD* of the mean. While a large decrease (1.15 *SD* units) was observed at post-treatment, this result was not maintained at follow-up. In fact, there was a small increase (0.38 *SD* unit) in P5's BSI-18 score when compared to the initial assessment. Figure 17 shows a visual depiction of these results.



Figure 17. P5 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 6 (P6) was a 34-year-old, multiracial, non-binary person. They reported no preference for pronouns. For the purpose of this discussion, gender-neutral pronouns (i.e., they/them/theirs) will be utilized. P6 described their sexual orientation several different ways throughout their participation. In the initial assessment, they self-described as a lesbian. However, by the end of the baseline phase, they described themselves as "lesbian, or asexual, not sure." During the intervention phase, as well as at follow-up, they self-described as "Questioning." It should be noted, their sexual orientation was coded as Questioning/Unsure as they chose this option for each assessment when asked the question "Which of the following best describes your sexual orientation?" At the time of participation, they were a full-time international graduate student who was living alone. Their initial stigma consciousness (SCQ) score was 54 (1.4 *SD* above the mean) and their self-compassion (SCS-SF) score was 20, indicating low self-compassion. P6 was randomized to the four-week baseline.

P6 reported that they have always struggled with their self-identity, noting that they did not feel particularly connected with any aspect of their identity, including their sexuality. They noted that while they were "somehow queer," they had little experience with romantic relationships. In fact, they noted that they felt disconnected from others, sharing, "I don't really like others. I like to be by myself." At the beginning of the intervention, P6 reported they had low patience and compassion for themselves. They also acknowledged maintaining rigid expectations for themselves. P6 reportedly found the intervention had helped them to be more aware of self-compassionate ways to treat oneself.

There was a significant positive trend ($\tau = 0.57$, p < 0.05) in the treatment phase for SCS-SF. Both the full series for SCQ ($\tau = -0.7$, p < 0.01) and SCS-SF ($\tau = 0.5$, p < 0.05) exhibited

significance in the predicted directions. SCQ also demonstrated a significant contrast ($\tau = -0.94$, p < 0.01) between the baseline and treatment phases. At follow-up, P6 scored a 40 on the SCQ, which was equal to the mean identified in normative data. This represented a very large decrease (1.4 *SD* unit) from the initial assessment. Additionally, it can be observed that the most substantial decrease (1.1 *SD* units) occurred from time point 6 to 7 (i.e., end of second session to interim week). They scored a 23 on the SCS-SF at follow-up, indicating that they remained at a low level of self-compassion. With regard to the SCS-SF subscales, the only notable change that was observed was in the significant positive trend ($\tau = 0.61$, p < 0.05) in the Self-Kindness treatment phase. Figure 18 shows the variables of SCQ and SCS-SF.



Figure 18. P6 Change in SCQ & SCS-SF

P6 demonstrated marked low self-esteem (RSE) scores as compared to norms. Their RSE scores were more than two *SD* from the mean. Their lowest score at the second baseline time

point was 3.05 *SD* from the mean. P6 gained 1-point from baseline to follow-up, which indicated a small change (0.2 *SD* unit). P6's final RSE score was indicative of low self-esteem. P6's result on the Psychological domain of the WHOQOL-BREF was also notably low. Each time point, except for follow-up was over three *SD* from the mean. The follow-up score of 37.5 was 2.62 *SD* from the mean and was a moderate increase (0.61 *SD* unit) from the initial assessment. For the Physical domain, the second baseline time point was 1.15 *SD* from the mean, while the other points were within one *SD* from the mean. There was a very large increase (1.23 *SD* units) from post-treatment to follow-up. The baseline time points for the Environment domain were over one *SD* from the mean. The post-treatment and follow-up points were within one *SD* from the mean. From the initial assessment to follow-up, P6 had endorsed 9.38-points more points, indicating a moderate degree of change (0.66 *SD* unit). P6's Social domain scores were all within one *SD* of the mean. There was a moderate decrease (0.49 *SD* unit) observed at post-treatment, and a small decrease (0.25 *SD* unit) at follow-up when compared to the initial assessment. Figure 19 displays results for these variables.



Time Points

Figure 19. P6 Change in RSE & WHOQOL-BREF Domains

P6's somatic symptoms (PHQ-15) scores indicated low somatization across every time point. While P6's difficulty in emotion regulation (DERS-18) initial score of 51 fell within one SD of the mean, their second baseline, post-treatment, and follow-up scores all fell over one SD of the mean. While the change from the initial assessment to follow-up was negligible (0.08 SD unit), there had been a small increase observed at post-treatment (0.42 SD unit). Additionally, of note, the highest observed score of 62 at the second baseline point was a large increase (0.93 SD unit) from the initial assessment. A moderate degree of change (0.7 SD unit) was found from the initial assessment to post-treatment for fear of negative evaluation (Brief-FNE). This change did not maintain at follow-up and there was a moderate decrease (0.5 SD unit) back to a score within one SD of the mean. Perceived stress (PSS) scores all resided within one SD of the mean, with a small increase (0.31 SD unit) from the initial assessment to follow-up. There was a large increase of 10-points (0.94 SD unit) from the initial assessment to the highest ruminative responding (RRS) score at post-treatment (1.03 SD above the mean). From post-treatment to follow-up, there was a very large decrease (1.79 SD units) of 18-points. Overall, from the first RRS assessment to follow-up, a large decrease (0.8 SD unit) can be observed. While there was a very small change (0.13 SD unit) from the initial assessment to post-treatment for general distress (BSI-18), a large decrease of 8-points (1.02 SD units) can be observed at follow-up. Figure 20 portrays the changes for the discussed variables.



Figure 20. P6 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 7 (P7) was a 20-year-old, white, lesbian person. While they had initially selfdescribed their gender identity as a cisgender woman, they disclosed that they were non-binary in the final session. For the purpose of this discussion, gender-neutral pronouns will be utilized. At the time of their participation, they were living with their parents and were a full-time student. P7 had an initial stigma consciousness (SCQ) score of 53 (1.3 *SD* above the mean) and selfcompassion (SCS-SF) score of 18, which is indicative of low self-compassion. P7 was randomly assigned to the four-week baseline.

P7 reported that they struggled with chronic anxiety, particularly with excessive worrying and fear of negative evaluation. Though they expressed a desire to become more involved with the LGBTQ+ groups in their local community, they noted that their anxiety prevented them from forming meaningful connections and often caused them to "second guess everything." They noted that they were extremely self-critical and judgmental of themselves, particularly of their perceived weaknesses. P7 noted that while they had become more accepting of their identity, they struggled to not become overly attached to negatively associated descriptors of the lesbian identity, such as "wrongness" and "dirty." At the end of the intervention, P7 reported that they found the discussion and exercises for non-judgmental mindful awareness of self to be the most helpful as their previous introduction to mindfulness had been "to just try and empty your head."

Visual inspection of the two variables of interest revealed that there was a significant trend for SCS-SF over time. This was further supported by TAU-U analyses that found statistically significant positive change during SCS-SF treatment phase ($\tau = 0.79$, p < 0.01) and for the full series ($\tau = 0.42$, p < 0.05). The final SCS-SF collected at follow-up of 28 was a 10-point improvement from the initial assessment and was indicative of a moderate level of self-compassion. While no significant trend was found for SCQ, there was a moderate degree of change (0.6 *SD* unit) from the initial assessment to follow-up. The final SCQ score of 47 was 0.7 *SD* from the mean. Figure 21 shows the trend for SCQ and SCS-SF across several time points.

The SCS-SF subscales Isolation ($\tau = -0.61$, p < 0.05) and Mindfulness ($\tau = 0.79$, p < 0.01) both demonstrated significant trends in the treatment phase. Isolation ($\tau = -0.5$, p < 0.05), along with Self-Judgement ($\tau = -0.44$, p < 0.05) and Common Humanity ($\tau = 0.47$, p < 0.05), also showed a significant trend in the expected directions for the full series.



Figure 21. P7 Change in SCQ & SCS-SF

P7 showed markedly low scores on self-esteem (RSE), with all four time points falling more than three *SD* from the mean. There was a moderate decrease (0.6 *SD* unit) from initial assessment to the follow-up. They also demonstrated markedly low scores on the Psychological domain of the WHOQOL-BREF, with all their time points falling at least two *SD* below the mean. However, P7 exhibited a moderate increase of 8.33-points (0.61 *SD* unit) from baseline to follow-up. The Physical domain scores all fell more than one *SD* below the mean, except for at post-treatment (0.66 *SD* from the mean), indicating a moderate increase (0.74 *SD* unit) from the initial assessment. However, by follow-up, the degree of change for the Physical domain had lessened to 0.25 *SD* unit. While P7's Social domain scores at baseline and post-treatment were within one *SD* of the mean, there was a surprisingly very large decrease (1.46 *SD* units) at follow-up when compared to the initial assessment. The highest score observed for the Environment domain was at post-treatment (1.04 *SD* above the mean), which had been a large

increase (0.88 *SD* unit) from initial assessment. While P7's score had lowered 6.25-points by follow-up (0.44 *SD* unit), when compared to initial assessment, there still remained a small increase (0.44 *SD* unit). Additionally, there was a 4-point increase on a brief measure of overall QOL. Figure 22 shows these results.



Figure 22. P7 Change in RSE & WHOQOL-BREF Domains

P7 demonstrated a notable decrease of 24-points (2.02 *SD* units) from baseline to posttreatment for difficulties in emotion regulation (DERS-18). The degree of change at posttreatment was not maintained as there was a large 11-point increase (0.93 *SD* unit) from posttreatment to follow-up. However, overall P7 still exhibited a large decrease (1.1 *SD* units) from the initial assessment to follow-up. Somatic symptoms (PHQ-15) scores remained low for all time points, indicating mild somatization. P7 had markedly high scores on fear of negative evaluation (Brief-FNE), with all scores except for follow-up (1.57 *SD* above the mean) falling more than two *SD* above the mean. There was a moderate decrease of 6-points (0.6 *SD* unit) from initial assessment to follow-up. P7's perceived stress (PSS) scores all fell more than one *SD* above the mean. A moderate increase of 4-points (0.63 *SD* unit) was observed at follow-up. There was a small decrease (0.38 *SD* unit) in ruminative responding (RRS) scores from initial assessment to post-treatment and follow-up. When compared to the highest RRS score of 68 observed at the second baseline point, a very large decrease (1.79 *SD* units) was found at post-treatment and follow-up. P7 also exhibited an elevated score on the second baseline point for general distress (BSI-18). While the other time points were all within one *SD* of the mean, the second baseline point was 1.61 *SD* from the mean. A moderate decrease (0.64 *SD* unit) was observed from initial assessment to follow-up. When compared to the second baseline point, the 11-point decrease observed at follow-up constituted a very large decrease (1.4 *SD* units). Figure 23 shows the visual depiction of the discussed variables.



Figure 23. P7 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 8 (P8) was a 31-year-old, indigenous, gay person. They initially self-identified as a cisgender woman. However, at the post-treatment assessment, they described themselves as genderfluid. It should be noted that their sexual orientation was coded as "Cisgender woman" as they chose this option at every assessment point when asked the question, "Which of the following best describes your gender?" They reported no preference for pronouns. For the purpose of this discussion, gender-neutral pronouns will be utilized. P8 was a full-time graduate student and was living alone at the time of their participation. Their initial stigma consciousness (SCQ) score was 53 (1.3 *SD* units) and self-compassion (SCS-SF) score was 18, indicating low self-compassion. They were randomly assigned to the four-week baseline.

P8 reported feeling that several facets of their identity, including their sexual orientation, were at odds with their experience in graduate school. Notably, they shared instances of both microaggressions and overt discrimination that they encountered while in their program. As a result, they often concealed their identity with their colleagues and instructors, which reportedly has negatively impacted their mental health. P8 noted feeling "cowardly" due to their identity concealment, stating, "It's not like me. I'm usually always the first to stand up for myself and others." Throughout the course of the intervention, P8 reported finding the exercises to be beneficial in remaining self-compassion in their everyday life.

From the initial assessment to follow-up, a 5-point decrease in SCQ score was observed, which constituted a small decrease (0.5 *SD* unit). TAU-U analyses confirmed that the trend for SCQ was not significant. However, P8's SCS-SF scores across their participation did notably increase 23-points, with a final score that was indicative of high self-compassion. SCS-SF was found to exhibit a significant positive change in the treatment phase ($\tau = 0.71$, p < 0.05), as well as for the full series ($\tau = 0.76$, p < 0.001). Additionally, a significant contrast was also found between the baseline and treatment phase ($\tau = 1$, p < 0.01). Figure 24 displays the results for these variables.

Regarding the SCS-SF subscales, a number of significant trends were found. Self-Kindness ($\tau = 0.79, p < 0.01$), Self-Judgement ($\tau = -0.61, p < 0.05$), and Mindfulness ($\tau = 0.68, p < 0.05$) all exhibited a significant change during the treatment phase in the expected directions. Self-Kindness ($\tau = 0.72, p < 0.001$), Self-Judgement ($\tau = -0.62, p < 0.01$), and Mindfulness ($\tau = 0.72, p < 0.001$), along with Common Humanity ($\tau = 0.45, p < 0.05$), Isolation ($\tau = -0.68, p < 0.01$), and Over-Identification ($\tau = -0.67, p < 0.01$), all demonstrated significant full series. Additionally, while a significant contrast between the baseline and treatment phase was not found for Common Humanity, it was observed with Self-Kindness ($\tau = 0.85, p < 0.05$), Self-Judgement ($\tau = -0.68, p < 0.05$), Isolation ($\tau = -1, p < 0.01$), Mindfulness ($\tau = 0.93, p < 0.01$), and Over-Identification ($\tau = -1, p < 0.01$).



Figure 24. P8 Change in SCQ & SCS-SF

While the baseline time points for self-esteem (RSE) were markedly low, P8's posttreatment and follow-up scores were within one SD of the mean and indicated a normal level of self-esteem. There was a very large increase (2.82 SD units) from the initial assessment to follow-up. The Physical domain of the WHOQOL-BREF also demonstrated a small increase (0.49 SD unit) from the initial assessment to post-treatment. Notably, P8 exhibited a very large increase of 17.86-points (1.23 SD units) from post-treatment to follow-up. Their follow-up score was also a very large increase (1.72 SD units) from the initial assessment. P8 had a markedly low Psychological domain initial assessment score (3.23 SD below the mean). There was a very large increase (2.73 SD units) from the first to the second baseline time points. While there was a very large increase (1.82 SD units) from the initial assessment to follow-up for the Social domain, when comparing the follow-up score with the second baseline point, a moderate decrease (0.71 SD unit) was observed. There was an unexpected very large decrease (1.95 SD units) from the initial assessment, which was within one SD of the mean to post-treatment and follow-up (2.33 SD below the mean). Additionally, a large decrease (0.98 SD unit) was seen from the first to the second baseline time points for the Social domain. A very large decrease (2.21 SD units) was also seen from the first to the second baseline time points for the Environment domain. There was a very large decrease (1.99 SD units) observed from the initial assessment to follow-up. However, when compared with the second baseline point, a small increase (0.22 SD unit) was found at follow-up. Figure 25 displays the trends for RSE & WHOQOL-BREF.



Figure 25. P8 Change in RSE & WHOQOL-BREF Domains

P8 exhibited a markedly low score of 65 (2.16 *SD* above the mean) at initial assessment for difficulties in emotion regulation (DERS-18), while their remaining time points were within one *SD* of the mean. There was a very large decrease of 20-points (1.68 *SD* units) from the first to the second baseline time points. When compared to the initial assessment, a very large decrease (2.53 *SD* units) was observed at follow-up, while a large decrease (0.83 *SD* unit) was found from the second baseline time point. A similar pattern was seen with fear of negative evaluation (Brief-FNE). From the first to the second baseline time points, a very large decrease of 15-points (1.5 *SD* units) was found. While there was a very small increase (0.1 *SD* unit) when examining the scores between the second baseline point and follow-up, a very large decrease (1.4 *SD* units) was observed from the initial assessment to follow-up. P8 exhibited mild somatization symptoms (PHQ-15) at initial assessment. However, they demonstrated a moderate level of somatization for the latter three time points. All PSS scores were found to be relatively consistent and more than one *SD* above the mean. A small decrease (0.31 *SD* unit) was found from the initial assessment to follow-up. While ruminative responding (RRS) initial assessment score was 1.03 *SD* from the mean, the remaining time points were all over two *SD* from the mean. A very large increase (1.5 *SD* units) was found from the first to the second baseline time points. From the initial assessment to follow-up, a large increase (1.13 *SD* units) was observed, while a small decrease (0.38 *SD* unit) was found from the second baseline time point to follow-up. All general distress (BSI-18) scores were within one *SD* of the mean. A small decrease (0.38 *SD* unit) was found from the initial assessment to follow-up. Notably, there was a large decrease of 7-points (0.89 *SD* unit) from the first to the second baseline time points. Results of the discussed variables can be observed in Figure 26.



Figure 26. P8 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 9 (P9) was a 19-year-old, multiracial, bisexual, cisgender woman. She was a full-time student who was living in a dorm at the start of her participation, but had moved back to her family's home during the intervention phase due to the pandemic. She had an initial stigma consciousness (SCQ) score of 51 (1.1 *SD* above the mean) and a self-compassion (SCS-SF) score of 29, which indicated a moderate level of self-compassion. She was randomly assigned to the six-week baseline.

P9 reported that she had recently begun describing herself as bisexual, noting that she was "still figuring it out." P9 shared that she continued to feel uncertain about her sexual orientation as she had never been in a same-gender relationship and she worried that she may be negatively judged for this fact, stating, "It's harder to claim [bisexuality] when you don't have a history." P9 reported that she occasionally experienced biphobic comments from both her heterosexual and LGBTQ+ friends. She reported that she found the intervention to be beneficial. In particular, P9 noted that it was helpful for her to relate the compassionate manner she treated her loved ones with the considerably more judgmental way that she treated herself.

P9's SCQ scores were found to have significantly decreased during the treatment phase (τ = -0.71, *p* < 0.05) and over the full series (τ = -0.71, *p* < 0.001). There was also a significant contrast found between the baseline and treatment phase (τ = -0.94, *p* < 0.01). SCS-SF scores were also observed to have significantly improved during the treatment phase (τ = 0.82, *p* < 0.01) and over the full series (τ = 0.58, *p* < 0.01). A contrast between the baseline and treatment phase was also found to be significant (τ = 0.75, *p* < 0.05). P9's final SCS-SF score indicated a high level of self-compassion. Figure 27 displays these results.

SCS-SF subscales Self-Kindness ($\tau = 0.71$, p < 0.05), Self-Judgement ($\tau = -0.68$, p < 0.05), Isolation ($\tau = -0.57$, p < 0.05), and Over-Identification ($\tau = -0.68$, p < 0.05) were all found to have significant changes during the treatment phase in the predicted directions. Of note, Self-Kindness exhibited a significant decreasing trend during the baseline phase ($\tau = -0.73$, p < 0.05). Self-Kindness ($\tau = 0.41$, p < 0.05), Common Humanity ($\tau = 0.54$, p < 0.01), Isolation ($\tau = -0.72$, p < 0.001), and Over-Identification ($\tau = -0.54$, p < 0.01) were found to have a significant trend over the full series. Lastly, Common Humanity ($\tau = 0.75$, p < 0.05), Isolation ($\tau = -0.9$, p < 0.01), and Mindfulness ($\tau = 0.83$, p < 0.01) were all observed to have a significant contrast between the baseline and treatment phase.



Figure 27. P9 Change in SCQ & SCS-SF

P9's initial self-esteem (RSE) score was low compared to norms (1.44 *SD* from the mean), while the remaining three points were within one *SD* of the mean. There was a large increase (0.81 *SD* unit) from the initial assessment to post-treatment and a very large decrease

(1.41 *SD* units) from the initial assessment to follow-up. Both the Physical (1.55 *SD* above the mean) and the Environment (1.26 *SD* above the mean) domains of the WHOQOL-BREF had elevated scores at follow-up. For the Physical domain, there was a substantial increase (0.98 *SD* unit) from the first to the second baseline time points. A very large increase (1.96 *SD* units) was observed from the initial assessment to follow-up. Notably, there was also a very large increase (1.23 *SD* units) from post-treatment to follow-up. A moderate increase (0.66 *SD* unit) was found from the initial assessment to follow-up for the Environment domain. P9's Psychological domain scores all fell over one *SD* below the mean, with a moderate degree of change (0.61 *SD* unit) from the initial assessment to post-treatment and follow-up. Finally, the Social domain scores all resided within one *SD* of the mean. A large increase (0.97 *SD* unit) was observed from the initial assessment to follow-up. Finally, the social domain scores all resided within one *SD* of the mean. A large increase (0.49 *SD* unit) from post-treatment to follow-up. Finally associated from the initial assessment to post-treatment. While there was a small decrease (0.49 *SD* unit) from post-treatment to follow-up. Figure 28 shows a visual depiction of this data.



Figure 28. P9 Change in RSE & WHOQOL-BREF Domains

P9's difficulty in emotion regulation (DERS-18) baseline scores were both over one *SD* of the mean. A very large decrease (1.35 *SD* units) was found from the initial assessment to follow-up. P9 exhibited low scores on somatic symptoms (PHQ-15) at each assessment point, indicating minimal somatization. Both PSS and BSI-18 scores were all within one *SD* of the mean. There was a large decrease (0.94 *SD* unit) from the initial assessment to the follow-up for perceived stress (PSS). Notably for PSS, there was a very large decrease (1.88 *SD* units) at post-treatment. For general distress (BSI-18), a large decrease (1.02 *SD* units) was observed from the initial assessment to follow-up. Fear of negative evaluation (Brief-FNE) and ruminative responding (RRS) both exhibited similar patterns in that the baseline points for both variables were over one *SD* over the mean, while scores at post-treatment and follow-up resided within one *SD* of the mean. A very large decrease (1.3 *SD* units) for the Brief-FNE and a large decrease (0.94 *SD* unit) for the RRS were observed when comparing the change from the initial assessment to follow-up. Figure 29 displays these results.



Figure 29. P9 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 10 (P10) was a 35-year-old, white, pansexual, cisgender woman. She was a single mother of two young children, who she resided with. At the time of participation, P10 was a part-time student. Her initial stigma consciousness (SCQ) score was 52 (1.2 *SD* over the mean) and her initial self-compassion (SCS-SF) score was 37, indicating high self-compassion. P10 was randomly assigned to the 5-week baseline.

P10 reported that while she has known she was pansexual for most of her life, she had only recently began connecting with the local LGBTQ+ community. P10 expressed her desire to live more freely as a pansexual woman, noting that she had begun dating at the time of the first session. Throughout the intervention, P10 shared her frustration regarding her perceived lack of acceptance for pansexual/bisexual people. She also reported that while her family did not react negatively when she came out, she believed that they thought her identity was "a phase." At the time of the intervention, P10 had already been practicing meditation for several years. However, she noted finding the mindfulness exercises introduced and practiced during the sessions to be beneficial due to the "newness" of her identity exploration.

Both SCQ ($\tau = -0.73$, p < 0.001) and SCS-SF ($\tau = 0.58$, p < 0.01) demonstrated significant full series. Additionally, a significant contrast between the baseline and treatment phase was also found for both SCQ ($\tau = -1$, p < 0.01) and SCS-SF ($\tau = 0.98$, p < 0.01). Overall, P10 had a large decrease in SCQ scores (1 *SD* unit) from the initial assessment to follow-up. Her final score on the SCQ was 42 (0.2 *SD* from the mean). As for SCS-SF, there was an 8-point increase from the initial assessment to follow-up, with a final score of 45, which indicated that P10 continues to report high self-compassion. Figure 30 shows the visual depiction of the results.

For the SCS-SF subscales, Self-Kindness ($\tau = 0.41$, p < 0.05), Self-Judgement ($\tau = -0.63$, p < 0.01), Common Humanity ($\tau = 0.68$, p < 0.01), and Mindfulness ($\tau = 0.58$, p < 0.01) were found to have a significant full series. Self-Judgement ($\tau = -0.85$, p < 0.05), Common Humanity ($\tau = 0.95$, p < 0.01), and Mindfulness ($\tau = 1$, p < 0.01) were also found to have significant contrasts between the baseline and treatment phase.



Figure 30. P10 Change in SCQ & SCS-SF

P10's self-esteem (RSE) scores were all within one *SD* of the mean, with a moderate decrease of 3-points (0.6 *SD* unit) from the initial assessment to follow-up. Her final score of 20 was indicative of normal self-esteem. The Psychological domain of the WHOQOL-BREF also had scores within one *SD* of the mean. A large increase (0.91 *SD* unit) was found from the initial assessment to follow-up. The baseline time points for the Physical domain were one *SD* above the mean. However, there was a small decrease (0.49 *SD* unit) observed at post-treatment and follow-up (0.81 *SD* from the mean). For the Social domain, there was a small decline (0.49 *SD* unit) from the baseline time points to post-treatment. However, this change was not maintained at follow-up and P10's Social domain score returned to where it had resided at baseline (0.87 *SD* below the mean). There was a large decrease (1.10 *SD* units) from the first to the second baseline time points for the Environment domain. At follow-up (0.95 *SD* below the mean), a moderate

decrease (0.66 *SD* unit) was found when compared to the initial assessment. Figure 31 offers a visual depiction of the discussed variables.



Figure 31. P10 Change in RSE & WHOQOL-BREF Domains

P10's results on the remaining variables were unremarkable when compared to previous normative data. All time points for difficulties in emotion regulation (DERS-18), perceived stress (PSS), ruminative responding (RRS), and general distress (BSI-18) were within one *SD* of the mean. There was a moderate decrease (0.76 *SD* unit) from the initial assessment to follow-up for the DERS-18. From the initial assessment to follow-up, RRS exhibited a very small increase (0.09 *SD* unit), while BSI-18 (0.38 *SD* unit) and PSS (0.31 *SD* unit) were found to have small increases. Of note, PSS had a moderate increase of 5-points (0.78 *SD* unit) from the first to the second baseline time points. P10's fear of negative evaluation (Brief-FNE) initial score was within one *SD* of the mean. A moderate decrease of 5-points (0.5 *SD* unit) was observed at the

second baseline time point and at post-treatment. By follow-up, this degree of reduction had lessened to 0.2 *SD* unit. Lastly, there was an increasing trend in somatic symptoms (PHQ-15). At post-treatment, P10's results indicated a moderate level of somatization had been endorsed. At follow-up, this degree had increased by 5-points, indicating severe somatization. Figure 32 shows the changes for these variables.



Figure 32. P10 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 11 (P11) was a 20-year-old, white, queer, non-binary person. They noted preference for the usage of he/they pronouns. For the purpose of this discussion, gender-neutral pronouns will be utilized. At the time of participation, P11 was a full-time student and lived alone. On stigma consciousness (SCQ), they scored a 51 (1.1 *SD* above the mean). A 35 was obtained on self-compassion (SCS-SF), indicating moderate self-compassion. They were randomly assigned to the six-week baseline. It should be noted that P11 was the only participant

who did not complete the follow-up, and thus, only the baseline and treatment phases were analyzed.

P11 reported that they recently came out as non-binary to their close family and friends. They noted that, while they have mainly received support, they continue to feel unsure of their gender identity, likening it to "growing pains." P11 acknowledged that they have long known that they were queer, but noted difficulty becoming comfortable with the interactions of their gender and sexual identities. At the start of the intervention, P11 reported that they had few coping strategies and would frequently withdraw when they felt overwhelmed. They also noted that they felt isolated in their suffering. Throughout the course of the intervention, P11 often journaled about and discussed living with multiple marginalized identities. In the final session, they noted that the intervention had helped them to become aware and empathetic to their internal experiences and identities.

A significant increase was found for the treatment phase of the SCQ ($\tau = -0.71, p < 0.05$). The contrast between the baseline and treatment phase of the SCS-SF was also found to be significant ($\tau = 0.67, p < 0.05$). When examining SCS-SF subscales, only the contrast between the baseline and treatment phase for Isolation was significant ($\tau = -0.69, p < 0.05$). Figure 33 depicts the results for SCQ & SCS-SF.



Figure 33. P11 Change in SCQ & SCS-SF

All three time points for self-esteem (RSE) were observed to be more than one *SD* below the mean. There was a small decrease (0.4 *SD* unit) from the baseline to post-treatment. The final RSE score indicated a low level of self-esteem. While P11's WHOQOL-BREF Physical domain scores were all within one *SD* of the mean, there was a very large decrease (1.23 *SD* units) from the first to the second baseline. The second baseline score was maintained at post-treatment. P11 showed markedly low scores on the Psychological domain, with all three scores more than two *SD* below the mean. A moderate decrease (0.61 *SD* unit) was observed from the first to the second baseline time points, and a small decrease (0.3 *SD* unit) was found from initial assessment to post-treatment. For the Social domain, a large decrease (0.97 *SD* unit) was found from the first to the second baseline time points. From the second baseline point to posttreatment, there was a very large increase (1.46 *SD* units). Overall, a small increase (0.49 *SD* unit) was seen from the initial assessment to post-treatment. From the initial assessment for the Environment domain, small increases were observed at both the second baseline point (0.44 *SD* unit) and post-treatment (0.22 *SD* unit). Figure 34 displays the results of the discussed variables.



Figure 34. P11 Change in RSE & WHOQOL-BREF Domains

Both the baseline time points for difficulties in emotion regulation (DERS-18) were found to be over one *SD* of the mean. The post-treatment score was 9-points lower than the score recorded at the initial assessment, indicating there was a moderate decrease (0.76 *SD* unit). From the second baseline point to post-treatment, a large decrease (1.18 *SD* unit) was observed. There was a 2-point increase from the baseline somatic symptoms (PHQ-15) score, indicating that P11 endorsed a moderate level of somatization. For fear of negative evaluation (Brief-FNE), a small decrease of 3-points (0.3 *SD* unit) was found from the initial assessment to follow-up. P11 had the same score for perceived stress (PSS) initial assessment and post-treatment. From the initial assessment to the second baseline point, as well as from the second baseline point to posttreatment, there was a moderate change (0.63 *SD* unit). P11 exhibited markedly high ruminative responding (RRS) scores. When comparing scores with the initial assessment, there was a very large 12-point increase (1.2 *SD* units) to the second baseline point and a large 11-point increase (1.1 *SD* unit) to post-treatment. General distress (BSI-18) scores also increased after P11 completed treatment, with a very large change (1.66 *SD* units) from the initial assessment to follow-up. Notably, there was a moderate increase (0.51 *SD* unit) from the first to the second baseline point and a large increase (1.15 *SD* units) from the second baseline point to post-treatment. Figure 35 shows these results.



Figure 35. P11 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

Participant 12 (P12) was a 29-year-old, multiracial, genderqueer person. They noted preference for she/they pronouns. For the purpose of this discussion, gender-neutral pronouns will be utilized. They initially self-identified as Pansexual. However, in the final session, they described their sexual orientation as "Queer pleasure," which they noted was "more authentic and less driven by being palatable to others." It should be noted, their sexual orientation was coded as "Bisexual/Pansexual" as they chose this option for each assessment when asked the question "Which of the following best describes your sexual orientation?" P12 was a full-time graduate student who, at the time of participation, was living with a partner. On their initial stigma consciousness (SCQ) evaluation, they scored a 50 (1 *SD* above the mean), while their self-compassion (SCS-SF) score was a 34, indicating moderate self-compassion. They were randomly assigned to the five-week baseline.

P12 reported that they were in a polyamorous relationship with two partners. While they noted feeling relatively comfortable with themselves, they shared their apprehension at disclosing their identity and partners to others. They noted feeling conflicted about whether they should disclose their identity when they are with their male-identified partner, stating, "Sometimes it's easier to just play at being straight." They noted that this nondisclosure, while convenient, "weighs heavy" on them as it is inconsistent with their values. As a result, P12 is reportedly extremely critical of themselves and how they choose to present themselves in public. Throughout the course of treatment, P12 offered several examples of their values-incongruent actions regarding their sexual orientation. P12 reported finding the mindfulness exercises to be helpful in stepping back from unhelpful, self-critical thoughts.

P12's SCS-SF treatment phase was found to be significant ($\tau = 0.61, p < 0.05$). Additionally, both SCQ ($\tau = -0.47, p < 0.05$) and SCS-SF ($\tau = 0.68, p < 0.01$) were observed to have significant full series. Lastly, SCQ ($\tau = -0.85, p < 0.05$) and SCS-SF ($\tau = 0.98, p < 0.01$) had a significant contrast between the baseline and treatment phase. Figure 36 depicts changes in SCQ and SCS-SF. The final SCQ score at follow-up was 45, which constituted a moderate decrease from the initial assessment (0.5 *SD* unit). There was a remarkable 22-point increase in SCS-SF score at follow-up, indicating high levels of self-compassion.

With regards to the SCS-SF subscales, Self-Kindness ($\tau = 0.61, p < 0.05$), Self-Judgement ($\tau = -0.61, p < 0.05$), and Common Humanity ($\tau = 0.68, p < 0.05$) were all found to have a significant treatment phase. In addition to Self-Kindness ($\tau = 0.65, p < 0.01$), Self-Judgement ($\tau = -0.62, p < 0.0^{\circ}$), and Common Humanity ($\tau = 0.73, p < 0.001$), Isolation ($\tau = -0.6, p < 0.01$) and Over-Identification ($\tau = -0.72, p < 0.001$) were found to have significant full series. A significant contrast between the baseline and treatment phase was also found for Self-Judgement ($\tau = -0.83, p < 0.05$), Common Humanity ($\tau = 0.83, p < 0.05$), Isolation ($\tau = -0.8, p < 0.05$), and Over-Identification ($\tau = -0.93, p < 0.01$).



Figure 36. P12 Change in SCQ & SCS-SF

P12's self-esteem (RSE) scores demonstrated a very large increase of 9-points (1.81 *SD* units) from the initial assessment to follow-up, indicating high self-esteem. The time points for both the WHOQOL-BREF Physical and Psychological domains reside within one *SD* of the mean. The largest score recorded for the Physical domain was at post-treatment. From there, a small decrease (0.25 *SD* unit) was observed at follow-up, with the score returning to baseline levels. A very large (1.21 *SD* units) increase was found from the initial assessment of the Psychological domain to post-treatment. A moderate degree of change (0.6 *SD* unit) was found from the initial assessment to follow-up, as well as from post-treatment to follow-up. For the Social domain, a small decrease (0.49 *SD* unit) was found from the first to the second baseline point. This same degree of change, except in the contrasting direction, was found between the initial assessment and post-treatment, as well as at follow-up. A large change (0.88 *SD* unit) was observed from the initial assessment to the second baseline point, as well as to follow-up. For the Environment domain. Figure 37 offers a visual depiction of these variables.



Figure 37. P12 Change in RSE & WHOQOL-BREF Domains

Fear of negative evaluation (Brief-FNE) and ruminative responding (RRS) scores were all within one *SD* of the mean. There was a large decrease (0.8 *SD* unit) from the initial assessment to follow-up for Brief-FNE, while RRS experienced a moderate decrease (0.56 *SD* unit) at follow-up. P12's somatic symptoms (PHQ-15) scores were all within the moderate range of somatization. There was a 15-point decrease observed with difficulties in emotion regulation (DERS-18) from initial assessment to post-treatment, constituting a very large decrease (1.26 *SD* units). A large decrease (0.84 *SD* unit) was also observed from the initial assessment to followup. Perceived stress (PSS) demonstrated a moderate decrease of 4-points (0.63 *SD* unit) from the initial assessment to follow-up. Finally, there was a very large decrease of 10-points (1.28 *SD* units) observed at follow-up for general distress (BSI-18).



Figure 38. P12 Change in DERS-18, PHQ-15, Brief-FNE, PSS, RRS, & BSI-18

| F | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 | P10 | P11 | P12 |
|---|------------|--------|---------|--------|---------|-------|--------|--------|-------|-------|-------|--------|
| Social Consciousn | ness (SCQ) | | | | | | | | | | | |
| Pre 4 | 47 | 52 | 51 | 52 | 53 | 52 | 53 | 50 | 50 | 49 | 50 | 52 |
| Post 3 | 32 | 44 | 35 | 41 | 37 | 43 | 48 | 48 | 38 | 40 | 44 | 42 |
| Follow-Up 2 | 29 | 44 | 37 | 45 | 41 | 40 | 47 | 48 | 33 | 42 | - | 45 |
| RCI - | -10* | -5.33* | -10.67* | -7.33* | -10.67* | -6* | -3.33* | -1.33 | -8* | -6* | -4* | -6.67* |
| Self-Compassion (SCS-SF) | | | | | | | | | | | | |
| Pre 3 | 39 | 35 | 24 | 27 | 23 | 18 | 14 | 29 | 25 | 38 | 35 | 37 |
| Post 4 | 43 | 45 | 33 | 33 | 41 | 22 | 30 | 50 | 43 | 50 | 39 | 57 |
| Follow-Up 4 | 43 | 50 | 33 | 32 | 41 | 23 | 28 | 41 | 46 | 45 | - | 56 |
| RCI 1 | 1.09 | 2.72* | 2.45* | 1.63 | 4.89* | 1.09 | 4.35* | 5.71* | 4.89* | 3.26* | 1.09 | 5.43* |
| Self-Esteem (RSE) | | | | | | | | | | | | |
| Pre 1 | 18 | 27 | 11 | 14 | 20 | 7 | 6 | 10 | 19 | 19 | 16 | 23 |
| Post 2 | 20 | 29 | 16 | 16 | 26 | 9 | 5 | 23 | 20 | 19 | 14 | 26 |
| Follow-Up 1 | 16 | 27 | 14 | 13 | 24 | 10 | 4 | 21 | 22 | 20 | - | 30 |
| RCI (| 0.72 | 0.72 | 1.81 | 0.72 | 2.17* | 0.72 | -0.36 | 4.71* | 0.36 | 0 | -0.72 | 1.09 |
| Physical Health (WHOOOL RDFF Dhysical) | | | | | | | | | | | | |
| Pre 4 | 50 | 89.29 | 50 | 46.43 | 82 14 | 50 | 46 43 | 42.86 | 75 | 85 71 | 57 14 | 64 29 |
| Post 4 | 53 57 | 89.29 | 46 43 | 57 24 | 75 | 53 57 | 57 14 | 57.14 | 71 43 | 78 57 | 57.14 | 67.86 |
| Follow-Up 4 | 53 57 | 93.85 | 42.86 | 59 58 | 85 71 | 71.43 | 46.43 | 75 | 89.29 | 78.57 | - | 64 29 |
| RCI (| 0.58 | 0 | -0.58 | 1.76 | -1.17 | 0.58 | 1.75 | 2.33* | -0.58 | -1.17 | 0 | 0.58 |
| | | | | | , | 0.00 | 1170 | 2100 | 0100 | | Ū. | 0.00 |
| Psychological Health (WHOQOL-BREF – Psychological) | | | | | | | | | | | | |
| Pre 5 | 54.17 | 87.5 | 45.83 | 29.17 | 75 | 16.67 | 29.17 | 66.67 | 50 | 79.17 | 33.33 | 62.5 |
| Post 7 | /0.83 | 79.17 | 37.5 | 37.5 | 83.33 | 29.17 | 32.83 | 50 | 58.33 | 62.5 | 37.5 | 83.33 |
| Follow-Up 7 | 75 | 83.33 | 41.67 | 29.17 | 76.67 | 37.5 | 37.5 | 54.17 | 58.33 | 62.5 | - | 75 |
| RCI 1 | 1.9 | -0.95 | -0.95 | 0.95 | 0.95 | 1.43 | 0.42 | -1.9 | 0.95 | -1.9 | 0.48 | 2.38* |
| Social Health (WHOQOL-BREF – Social) | | | | | | | | | | | | |
| Pre 6 | 66.67 | 66.67 | 41.67 | 41.67 | 66.67 | 58.33 | 58.33 | 50 | 67.21 | 58.33 | 41.67 | 83.33 |
| Post 8 | 80.2 | 70.45 | 41.67 | 41.67 | 58.33 | 58.33 | 58.33 | 33.33 | 83.33 | 50 | 66.67 | 100 |
| Follow-Up 8 | 83.33 | 66.67 | 50 | 33.33 | 66.67 | 62.42 | 41.67 | 33.33 | 75 | 58.33 | - | 100 |
| RCI 2 | 2.01* | 0.56 | 0 | 0 | -1.24 | 0 | 0 | -2.48* | 2.4* | -1.24 | 3.71* | 2.48* |
| Relationship with the Environment (WHOOOL-BREF – Environment) | | | | | | | | | | | | |
| Pre 8 | 81.25 | 78.13 | 43.75 | 59.38 | 68.75 | 56.25 | 78.13 | 43.75 | 79.75 | 53.13 | 59.38 | 68.75 |
| Post 9 | 90.63 | 71.88 | 56.25 | 62.5 | 87.5 | 59.42 | 87.5 | 31.25 | 84.38 | 56.25 | 56.25 | 81.25 |
| Follow-Up | | | 52.12 | (0.5 | 04 20 | 50.20 | 01.05 | 10 00 | 00.72 | 50.20 | | 02 75 |
| | 90.63 | 78.13 | 53.13 | 62.5 | 84.38 | 39.38 | 81.25 | 40.88 | 90.63 | 39.38 | - | 93.75 |

Table 10 Individual Scores from Pre-Intervention to 3-Month Follow-Up for Hypotheses 1-3 Variables

Note: Pre = Pre-intervention, Post = One week after 3^{rd} session, Follow-Up = 3-month follow-up RCI = reliable change index relating to change between Pre and Post.

* p < 0.05
| | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 | P10 | P11 | P12 |
|--------------------|----------------|--------------|-----------|------------|------------|----------|--------|-------|--------|-------|------------|-----------|
| Difficulties in E | Emotion Regul | ation (DERS- | 18) | | | | | | | | | |
| Pre | 39 | 29 | 55 | 57 | 61 | 62 | 69 | 45 | 54 | 28 | 57 | 42 |
| Post | 39 | 29 | 43 | 50 | 48 | 56 | 41 | 39 | 46 | 29 | 43 | 26 |
| Follow-Up | 36 | 23 | 47 | 56 | 48 | 52 | 52 | 35 | 42 | 28 | - | 31 |
| RCI | 0 | 0 | -2.6* | -1.52 | -2.82* | -1.3 | -6.07* | -1.3 | -1.74 | 0.22 | -3.04* | -3.47* |
| Somatic Sympton | oms (PHQ-15) |) | | | | | | | | | | |
| Pre | 20 | 1 | 15 | 6 | 11 | 8 | 8 | 13 | 3 | 9 | 8 | 12 |
| Post | 17 | 4 | 9 | 8 | 5 | 7 | 6 | 11 | 3 | 13 | 10 | 11 |
| Follow-Up | 15 | 2 | 10 | 6 | 10 | 5 | 6 | 10 | 3 | 18 | - | 14 |
| RCI | -1.59 | 1.59 | -3.17* | 1.06 | -3.17* | -0.53 | -1.06 | -1.06 | 0 | 2.12* | 1.06 | -0.53 |
| Fear of Negativ | e Evaluation (| Brief-FNE) | | | | | | | | | | |
| Pre | 43 | 16 | 53 | 54 | 43 | 47 | 60 | 41 | 50 | 21 | 45 | 32 |
| Post | 42 | 14 | 48 | 50 | 41 | 47 | 56 | 43 | 39 | 21 | 41 | 25 |
| Follow-Up | 38 | 13 | 44 | 47 | 48 | 42 | 50 | 42 | 36 | 24 | - | 27 |
| RCI | -0.19 | -0.38 | -0.95 | -0/76 | -0.38 | 0 | -0.76 | 0.38 | -2.1* | 0 | -0.76 | -1.33 |
| Perceived Stres | s (PSS) | | | | | | | | | | | |
| Pre | 20 | 7 | 29 | 30 | 25 | 19 | 26 | 26 | 23 | 17 | 29 | 25 |
| Post | 15 | 9 | 25 | 26 | 30 | 21 | 25 | 24 | 18 | 13 | 25 | 15 |
| Follow-Up | 17 | 9 | 24 | 30 | 21 | 18 | 30 | 25 | 12 | 14 | - | 18 |
| RCI | -1.91 | 0.76 | -1.53 | -1.53 | 1.91 | 0.76 | -0.38 | -0.76 | -1.91 | -1.53 | -1.53 | -3.82* |
| Ruminative Res | monding (RRS | 5) | | | | | | | | | | |
| Pre | 54 | 40 | 65 | 69 | 56 | 52 | 68 | 69 | 57 | 35 | 66 | 48 |
| Post | 43 | 45 | 69 | 59 | 60 | 53 | 49 | 67 | 50 | 38 | 65 | 40 |
| Follow-Up | 53 | 32 | 69 | 61 | 56 | 35 | 49 | 65 | 45 | 37 | - | 39 |
| RCI | -2.43* | 1.11 | 0.88 | -2.21* | 0.88 | 0.22 | -4.2* | -0.44 | -1.55 | 0.66 | -0.22 | -1.77 |
| Conoral Distras | (DCI 19) | | | | | | | | | | | |
| Dro | 3 (BSI-10) | 1 | 25 | 21 | 12 | 17 | 21 | 0 | 0 | 10 | 20 | 10 |
| Ple | 27 | 1 | 30 | 24 | 12 | 17 | 21 | 0 | 9 | 10 | 20 | 19 |
| r ust Follow Un | 10 | 5 | 30 | 24 27 | 20 | 1 / Q | 10 | 14 | 0 7 | 14 | 27 | 0 |
| POHOW-UP | ∠1 2.24* | ∠ 0.52 | 50 1 2 | ∠/ 1.90 | 20 1.04 | 0 | 10 | 12 | 0.26 | 14 | - 2 24* | 0 286* |
| KUI | -2.34* | 0.52 | -1.3 | -1.82 | -1.04 | U | -2.0** | 1.30 | -0.20 | 1.04 | ∠.34** | -2.80** |

Table 11 Individual Scores from Pre-Intervention to 3-Month Follow-Up for Hypothesis 4 Variables

Note: Pre = Pre-intervention, Post = One week after 3^{rd} session, Follow-Up = 3-month follow-up RCI = reliable change index relating to change between Pre and Post.

* p < 0.05

DISCUSSION

This study examined a nonconcurrent multiple baseline three-session self-compassion intervention for sexual minority persons or those who are questioning and unsure about their sexual orientation. The intervention was primarily designed to assess the efficacy of the intervention in aiding to decrease reported felt sexual stigma and increase in the three components of self-compassion: self-kindness, common humanity, and mindfulness. As a secondary goal, the study also investigated changes across several physical and psychological variables of interest.

While LGBQ health has received growing attention and most research findings have recognized the health disparities within this population, there remains few evidence-based interventions to meet their unique needs. Previous research in LGBQ health has indicated that self-compassion shows a consistent negative association with shame, depression, anxiety and a positive association with psychological flexibility and well-being (Matos et al., 2017; MacBeth & Gumley, 2012; Zessin et al., 2015). Furthermore, intervention studies with self-compassion components have demonstrated reductions in perceived stress and ruminative responding (Bluth et al., 2015; Bluth et al., 2016). However, to date, no previous researcher has examined self-compassion as a primary intervention component for the LGBQ population.

Key Findings

The final sample of participants were randomized and assigned to each of the three baseline time lengths. No difference was observed when comparing the three baselines'

pre-treatment, throughout the treatment phase, and post-treatment. There were considerably more women than men. Notably, 33% of the participants self-identified as gender non-conforming. The study was more homogenous for demographic characteristics of age and race/ethnicity than expected, with the majority of the participants identifying as White/Caucasian (66%) and as an early adult. While descriptive statistics revealed that the majority of the participants were bisexual/pansexual (66.7%), the additional option for the participants to self-describe their sexual orientation revealed an interesting finding. Several of the participants changed their selfdescriptions throughout the weeks (e.g., "lesbian, not sure" \rightarrow "questioning"; "pansexual" \rightarrow "queer pleasure"), demonstrating the fluidity of sexual orientation. Future research should consider incorporating qualitative components that allow for more flexibility in selfidentification.

Participants did not significantly differ on any demographic characteristics or preintervention variables. This is somewhat surprising and deviates from previous research findings that men had slightly higher levels of self-compassion (Yarnell et al. 2015). However, Yarnell and colleagues (2015) also found that ethnicity moderated the magnitude of the gender difference effect size for self-compassion, with a greater gender difference gap for ethnic minority groups. This suggests that a gender difference may have been observed for the current study if the participant pool was more ethnically diverse.

The final sample at group level displayed a SCQ mean score of 51, which is at the set eligibility criteria cutoff of one standard deviation above the mean, as identified by Carvalho and colleagues (2011). This eligibility criteria was set with the purpose of recruiting participants who demonstrated above average felt stigma as the aim in the current study is to enhance one's ability

to modulate emotional responses to perceived stigmatization. The identified cutoff may need to be reevaluated for future research as there was low variance observed in the current study. Alternatively, there may be benefits to utilizing a measure that offers more group specificity, particularly to better capture the bisexual/pansexual experience. In their review of stigma measures, Fox and colleagues (2018) advocated for more consistent usage of promising measures in order to enable future research comparisons.

Treatment adherence for the study was adequate and demonstrated the effectiveness of the email prompts, with all participants completing the weekly assessments at the scheduled date or within 1-2 days of first prompt. However, the completion of session homework entries (i.e., journaling, mindfulness exercises) was variable, which may have had an impact on observed changes during the intervention phase and post-intervention, as mindful practice has been found to increase the effectiveness of emotion regulation strategies (Garland et al., 2015). A correlation found between change in self-compassion and homework completion appears to indicate that the participants who demonstrated greater treatment adherence had the most substantial improvements in self-compassion. Additionally, the association found between homework completion and the SCS-SF Self-Judgement, Common Humanity, and Over-Identification subscales offer insight into the facets of self-compassion that may be most improved with consistent journaling. Future studies should consider ways to incentivize assignment completion during the intervention phase.

This study's utilization of a videoconferencing platform provided several potential benefits. It allowed for greater recruitment reach across the state of Michigan, including to rural communities that may not have easy access to similar interventions otherwise. Secondly, all the participants were current students and videoconferencing may have allowed them the option of a convenient care option with reduced disruption to their daily routine and may have increased treatment attendance and adherence (Comer et al., 2014).

On the group level, preliminary correlational analyses did not reveal any surprising results regarding the direction of the relationships. As expected, stigma consciousness and self-compassion had a moderately negative association, which is supported by previous findings (Neff & Vonk, 2008). Additionally, the strong relationship between self-compassion and self-esteem has consistently been found, indicating that there is a noteworthy overlap with the two constructs. (Leary et al., 2007).

Within subjects ANOVA analyses conducted revealed support for the first two hypotheses and partial support for the third and fourth hypotheses. Consistent with the hypotheses, stigma consciousness displayed a significant 19% decrease from pre-intervention to post-intervention, with 11 participants demonstrating reliable change, as measured by the reliable change index (RCI). Self-compassion showed a significant 45% increase, with 8 participants displaying reliable change. These results were maintained at 3-month follow-up. Due to the majority of the participants displaying reliable change for both stigma consciousness and selfcompassion, these changes are likely clinically significant. While there was a smaller reduction in stigma consciousness from pre-intervention to post-intervention, the decrease was enough for the majority of the participants to fall within the reported mean of stigma consciousness, and for some up to one standard deviation below the mean. Somewhat surprisingly, there was no association between stigma consciousness and any of the quality of life indicators, measured in this study with the WHOQOL-BREF domains, indicating that while stigma consciousness may have demonstrated reductions from pre- to post-intervention, no observable parallel process occurred within the four quality of life domains.

On the individual level, several notable patterns that were obscured on the group level were observed. Every participant in the final sample demonstrated at least a moderate decrease in stigma consciousness from baseline to follow-up, with five participants exhibiting very large reductions. This was quite a significant finding, particularly due to the brief nature of the intervention. The majority of participants also showed either improvements or maintained a moderate-high level of self-compassion. In fact, while four participants began with a low selfcompassion, only P6 remained at a low level at post-treatment and follow-up.

Unlike stigma consciousness and self-compassion, the results of the secondary variables demonstrated more variability. While self-compassion and self-esteem exhibited a high positive correlation at pre-treatment in the current study and have been closely linked in previous research, most participants did not show substantial changes in RSE scores. In fact, only 4 participants displayed moderate or greater improvements in self-esteem. Notably, only P2 and P12 were found to demonstrate a high level of self-esteem at follow-up. However, only 2 participants demonstrated reliable change in self-esteem from pre- to post-intervention, indicating that only these two participants displayed a mean difference great enough to be considered clinically significant. With regard to the quality of life domains, approximately half of the participants demonstrated at least moderate change in both positive and negative directions within their psychological health, social relationships, relationship with the environment throughout the course of the intervention. Three participants reported moderate or greater improvements in their physical health from pre- to post-intervention. However, only one

participant demonstrated reliable change that may be considered clinically significant for each of the domains except for social relationships. Within the social relationships domain, five participants demonstrated reliable change in both directions, with one of these participants showing a clinically significant level of decrease in their satisfaction with their social relationships.

Less than half of the participants demonstrated a moderate or greater level of change in fear of negative evaluation and ruminative responding from pre- to post-intervention. However, the majority of participants displayed at least moderate reductions in difficulties in emotion regulation, perceived stress, and general distress. Of note, several participants experienced a decrease in the degree of change at follow-up. Five participants showed minimal-mild somatization symptoms. Five other participants either had an increase or maintained a moderate level of somatization, while the remaining two participants (i.e., P1 & P10) demonstrated severe somatization symptoms. These results should be interpreted with some caution, however, for two reasons. Firstly, several participants had demonstrated inconsistent baseline time points for the variables of interest. For example, P11 had at least moderate increases in all three areas from the first to the second baseline point, which notably, was a period of time when they reported during the first session feeling overwhelmed by their coursework and finals. Secondly, less than half the participants displayed notable reliable change within the variables of interest for hypothesis 4, indicating a low level of clinically significant change in physical and psychological complaints.

Based on the key findings, there are several areas of consideration. In comparison with an intensive eight-week self-compassion protocol (Neff and Germer, 2013), Smeets and colleagues (2014) hypothesized that their relatively smaller increase in self-compassion may be due to their

brief treatment model. It is possible that the same may be true for the current study, in that a more intensive intervention phase would have further enhanced self-compassion. The comparison of a brief treatment model to a more comprehensive treatment model must also be a consideration for the third and fourth hypotheses, particularly for significant results from pre- to post-treatment that did not maintain at 3-month follow-up, such as was the case with self-esteem.

Regarding self-esteem, it is possible that the construct of self-esteem captured in this study was particularly prone to instability over time. Previous research has indicated that, due to its dependence on evaluations of self-worth, the construct of may encounter instability, particularly during transitional stages or after significant life events (Crocker et al., 2003; Galambos et al., 2006), which may have been the case for the participants in the study as they all reported being current students and were collectively living through a pandemic. Observations of self-esteem trends on the individual level bolsters the argument that self-compassion and self-esteem are separate constructs and that self-compassion may be a more relevant construct to further explore in connection with sexual stigma.

With regard to physical and psychological conditions examined in the study, there was an expected decrease in overall difficulties with emotion regulation, as well as DERS-18 subscales lack of emotional awareness and limited access to emotion regulation strategies, from pre- to post-intervention, which was maintained at follow-up. This finding provides additional support for the utilization of self-compassion as an emotion regulation strategy (Neff et al., 2007). Additionally, there were significant reductions in somatization symptoms, fear of negative evaluation, and ruminative responding observed, suggesting that completion of a brief self-compassion intervention may enhance one's ability to address somatic complaints, ruminative

thinking, and fear of negative evaluation, which is commonly considered a hallmark of social anxiety (Rapee & Heimberg, 1997). These findings are promising for the future of LGBQspecific treatment for health concerns related to sexual stigma. Due to inconsistent findings for the secondary health variables, it is also possible that this intervention may be more functionally appropriate as an adjunctive treatment or as a first level treatment.

There was an observable range in the participants' treatment response. While the majority of participants who completed the intervention displayed clinically significant reductions in stigma consciousness, it is likely that the chronicity of stigma experiences requires further examination in future research. For example, P08 was the only participant who did not demonstrate significant reliable change in stigma consciousness from pre- to post-intervention. However, when compared to participants who displayed marked reductions in stigma consciousness, such as P03, P08 reported more consistent experiences of sexual stigmatization in their graduate program and within their daily life.

Additionally, it is possible that the experience of stigma, particularly chronic stigma, may have interfered with the ability to learn and accept adaptive functioning strategies, such as selfcompassion. With regard to change in self-compassion, the difference in treatment responsiveness between P12 and P06 illustrates this point. P06 did not demonstrate clinically significant change within any of the secondary health areas. Conversely, P12 had clinically significant improvements in their psychological health and social relationships, as well as reductions in difficulties in emotion regulation, perceived stress, and general distress. In addition to these changes at post-intervention, at pre-intervention, P12 demonstrated notably more satisfaction with their psychological health and less difficulties regulating their emotions when compared to P06's pre-intervention scores. In comparison to P12's results, P06's perceived low psychological functioning at pre-intervention, with the additive experience of minority stress, may have hindered their ability to learn adaptive strategies and overall treatment response.

The majority of the participants acknowledged there were significant contextual factors that impacted their experience during the time of their participation. The most frequently cited factor was the ongoing pandemic. Many participants noted that the pandemic had a substantial impact on their lives, including leading to further social withdrawal and financial strain. Due to the nonconcurrent nature of the study, the participants began at different time points, which also introduced the complication of shifting COVID-19 guidelines. Results for some of the constructs, such as the Environment domain of the WHOQOL-BREF, should therefore be interpreted with caution. Items such as "To what extent do you have the opportunity for leisure activities?" may have been substantially impacted by the changes in quarantine guidelines and access to pleasant activities.

Additionally, for several participants, their participation coincided with pivotal moments in their sexual identity development. A clear example of this can be seen with P3. P3 reportedly came out publicly to his family and friends at the end of the baseline phase and noted that while he gained some support, he also lost several important figures in his life. The majority of P3's secondary variables measuring self-esteem, emotion dysregulation, physical health, social health, ruminative responding, and general distress experienced large-very large changes from the first to the second baseline, which was collected after he came out.

Limitations

There were several noteworthy limitations in the current study. The assessment battery and subsequent data analysis was solely based on self-report measures, which may have led to reporting bias due to factors such as social desirability (Krumpal, 2013). Due to the small sample size, any extrapolation of the results to the general LGBQ population should be done with caution. Additionally, the generalizability of the study may have been reduced due to the predominately female and White/Caucasian sample.

While telemental health may have offered some notable benefits, future research to determine the efficacy of this intervention in a virtual setting as compared to in-person will be necessary. Furthermore, as this study did not include a control group, a follow-up randomized controlled study will allow for closer inspection of the significant changes observed post-intervention. Lastly, as previously discussed, this study was conducted during an unprecedented time and, as a result, there may have been significant extraneous variables that impacted the findings.

Future Research

Despite the listed limitations, this study provides an initial examination of a relatively novel treatment that may be crucial in LGBQ care. Future research should further examine the mechanism between felt and internalized stigma. Preliminary research suggests that selfcompassion may slightly buffer the effects of felt stigma on anticipated self-stigma (Heath et al., 2018), thereby potentially disrupting the formation of stigma internalization. Additionally, while self-compassion has been largely conceptualized as an emotion regulation strategy to enhance response modulation, there may be benefit in further exploring how self-compassion may be incorporated in preventative care as an antecedent-focused treatment for stigma.

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Appendix A

Recruitment Flyer

BRIEF SELF-COMPASSION INTERVENTION

Researchers at Western Michigan University are looking for individuals 18+ or older who have experienced negative experiences due to their sexual orientation. The purpose of this study is to evaluate the benefits of a compassion-based intervention for LGBTQ+ individuals or those who are questioning, uncertain, or ambiguous about their sexual orientation. Participation will include a pre-screening session, three intervention sessions, and several assessment components. Sessions may be held remotely using video conferencing.

Participants may experience psychological benefits from the free intervention. You will also receive \$20 for completing this study.

If you are interested in learning more about this study, please contact Du Nguyen. Contact information below.

| (269) 849-9652 (269) 849-9652 mpassion Interventio nguyen@wmich.edu (269) 849-9652 (269) 849-9652 (269) 849-9652 (269) 849-9652 mpassion Interventio nguyen@wmich.edu (269) 849-9652 (269) 849-9652 mpassion Interventio nguyen@wmich.edu (269) 849-9652 | ompassion Interventic .nguyen@wmich.edu | (269) 849-9652 |
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(269) 849-9652

elf-Compassion Interventior

Appendix B

Online Posting

Online Posting

You are invited to participate in a research study titled "Compassion for Self-Identity: An Evaluation of a Compassion-Based Intervention for Stigmatized Sexual Identities." The aim of this study is to provide a brief intervention that emphasizes self-compassion to individuals who have had difficult experiences due to their sexual orientation. Involvement in the study will require a pre-assessment evaluation, three sessions, and online assessments that will span 8-10 weeks. The intervention is offered remotely using video conferencing. All LGBTQ+ individuals or those who are uncertain, ambiguous, or are questioning their sexual orientation are welcome!

Benefits of the study intervention may include reduction of psychological symptoms and increases in well-being and quality of life. Additionally, participants who complete the study will receive a \$20 Amazon e-card.

If you are interested in learning more about participating, please contact the researcher Du Nguyen at du.t.nguyen@wmich.edu or (269) 849-9652. to learn more about the study and to schedule a meeting.

Appendix C

Informed Consent

Informed Consent

Western Michigan University Department of Psychology

Principal Investigator: Student Investigator: Title of Study: Amy E. Naugle, Ph.D. Du T. Nguyen, M.A. Compassion for Self-Identity: An Evaluation of a Compassion-Based Intervention for Stigmatized Sexual Identities

This consent form is part of an informed consent process for a research study and it will provide information that will help you decide whether you want to take part in this study. Participation in this study is completely voluntary. The purpose of the research is to evaluate the utility of addressing sexual stigma with a brief compassion-based intervention and will serve as Du Nguyen's dissertation project for the requirements of the doctoral degree in Psychology. If you take part in the research, you will be asked to complete two brief measures weekly for 4-6 weeks at the start of the study and between sessions, a comprehensive assessment battery pre- and postintervention, as well as at 3-month follow-up, and attend three intervention sessions. Your time in the study will take between 8-10 weeks and you will be asked to devote approximately 8-10 hours of active participation. Possible risk and costs to you for taking part in the study may be the time commitment needed to participate and the potential for discomfort or distress when discussing negative experiences during the sessions. Potential benefits of taking part may be reduction of physical/psychological symptoms and an increase in well-being and resiliency due to the intervention, as well as the monetary compensation of a \$20 Amazon e-card for participation in the study. An alternative to taking part in the research study is to seek evidencebased therapeutic treatment to address sexual stigma, such as Cognitive Behavioral Therapy (CBT).

You are invited to participate in this research project titled "Compassion for Self-Identity: An Evaluation of a Compassion-Based Intervention for Stigmatized Sexual Identities" and the following information in this consent form will provide mor detail about the research study. Please ask any questions if you need more clarification and to assist you in deciding if you wish to participate in the research study. You are not giving up any of your legal rights by agreeing to take part in this research or by signing this consent form. After all of your questions have been answered and the consent document reviewed, if you decide to participate in this study, you will be asked to sign this consent form.

What are we trying to find out in this study?

This study seeks to evaluate the use of a brief compassion-based intervention for individuals who have experienced stigma due to their sexual identity. We are investigating the utility of the intervention in reducing felt stigma and other psychological/physical symptoms and increase well-being and resiliency in individuals who are LGBQ+ and/or questioning/unsure of their sexual identity. The results of this study will contribute to LGBQ+ intervention literature.

Who can participate in this study?

Anyone 18 years of age or older, who can read and understand English, has internet access, identifies as LGBQ+, a sexual minority, or is questioning/unsure of their sexual identity, and meets the eligibility criteria as determined in the pre-screening assessment can participate.

Where will this study take place?

The pre-screening assessment and the three intervention sessions will take place remotely utilizing Webex. You will also be asked to complete questionnaires several times over the course of the study which will be conducted online via a secure survey platform. Homework and resources will be stored via a private Dropbox folder. Completed homework will be submitted to Qualtrics.

What is the time commitment to participate in this study?

The current study includes a compassion-based three session intervention protocol. You will be asked to commit to between 8-10 weeks, as well as a brief post-intervention follow-up assessment that will occur after 3-months. The 8-10 weeks will consist of the initial assessment session, baseline, and the length of the three sessions, which will be administered every other week. The initial session will take approximately 1-1.5 hours to complete. Weekly completion of the online SCQ and the SCS-SF require 5-10 minutes. Completion of the full assessment battery will require 30-45 minutes. The three treatment sessions will last 1-1.5 hours/session. The homework journaling assignments will require 5-10 minutes/entry. In total, you will be asked to devote approximately 8-10 hours of active participation for the current study.

What will you be doing if you choose to participate in this study?

You will be asked to complete two short measures weekly for 4-6 weeks at the start of the study. On the last week, you will be asked to complete a more comprehensive assessment battery. After this period, you will attend three intervention sessions that occur every other week. In the time between sessions, you will be asked to complete homework, as well continuing to complete the two short measures weekly. After the last session, you will be asked to complete the comprehensive assessment battery. After three months, you will be contacted to again complete the same comprehensive assessment battery.

What information will be measured during the study?

Information collected during the study will include some personal demographic characteristics, questions regarding stigma experiences, self-compassion, self-esteem, emotion regulation, evaluation by others, stress, and various health variables. You will also be asked to write journal entries regarding your daily or weekly negative experiences and thoughts. Intervention sessions will be recorded and saved to the Webex cloud system.
What are the risks for participating in this study and how will these risks be minimized?

One potential risk is that you may experience discomfort or distress when discussing negative experiences during the sessions. Discomfort experienced will be addressed by the student investigator during treatment. However, you may choose to stop participation at any time if the discomfort becomes too overwhelming. You will be provided with alternative treatment options at the end of the pre-screening assessment. If you choose to pursue the other treatment options, you will be responsible for service costs.

What are the benefits of participating in this study?

You may experience benefits in the form of reduction of physical/psychological symptoms and increases in well-being and resiliency due to participation in this study. Participation in this study may aid in contributing to the LGBTQ+ intervention literature regarding sexual stigma.

Are there any costs associated with participating in this study?

There are no other known costs associated with participating in this study outside of time commitment.

Is there any compensation for participating in this study?

If you complete all aspects of the study, including the 3-month follow-up assessment, you will receive a \$20 Amazon e-card that will be sent to your preferred email address. Participants will accrue \$3 each for completing homework and the weekly SCQ and SCS-SF between the first and second sessions. An additional \$7 each will be earned through the completion of the full assessment battery post-intervention and at 3-month follow-up. In total, participants can accrue \$20. Participants will not receive any monetary payment if they do not complete the baseline and/or they decline to attend any sessions.

Who will have access to the information collected during the study?

All information collected will be kept confidential. You will have a unique participant ID code that will be linked to all your data. Your personal information will not be included on any materials outside of a contact list that will be stored in a locked file cabinet separate from all other study data. The contact list with your name, participant ID code, and contact information will be shredded and discarded after the completion of the study. All study data will be stored in a HIPAA compliant cloud system for three years.

There are unique circumstances that will require us to report your information to law enforcement, emergency mental health services, or protection agencies These circumstances include if you are a danger to yourself or someone else, or if you report abuse, particularly to vulnerable peoples, such as children or the elderly.

What will happen to my information collected for this research after the study is over?

The information collected about you for this research will not be used by or distributed to investigators for other research.

What are alternative treatment options if not interested in participating in this study?

If you are not interested in participating in this study or if you desire to obtain further treatment after completing the study, a referral list will be provided. Recommended evidence-based treatments to address stigma include Cognitive Behavioral Therapy (CBT) and Acceptance and Commitment Therapy (ACT).

What if you decide to stop participating in this study?

You can choose to stop participation in this study at any time and for any reason without facing any consequences academically or personally from the investigators or the university. The investigator can also decide to stop your participation in the study without your consent due to concern of safety.

Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Amy Naugle at 269-387-8293 or the student investigator, Du Nguyen, at (269) 849-9652 or du.t.nguyen@wmich.edu.You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298.

This consent has been approved by the Western Michigan University Institutional Review Board (WMU IRB) on January 25, 2021. Do not participate in this study if the stated date is older than one year.

I have read and understand this informed consent document. The risks and benefits have been explained to me. I agree to participate in this study.

- I agree to participate in this study
- I do not agree to participate in this study

Appendix D

Pre-Screening Interview

Pre-Screening Interview

- 1. Are you currently or have you recently (within the past two months) received mental and behavioral health services, including psychotherapy/counseling and/or psychiatric medication?
- 2. If you answered yes to Question 1, please answer the below
 - For what reasons are you receiving/have you recently received mental and behavioral health services for?
 - What kinds of treatment are you receiving/did you receive?
 - How long have you been receiving/received treatment?
- 3. Have you ever had the experience that you felt very happy without a break for days on end?
 - o Yes
 - o No
- 4. If you answered yes to Question 3, please answer the following two questions:
 - During this happy period, did you find yourself feeling less tired and needing little sleep?
 - o Yes
 - o No
 - How long ago was your last experience of a happy period?
- 5. Have you ever had the experience of hearing or seeing things that other people could not hear or see?
 - o Yes
 - o No
- 6. If you answered yes to Question 5, please answer the following two questions:
 - Please describe what you saw/heard ______
 - How long ago was your last experience?
 - How often does this occur?
- 7. Are you currently having thoughts that you would be better off dead, or of harming yourself?
 - o Yes
 - o No

Appendix E

Alternative Treatment Options

Alternative Treatment Options

WMU Psychology Clinic Western Michigan University 1000 Oakland Dr. Kalamazoo, MI 49008 (269) 387-8302

Sindecuse Health Center: Counseling Services Western Michigan University 1903 W Michigan Ave. Kalamazoo, MI 49008 (269) 387-1850 Website: https://wmich.edu/healthcenter/counseling

Kalamazoo Community Mental Health 615 E. Crosstown Pkway, Kalamazoo, MI 49001 (269) 373-6000 Website: http://www.kazoocmh.org 24-hour crisis hotline: (888) 373-6200

Gryphon Place 3245 South 8th St. Kalamazoo, MI 49009 24-hour help line: 269-381-4357 Website: <u>http://www.gryphon.org/</u> Appendix F

Demographic Questionnaire

Demographic Questionnaire

Please fill out the following questionnaire to the best of your ability. Your answers to the following questions will be kept private.

1. What is your age? _____

2. How would you describe your race?

3. Based on the current Census form, which of the following best describes your race? Please choose all that apply.

- o White
- Black or African American
- o American Indian or Alaska Native
 - Name of enrolled or principle tribe ______
- o Latinx, Latino, Latina, or Hispanic American
- o East or Southeast Asian or Asian American
- o South Asian or Indian American
- Middle Eastern or Arab American
- Mixed or Multiethnic
- Other _____

4. How would you describe your gender identity? _____

5. Which of the following best describes your gender?

- Cisgender Man
- Cisgender Woman
- Gender Non-Conforming/Transgender

6. If Gender Non-Conforming/Transgender chosen for Question 5, please choose which of the following best describes your identity?

- Transgender Man
- Transgender Woman
- o Non-binary/Genderqueer/Agender

7. How would you describe your sexual orientation?

- 8. Which of the following best describes your sexual orientation?
 - Gay/lesbian
 - o Bisexual/pansexual
 - Questioning/unsure
 - o Heterosexual
 - o Asexual

9. Are you currently a student?

- o Yes
- o No

10. What is your highest level of education?

- Eighth grade or less
- Completed some high school
- Completed high school/obtained GED
- Completed some college
- Completed associate's degree
- Completed bachelor's degree
- Completed graduate degree

Appendix G

Stigma Consciousness Questionnaire

Stigma Consciousness Questionnaire

Please indicate the extent to which you agree or disagree with the following statements using the scale below. To indicate your response please fill in the corresponding bubble.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agre e | Strongly Agree |
|---|----------------------|----------|----------------------|----------------------------------|-------------------|-----------|-------------------|
| 1. Stereotypes about LGBQ+ individuals have not affected me personally | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2. I never worry that my behaviors will be viewed as stereotypical of LGBQ+ individuals | О | Ο | Ο | 0 | Ο | 0 | 0 |
| 3. When interacting with heterosexuals who know of my sexual preference, I feel like they interpret all my behaviors in terms of the fact that I am a LGBQ+ individual | 0 | 0 | 0 | Ο | 0 | 0 | 0 |
| 4. Most heterosexuals do not judge LGBQ+ individuals on the basis of their sexual preference | О | Ο | Ο | 0 | 0 | 0 | 0 |
| 5. My being LGBQ+ does not influence how other LGBQ+ individuals act with me | О | Ο | Ο | 0 | 0 | 0 | 0 |
| 6. I almost never think about the fact that I am LGBQ+ when I interact with heterosexuals | О | Ο | Ο | 0 | Ο | 0 | 0 |
| 7. My being LGBQ+ does not influence how people act with me | 0 | 0 | 0 | Ο | 0 | 0 | 0 |
| 8. Most heterosexuals have a lot more homophobic thoughts than they actually express | О | Ο | Ο | 0 | 0 | 0 | 0 |
| 9. I often think that heterosexuals are unfairly accused of being homophobic | О | О | О | Ο | 0 | 0 | 0 |
| 10. Most heterosexuals have a problem viewing LGBQ+ individuals as equals | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Appendix H

Self-Compassion Scale – Short Form

Self-Compassion Scale – Short Form

Please read each statement carefully before answering. Indicate you often you behave in the stated manner by filing in the corresponding bubble

| | Almost Never | | | | Almost Always |
|---|-----------------|---|---|---|------------------|
| 1. When I fail at something important to me I become consumed by feelings of inadequacy | 0 | 0 | 0 | 0 | 0 |
| 2. I try to be understanding and patient towards those aspects of my personality I don't like | 0 | 0 | 0 | 0 | Ο |
| 3. When something painful happens I try to take a balanced view of the situation | О | 0 | 0 | 0 | Ο |
| 4. When I'm feeling down, I tend to feel like most other people are probably happier than I am | О | 0 | 0 | 0 | Ο |
| 5. I try to see my failings as part of the human condition | 0 | 0 | 0 | 0 | 0 |
| 6. When I'm going through a very hard time, I give myself the caring and tenderness I need | О | 0 | 0 | 0 | Ο |
| 7. When something upsets me I try to keep my emotions in balance | О | 0 | 0 | 0 | Ο |
| 8. When I fail at something that's important to me, I tend to feel alone in my failure | О | 0 | 0 | 0 | 0 |
| 9. When I'm feeling down I tend to obsess and fixate on everything that's wrong | О | 0 | 0 | 0 | 0 |
| 10. When I feel inadequate in some way, I try to remind myself the feelings of inadequacy are shared by most people | О | 0 | 0 | 0 | 0 |
| 11. I'm disapproving and judgmental about my own flaws and inadequacies | 0 | 0 | 0 | 0 | Ο |
| 12. I'm intolerant and impatient towards those aspects of my personality I don't like | 0 | 0 | 0 | 0 | 0 |

Appendix I

Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

| | Strongly Agree | Agree | Disagree | Strongly Disagree |
|--|-------------------|-------|----------|----------------------|
| 1. On the whole, I am satisfied with myself | 0 | 0 | 0 | 0 |
| 2. At times I think I am no good at all | 0 | 0 | 0 | 0 |
| 3. I feel that I have a number of good qualities | 0 | 0 | 0 | 0 |
| 4. I am able to do things as well as most other people | 0 | 0 | 0 | 0 |
| 5. I feel I do not have much to be proud of | 0 | 0 | 0 | 0 |
| 6. I certainly feel useless at times | 0 | 0 | 0 | 0 |
| 7. I feel that I'm a person of worth, at least on an equal plane with others | 0 | 0 | 0 | 0 |
| 8. I wish I could have more respect for myself | 0 | 0 | 0 | 0 |
| 9. All in all, I am inclined to feel that I am a failure | 0 | 0 | 0 | 0 |
| 10. I take a positive attitude toward myself | Ο | 0 | 0 | 0 |
| | 1 | | | |

Appendix J

Difficulties in Emotion Regulation Scale – 18

Difficulties in Emotion Regulation Scale – 18

Please indicate how often the following statements apply to you by filling in the appropriate bubble for each item.

| | Almost Never | Sometimes | About Half the Time | Most of the Time | Almost Always |
|---|-----------------|-----------|------------------------|---------------------|------------------|
| 1. I pay attention to how I feel | 0 | 0 | 0 | 0 | 0 |
| 2. I have no idea how I am feeling | О | 0 | 0 | 0 | 0 |
| 3. I have difficulty making sense out of my feelings | 0 | 0 | Ο | 0 | 0 |
| 4. I am attentive to my feelings | 0 | 0 | 0 | 0 | 0 |
| 5. I am confused about how I feel | О | 0 | 0 | 0 | 0 |
| 6. When I'm upset, I acknowledge my emotions | 0 | 0 | Ο | 0 | 0 |
| 7. When I'm upset, I become embarrassed for feeling that way | 0 | 0 | Ο | 0 | 0 |
| 8. When I'm upset, I have difficulty getting work done | 0 | 0 | Ο | 0 | 0 |
| 9. When I'm upset, I become out of control | О | 0 | 0 | 0 | 0 |
| 10. When I'm upset, I believe that I will remain that way for a long time | 0 | 0 | 0 | 0 | 0 |
| 11. When I'm upset, I believe that I'll end up feeling very depressed | 0 | 0 | Ο | 0 | 0 |
| 12. When I'm upset, I have difficulty focusing on other things | 0 | 0 | Ο | 0 | 0 |
| 13. When I'm upset, I feel ashamed with myself for feeling that way | 0 | 0 | Ο | 0 | 0 |
| 14. When I'm upset, I feel guilty for feeling that way | 0 | 0 | Ο | 0 | 0 |
| 15. When I'm upset, I have difficulty concentrating | 0 | 0 | О | 0 | 0 |
| 16. When I'm upset, I have difficulty controlling my behaviors | 0 | 0 | О | 0 | 0 |
| 17. When I'm upset, I believe that wallowing in it is all I can do | 0 | 0 | 0 | 0 | 0 |
| | | | | | |

| 18. When I'm upset, I lose control over my behaviors | О | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|
| | | | | | |

Appendix K

Patient Health Questionnaire - 15

Patient Health Questionnaire – 15

During the past 2 weeks, how much have you been bothered by any of the following problems?

| | Not bothered at all Bothered a little | | Bothered a lot |
|---|--|---|----------------|
| | | | |
| 1. Stomach pain | 0 | 0 | 0 |
| 2. Back pain | Ο | Ο | 0 |
| 3. Pain in your arms, legs, or joints (knees, hips, etc.) | 0 | 0 | 0 |
| 4. Menstrual cramps or other problems with your periods | 0 | 0 | 0 |
| 5. Headaches | Ο | Ο | 0 |
| 6. Chest pain | Ο | Ο | 0 |
| 7. Dizziness | Ο | Ο | 0 |
| 8. Fainting spells | Ο | О | 0 |
| 9. Feeling your heart pound or race | 0 | 0 | 0 |
| 10. Shortness of breath | Ο | О | 0 |
| 11. Pain or problems during sexual intercourse | Ο | О | 0 |
| 12. Constipation, loose bowels, or diarrhea | Ο | О | 0 |
| 13. Nausea, gas, or indigestion | Ο | О | 0 |
| 14. Feeling tired or having low energy | 0 | 0 | 0 |
| 15. Trouble sleeping | 0 | 0 | 0 |
| | | | |

Appendix L

Brief Fear of Negative Evaluation Scale

Brief Fear of Negative Evaluation Scale

Read each of the following statements carefully and indicate how characteristic it is of you according to the following scale.

| | Not at all characteristic of me | Slightly characteristic of me | Moderately characteristic of me | Very characteristic of me | Extremely characteristic of me |
|--|---------------------------------------|-------------------------------------|---------------------------------------|---------------------------------|--------------------------------------|
| 1. I worry about what other people will think of me even when I know it doesn't make any difference | 0 | 0 | 0 | 0 | 0 |
| 2. I am unconcerned even if I know people are forming an unfavorable impression of me | Ο | 0 | 0 | 0 | 0 |
| 3. I am frequently afraid of other people noticing my shortcomings | Ο | 0 | 0 | 0 | 0 |
| 4. I rarely worry about what kind of impression I am making on someone | 0 | 0 | 0 | Ο | 0 |
| 5. I am afraid others will not approve of me | 0 | 0 | 0 | 0 | 0 |
| 6. I am afraid that people will find fault with me | 0 | 0 | 0 | 0 | О |
| 7. Other people's opinions of me do not bother me | 0 | 0 | 0 | 0 | Ο |
| 8. When I am talking to someone, I worry about what they may be thinking about me | Ο | 0 | 0 | Ο | 0 |
| 9. I am usually worried about what kind of impression I make | 0 | 0 | 0 | 0 | Ο |
| 10. If I know someone is judging me, it has little effect on me | 0 | 0 | 0 | Ο | 0 |
| 11. Sometimes I think I am too concerned with what other people think of me | 0 | 0 | 0 | Ο | 0 |
| 12. I often worry that I will say or do the wrong things | Ο | 0 | Ο | 0 | 0 |

Appendix M

World Health Organization Quality of Life Scale – Brief

World Health Organization Quality of Life Scale – Brief

Please read each question, assess your feelings, and fill in the bubble on the scale for each question that gives the best answer for you.

| | Very poor | Poor | Neither poor nor good | Good | Very good |
|---|----------------------|--------------|----------------------------------|-----------|-------------------|
| 1. How would you rate your quality of life? | 0 | Ο | O | 0 | 0 |
| | Very dissatisfied | Dissatisfied | satisfied nor dissatisfied | Satisfied | Very satisfied |
| 2. How satisfied are you with your health? | 0 | 0 | 0 | 0 | 0 |

The following questions ask about how much you have experienced certain things in the last two weeks.

| | Not at all | A little | Moderately | Very much | Extremely |
|---|------------|----------|------------|--------------|-----------|
| 3. To what extend do you feel that physical pain prevents you from doing what you need to do? | Ο | 0 | 0 | 0 | 0 |
| 4. How much do you need any medical treatment to function in your daily life? | 0 | 0 | 0 | 0 | 0 |
| 5. How much do you enjoy life? | Ο | 0 | Ο | 0 | Ο |
| 6. To what extent do you feel your life to be meaningful? | Ο | 0 | 0 | 0 | 0 |
| 7. How well are you able to concentrate? | 0 | 0 | Ο | 0 | 0 |

| 8. How safe do you feel in your daily life? | Ο | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|
| 9. How healthy is your physical environment? | Ο | 0 | 0 | 0 | 0 |

The following questions ask about how completely you experience or were able to do certain things in the last two weeks.

| | Not at all | A little | Moderately | Mostly | Completely |
|--|------------|----------|------------|--------|------------|
| 10. Do you have enough energy for everyday life? | 0 | 0 | 0 | 0 | 0 |
| 11. Are you able to accept your bodily appearance? | Ο | Ο | 0 | 0 | Ο |
| 12. Have you enough money to meet your needs? | Ο | 0 | 0 | 0 | Ο |
| 13. How available to you is the information that you need in your day-to-day life? | Ο | 0 | 0 | 0 | Ο |
| 14. To what extent do you have the opportunity for leisure activities? | 0 | Ο | 0 | Ο | 0 |

| | Very poor | Poor | Neither | Good | Very good |
|--|-----------|------|---------|------|-----------|
| 15. How well are you able to get around? | 0 | 0 | 0 | 0 | 0 |

The following questions ask you to say how good or satisfied you have felt about various aspects of your life over the last two weeks.

| | Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
|--|----------------------|--------------|---|-----------|-------------------|
| 16. How satisfied are you with your sleep? | 0 | 0 | 0 | 0 | 0 |
| 17. How satisfied are you with your ability to perform your daily living activities? | О | Ο | 0 | Ο | 0 |
| 18. How satisfied are you with your capacity for work? | Ο | 0 | 0 | 0 | 0 |

| 0 | 0 | 0 | Ο | 0 |
|---|----------------------------|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | Ο | 0 | 0 |
| Ο | 0 | Ο | Ο | 0 |
| 0 | 0 | Ο | 0 | 0 |
| 0 | 0 | Ο | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| | 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |

The following questions refers to how often you have felt or experienced certain things in the last two weeks.

| | Never | Seldom | Quite often | Very often | Always |
|--|-------|--------|-------------|---------------|--------|
| 26. How often do you have negative feelings such as blue mood, despair, anxiety, depression? | 0 | 0 | 0 | 0 | 0 |

Appendix N

Perceived Stress Scale

Perceived Stress Scale

For each question choose from the following alternatives for the past two weeks.

| | Never | Almost never | Sometimes | Fairly often | Very often |
|---|-------|-----------------|-----------|-----------------|---------------|
| 1. How often have you been upset because of something that happened unexpectedly? | 0 | 0 | 0 | 0 | 0 |
| 2. How often have you felt that you were unable to control the important things in your life? | Ο | 0 | 0 | 0 | О |
| 3. How often have you felt nervous and stressed? | Ο | Ο | 0 | 0 | 0 |
| 4. How often have you felt confident about your ability to handle your personal problems? | Ο | Ο | 0 | 0 | 0 |
| 5. How often have you felt that things were going your way? | Ο | 0 | Ο | 0 | 0 |
| 6. How often have you found that you could not cope with all the things that you had to do? | Ο | Ο | 0 | 0 | 0 |
| 7. How often have you been able to control irritations in your life? | Ο | Ο | 0 | 0 | 0 |
| 8. How often have you felt that you were on top of things? | Ο | Ο | 0 | 0 | 0 |
| 9. How often have you been angered because of things that happened that were outside of your control? | О | 0 | 0 | Ο | Ο |
| 10. How often have you felt difficulties were piling up so high that you could not overcome them? | Ο | 0 | 0 | 0 | 0 |

Appendix O

Ruminative Responses Scale

Ruminative Responses Scale

People think and do many different things when they feel depressed. Please read each of the items and indicate whether you almost never, sometimes, often, or almost always think or do each one when you feel down, sad, or depressed. Please indicate what you generally do, not what you think you should do.

| | Almost never | Sometimes | Often | Almost always |
|---|-----------------|-----------|-------|------------------|
| 1. Think about how alone you feel | 0 | 0 | 0 | 0 |
| 2. Think "I won't be able to do my job if I don't snap out of this" | Ο | 0 | Ο | 0 |
| 3. Think about your feelings of fatigue and achiness | Ο | 0 | 0 | 0 |
| 4. Think about how hard it is to concentrate | Ο | 0 | 0 | 0 |
| 5. Think "What am I doing to deserve this?" | Ο | 0 | Ο | 0 |
| 6. Think about how passive and unmotivated you feel | Ο | 0 | Ο | 0 |
| 7. Analyze recent events to try to understand why you are depressed | 0 | 0 | 0 | 0 |
| 8. Think about how you don't seem to feel anything anymore | 0 | 0 | 0 | 0 |
| 9. Think "Why can't I get going?" | Ο | 0 | 0 | 0 |
| 10. Think "Why do I always react this way?" | Ο | 0 | 0 | 0 |
| 11. Go away by yourself and think about why you feel this way | Ο | 0 | Ο | 0 |
| 12. Write down what you are thinking about and analyze it | О | 0 | Ο | 0 |
| 13. Think about a recent situation, wishing it had gone better | Ο | 0 | Ο | 0 |
| 14. Think "I won't be able to concentrate if I keep feeling this way" | 0 | 0 | 0 | 0 |
| 15. Think "Why do I have problems other people don't have?" | 0 | 0 | 0 | 0 |
| 16. Think "Why can't I handle things better?" | 0 | 0 | 0 | 0 |

| 17. Think about how sad you feel | Ο | 0 | 0 | 0 |
|---|---|---|---|---|
| 18. Think about all your shortcomings, failings, faults, mistakes | Ο | Ο | 0 | 0 |
| 19. Think about how you don't feel up to doing anything | 0 | 0 | 0 | 0 |
| 20. Analyze your personality to try to understand why you are depressed | Ο | Ο | 0 | 0 |
| 21. Go someplace alone to think about your feelings | Ο | 0 | Ο | 0 |
| 22. Think about how angry you are with yourself | 0 | 0 | 0 | 0 |

Appendix P

Brief Symptom Inventory – 18

Brief Symptom Inventory – 18

Below is a list of problems people sometimes have. Read each one carefully and choose the bubble that best describes how much that problem has distressed or bothered you during the past 7 days including today.

| | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|--|------------|--------------|------------|-------------|-----------|
| 1. Faintness or dizziness | 0 | 0 | 0 | 0 | 0 |
| 2. Feeling no interest in things | 0 | 0 | 0 | 0 | 0 |
| 3. Nervousness or shakiness inside | 0 | 0 | 0 | 0 | Ο |
| 4. Pains in heart or chest | 0 | 0 | 0 | 0 | 0 |
| 5. Feeling lonely | 0 | 0 | 0 | Ο | 0 |
| 6. Feeling tense or keyed up | 0 | 0 | 0 | 0 | 0 |
| 7. Nausea or upset stomach | 0 | 0 | 0 | 0 | 0 |
| 8. Feeling blue | 0 | 0 | 0 | Ο | 0 |
| 9. Suddenly scared for no reason | 0 | 0 | 0 | 0 | Ο |
| 10. Trouble getting your breath | 0 | 0 | 0 | Ο | 0 |
| 11. Feelings of worthlessness | 0 | 0 | 0 | Ο | 0 |
| 12. Spells of terror or panic | 0 | 0 | 0 | 0 | 0 |
| 13. Numbness or tingling in parts of your body | 0 | 0 | 0 | 0 | Ο |
| 14. Feeling hopeless about the future | 0 | 0 | 0 | 0 | 0 |
| 15. Feeling so restless you couldn't sit still | 0 | 0 | 0 | 0 | 0 |
| 16. Feeling weak in parts of your body | 0 | 0 | 0 | 0 | 0 |
| 17. Thoughts of ending your life | 0 | 0 | 0 | 0 | 0 |
| 18. Feeling fearful | 0 | 0 | 0 | 0 | 0 |
| | | | | | |

Appendix Q

Western Michigan University Human Subjects Institutional Review Board Letter of Approval

WESTERN MICHIGAN UNIVERS



Institutional Review Board FWA00007842 IRB00000254

Date: February 14, 2020

Amy Naugle, Principal Investigator To: Du Nguyen, Student Investigator for dissertation

From: Bilinda Straight, Ph.D., Vice-Chair Bilinda Straight

Re: IRB Project Number 20-02-06

This letter will serve as confirmation that your research project titled "Compassion for Self-Identity: An Evaluation of a Compassion-Based Intervention for Stigmaized Sexual Identities" has been approved under the expedited category of review by the Western Michigan University Institutional Review Board (IRB). The conditions and duration of this approval are specified in the policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes to this project (e.g., add an investigator, increase number of subjects beyond the number stated in your application, etc.). Failure to obtain approval for changes will result in a protocol deviation.

In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the IRB for consultation.

The Board wishes you success in the pursuit of your research goals.

A status report is required on or prior to (no more than 30 days) February 13, 2021 and each year thereafter until closing of the study.

When this study closes, submit the required Final Report found at https://wmich.edu/research/forms.

Note: All research data must be kept in a secure location on the WMU campus for at least three (3) years after the study closes.

> Office of the Vice President for Research Western Wichigan University 1903 W. Michigan Ave., Kalamazoo, MI 49008-5456 PHONE, (269) 387-8293 FMI, (269) 387-8276 wEBSITE wmich.edu/research/compliance/hsirb

> > CAMPUS SITE, Room 251 W. Walwood Hall