

**EFFECTS OF EXPRESSIVE WRITING ON
REDUCING ANXIETY ABOUT ATTENDING
INTERGROUP DIALOGUE
ON RACE AND RACISM**

A Thesis Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

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August 2022

ACKNOWLEDGEMENTS

Dr. Gonzalez, Dr. Grzanka and Dr. Miles, I am very thankful for all the knowledge, support and guidance you provided both for my studies and thesis as my instructors, advisors and committee members, and thank you all for especially taking the time to help me for my graduation during this time of the summer. Thank you for supporting me in the eve of my shifting career and country decisions.

Thank you Connie, for making the logistics of all of this process possible and less overwhelming for me when following very tight deadlines, I deeply appreciate your experience and willingness to help!

Güneş, Ginger, Orlando, Dilan, William, Jim and my lovely cat Şımarık, who passed away while I was writing this thesis, thank you all for all the love, care, wisdom, depth and fun you brought into my life in the making of this thesis. And finally, thank you Eray & Altuğ for being my second family in México and making this amazing environment for my thesis defense & all other opportunities that I would have not been able to seek myself, thank you!

ABSTRACT

This experimental study examined the effects of expressive writing (EW) on the level of anxiety that White college students experience for their anticipated participation in a dialogue about race and racism with a racially diverse group of people. Ninety-one undergraduate college students, aged 18 to 25 years, living in the United States and identifying their race as White/European American were randomly assigned to an experimental or control condition for this online study. In both conditions, participants were informed that they would be participating in an online dialogue about race and racism with a racially diverse group of people after they completed an initial task. Specifically, experimental group participants ($N = 46$) engaged in a ten-minute EW task about their hopes and fears for their upcoming participation in the online dialogue about racism. Control group participants ($N = 45$) filled out unrelated assessments (i.e., the Mindful Self-Care Scale, Cook-Cottone & Guyker, 2018; and the Adult Leisure Activities Scale, Jopp & Hertzog, 2010) that took approximately the same amount of time as the EW task. Both groups then filled out anxiety subscale Hospital Anxiety and Depression Scale (HADS, Zigmond & Snaith, 1983) and the Intergroup Anxiety Scale (Stephan & Stephan, 1985). Based on the independent samples *t*-test analyses, it was found that the experimental group participants had significantly lower levels of anxiety on the HADS anxiety scale about participating in the dialogue, whereas there were no statistically significant differences on the Intergroup Anxiety Scale. Theoretical and practical implications of utilizing this no-cost and time-efficient EW intervention are discussed.

Keywords: expressive writing, anxiety, intergroup dialogue, race, racism

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CHAPTER ONE

INTRODUCTION

The current social and political atmosphere in the US makes it urgent and important to study ways to facilitate intergroup communication to address inequities and promote the common good. For example, the COVID-19 pandemic has caused disproportionate harm to people with marginalized identities. Latino and Black Americans and similar underserved populations in the US are suffering from disproportionate risk of death resulting from COVID-19 infection (Alcendor, 2020), resulting from underservice to ethnic and racial individuals and the social, economic, structural and cultural barriers that prevent equal access to health services. At the same time, racist crimes and murders of Black unarmed people at the hands of law enforcement officers in the US have drawn more public attention through Black Lives Matter protests and discussions of racism have become more salient (Barrie, 2020; Davis & Davis, 2020). As intergroup and intercultural contact have consistently been shown to increase multicultural orientation and to reduce prejudice (Hacker & Umpstead, 2020), facilitating contact during these times is an important service to the community. Moreover, successful online applications of intergroup contact interventions make it a valuable source for prejudice reduction, especially during the pandemic (Imperato et al., 2021).

However, there are important barriers that make members of dominant groups unwilling to participate in difficult intergroup dialogues about race and racism. Anxiety, broadly, and intergroup anxiety, specifically, have been shown to be significant reasons why people avoid interacting with outgroup peers/members (O'Donnell et al., 2021; Stathi et al., 2020). Since intergroup anxiety, defined as the distress arising from anticipated experience of intergroup communication (Stephan & Stephan, 1985), has detrimental consequences on

intergroup contact (Servidio, 2020) it is important to try to reduce or eliminate general and intergroup anxiety among potential candidates for intergroup interactions (Çakal et al., 2021). Therefore, this study aims to examine the potential of one of the well-studied interventions to reduce anxiety – Expressive Writing (EW) (Pennebaker, 1993) for reducing anxiety of individuals expecting to participate in an online dialogue about race and racism with a group of racially diverse others. Combined with the increasing necessity to study the process and outcomes of intergroup dialogue (Moss et al., 2017), if successful, EW has the potential to initiate and boost the growth of a new branch of research in the field and to increase the number of individuals willing and able to engage in difficult dialogues about race, racism, and other forms of social inequity.

With the increasing attention on the importance of social change and, particularly, anti-racism efforts (Dreyer et al., 2020; Ladhani & Sitter, 2020; Thelwall & Thelwall, 2021), it is important not to miss the opportunity to contribute to the ongoing discussions and anti-racist activism in society and in academia. Therefore, this experimental study aims to help facilitate social change by increasing participation in conversations of race and ethnicity.

CHAPTER TWO

LITERATURE REVIEW

Social Contact Hypothesis

Studying dynamics between different social groups has long been a topic of interest in psychology. Social psychology emerged as a discipline as a result of heightened interest in intergroup contact work (Tropp & Pettigrew, 2005). In the late 1970s and early 1980s, awareness of differences among social groups across many countries increased, and the accompanying prejudice and discrimination targeting these differences made the study of intergroup contact even more important (Dovidio et al., 2008). As a result, numerous intergroup relations programs have emerged in the field of psychology (Abrams & Hogg, 1998; Tajfel, 1982).

Many of these programs have their roots in the intergroup contact hypothesis, which suggests that contact with outgroup members can promote positive attitudes towards the outgroup if certain conditions exist, such as equal status, maintenance of close contact, the promotion of common goals, and affirmation of the contact by an authority figure (Allport, 1954; Dovidio et al., 2008; Khuri, 2004; Moyer-Gusé, 2019). Among these programs, conflict resolution programs and moral education programs are classified as indirect methods, whereas multicultural education, diversity training and intergroup dialogue are categorized as direct approaches (Dovidio et al., 2008). As it was developed by researchers of social justice researchers in higher education institutions (Zúñiga et al., 2002), and given that intergroup conflict and engagement in social action are common at university campuses (Ross, 2014), IGD offers an important opportunity to increase intergroup contact and promote social justice (Alimo, 2012), which is the primary focus of this study.

Intergroup dialogue (IGD) is a direct method because it encourages open discussion of injustices during a dialogue with the focus on improving intergroup relations, developing a critical awareness of social identities and related inequities, and developing capacities and to address those inequities (e.g., Zúñiga et al., 2002). Furthermore, IGD is distinguishable from group therapy in its focus on intergroup conflict resolution rather than intrapersonal dynamics, and it differs from debate as its goal is not to prove a single truth (Dessel & Rogge, 2008). Therefore, IGDs mainly focus on elaborating on an issue by including perspectives of various social groups and facilitating development of an understanding between them. Moreover, among other direct approaches, IGD is unique in its role of promoting social justice by facilitating discussions of participants' experiences with prejudice and discrimination and creating action plans to contribute to the resolution of these injustices (Dovidio et al., 2008).

Although IGDs are usually implemented in academic environments and are of Western origin (Dovidio et al., 2008) there are local and community-based applications of such programs across the world. The Healing of Life Wounds Programme (King, 2014) that started in Rwanda in 1995, for example, demonstrates an important application of a dialogue-based intergroup program. It focuses on developing recuperative relationships between members of Tutsi and Hutu communities as a post-conflict intervention. However, King (2014) states that such local initiatives are understudied.

Intergroup Dialogue

Intergroup dialogue involves regular (usually weekly) meetings of small groups of participants that identify with different social identity group (usually as oppressed versus oppressor). In an attempt to help create Allport's (1954) condition of equal status within the contact situation, attempts are made to include approximately equal numbers of individuals

who identify with oppressed and oppressing groups. So, for example, an IGD on race and racism would aim to have equal numbers of Black, Indigenous, and other People of Color (BIPOC) and White participants (Gurin-Sands et al., 2012). There are two trained facilitators who also share common identities with groups represented in the IGD, however, given the pedagogy is specifically dialogic (Freire, 1970), participants are the main source of information and ideas. Meetings typically last two to three hours per week for 6 to 15 weeks (or about one half to a full semester; Alimo, 2012). These dialogues are usually highly structured (Khuri, 2004) and facilitators perform the important role of regulating the complex dynamics that manifest during the dialogue. In IGD group meetings, the aim is to establish intergroup and intragroup connections so as to assist members of the different social identity groups in understanding the social identities, socialization, and related social inequalities and to develop both a willingness to acknowledge these inequalities as well as plans to engage in actions that will actually address them (Gurin-Sands et al., 2012).

It is also important to note that not all domains of social injustice can be targeted in a single IGD program, and therefore, it is the group facilitators' and the IGD administrators' role to structure the sessions in a way that participants have a guided learning experience that focuses on specific aspects of social inequalities (e.g., race and racism; Buckley & Quayle, 2016). These focused dialogues create the balance between informal race and racism-related dialogue, for instance, and classroom discussions that are more formal, less connected to personal experience and emotion, and that do not attend to societal power dynamics, all of which differentiate IGD from other intergroup interventions and forms of multicultural and social justice education (Alimo, 2012).

Outcomes of IGD

Important contributions of IGD to social justice have been investigated in several IGD outcome studies (Dessel, 2010; Gurin-Sands et al., 2012; Rodríguez et al., 2018; Ron & Maoz, 2013). Dessel's (2010) pretest-posttest experiment found that heterosexual teachers who participated in dialogue with lesbian, gay, and bisexual (LGB) community members demonstrated significantly improved attitudes, feelings, perspective-taking, and behaviors toward gays and lesbians and their related civil rights, whereas control group participants did not show this positive trend. Similarly, in Alimo's (2012) study, White people who participated in race/ethnicity focused IGDs showed higher levels of action-taking in self-focused, other-directed, and collaborative actions challenging racism compared to the control group. Alimo concluded that IGDs contributed to social change through helping White students gain the self-confidence and skills they need in order to examine their own contribution to racism, to intervene when they witness others engaging in racist acts, and to participate in advocacy groups seeking change.

In another study, students who took IGD courses demonstrated more alliance-building tendencies, and their identities were more politicized, which, in turn, directly improved their willingness to educate people and to engage in collaborations that address social injustice (Gurin-Sands et al., 2012). Therefore, the pedagogy of dialogue can have significant outcomes for society. In an application of conflict management focused IGD in the Middle East, Ron & Maoz (2013) found that, upon participating in the dialogue, Jewish Israeli participants started to comprehend the complexity of the Israeli-Palestinian conflict more in-depth, and they began to better recognize the roadblocks to solving the conflict in a constructive manner. Furthermore, they demonstrated increased perspective-taking for their Palestinian counterparts. In a non-Western application of the Healing of Life Wounds (HLW)

dialogue program which aims to establish communication between and Tutsi and Hutu communities in Rwanda, participants took action to volunteer for the anniversary of the genocide (King, 2014). Participants also stated that they were influencing behavior in their families and communities (e.g., listening carefully to members of another group, caring for the other group's needs, embracing the role of being an active social agent) after the experiences they had with the HLW dialogue. This shows that intergroup dialogues are capable of reaching the broader communities in which the IGDs are conducted.

Other important outcomes of IGD such as increased desire to connect, enhanced understanding of structural reasons behind inequalities and the willingness to take action have shown to be still present even one year after participating in IGD (Rodríguez et al., 2018). In this pre-test post-test experimental design, IGD participants demonstrated higher racial and ethnic identity engagement compared to the control group, and this effect lingered one year after their participation.

A larger scale IGD outcome research of Hopkins and Domingue's (2015) relies on the data of 52 intergroup dialogues collected by the Multi-University Intergroup Dialogue Research Project (Gurin et al., 2013). Based on these data, participants across dialogues not only acquired the skills of perspective-taking and understanding racial oppression, but also learned active listening, voicing, and judgement suspension in intergroup communication. Moreover, students gained greater awareness about the ways their racial identities contribute to systematic oppression in society. In line with these findings, IGD contributed to the knowledge base about the experiences of outgroup members, and it also helped participants practice authentic listening and sharing skills in a mixed group context (Buckley & Quaye, 2016).

Factors Contributing to Participation in IGD

These contributions of IGD to individuals and society may become a source of motivation for people to take part in IGD. This idea is supported by Joslin et al.'s (2016) findings. They showed that students felt motivated to take part in IGD because they wanted to grow as a person and to learn about group differences and the social issues that result from those differences. This assertion is, although indirectly, parallel with Milem and Umbach's (2003) study showing that students who chose more social majors in their academic life are more willing to take part in diversity-related activities. However, not all people join IGD solely with the purpose of learning and accumulating knowledge about social issues, but instead they often desire to learn and see what works, what affects them, and what motivates them and outgroup members in the process of establishing mutual understanding (Khuri, 2004). More saliently, based on participants' statements, one major reason why people feel motivated to take part in IGD is that people lack such opportunities of experiencing in-depth intergroup communication in their daily lives and in their classrooms (Buckley & Quaye, 2016; Joslin et al., 2016).

Factors Hindering Participation in IGD

Although there are many reasons that motivate people to participate in IGD, there also are factors that prevent people from participating in dialogues. White participants, for example, develop fear of being perceived as racist when they talk about race-related topics, and this fear prevents them from joining conversations and sharing their personal thoughts (Sue et al., 2010; Trawalter & Richeson, 2008). Aside from the fear of appearing racist, race-related conversations require White people to accept that they actively benefit from societal structures, and that their status in society is not solely earned but is given to them (Sue & Constantine, 2007). This challenge to the belief in myth of the meritocracy requires a strong

personal confrontation for White people, which makes it less likely for them to attend to IGD. Stephan and Stephan (1985) asserted that other possible reasons why people avoid intergroup conversations is due to expectations of discomfort and frustration. Moreover, they stated that White people may avoid such interactions due to a possible revelation of their incompetency, fear of confusion, and feelings of loss of control, all of which can lower their self-efficacy in taking part in IGD.

Even though these reasons are important factors that lead to avoidance of intergroup interactions, anxiety, broadly, and intergroup anxiety, specifically, stand out as two of the most crucial factors leading to avoidance of intergroup discussions (Schultz et al., 2015; Trawalter & Richeson, 2008). Stephan and Stephan (1985) defined *intergroup anxiety* as a state of anxiety resulting from intergroup communication taking place between groups that are based on social identities such as cultures, ethnicities, and races. According to them, intergroup anxiety becomes present even before the dialogue occurs. It is shown to increase the intensity of heartbeat (Sue et al., 2010) and negatively affect communication.

In a dialogue, members of both groups may experience intergroup anxiety. However, Trawalter and Richeson's (2008) research suggests that White people experience anxiety resulting from interracial conversations more than their Black partners/counterparts (Amodio, 2009). This increased level of intergroup anxiety not only lowers participation in intergroup interactions, but it also hinders the dialogue process through increased use of unclear, ambiguous language (Sue et al., 2010). People who experience intergroup anxiety fail to see differences between members of the outgroup members and instead perceive them as a homogeneous group by attributing their behaviors to traits rather than states (Stephan & Stephan, 1985). As a result, it may cause an increased level of anti-Black stereotyping in White participants. Similarly, according to Attentional Control Theory (Eysenck et al., 2007),

anxiety leads people to be more receptive to threat and to focus less on the tasks given to them. Eysenck and their colleagues further explain the harms of the source reallocation caused by anxiety by stating that anxiety results in worrisome thoughts, impaired task engagement and performance. Since IGD requires focusing on the content of the conversation and the tasks of the dialogue, it is important that participants process their state of anxiety before participating in them.

Increasing Willingness to Participate in IGD

One such way people process their anxiety and increase their willingness to participate in IGD may be to inform them about how intergroup interactions alleviate anxiety in future intergroup interactions. In an experiment conducted with White participants, people who were informed of such long-term benefits intentionally chose to take part in interracial conversations with Black partners more than White partners (Schultz et al., 2015). Therefore, the meta-level information about the anxiety resulting from a possible intergroup contact can be utilized in increasing willingness to interact with outgroup members. However, not all candidates of IGD may be willing to process meta-level information about their anxiety, and moreover, may not be aware of their deeper feelings or be willing to discuss their emotions at all (Khuri, 2004). Moreover, valence of the emotions that IGD participants have may give clues about the smoothness and depth of IGD sessions (Miles et al., 2015). Therefore, it is important to utilize research procedures that promote participants' expression of emotions and private feelings (Khuri, 2004).

Expressive Writing (EW)

Expressive writing (EW) is one such procedure that promotes deep engagement with one's emotions and the processing of feelings in a private context. EW is implemented by having participants freely write about their deeper feelings and thoughts for about fifteen

minutes without interruption or concern for grammar, sentence structure, or spelling (Pennebaker, 1993; Robertson et al., 2021). Participants are usually required to engage in EW for three to five consecutive days (Pennebaker, 1993).

EW was originally used for purposes of state-anxiety reduction for musical performance and exams (Frattaroli et al., 2011; Shen et al., 2018; Tang & Ryan, 2020). In a pretest/post-test experiment conducted with high school students, participants who engaged in EW of their positive emotions (versus writing about their daily lives in the control group) for twenty minutes every day for one month experienced significantly lower levels of anxiety prior to their upcoming exams (Shen et al., 2018). However, it is important to note that participants do not have to write about positive emotions in order to benefit from the anxiety-reducing effects of EW. For instance, in Park et al.'s (2014) controlled experimental study, after expressively writing about their free thoughts and feelings regarding an exam, participants who had high math anxiety had similar math test scores to participants who had low math anxiety. It has also found that, in addition to improved test scores, EW can produce an effect of state-anxiety reduction that is equivalent of the effect of breathing exercises, especially for students who have high trait-anxiety levels (Clinton & Meester, 2019). These findings demonstrate that people who need the most help with their anxiety reduction benefit from EW the most.

Although EW can be promising in helping participants process their feelings with their anticipated participation in IGD (Israel, 2020), it is mainly used for clinical, educational and performance-related purposes in the previous research, and there are not any empirical studies examining EW in the context of IGD in relation to anxiety reduction that we are aware of. There are several explanations that might illuminate the mechanism through which EW reduces anxiety in clinical and educational contexts (Robertson et al., 2021). One

possible mechanism is explained by Exposure Theory, which is drawn from extinction (Bootzin, 1997; Frattaroli, 2006; Kaczurkin & Foa, 2015; Moscovitch et al., 2009). This mechanism relies on the fact that EW gives participants an opportunity to express their deep thoughts and that the stress and anxiety extinguish over time. As such, the more experience one has with expressing their thoughts about racial and cultural issues, the less anxiety they experience in IGD (Sue et al., 2010). Therefore, EW can function as a “pre-practice” for participating in IGD. Established on exposure theory, Foa and Kozak’s (1986) Emotional Processing Theory posits that negatively valenced emotions and emotional memories can be modified through various strategies of exposure (e.g., in vivo, interoceptive, imagined) to the stressful stimuli (Moscovitch et al., 2009). Fuentes et al. (2021) connect Emotional Processing Theory with EW by stating that the act of writing itself makes underlying emotions and feelings more accessible to the participant, and it helps them process and down-regulate negatively valenced emotions.

Parallel to the mechanisms of Emotional Processing Theory, EW cultivates self confidence in individuals to manage stressful situations (Collins et al., 2022). For instance, in Kirk et al.’s (2011) pretest/posttest design intervention study, participants who scored low on emotional self-efficacy demonstrated higher emotional self-efficacy upon completing an EW task (Kirk et al., 2011). One of the EW mechanisms that helps with self-efficacy beliefs is the way it constitutes an important experience for participants to practice expressing and observing their emotions and thoughts at the same time (Frattaroli, 2006). Lepore et al. (2002) defined this practice as a mastery experience for the participants to prove to themselves that they could be resilient to fear and can also overcome negative emotions. In other words, the EW task gives participants an opportunity to regulate their emotions while writing, and to experience that it is possible to control the negative effects of the stressor

(Frattaroli, 2006). Thus, EW is critical in establishing self-efficacy beliefs (Frattaroli, 2006). In support of the emotional regulatory effects of EW, research shows that the increased number of pauses during EW, sympathovagal balance, high heart rate variability (HRV) and the increased low-to-high frequency of heart rate (LF / HF) indicate that EW task plays an important role in emotional regulation (Jacques et al., 2020).

Comparable to the emotional and physiological impacts of EW, Cognitive Processing Theory (Boals & Klein, 2005) explains another possible function of EW by asserting that writing about difficult experiences helps people think about such experiences in a thorough fashion. This process involves accessing deeper thoughts that are normally not subjected to higher order processing and processing these thoughts and memories. This opportunity to process distressing thoughts helps participants free their minds and have an increased capacity to engage with their surrounding social environment (Frattaroli et al., 2011).

Such activities that involve writing and reflecting serve not only for preparatory anxiety alleviation purposes before stressful experiences such as exams and experiencing illness, but also for consolidation of learning experiences (DiMenichi et al., 2019). Given that EW may also help with emotional-processing (Israel, 2020) and that it helps with the internalization of IGD content and the experiences of intergroup contact after IGD (Gurin-Sands et al., 2012), it might be a useful pre and post- session intervention in IGD. However, the pre-IGD effects of EW on reducing anxiety have not yet been empirically examined in the context of IGD.

Considering that the successful, no-cost and easy-to-administer use of EW that has not been utilized much in IGD research, this study constitutes an important step toward investigating and attempting to change the negative affect, specifically state anxiety and intergroup anxiety. Since state anxiety and intergroup anxiety are both types of anxiety that

hinder positive interpersonal dynamics especially for White participants of the IGD, and are used interchangeably in the literature of IGD, our study focused on both state anxiety and intergroup anxiety as targeted emotions to alleviate among White college students living in the US (Amodio, 2009; Schultz et al., 2015; Stephan & Stephan, 1985; Trawalter & Richeson, 2008). Specifically, using an experimental design, we randomly assigned participants to an EW or control condition to examine whether engaging in EW about an expected intergroup conversation about race and racism would reduce the anxiety of those who completed this task relative to those who do not. Based on the previous research on the use of EW to reduce anxiety in other contexts, we hypothesize:

Hypothesis 1: Participants who engage in an EW task (i.e., those in the experimental group) will have significantly lower scores in the state anxiety indicator (i.e., Hospital Anxiety and Depression Scale) in comparison to the participants who fill out unrelated assessment scales for a similar amount of time (i.e., those in the control group).

Hypothesis 2: Participants in the EW condition will have significantly lower scores in the intergroup anxiety indicator (i.e., Intergroup Anxiety Scale) in comparison to the participants who in the control group who fill out unrelated assessment scales for a similar amount of time as the EW task.

CHAPTER THREE

METHODS

Participants

Based on the calculations of G*POWER (Faul et al., 2007) for an independent samples *t*-test analysis for two comparison groups with the targeted effect size of .50 (Fratraroli, 2006) approximately 90 participants were aimed to be recruited. The recruitment took place through the Department of Psychology participant pool, SONA, at a large, public university in the Southeast US, and through online social media announcements shared on platforms such as Facebook, Reddit and Instagram. Our initial sample prior to data-cleaning consisted of 1320 participants. We used a screening questionnaire to exclude participants who identified themselves as younger than 18 or older than 25 years old of age, who identified as a BIPOC person, who identified themselves as non-citizens or non-residents of the US. We removed 188 participants' data who identified as being non-White. Data from 218 participants who left one or more scales fully blank or who did not answer at least 90% of a scale were not included in the analysis. 239 participants data were screened out in the initial screening process due to not being located in the US. Since we offered a chance to enter the raffle, our study was spammed by 582 bots and persons who attempted to retake the survey from locations outside of the US. Qualtrics informed us about the bot-responses, and we were able to confirm these responses due to their location being identified as outside of the US, and their copied and pasted answers to the questions across their entries. We removed the data of these bots. Only two participants understood the true goal of the study as they indicated in the final question asking them their thoughts about the rationale of the study. These participants' data were also removed from the analysis. At this stage of data cleaning, we had a total of 92 participants, 46 per condition. For the outlier analysis, we set three

standard deviations above or below the mean as the cut off point for the outlier elimination criterion. We removed one participant's data from analysis due to its outlier status. Based on the missing data analysis, we did not detect any missing participant data in our final sample. Our final sample size consisted of $N = 91$ people, of which 46 were in the experimental group and 45 were in the control group.

The mean age of our final sample was $M = 20.60$, $SD = 1.90$. In terms of gender, our participants identified as non-binary ($n = 2$), women ($n = 41$), trans men ($n = 3$), men ($n = 41$) and solely as trans ($n = 2$). One person identified as both a man and a woman. In terms of sexual orientation, our sample consisted of bisexual ($n = 11$), queer ($n = 5$), heterosexual ($n = 73$), lesbian ($n = 2$) and gay ($n = 2$) people. One of the bisexual participants and one of the gay participants identified themselves also as queer. In terms of religion, 8 people identified themselves as Atheists, 13 people as non-religious, 2 people as Jewish, 1 person as Hindu, 1 person as Satanic Temple member, 3 people as Non-Religious Spiritual, 12 people as Agnostic, 5 people as Christian Catholic, 6 people as Christian Baptist, 28 people as Christian, 2 people as Christian Protestant, 3 people as Christian Denominational, 4 people as Christian Methodist, 1 person as Christian Presbyterian, 1 person as Christian Episcopalian and 1 person as Evangelical Christian.

Participants reaching the study through SONA received one-hour of credit for their university class research requirements. Participants who reached to the study through social media resources were offered to enter the raffle to win one of four \$50 MasterCard gift cards that can be used in the stores in the US.

Procedure

The ethics permission for the study was granted by the University of Tennessee, Knoxville IRB for working with human subjects with the IRB number of UTK IRB-22-

06840-XM. The study took place fully online via Qualtrics. Participants were first given a prompt explaining to them that they were going to participate in a live, fifteen-minute, online conversation about race and racism with other participants of diverse racial backgrounds. They were informed that the conversation would be mainly focusing on what race and racism are and how racism affects people's lives. The description also included the information that about half of the participants in this dialogue would be People of Color and the other half would be White people. Participants were also informed that there would be two facilitators, one of whom identified as a Person of Color and one who identified as White, who would provide prompts to guide the conversation. Right after informing the participants about that they were going to participate in a conversation about race and racism, they were asked to complete the intervention (EW for those in the experimental condition) or the non-interventional tasks (completing unrelated surveys for those in the control condition).

Participants were randomly and evenly assigned to experimental and control conditions by the Qualtrics software. A post-test, independent samples *t*-test randomized design was used for the study. The experimental condition participants were asked to write for five minutes about their "hopes" and then five minutes about their "fears" about their upcoming participation in the dialogue. They were instructed not to pause for extended periods of time (>15 seconds) while writing. A visible Qualtrics timer was utilized to count the minutes for the participants. Participants were directed to the next page as soon as the ten minute timer was up to make sure that nobody wrote more than ten minutes. Participants were asked to be in a silent and non-distracted environment where they could privately express their ideas. Although it is impossible to control participants' environmental conditions in an online intervention study, the effects of privacy are already shown to be unimportant (Frattaroli, 2006) and, therefore, was not expected to impact the results of our

study either way. The control group participants filled out non-interventional scales for approximately the same amount of time as the experimental group engaged in the EW task. These scales were the Mindful Self-Care Scale (Cook-Cottone & Guyker, 2018) and the Adult Leisure Activities Scale (Jopp & Hertzog, 2010). The rationale behind the choice of these scales is that they are commonly not utilized as intervention scales in the literature, and that they constitute a common theme of self-care and routines together. This was important for the control group so that our participants would not suspect the true aim of the study. We calculated the average time the tasks took for each experimental condition (i.e., EW task versus the assessment scales) relying on the timers we set up in Qualtrics. The EW task took on average 7 minutes and 45 seconds for the experimental condition participants, whereas the assessment scales took an average time of 8 minutes and 53 seconds.

After the task of EW or the non-interventional control group surveys were complete, both groups of participants were given a refresher to remember the context of the IGD (See Appendix C). This refresher served to eliminate possible extraneous variables such as memory and momentary distraction from the anxiety about IGD. Soon after the refreshers, all participants were asked to fill out the Intergroup Anxiety (Stephan & Stephan, 1985) and the HADS (Zigmond & Snaith, 1983) - the two dependent variables of the study. Participants were given the demographic form at the very end of the survey to prevent premature terminations.

The debriefing form carefully described the nature of the study and the rationale behind the use of deception, EW task and control group assessment scales. Control group participants were given extra information about the necessity of utilizing a control group to compare the effects of EW to non-intervention.

We utilized IBM SPSS Statistics (Version 28) (IBM Corp., 2020) to analyze the data. We ran independent samples *t*-test to compare 2 groups based on the differences between their scores for posttest anxiety levels.

Measures

Hospital Anxiety and Depression Scale (HADS)

This measure was originally developed to assess both anxiety and depression in the last week of the participant's life. It consists of two subscales, one for anxiety and one for depression measurement and uses 7-point Likert for answers (1 = "*Not at all*" to 7 = "*Extremely*").

Parallel with our goal of measuring state anxiety of the participants post intervention/non-intervention we used only the anxiety subsection of the scale which consists of 7 items (e.g., "*Worrying thoughts are going through my mind as I think of attending the Intergroup Dialogue*"). We converted the wording and the tense of the instructions to current moment to make it more time specific: "*Please remember that soon you are going to participate in an online structured conversation with people who do not identify with the same race as yours. Please answer the following statements based on how you are feeling about attending the conversation about race and racism soon.*" The instructions were the same as Intergroup Anxiety Scale (See Appendix A). The scale yielded a Cronbach α of .92.

Intergroup Anxiety Scale

The scale was developed by Stephan and Stephan in 1985. It consists of 10 items (e.g., "awkward," "self-conscious," "happy," and "confident") and uses 7-point Likert for answers (1 = "*Not at all*" to 7 = "*Extremely*"). Higher scores for this scale indicate higher levels of intergroup anxiety. Participants are originally given this instruction: "If you were the only member of your ethnic group and you were interacting with people from a different racial or ethnic group, how would you feel compared to occasions when you are interacting

with people from your own ethnic group?”. However, in this study, we asked our participants to report how they were feeling in the moment about their participation to the conversation about race and racism that would take place soon (See Appendix A).

Reliability analysis of previous studies show that the scale has a Cronbach α of .86. However, we found a .73 value of Cronbach α . Implications and possible causes are discussed in the results and discussion sections.

Control Group Non-Interventional Assessment Scales

Two scales that are irrelevant to the true aim of the experiment were given to the participants (See Appendix B). These were the Mindful Self-Care Scale (MSCS) (Cook-Cottone & Guyker, 2018) that consists of 36 items, and the Adult Leisure Activities Scale (ALAS) (Jopp & Hertzog, 2010) that consist of 58 items. Both scales share the theme of leisure activities and self-care activities. MSCS uses a 5-point Likert for answers (1 = “never” to 5 = “regularly”). Some of the items are: “*I exercised at least 30 to 60 minutes*”, “*I listened to relax (e.g., to music, a podcast, radio show, rainforest sounds)*”. ALAS is a 9-point Likert type scale with the response scale of 0 (*never*), 1 (*less than once a year*), 2 (*about once a year*), 3 (*2 or 3 times a year*), 4 (*about once a month*), 5 (*2 or 3 times a month*), 6 (*about once a week*), 7 (*2 or 3 times a week*), and 8 (*daily*). Example items include: “*Attend organized social event*”, “*Study foreign language*”. Mindful Self-Care Scale yielded a Cronbach α of .89 and Adult Leisure Activities Scale yielded a Cronbach α of .93.

Demographic Information Form

The age, gender, race and ethnicity, sexual orientation identity, political ideology (left versus right wing inclination), level of self-identified conservativeness versus non-conservativeness, self-identified socioeconomic status (SES) of the participant and their family’s SES were asked in the Demographics Form. Parental SES and self-SES items range

from 0 (Lower Class) to 10 (Upper Class). Conservativeness item ranges from 0 (not Conservative at all) to 11 (Extremely Conservative). Political identification item ranges from 0 (Most Left Wing) to 11 (Most Right Wing).

CHAPTER FOUR

RESULTS

Demographics

Mean age of participants in the experimental and control groups were 20.30 years ($SD = .27$) and 20.91 years ($SD = .29$), respectively. Results of the independent samples t -test indicated no significant difference in regards to the demographic characteristics between the participants in experimental and control groups, as represented in Table 1. There were no missing values detected in any of the scales. Therefore, we did not conduct any estimated missing value calculations for our analysis.

In order to determine possible outlier data points, we utilized a z -test analysis. The results of the test indicated that one participant had a z score of 3.05 on the HADS. Since we determined three standard deviations as the cut off value for our outlier analysis, we excluded this person's data from all further analysis, including Table 1.

Intergroup Anxiety Scale Reliability and Exploratory Factor Analysis

The Intergroup Anxiety Scale ($M = 3.37$, $SD = .84$, range = 3.90, $SE = .08$) had an acceptable Cronbach's alpha value ($\alpha = .73$). Three items of the scale had lower inter-item total correlation values (i.e., feeling "happy," "accepted," and "careful" about the anticipated dialogue). These items had, respectively, .17, .24, and .12 inter-item correlations which are considered low (Field, 2013). Removing these three items did not change the significance of any of the further results of the study including any of the independent samples t -test results in relation to our main two hypotheses ($t(89) = .80$, $p = .42$) or the effect of the gender x experimental condition interaction ($F(2, 85) = .70$, $p = .50$, partial $\eta^2 = .16$, observed power = .16), both of which were non-significant. Therefore, we decided to include the items in the scale for our analysis.

Table 1. Sample Descriptives and *t*-test for Equality of Means

	Experimental		Control		<i>t</i> -test
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Parental SES	7.13	1.81	6.80	2.02	<i>ns</i>
SES	5.41	2.03	5.93	1.98	<i>ns</i>
Conservativeness	4.87	2.81	5.11	2.81	<i>ns</i>
Political Beliefs	5.37	2.58	5.38	2.64	<i>ns</i>
Age	20.30	1.82	20.91	1.95	<i>ns</i>

Note. *M* = Mean. *SD* = Standard Deviation. SES = Socioeconomic Status. *ns* = Not significant.

An exploratory factor analysis (EFA) of the scale yielded a Kaiser-Meyer-Olkin Measure of Sampling Adequacy of .67, which indicates that our sample size is acceptable for factor analysis as it is above .50 (Field, 2013; Shrestha, 2021). The EFA revealed three components of the Intergroup Anxiety Scale. These three factors cumulatively explained 66.66% of the total variance (i.e., 31.25%, 22%, 13.40%) with eigenvalues of 3.13, 2.20, and 1.34, respectively. The component correlation matrix indicated that the three components were correlated with each other with the coefficient values of .04, .15, and .25, which indicates that the matrix is orthogonal (Corner, 2009). Therefore, we could not perform an oblique rotation analysis due to weak correlations and, instead, we performed a varimax rotation with Kaiser normalization by listwise deletion (Abdi, 2003; Corner, 2009). The rotational analysis supported the three-component structure of the scale. Items that loaded less than .60 on their own primary factor and less than .30 on the other factors were excluded from the scale by relying on the .60/.30 ratio rule (Matsunaga, 2010). One component consisted of items numbered 6, 7, 8, and 9, another component included items numbered 3, 4, and 5, and the last component consists of items numbered 2 and 10.

Similar to our findings, one of the original creator researchers of the scale indicated that the intergroup anxiety consists of three components: an emotional component, a cognitive component, and a physical component (Stephan, 2014). However, these three factors do not fully overlap with our extracted factors. Similarly, the creators of the original IGAS were able to extract only one factor from the same scale in another research (Stephan et al., 1999). Therefore, our factor analysis results are not in line with the findings of the previous researchers for the IGAS, of which the possible reasons are discussed in the discussion section of the article.

In order to assess these three components, we conducted a reliability analysis for each factor. The first factor (i.e., items 6, 7, 8 and 9) yielded a Cronbach alpha value of .83. Second factor yielded a Cronbach's alpha of .71. Similarly, the third factor yielded a Cronbach's alpha value of .64, which indicates unacceptable and the lowest end of the acceptable levels of reliability for these components, respectively (Tavakol & Dennick, 2011). Additionally, none of the items would increase the Cronbach's alpha over more than a small value of .02 if deleted.

Reliability and Exploratory Factor Analysis of HADS

An EFA of the Hospital Anxiety Scale yielded a Kaiser-Meyer-Olkin Measure of Sampling Adequacy of .90, which indicates that our sample size is conducive to factor analysis (Shrestha, 2021). The results of the EFA indicated that this 7-item scale consisted of single component, which is what was intended by the creators of the scale (Zigmond & Snaith, 1983). Further analysis was attempted by using Promax for an oblique rotation test. However, single component nature of the scale does not allow for rotational analysis (Corner, 2009). The single factor explained 68.69% of the variance with an eigenvalue of 4.81. Only one item, (item 7, "I can sit at ease and feel relaxed") from the Anxiety subscale loaded relatively less strongly on the Anxiety Scale of HADS with an extraction value of .35. In terms of the reliability analysis of HADS, the corrected inter-item total correlation value of the item 7 was .50, and its removal would result in a Cronbach's alpha of .93 compared to .92, which is a relatively small gain (Matsunaga, 2010). Similar results with the item 7 have been reported in the literature (Barth & Martin, 2005; Moorey et al., 1991; Smith et al., 2002). The same researchers noted that item 7 tends to load onto the depression subscale of HADS, as well, which we did not administer in our study. As these results are appropriately in line with the previous and ongoing use of the scale, we did not exclude Item 7 from our

analysis. However, for additional information, the results of the independent samples *t*-test did not significantly differ when we excluded the item 7 from our analysis for the mean differences between experimental and control conditions. When item 7 was removed, the results reported below did not change, therefore we report the results of the analysis retaining item 7 below. In summary, our results confirm a one-factor structure of the anxiety subscale of HADS.

In terms of descriptive scale statistics, the mean scores on the HADS were 2.74 for ($SD = 1.31$, range = 5.43, $SE = .14$) with a skewness of .54 ($SE = .25$) and a kurtosis of -.41 ($SE = .50$), indicating that the distribution is fairly symmetrical and was relatively right skewed with a univariate distribution (George & Mallery, 2016). Intergroup Anxiety Scale demonstrated a mean score of 3.37 for ($SD = .84$, range = 3.90, $SE = .09$) with a skewness of .21 ($SE = .25$) and a kurtosis of -.32 ($SE = .50$), indicating a fairly symmetrical and slightly right skewed univariate distribution.

To provide additional information, we ran a two-tailed Pearson correlation analysis to explore a possible linear relationship between HADS and IGAS. As a result, a significant, positive medium correlation was observed between the two dependent variables correlation between the two variables, $r(89) = .65$, $p < .001$, 95% CI [.51, .76].

Independent Samples *t*-tests

The results of the Levene's test indicated that the variances of the experimental and control groups were approximately equal both for the HADS ($F(89) = .01$, $p = .92$) and the IGAS ($F(89) = .20$, $p = .80$). Therefore, we were able to continue with our analysis with the standard *t*-test for both dependent variables.

Hospital Anxiety Scale

The results of the independent samples *t*-test for the anxiety scale of the HADS were significant. The mean score of the experimental group on the HADS anxiety scale, 2.39, (*SD* = 1.28, *n* = 46) was significantly lower than the HADS anxiety scale scores of the control group participants (*M* = 3.09, *SD* = 1.26, *n* = 45) ($t(89) = 2.65, p = .01, d = .70$). The 95% confidence interval for the difference between the means was .17 and 1.23. (Hijmans & van Etten, 2016). These results support our first hypothesis that the HADS anxiety scale mean would be significantly lower for the experimental group participants (see Figure 1.1).

The effect size observed for our intervention was Cohen's $d = .55$, which is a medium effect size, as we predicted (See Figure 1.2; Hijmans & van Etten, 2016). The post-hoc achieved power for a 2-tailed independent samples *t*-test computation of G*Power indicated that the achieved power was .83 (Mayr et al., 2007).

Intergroup Anxiety Scale

The results of the independent samples *t*-test for the Intergroup Anxiety Scale were not significant. The mean scores of Intergroup Anxiety scales between the experimental group (*M* = 3.30, *SD* = .82, *n* = 46) and control group participants (*M* = 3.44, *SD* = .87, *n* = 45) were not significantly different from each other ($t(89) = .79, p = .43, d = .14$). The 95% confidence interval for the difference between the means was -.21 and .49. In order to assess for the possible covariate role of the demographic identifications of the participants we utilized ANCOVA analysis. The results demonstrated that there were not any significant demographic covariates that affected our independent samples *t*-test results when comparing the HADS anxiety and IGAS scores of experimental and control groups.

For our first hypothesis, we tested the role of the following covariates on the results of our dependent variable measured by HADS anxiety: age ($F(1, 88) = 4.99, p = .03, \text{partial } \eta^2$

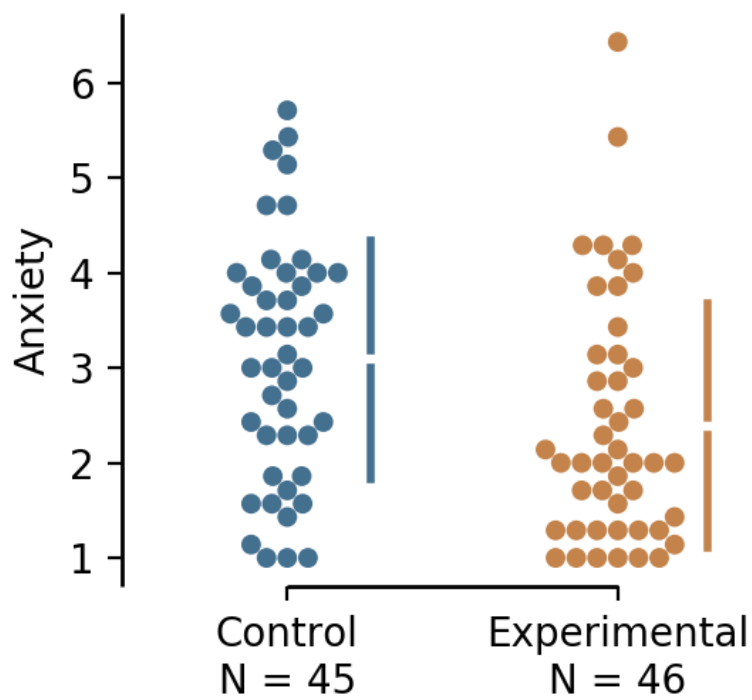


Figure 1.1 Individual Levels of HADS Anxiety by Condition

Note. The plot indicates the level of anxiety for each participant as measured by HADS

Anxiety. The figure reflects the results of the independent samples *t*-test. Each dot represents a single participant. Error bars represent 95% Confidence Intervals.

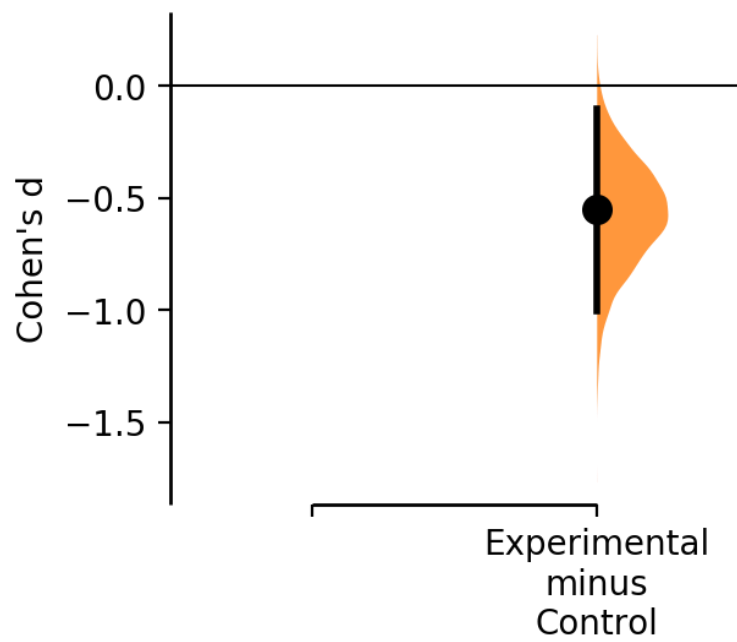


Figure 1.2 Effect Size

Note. The graph indicates the effect size of the analysis of independent samples *t*-test for the HADS Anxiety scale.

= .005, observed power = .60), conservativeness ($F(1, 88) = 6.71, p = .01$, partial $\eta^2 = .07$, observed power = .73), right-wing and left-wing political ideology ($F(1, 88) = 6.92, p = .01$, partial $\eta^2 = .07$, observed power = .74), self-identified socioeconomic status of the participant ($F(1, 88) = 5.57, p = .02$, partial $\eta^2 = .06$, observed power = .65), participant's self-identified parental socioeconomic status ($F(1, 88) = 7.97, p = .006$, partial $\eta^2 = .08$, observed power = .80).

For our second hypothesis we controlled for the following covariates in terms of their effects on our Intergroup Anxiety dependent variable measured by IGAS: Age ($F(1, 88) = .20, p = .66$, partial $\eta^2 = .002$, observed power = .07), conservativeness ($F(1, 88) = .46, p = .50$, partial $\eta^2 = .005$, observed power = .10), right-wing or left-wing political ideology ($F(1, 88) = .65, p = .42$, partial $\eta^2 = .007$, observed power = .13), self-identified socioeconomic status of the participant ($F(1, 88) = .40, p = .53$, partial $\eta^2 = .005$, observed power = .10), participant's self-identified parental socioeconomic status ($F(1, 88) = .67, p = .42$, partial $\eta^2 = .008$, observed power = .13).

Gender and Group Interaction Effect

As the results of our independent samples *t*-test revealed significance in terms of mean differences between experimental and control groups in anxiety, as measured by the HADS anxiety, for the initial exploratory multivariate ANOVA analysis utilizing general linear model, we aimed to determine the effect of gender on HADS anxiety as a dependent variable. To explore different combinations of gender comparisons, initially we coded gender in two categories: cisgender women and trans and/or non-binary participants ($n = 50$) versus cisgender men ($n = 41$). Confirming our independent samples *t*-test results reported earlier, the main effect of the experimental condition on HADS anxiety scores (experimental versus control conditions) was found to be significant: The experimental group participants

($M_{\text{Experimental}} = 2.39$, $SD_{\text{Experimental}} = 1.28$) had a significantly lower level of anxiety indicated by their HADS scores compared to the control group participants ($M_{\text{Control}} = 3.09$, $SD_{\text{Control}} = 1.26$) $F(1, 87) = 7.03$, $p = .01$, partial $\eta^2 = .08$, observed power = .75 with a 95% confidence interval mean difference of .18 and 1.26.

However, in terms of the main effect of gender on HADS anxiety scores, there was insufficient evidence to claim significance for the gender as a main effect ($M_{\text{Woman+Trans/Non-Binary}} = 2.73$, $SD_{\text{Woman+Trans/Non-Binary}} = 1.29$; $M_{\text{Man}} = 2.73$, $SD_{\text{Man}} = 1.36$) $F(1, 87) = .09$, $p = .77$, partial $\eta^2 = .001$, observed power = .06 with a 95% confidence interval mean difference of -.62 and .46. The interaction effect of gender and experimental condition (i.e., gender*group) on the scores of HADS anxiety was also found to be non-significant $F(1, 87) = .33$, $p = .57$, partial $\eta^2 = .004$, observed power = .09 with a 95% confidence interval mean difference of -.16 and 1.29.

For additional analysis, we tested potential impacts of gender in three categories: Trans and/or non-binary people ($n = 9$), cisgender women ($n = 41$), cisgender men ($n = 41$). Results of the multivariate analysis of 2 x 3 ANOVA did not reveal any significant difference between any of the categories in terms of the experimental condition main effect on HADS anxiety scores ($M_{\text{Experimental}} = 2.39$, $SD_{\text{Experimental}} = 1.28$; $M_{\text{Control}} = 3.09$, $SD_{\text{Control}} = 1.26$) $F(1, 85) = 2.20$, $p = .14$, partial $\eta^2 = .03$, observed power = .31 with a 95% confidence interval mean difference of -.20 and 1.38, gender differences on HADS anxiety scores as a main effect ($M_{\text{Trans/Non-Binary}} = 2.76$, $SD_{\text{Trans/Non-Binary}} = 1.19$; $M_{\text{Man}} = 2.74$, $SD_{\text{Man}} = 1.36$; $M_{\text{Woman}} = 2.73$, $SD_{\text{Woman}} = 1.32$) $F(2, 85) = .05$, $p = .97$, partial $\eta^2 = .001$, observed power = .05, and gender x group interaction effect on HADS anxiety scores $F(2, 85) = .19$, $p = .82$, partial $\eta^2 = .005$, observed power = .08.

Considering the very low power due to the number of participants who identified themselves as trans and/or non-binary ($n = 9$), we decided that our sample size for trans and/or non-binary participants was not sufficient to conduct ANOVA tests without violating the assumptions of homogeneity of variance requirements (Serdar et al., 2021). Therefore, we continued our analysis by excluding trans and/or non-binary participants' data from the gender comparisons for the third and fourth multivariate ANOVA analyses described in the next section.

For the next exploratory ANOVA analysis to determine the effect of gender on the dependent variable of HADS anxiety, we coded gender in two categories: cisgender women ($n = 41$) and cisgender men ($n = 41$). Similar to the previous results, the experimental group yielded a significantly lower scores on HADS anxiety in terms of the group main effect compared to the control group participants ($M_{\text{Experimental}} = 2.38$, $SD_{\text{Experimental}} = 1.30$, $M_{\text{Control}} = 3.14$, $SD_{\text{Control}} = 1.27$) $F(1, 78) = .04$, $p = .85$, partial $\eta^2 = .000$, observed power = .05, with a 95% confidence interval mean difference of .19 and 1.33. Gender revealed neither a main effect on the scores of HADS ($M_{\text{Woman}} = 2.73$, $SD_{\text{Woman}} = 1.32$; $M_{\text{Man}} = 2.74$, $SD_{\text{Man}} = 1.36$) $F(1, 78) = .04$, $p = .85$, partial $\eta^2 = .000$, observed power = .05, with a 95% confidence interval mean difference of -.63 and .52, nor a gender x condition interaction effect on HADS anxiety scores ($F(1, 78) = .17$, $p = .67$, partial $\eta^2 = .002$, observed power = .07).

We continued our analysis by conducting exploratory multivariate ANOVA analysis utilizing general linear model to determine the effect of gender on our second dependent variable IGAS. Parallel with the previous analysis, to determine the effect of gender on the dependent variable we coded gender in two categories: cisgender women ($n = 41$) and cisgender men ($n = 41$). Similar to the previous reported results of our independent samples t -test, results of the multivariate analysis of 2 x 2 ANOVA did not reveal any significant

difference between any of the categories in terms of the experimental condition main effect on IGAS scores ($M_{\text{Experimental}} = 3.30$, $SD_{\text{Experimental}} = .82$; $M_{\text{Control}} = 3.49$, $SD_{\text{Control}} = .89$) $F(1, 78) = 2.20$, $p = .31$, partial $\eta^2 = .01$, observed power = .17 with a 95% confidence interval mean difference of -.18 and .57. Gender differences on the scores of IGAS as a main effect ($M_{\text{Woman}} = 3.44$, $SD_{\text{Woman}} = .92$; $M_{\text{Man}} = 3.33$, $SD_{\text{Man}} = .78$) $F(1, 78) = .25$, $p = .62$, partial $\eta^2 = .003$, observed power = .08, with a 95% confidence interval mean difference of -.28 and .47, and gender x group interaction effect on IGAS scores $F(1, 78) = .37$, $p = .55$, partial $\eta^2 = .005$, observed power = .09.

CHAPTER FIVE

DISCUSSION

Research investigating social change regarding racism has been drawing more attention in recent years (Dreyer et al., 2020; Ladhani & Sitter, 2020; Newman et al., 2022; Thelwall & Thelwall, 2021). This ongoing and increasing interest in studying methodologies to engage in anti-racism work has also been supported by recent literature of IGD (French et al., 2022; Gockel et al., 2022; Siscoe & Odermatt, 2022). IGD has been shown to help increasing mutual understanding of other people's experiences with their social identities including but not limited to racial, sexual orientation, gender, and religious identities (Hampshire et al., 2022; Majid, 2020; Shamo-Nir, 2022; White et al., 2021). Although IGDs are effective in terms of many positive prosocial outcomes such as increased positive attitudes, feelings, skills of perspective-taking, action-taking behavior (Alimo, 2012; Dessel, 2010; Gurin-Sands et al., 2012; King, 2014), having people join conversations that are about social identities can be challenging (Amodio, 2009). There are several reasons why people might avoid participating in open conversations about race and racism. Fear of revealing one's own privilege, fear of coming across as racist, avoiding possible conflict, and anxiety are noted as some of these reasons in the literature (O'Donnell et al., 2021; Stathi et al., 2020; Sue et al., 2010; Trawalter & Richeson, 2008). In our study, we focused on reducing anxiety for anticipated participation in an IGD. Since many of the identified reasons are quite specific to the racial identity of White/European American-identifying people (Sue & Constantine, 2007; Sue et al., 2010), and that White people experience higher levels of intergroup anxiety arising from intergroup contact (Trawalter & Richeson, 2008), our study focused on White/European American participants of an anticipated IGD.

In our experimental study, we aimed to incorporate a no-cost intervention in line with the recent mindfulness practices incorporated into IGD (Cosantino, 2021). Therefore, we utilized an EW intervention for our experimental group participants to help them process and reduce their state anxiety about participating in a dialogue about race and racism. EW has been shown to be effective in reducing anxiety for various stressors such as exams, health conditions and trauma (Ayers et al., 2018; Glass et al., 2019; Qian et al., 2020; Shen et al., 2018).

For our control group participants, we decided to administer an alternative activity that would take approximately the same time as EW. Utilizing assessments or scales for control group participants instead of having them engage in other types of neutral writing tasks has yielded larger effect sizes in previous research (Travagin et al., 2015). Therefore, in our study we utilized assessments for the control group participants instead of neutral writing tasks. We decided to administer these assessment scales for our control group participants: Mindful Self-Care Scale (Cook-Cottone & Guyker, 2018) and Adult Leisure Activities Scale (Jopp & Hertzog, 2010).

State Anxiety

Based on the results of our experimental intervention study, participants who engaged in EW reported significantly lower levels of state anxiety as indicated by their scores on the Hospital Anxiety and Depression Scale compared to the participants who filled out assessment surveys for approximately the same amount of time. This outcome, which confirms our first hypothesis, held true even after controlling for various demographic covariates such as age, gender, level of conservative identification, left or right-wing political identification, self-identified socioeconomic status and parental socioeconomic status. Our results demonstrated that this one-time, no-cost, brief EW intervention may present an

opportunity to reduce pre-dialogue anxiety for students who will participate in important conversations about race and racism. Similar to our findings, EW has been found in previous research to lower the levels of *state* anxiety measured by HADS (Ayers et al., 2018; Hansen et al., 2021; Smyth et al., 2018).

Since our sample consisted of White college students, the results of this study may be helpful in supporting more White students engaging in meaningful conversations about race and racism rather avoiding them due to anxiety. Moreover, IGD is commonly and successfully utilized in higher education and even at high schools (Brown, 2020; Griffin et al., 2012). Facilitators of IGD, especially when utilizing the four-stage model of IGD, already use similar interventions such as discussing hopes and fears about the dialogue in the earlier phases to help participants be more open to the dialogue (Zúñiga et al., 2002). Considering that the applications of online IGD are becoming more common (Imperato & Mancini, 2021), this study's findings regarding possible benefits of EW in reducing state anxiety have real life applicability for teachers, dialogue facilitators and participants, especially after the COVID-19 pandemic. It is important to note that EW is a cost-free, practical intervention that does not require any extra researcher or staff involvement (Rabiepoor et al., 2020). Therefore, in a broader context, the results of this study are important in promoting participation in dialogues that promote equity and mutual understanding among people who hold social identities that are oppressed or privileged in the global society.

Our main focus was engaging in quantitative analysis of our results in terms of effectiveness of EW in reducing anxiety. Additionally, as part of our study, we have asked our participants about their experience and thoughts about the expressive writing. Some participants emphasized liking EW, noting that it provided a space for their thoughts and feelings about race and racism. For example, one participant said:

I liked that I was able to actually write anything that I was thinking with no worries to what I say, my grammar and spelling, and other things...

Another participant said:

It was really nice to be able to talk freely about race and racism. I feel like I am not really in a position where I talk about that stuff here since my friend group is not diverse, nor do they care about these kind of topics.

And a third said:

I enjoyed being able to express myself however I wanted. Theoretically if I wanted to be racist I was given the space to do so. This sounds terrible, but in order to have a full conversation this is needed...

Some participants mentioned that EW helped them elaborate on their thoughts and practice honesty about conversations about race and racism:

I liked writing freely because it made me think more about the topic at hand rather than just answering a multiple-choice question. I think it was also a way for me to be honest about how I felt about the topic as well!

Another participants emphasized the freedom-related aspects of EW:

I enjoyed writing freely because I didn't have a filter really and I was able to just be open and honest ...

Because experimental group participants engaged in EW for approximately 10 minutes, we needed to be observant of possible time-confounds due to the time-sensitive nature of anxiety-reduction interventions (Burgstahler & Stenson, 2020; Korhan et al., 2011). To eliminate possible time confounds we utilized time trackers for the interventional (i.e., EW for the experimental group) and non-interventional (i.e., Assessment scales for the control group) tasks. The time spent between the two tasks (experimental versus control

group Tasks) were approximately equal. EW task took approximately 7 minutes and 45 seconds on average for the experimental group study participants, whereas the control group assessment scales took 8 minutes and 53 seconds on average for the control group study participants. Although experimental group participants spent less time expressively writing on average than they were instructed to (i.e., 10 minutes in total), the results indicated that their HADS anxiety scores have been significantly lower than the control group participants. Therefore, even if time had any influence on our results, it worked for the favor of our null hypothesis and not the opposite.

Intergroup Anxiety

In terms of our second hypothesis, the results of our post-test-only independent samples *t*-test analysis indicated that there was not a significant difference in Intergroup Anxiety Scale scores of the participants who engaged in EW (i.e., experimental group) and participants who filled out equally timed assessment surveys (i.e., control group). Stephan (2014), as one of the creators of IGAS, indicated that the construct that IGAS measures may refer to trait anxiety characteristics instead of state. Similarly, Grant et al. (2020) directly identified IGAS as a “trait-intergroup anxiety measure.” Utilizing IGAS in their research, they further differentiated state-level-intergroup anxiety and trait-level-intergroup anxiety by finding that White healthcare providers with higher scores on trait-level intergroup anxiety, which was measured by IGAS, demonstrated higher levels of “state-level” discomfort when treating Black patients.

Similarly, Binder et al. (2009) demonstrated that the intergroup anxiety can exist as a stable anxiety construct even over a period of six months. In support of the possible trait nature of the construct that IGAS aims to measure, the scores of this scale were previously mentioned to correlate with certain fixed-personality characteristics such as openness to

experience (Turner et al., 2014). A number of trait anxiety studies demonstrated that a short-term interventions such as ours may not be sufficient for addressing trait anxiety (Harris et al., 2019; Kim et al., 2021; McDougall et al., 2021; Uzun et al., 2008). On the other hand, EW is commonly used for state anxiety interventions (Ayers et al., 2018; Hansen et al., 2021; Jannah et al., 2019; Smyth et al., 2018). The HADS anxiety scale, which we used for our first hypothesis, on the other hand, measures state anxiety (Annunziata et al., 2019; Emons et al., 2019; Zemła et al., 2019). This might explain the reason why we were able to confirm our first hypothesis that is measured by a state anxiety scale but not our second hypothesis, of which the measure may not be clear whether it aims state or trait characteristics of intergroup anxiety. Therefore, the use of state anxiety scales might be more suitable when utilizing interventions such as EW that aim for non-predisposed anxiety changes (Jannah et al., 2019).

It is also important to note that our factor analysis and scale and factor reliability tests revealed number of factors (i.e., three factors) that are not in line with some of the previous literature findings (i.e., single factor) (Stephan et al., 1999). Moreover, two factors out of three that we were able to extract had relatively low reliabilities as noted in our results. A possible reason why IGAS may have had different factorial components compared to what other research noted might be due to our adaptation of the scale. Our adaptation of IGAS might have resulted in higher complexity of items that students had difficulty answering, or loss of conceptual relation between the items, which may have caused our test to be ineffective (Taber, 2018). The IGAS originally relied on a hypothetical language, asking participants to “imagine” what they would feel “if” they were interacting with people who do not identify with their own race (Britt et al., 1996; Hosek & Rubinsky, 2019; Stephan & Stephan, 1985). Specifically, the original prompt asks about one’s feelings if they were the only person identifying with their race and that they are interacting with people identifying

with another race as compared to interacting with people who share the same racial identification as themselves (Britt et al., 1996). However, in our study, we adapted the questionnaire prompt and asked our participants directly about their feelings regarding their participation in an IGD with people who identify with a race different than their own that would supposedly take place a few minutes after they complete the scale. Accordingly, the original aim and the structure of IGAS was based on comparison of two types of interactions (i.e., intergroup and intragroup). However, the focus of our second hypothesis and thus the use of our own adaptation of IGAS were both directed specifically towards measuring our participants' anxiety about the dialogue without referring to any intragroup dialogue or to the broader sense of "interactions" that are beyond an IGD. On this account, our use of the adapted version of the IGAS might explain the three-factor results of the scale which is not in line with other researchers' findings (Stephan et al., 1999). Similar to our findings, researchers who used adapted versions of the scale (i.e., intergroup anxiety towards Muslims) found three factors instead of one when utilizing their version of IGAS (Hopkins & Shook, 2017).

Although our results did not support our second hypothesis measured by IGAS, it is equally as important to note that our results supported our first hypothesis, which predicted lower levels of state anxiety for the experimental group participants. Similarly, Ortiz and Harwood's (2007) intergroup contact study's results were able to support important significant findings on their various well established intergroup measurements while their hypothesis measured by IGAS were found insignificant.

Gender and Expressive Writing

In order to investigate possible interaction effects of genders in our study, we conducted a number of exploratory analyses accounting for participants of all genders

participating in our study. Previous research has yielded mixed results including being able to identify gender as a significant moderator reporting that men have a higher probability of benefiting from EW tasks compared to women (Procaccia et al., 2021; Smyth, 1998), reporting that girls benefit more from EW than boys (Mesghina & Richland, 2020), and reporting no difference between genders (Lepore et al., 2015; Páez et al., 1999; Robertson et al., 2021). In line with some of these findings, expressing emotional distress may create cognitive dissonance for people who identify with “masculine schemas” (Range & Jenkins, 2010), noting that this may explain some of the results in the literature showing that men benefit more from EW interventions compared to women (Twenge, 1999). Moreover, people who identify with more feminine gender schemas may have more benefit from expressively writing about “anger” more so than “fear” as the former is not encouraged by the societal norms (Range & Jenkins, 2010).

In terms of our study’s results, there was not significant effect observed for gender in terms of its interaction effects with the experimental and control groups on both of our measures of anxiety (i.e., HADS, IGAS). However, it is important to note that to determine the possible interacting effects of gender we conducted 2 x 2 ANOVA analyses. Since gender differences were not part of our original hypothesis, our initial power analyses to determine our required sample size were conducted based on our plans to run an independent two sample *t*-test and not a multivariate ANOVA test. Therefore, we might have failed to detect a possible gender interaction effect due to our sample size.

Although we were not able to identify a significant effect in terms of gender, it is crucial to note that gender was brought in during the EW task as some participants wrote about their “hopes” and “fears” about talking about racism. Some participants identified their

experience of the intersection of their gender and race, noting the themes of having space and societal power to talk about race and racism as a woman living in the US:

It is important to note that I am a White female, so I feel as though, in today's society, I don't have a huge voice in the matter/subject...I do hope to further my knowledge on the subject during this study...In public, I feel as though I would have fears about talking about this...

Another participant who identified as a woman said:

My hopes for my participation is this is that everyone is open minded but a kind open mindedness. I also know that as a White woman I have no place in putting my input into a conversation that does not affect me like it most certainly affects others...

A third participant said:

I am a White female from an upper middle-class family in Panhellenic Greek life. All of my friends are White and have very similar traits and upbringings as me...I also fear that I am going to say the wrong thing...

The Content of the Expressive Writing

Although it was beyond what our study investigates, we found it potentially useful to reflect on some of the salient themes that emerged from the participants' EW. For example, a number of participants expressed hope to relate to and understand other dialogue participants' experiences and views on the topic, share their own thoughts, improve their skills and knowledge in engaging in social justice advocacy. For example, one participant said:

My other hope for this online conversation is that we, as humans, can seek to come together and understand one another. My hope is that all of us, who come from different backgrounds and identify differently, can relate on some level.

Another participant said:

I hope to understand more about different races and ethnicities and be introduced to new ideas. I am from a predominately white city in the south and also went to private school so I cannot say I grew up in a diverse community. So I am excited to learn more.

A third participant said:

I look forward to share with others about my hopes of racism. And I wish to interact with a number of people alike and know what measures they use in combating it...

Some participants expressed their hopes for a peaceful conversation:

I'd like to understand the differences those with diverse backgrounds experience compared to mine. I want to put myself in their shoes and better myself to be a friend they'd like to have. I hope to listen and learn of their stories and make better choices in the future based on what I've heard. I hope the online conversation is peaceful and open-minded to one another.

Some participants expressed hope for a respectful, honest and anti-racist conversation:

With this survey, I hope that everyone is respected and respectful...

Another participants expressed:

I also hope that I can be kind in my responses and that I could try my best to understand whatever points of view differ from my own...

In line with the literature findings, some participants expressed lack of opportunities to engage in meaningful conversations about race (Buckley & Quaye, 2016; Joslin et al., 2016) hoping that they will have an opportunity to contact with people from racial identities different than their own:

I hope to talk about topic of racism and race on this campus. I come from a very diverse area, and coming to Knoxville has definitely been a culture shock in regard to

inclusivity and diversity...Here, I am never in a situation where I meet people very different from me and I think that is because of racism on this campus. In a class I feel like Caucasian people only talk to Caucasian people, and consequently those in minority groups primarily stick to conversing with other minority groups.

Another participant said:

I do not come a very diverse background, my family is all white... I would hope to learn from this study more about different races and how their families may differ, as well as how their culture differs from mine...

Some participants expressed bias or fear when expressing their hopes:

I hope that it is not just Black Lives Matter. I hope that it is not a lot of people that take advantage of their race.

Another participant said:

I have been belittled before in previous conversations, and so quite frankly I am a bit nervous when entering such conversations...But such conversations are deeply important to have and so I want to continue engaging and participating in finding solutions socially and culturally. I hope to get something out of this conversation, whatever it may be.

A number of participants expressed hope for a societal change and willingness to contribute to dismantling racism through the dialogue:

My hopes for discussing racism is for people to learn how race has been engrained in nearly every aspect of our society, and how these ideologies are still being regurgitated. I hope people will come to learn how racism is a societal issue that negatively impacts everyone and needs to be addressed by everyone in a society...

Another participant stated:

I hope that racism in this country comes to an end. I advocated for the BLM protests in...every time one was held. Racism is most definitely still around and I feel disgusted to even think so...I do hope this new generation brings change and a forward movement...I hope by doing this study there is a connection between different racial backgrounds and they know they are not alone in the fight to better the country and world.

In addition to expressing their hopes for the impending dialogue, participants expressed fears of being misunderstood, rejected, confronted, and fear of being perceived as racist:

I fear there will be misunderstandings that lead to anger and resentment rather than understanding. I fear people will want to talk rather than listen. I do not want to see anyone upset in this conversation, but I fear that will be the case due to the circumstances of this discussion. I fear my background will cause me to be seen as "the enemy" due to the nature of White people. I fear I will say something wrong and be attacked for my lack of understanding. I fear I will not be able to say what others want to hear.

Another participant said:

I fear that I will be silenced because of my race. I fear that I will be belittled because of my race. I fear I will be made to feel bad about myself. I fear I will hurt someone's feelings. I fear that people will not like me. I fear that me having these feelings will be seen as a negative because of my race, or with negative intentions behind them. I fear that I will not be accepted. I fear I will be made fun of. I have had bad experiences in the past in these types of conversations and I don't do well with confrontation. I am a people pleaser and so it is very hard for me to disagree with someone especially surrounding such a sensitive topic. I feel extremely anxious at the thought of engaging

but also value the importance and need for such conversations. I fear that I will feel rejected, and dismissed as a participant in the conversation.

A third participant said:

I fear that I will be pushed outside of my comfort zone and have to talk about topics that I honestly don't want to talk about. But they probably need to be discussed.

Another participant expressed fear of coming across as “uneducated” on racism:

I would be scared to come off too uneducated on topics like this and maybe just being a bit ignorant on these topics as a privileged person. I wish I was more educated but I know that at least my heart is in the right place and I know I have a good view on things like this...

Some participants expressed fears related to hurting others in the dialogue:

I fear that I tend to be racially colorblind which is bad because you can't be oblivious to racism like people try to do. I definitely don't want to invalidate the experiences of others by being colorblind in this sense. Conversations about race tend to make me uncomfortable...

Another participant expressed their worries about hurting others:

My fears are that I have been making transgressions against others without my knowledge or that I have been making people uncomfortable without my knowing or wanting to do so. I also fear that there may be a problem or situation that I find myself in that I have no ability to fix or rectify.

Number of participants expressed hopelessness about change as their fears:

My fear for the upcoming conversation about race and racism is that we will be faced with blatant and disrespectful ignorance that will not or does not want to change. A conversation about something as touchy although dire in this world is bound to bring

opposing forces together. the collision is not always pretty and it most certainly does not always prove fruitful.

Similarly, another participant said:

I fear that this conversation could lead to hate crimes, hateful words, and hateful actions. I fear that sometimes it is too large of a problem to be fixed anytime soon.

A third participant said:

I fear that this polarization will only get worse, making racist people much more racist, and moderately racist or people with unconscious racial biases turn into more seriously racist people.

Limitations

In terms of some of the technical challenges of our study, our intervention had to involve some level of deception. As part of the study, we aimed to elicit anxiety stemming from anticipating an intergroup dialogue for our participants. In order to make sure that our participants thought that there would be an actual dialogue about race and racism, as part of the study we asked them about their thoughts about the rationale of the study at the end of their participation before supposedly directing them to the online live conversation about race and racism. Only two participants understood that there was deception involved in the study. No other participants reported any sign of understanding or guessing the true rationale of the study. In terms of the control condition, scales for self-care and leisure activity habits were administered. Some of the common themes that the control group participants reported about their understanding of the rationale of the study were about the relationship between self-care and identity, racism and its influence on one's daily habits and one's thoughts about racism and identifying as White:

Understanding the ways different people take care of themselves, how the amount of time put into oneself may influence their sense of security in their identity...

Another participant said:

I think this study is designed to see how different types of people who have different lifestyles may react differently to the topic of race and racism.

A third participant said:

I think the rationale of this study is to get different people from many backgrounds and economic levels to talk in a neutral space where we can all learn more about each other.

Some participants guessed that the study was about concepts such as "White guilt":

I think the study will provide information regarding the "White ego" and "White guilt" phenomena...

Another participant said that the focus could be the study of the conversation:

I think this study is about how students of different races, ages, genders, and beliefs all interact with each other. I think that it is a test of how people who know nothing about each other can interact with such different backgrounds.

Experimental group participants, who were asked the same question about their thoughts about the rationale of the study at the end of their participation in the study, reported different guesses. Although not qualitatively analyzed, some of the emerging themes were about assessing participants' contributions during the dialogue and understanding people's thoughts about racism in the US, for example, one participant said:

I assume the tone of the conversation will be studied through each individual based on their background and hopes/fears provided.

Another participant guessed the rationale as:

I think the rationale of the study is to learn more about how people that do not come from a background that experiences racism perceive how others are treated and how racism affects different people.

A third participant stated:

With many book bans being put into place and a lot of push back on conversations about race in schools, I think it is probably to open that conversation for White people to have with People of Color.

In terms of some other possible limitations of our study, it is important to note that our experimental design was a randomized post-test only, one-time intervention design.

Therefore, we did not test our participants' anxiety levels prior to our EW intervention, and we did not test their anxiety levels at a later time point either. Administering a pre-test to ensure initial levels of anxiety of the participants has been used in anxiety-reduction intervention development literature (Contreras-Soto et al., 2019; Samuel & Warner, 2021). This is important as some researchers who investigate EW as a psychological intervention found their control group participants to experience higher levels of stress prior to the intervention (Rabiepoor et al., 2020).

One of the important concerns related to not administering a pretest anxiety measure can be not being able to control for the data of participants who experience no-anxiety or extreme levels of anxiety. Rabiepoor et al. (2020) state that lack of initial levels of tension may render EW ineffective. In line with these concerns, some of the participants who wrote about their "fears" about the dialogue reported not experiencing any:

I am unsure if I really have any fears about this study, maybe learning about scary stories that people have faced due to racism can be a little bit frightening, but I am open to listening and learning about them.

Another participant expressed being open to the dialogue without many fears:

I do not have a lot of fears, I'm pretty open to talk about race and racial dynamics because I want to be aware of everything that is going on as to not perpetuate systemic racism and different stereotypes.

However, it is important to note that we utilized randomization in our experimental design to eliminate these possibilities. As a common practice in psychological research, randomization might have ensured that the control group participants had differences in their pre-intervention levels of fear and anxiety about the dialogue that can serve for counterbalance.

Although we strived to address possible confounding factors early on in our study, we failed to counterbalance the conditions of EW task (i.e., fears versus hopes). Our participants initially wrote about their hopes about the intergroup dialogue, and then wrote about their fears about the dialogue. Although positive emotions may have an “undoing effect” on negative emotions (Fredrickson et al., 2000), a recent meta-analysis in the relevant literature yielded mixed results (Cavanagh & Larkin, 2018; Leger et al., 2020). However, to increase and confirm the effectiveness of EW interventions that utilize multiple excerpts addressing multiple emotions, future researchers may utilize counterbalancing across topics of EW.

Another important limitation of our study is the limited variability of our sample demographics. We recruited participants who identify as 18-25 years old, White, college student who speak English and reside in the US. Therefore, the results of our study might not have the same applicability in other populations. Furthermore, Smyth (1998) reported that EW yields higher effect sizes for students compared to non-students. Therefore, future research may address and develop interventions for different population demographics including the anxiety levels of BIPOC participants prior to attending an IGD.

The last limitation of our study that we are aware of was our relatively small sample size. At the time of data analysis after cleaning the data based on our eligibility criteria described in the methods section, we had 91 participants in total. Considering the positionality of EW being in between qualitative and quantitative methodologies (Levitt et al., 2022; Mosher et al., 2021; Nicholls, 2009), various meta-analyses state that relatively small sample size studies (e.g., N varying between 15 to 65) are common in the literature regarding EW interventions (Boals et al., 2015; Reinhold et al., 2018; Riggle et al., 2014; Rivkin et al., 2006; Swanbon et al., 2008). Furthermore, a recent meta-analysis focusing on the effects of EW relied on sample sizes ranging from six to an upper limit of 86 (Kupeli et al., 2019). It is also important to note that our initial G*Power analysis results were aiming an effect size of .50, which we successfully detected in our study. The range of effect sizes of the studies that utilize EW in the literature can be as low as 0.1 (Travagin et al., 2015) and as high as 0.86 (van Emmerik et al., 2013). Three recent meta-analysis studies indicated that the average effect size found for the investigated EW intervention studies ranged around 0.47, 0.52, and 0.86 (Pavlacic et al., 2019; Qian et al., 2020; van Emmerik et al., 2013). While EW studies that focus on physical illness might yield a small effect size of 0.2 (Smyth, 1998), studies that focus on healthy populations or outcome variables such as exam anxiety might yield an average medium effect size of 0.5 (Frisina et al., 2004; Reinhold et al., 2018; Travagin et al., 2015). Therefore, we decided to calculate our power and sample size based on medium effect sizes. However, to determine possible effects of gender, researchers may consider recruiting larger samples to compensate for the increased number of variables and conditions of their studies.

Future Directions

One of the important ways researchers may contribute to the study of EW and state anxiety can be utilizing both subscales of Hospital Anxiety and Depression Scale instead of using only the anxiety subscale. As noted by our factor analysis results, item 7 in the subscale of anxiety had a relatively different load on the scale compared to other items. Since this has been a common finding in the use of HADS that item 7 tends to load onto the depression subscale (Barth & Martin, 2005; Moorey et al., 1991; Smith et al., 2002) it might be beneficial to administer both the anxiety and the depression subscales to investigate whether item 7 loads more onto depression factor.

As mentioned earlier, one of the limitations of our study is the lack of a pre-test. Researchers may utilize a pretest-posttest design to clarify the sources of gain and may further employ regression analysis with various covariates to increase the power of the intervention (Hedberg & Ayers, 2015). Also, an important covariate to pay attention to may be gender. Considering that gender norms for men may inhibit men from openly expressing their emotions (Swanbon et al., 2008), although not significant, our findings may shed light on the direction of future studies in terms of understanding the role of gender as a covariate in EW interventions. Future research may focus on various topics and emotions for the EW task instead of focusing on “fear,” as expressing fear has been reported for being potentially less effective for people who identify with more “feminine gender schemas” (Range & Jenkins, 2010).

In conclusion, some practical implications of our findings include helping students engage in honest and deep conversations about race and racism without feeling as anxious. As stated earlier, anxiety may hinder deep and meaningful conversations about racism and systemic issues in our societies (Eysenck et al., 2007; Sue et al., 2010). Therefore, addressing

anxiety prior to IGD is important not only for participants to feel comfortable in participating in the dialogue, but also for the dialogue to be more productive in addressing inequity and racism prevalent in our societies (Amodio, 2009). Additionally, assisting participants of dialogue in expressing their emotions and private feelings during an IGD is crucial to its success (Khuri, 2004). Since emotions-focused EW may offer participants of dialogue a chance to process and practice their emotions, facilitators of IGD may utilize EW to cultivate and allow space for emotions that may emerge during the dialogue (Fuentes et al., 2021). Facilitators may utilize this easy to administer, no-cost activity by assisting IGD participants to engage in EW prior to IGD. Moreover, since IGD is mostly utilized in higher education institutions, facilitators and instructors of IGD-classes may incorporate EW in the session outlines and syllabuses. Furthermore, facilitators may incorporate EW to each session or class to likely benefit from its cumulative effects over time, as EW is found to be even more effective when it is administered in multiple sessions (Pennebaker, 1993). Lastly, considering that IGD is not limited to race and ethnicity, future research may apply similar interventions for IGD that address sexism, heterosexism, xenophobia and other important systemic issues in our societies.

CHAPTER SIX

CONCLUSION

Results of our study revealed that engaging in EW caused students who anticipate participating in an online live dialogue about race and racism to experience lower levels of state anxiety as compared to students who filled out assessment scales as control. In our study, EW constituted a no-cost, easy-to-administer intervention that can be utilized in classrooms and IGD by the facilitators.

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APPENDIX A: Dependent Variable Measures

Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983)

Instructions: Please remember that soon you are going to participate in an online structured conversation with people who do not identify with the same race as yours. Please answer the following statements (1: Not at all, 7: Extremely) based on how you are feeling about attending the conversation about race and racism soon.

1. I am feeling tense or 'wound up' about attending the Intergroup Dialogue.
2. I am getting a sort of frightened feeling as if something awful is about to happen in the Intergroup Dialogue.
3. Worrying thoughts are going through my mind as I think of attending the Intergroup Dialogue.
4. I am able to sit at ease and feel relaxed as I think about attending the Intergroup Dialogue. (Reverse)
5. I am getting sudden feelings of panic while I think myself in the Intergroup Dialogue.
6. I am feeling restless as I have to be on the move as I think about attending the Intergroup Dialogue.
7. I am getting a sort of frightened feeling like 'butterflies' in the stomach as I think about the Intergroup Dialogue.

Intergroup Anxiety Scale (Stephan & Stephan, 1985)

Please remember that soon you are going to participate in an online structured conversation with people who do not identify with the same race as yours.

Please answer the following statements (1: Not at all, 7: Extremely) based on how you are feeling about attending the conversation about race and racism soon.

Awkward

Self-Conscious

Happy

Accepted

Confident

Irritated

Impatient

Defensive

Suspicious

Careful

APPENDIX B

B1 – Mindful Self-Care Scale (MSCS) (Cook-Cottone & Guyker, 2018)

Directions for administration:

“Check the box that reflects the frequency of your behavior (how much or how often) within the past week (7 days); never (0 days), rarely (1 day) sometimes (2 to 3 days), often (4 to 5 days), and regularly (6 to 7 days). Note, one item is reverse scored (see Physical Care*). For clinical use, items can be administered in order.”

Physical care (8 items)

1. I drank at least 6 to 8 cups of water.
2. I ate a variety of nutritious foods (e.g., vegetables, protein, fruits, and grains).
3. I planned my meals and snacks.
4. I exercised at least 30 to 60 min.
5. I took part in sports, dance, or other scheduled physical activities (e.g., sports teams, dance classes).
6. I did sedentary activities instead of exercising (e.g., watched TV, worked on the computer)—reversed score*.
7. I planned/scheduled my exercise for the day.
8. I practiced yoga or another mind/body practice (e.g., Tae Kwon Do, Tai Chi)

Supportive relationships (5 items)

9. I spent time with people who are good to me (e.g., support, encourage, and believe in me).
10. I felt supported by people in my life.
11. I felt that I had someone who would listen to me if I became upset (e.g., friend, counselor, group).
12. I felt confident that people in my life would respect my choice if I said “no”.

13. I scheduled/planned time to be with people who are special to me.

Mindful awareness (4 items)

14. I had a calm awareness of my thoughts.

15. I had a calm awareness of my feelings.

16. I had a calm awareness of my body.

17. I carefully selected which of my thoughts and feelings I used to guide my actions.

Self-compassion and purpose (6 items)

18. I kindly acknowledged my own challenges and difficulties.

19. I engaged in supportive and comforting self-talk (e.g., “My effort is valuable and meaningful”).

20. I reminded myself that failure and challenge are part of the human experience.

21. I gave myself permission to feel my feelings (e.g., allowed myself to cry).

22. I experienced meaning and/or a larger purpose in my work/school life (e.g., for a cause).

23. I experienced meaning and/or larger purpose in my private/personal life (e.g., for a cause).

Mindful relaxation (6 items)

24. I did something intellectual (using my mind) to help me relax (e.g., read a book, wrote).

25. I did something interpersonal to relax (e.g., connected with friends).

26. I did something creative to relax (e.g., drew, played instrument, wrote creatively, sang, organized).

27. I listened to relax (e.g., to music, a podcast, radio show, rainforest sounds).

28. I sought out images to relax (e.g., art, film, window shopping, nature).

29. I sought out smells to relax (lotions, nature, candles/incense, smells of baking).

Supportive structure (4 items)

- 30. I kept my work/school area organized to support my work/school tasks.
- 31. I maintained a manageable schedule.
- 32. I maintained balance between the demands of others and what is important to me.
- 33. I maintained a comforting and pleasing living environment.

General (3 items—not to be averaged)

- G1. I engaged in a variety of self-care strategies.
- G2. I planned my self-care
- G3. I explored new ways to bring self-care into my life.

Scoring: Each subscale should be averaged to calculate a subscale score. The total score is a sum of the averaged subscale scores. Note, the general items are not included in any subscale score or the total score.

Permission: The MSCS is free to use. We request that researchers notify the authors of publications using the scale. Please contact the author Catherine Cook Cottone, Ph.D. at cpcook@buffalo.edu for permission to modify items.

2 - Adult Leisure Activities Scale (Jopp & Hertzog, 2010)

This is a 9-point Likert-type scale with the response options 0 (never), 1 (less than once a year), 2 (about once a year), 3 (2 or 3 times a year), 4 (about once a month), 5 (2 or 3 times a month), 6 (about once a week), 7 (2 or 3 times a week), and 8 (daily).

ITEMS:

- 1. Weight lift, strength, calisthenics
- 2. Aerobics (cardio, fitness, workout)
- 3. Flexibility (stretching, yoga, tai chi)
- 4. Outdoor (sail, fish, backpack)
- 5. Exercise (jog, bike, swim)

6. Recreational (tennis,bowling, golf)

7. Repair mechanical device

8. Do household repairs

9. Do woodwork/carpentry

10. Buy item requiring set up .

11. Play word games

12. Play knowledge games .

13. Play board games

14. Play jigsaw puzzles

15. Do cross-word puzzles

16. Play card game

17. Watch TV

18. comedy/adventure

19. Watch game show on TV

20. Watch TV documentary

21. Watch news on TV

22. Go out with friends.

23. Visit friends or relatives

24. Attend parties (e.g.,birthday)

25. Talk to friend on phone.

26. Give dinner for friends.

27. Eat out at restaurant

28. Engaged in political activities

29. Give public talk

30. Attend club meetings
31. Attend organized social event
32. Volunteer
33. Attend church service/synagogue
34. Engage in prayer or meditation
35. Travel out of town
36. Travel out of state
37. Travel abroad
38. Business not related to job
39. Collect stamps, etc.
40. Read for leisure
41. Read newspaper
42. Garden indoor or outdoor
43. Write letters
44. Sewing, knitting, needlework
45. Read books as part of job
46. Attend public lecture
47. Course at university
48. Creative writing
49. Go to library
50. Study foreign language
51. On-the-job training
52. Attend movies
53. Use computer software

- 54. Use electronic calculator
- 55. Arithmetic calculations
- 56. Engage in photography
- 57. Play an instrument
- 58. Prepare own income tax

APPENDIX C

Intergroup Dialogue Refresher

You will soon participate in the online, real-time conversation about race and ethnicity with other participants.

As a reminder, the conversation will be mainly focusing on what is race and racism and how racism affects people's lives. In the conversation you will be encouraged to share your thoughts about prompts such as "What were your experiences like growing up as a White person?" and "How do you define racism?"

Before participating in the conversation, we ask you to fill out some final surveys, so please click on the arrow below to proceed to the survey.

VITA

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