2019

Thinking about Engaging in Charitable Behaviors and its Influence on Loneliness

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The Office of the Provost

Walden University
2019

Abstract

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MA, Alliant International University San Diego, 2011

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

November 2019

Abstract

There are negative correlations between prosocial behaviors and loneliness and negative correlations between thinking about prosocial behaviors and loneliness. The purpose of this study was to investigate the influence of thinking about engaging in charitable behaviors on immediate feelings of social and emotional loneliness, as measured by the Social and Emotional Loneliness Scale (SELSA). To compare influences of thinking about charitable behaviors and not thinking about charitable behaviors, an experimental design was used. The theoretical framework was a mediational model in which thinking about engaging in a specific charitable behavior leads to perceived ability to participate in positive social interaction, which leads to increased sense of belongingness, which leads to decreased loneliness. This was based on the spreading activation theory and Peplau and Perlman's social psychological theory of loneliness. A sample of 171 adults age 18 or older living in the United States completed an online questionnaire consisting of 1 of 3 randomly assigned writing prompt conditions: charitable thoughts writing prompt, control writing prompt, and no writing prompt. Data were analyzed through planned contrasts within a one-way ANOVA. Planned contrasts revealed no significant difference in social or emotional loneliness scores between participants in the experimental group and participants in either control group. Thinking about engaging in charitable behaviors does not lead to immediate reduction in loneliness, opening new questions for researchers to investigate what does lead to immediate reduction in loneliness. Nonsignificant findings help health professionals make informed decisions about how to help clients. They need scientific evidence to distinguish between what does and does not work.

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Acknowledgments

I would like to thank my Chair, Dr. Brad Bell, and my Committee Members, Dr. Nancy Bostain and Dr. Virginia Salzer, for their guidance and patience throughout this process. I would especially like to thank Dr. Bell for his comment to me and his enthusiasm for the topic.

I would like to offer a special word of gratitude for the Boston Public Library (BPL) and its offer of free computer use with a reliable internet connection. I did not have a computer of my own for the last several months of this process, and the BPL saved me.

The support from my family and friends has been beyond valuable. I am particularly grateful for the fact that I have been blessed with too many of you to name.

Above all, I thank my Lord, Jesus Christ, for I accomplish nothing without Him, and everything for Him.

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Chapter 1: Introduction to the Study

Introduction

Prosocial behavior is a complex topic, and there is need for continued research in this area. One prosocial behavior of interest in recent literature regarding loneliness is charitable behaviors. Researchers have begun investigating the correlation between volunteerism and loneliness. In this study, I investigated whether or not these findings were still true when thoughts about charitable behaviors, rather than actual charitable behaviors, were the independent variables. The overall goal of this study was to contribute to the positive social change of discovering information that might help prevent and alleviate feelings of loneliness.

This chapter begins with a summary of the background of the topic. There is a brief summary of the existing research about loneliness and its correlation with prosocial behavior. The background section includes a description of the gaps in knowledge that I addressed, as well as an explanation of why this study was needed. This chapter also provides a statement and explanation of the research problem the study addressed. This includes a summary of the evidence that the problem is current, relevant, and significant within the discipline of social psychology. I connect the problem to existing current research and address the most significant gaps in that research. I also connect this problem to the focus of the study by providing a description of the quantitative nature of the study, the study intent, the independent and dependent variables, the research question, and the null and alternative hypotheses.

Background

Scholars have revealed positive correlations between loneliness and many physiological and mental health ailments, such as back pan, fatigue, inflammation, headache, nausea, colds, appetite disturbances, heart attack, mortality, depression, substance abuse, and suicide (Franklin, 2009; Gerst-Emerson & Jayawardhana, 2015; Jaremka et al., 2014). Researchers have begun to make efforts to better understand loneliness to prevent and treat it. For instance, scholars have found that there are two distinct types of loneliness. Social loneliness is a lack of broader social networks arising from a deficit in social support networks, while emotional loneliness is a lack of more intimate social relationships felt as a loss (Drennan et al., 2008; Weinstein, Sirow, & Moser, 2016).

Loneliness represents a deficit in positive social interactions, and research has been conducted on the negative correlation between loneliness and prosocial behaviors (an example of positive social interactions; Gries & Buhs, 2014; Woodhouse, Dykas, & Cassidy, 2012.). One form of prosocial behavior under investigation in recent literature is charitable behavior, the donation of time or money with the intention of helping others (Winterich, Mittal, & Aquino, 2013; Winterich & Zhang, 2014). Volunteering time was the charitable behavior of interest for this dissertation. Researchers have found that the negative correlation between prosocial behavior and loneliness applies to volunteerism (Gillath et al., 2005; Mellor et al., 2017).

Some researchers have found negative correlations between thinking about prosocial behaviors and loneliness, as well as positive correlations between thinking about prosocial behaviors and positive affect and sense of belongingness, which are also

correlated with decreases in loneliness (Alden & Trew, 2013; Baskin, Wampold, Quintana, & Enright, 2010; Mouratidis & Sideridis, 2009). Furthermore, researchers have found that thinking about engaging in prosocial behaviors is positively correlated with actual participation in prosocial behaviors later (Greitemeyer, 2009; Greitemeyer & Oswald, 2011; Macrae & Johnson, 1998; Nelson & Norton, 2005).

Thinking about charitable behaviors might lead individuals to engage in charitable behaviors that they would not have otherwise. Charitable behaviors, such as spending time volunteering and making monetary donations, positively influences the economy of the United States (Winterich & Zhang, 2014). Application of this kind of information could create positive social economic change in addition to the positive social change of decreasing and preventing loneliness. Existing literature lacks experimental research examining the influence of thoughts about charitable behaviors on loneliness. This gap in the literature prevents progress toward decreasing and preventing loneliness. The focus of this dissertation was on addressing that gap directly.

Problem Statement

There is a need for experimental studies regarding the influence of thoughts about charitable behaviors on loneliness. As researchers have established that a correlation exists, more information was needed to support the correlation and provide empirical evidence of influence. It was only within the last 5 years that the majority of the researchers have begun to report the aforementioned correlations between prosocial behaviors, thoughts, and loneliness (Alden & Trew, 2013; Gries & Buhs, 2014; Greitemeyer & Oswald, 2011; Mellor et al., 2017; Woodhouse et al., 2012.) The existing body of literature is minimal, broad, and predominantly correlational. This dissertation

helped fill all of those gaps. I added an experimental study with variables of thoughts about charitable behaviors and immediate feelings of loneliness.

Purpose of the Study

This study was a quantitative, experimental study. The purpose of this quantitative experimental study was to compare the measurements of social and emotional loneliness of three randomly assigned groups of participants. The independent variable was the condition to which participants were randomly assigned. The conditions included a charitable thoughts condition, a control thoughts condition, and a no thoughts condition. The three levels included a writing prompt about charitable behaviors, a writing prompt not about charitable behaviors, and no writing prompt. The dependent variables were levels of social and emotional loneliness. The instrument used to measure social and emotional loneliness was the Emotional and Social Loneliness Scale (DiTommaso & Skinner, 1993).

Research Questions

1. Does thinking about engaging in charitable behavior decrease social loneliness?

   a) Null Hypothesis 1: There will be no difference in social loneliness scores between participants who write about engaging in charitable behaviors and participants who write about a topic not related to charitable behaviors.

   b) Research Hypothesis 1: Participants who write about engaging in charitable behaviors will score significantly lower on social loneliness than participants who write about a topic not related to charitable behaviors.

c) Null Hypothesis 2: There will be no difference in social loneliness between participants who write about charitable behaviors and participants who are not given a writing prompt.

d) Research Hypothesis 2: Participants who write about engaging in charitable behaviors will score significantly lower on social loneliness than participants who are not given a writing prompt.

2. Does thinking about engaging in charitable behavior decrease emotional loneliness?

a) Null Hypothesis 1: There will be no difference in emotional loneliness between participants who write about engaging in charitable behaviors and participants who write about a topic not related to charitable behaviors.

b) Research Hypotheses 1: Participants who write about engaging in charitable behaviors will score significantly lower on emotional loneliness than participants who write about a topic not related to charitable behaviors.

c) Null Hypothesis 2: There will be no difference in emotional loneliness between participants who write about engaging in charitable behaviors and participants who are not given a writing prompt.

d) Research Hypothesis 2: Participants who write about engaging in charitable behaviors will score significantly lower on emotional loneliness than participants who are not given a writing prompt.

Theoretical Foundation and Conceptual Framework

One theory at the foundation of this dissertation was the spreading activation theory. According to spreading activation theory, primed concepts activate related concepts that already exist in a person's knowledge base (Collins & Loftus, 1975).

Primed concepts are concepts that people are prepared to think about due to having these concepts presented to them. There are five primary assumptions of the spreading activation theory. First, when a concept is stimulated, activation spreads first to the most accessible or strongly related concepts (Collins & Loftus, 1975). Second, the longer one processes a concept, the longer it can be activated (Collins & Loftus, 1975). Third, only one concept can be activated at a time, so the more concepts that are primed, the less time each will spend in activation (Collins & Loftus, 1975). Fourth, the more aspects two concepts share, the more easily one will activate the other (Collins & Loftus, 1975). Fifth, a person most already have enough evidence of a link between the two concepts in order for activation to spread (Collins & Loftus, 1975). I used these five assumptions to explain why opening access to thoughts about charitable behaviors would spread activation to other thoughts that would contribute to an immediate decrease in feelings of loneliness. This study involved examining the concept of engaging in charitable behaviors, which would activate related concepts of prosocialness and collective efficacy, per the first assumption. Participants were prompted to write about the concept, lengthening the activation period per the second assumption. The prompt was limited to one example, per the third assumption. Participants in the experimental group chose their own charitable organizations to increase their familiarity and connections with the topic they wrote about, per the fourth and fifth assumptions.

This dissertation was influenced by a theoretical framework proposed by Peplau and Perlman (1979). Peplau and Perlman described loneliness as a subjective social deficiency influenced by perceived control over social situations. This framework was influenced by the theory of learned helplessness. Peplau and Perlman suggested that

people who attribute their loneliness to controllable causes are more likely to believe they can cope with their loneliness and that perceived control partially influences loneliness through identification of coping mechanisms. In this dissertation, participants in the experimental group were prompted to identify a controllable charitable behavior.

The integration of the theoretical foundations of this dissertation culminated in a three-step mediational model outlining the influence of thinking about charitable behaviors on loneliness. First, thinking about engaging in charitable behaviors leads to a perceived ability to participate in a positive social interaction. There are positive correlations between helping behaviors and positive self-evaluation (Williamson & Clark, 1989) and sense of social worth (Grant & Gino, 2010). Second, this perceived ability leads to an increased sense of belongingness. There is a positive correlation between social connection and emotional regulation, and there is a negative correlation between social connection and antisocial behaviors (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). Third, an increased sense of belongingness leads to a decrease in feelings of loneliness, partly because sense of belongingness involves a sense of similarity with others (Seppala, Rossomando, & Doty, 2013). Chapter 2 includes a detailed description of this mediational model and the theories described in this section.

Nature of the Study

I followed an experimental quantitative research design. Because the purpose of the study was to compare the influences of thinking about charitable behaviors and not thinking about charitable behaviors, an experimental design was necessary. Furthermore, experimental research is lacking in the current body of literature on charitable behaviors and loneliness. Without experimental research, it is hard for professionals in other fields

to apply the existing research regarding charitable behaviors and loneliness to prevent loneliness.

The independent variable in this dissertation was the condition to which participants were randomly assigned. It contained three levels: charitable thoughts condition, control thoughts condition, and no thoughts condition. Participants were randomly assigned to conditions. Participants in the charitable thoughts condition received a prompt that asked them to describe a charitable organization to which they could donate time volunteering. Participants in the control thoughts condition received a prompt that asked them to describe something that was not related to charitable behaviors. The participants in the no thoughts condition received no writing prompt. The dependent variables were levels of social loneliness and emotional loneliness, as measured by a social and emotional loneliness scale.

This dissertation was conducted using the online survey company Qualtrics. Qualtrics sent out the survey and collected data from 171 adults aged 18 or older living in the United States. Qualtrics recruited participants from their research panels. Participants become a part of research panels through a variety of third-party sources. Qualtrics sent out the survey with a basic invitation to participate. There was no recruitment statement included (data collection began with the same study created through the online Survey company Survey Monkey). Data collection began through the Walden University Research Participation Pool. The study was then removed from this platform, and data collection began from three Facebook dissertation survey exchange groups. I obtained permission from the administrators of all three Facebook groups to post my study. Although a full sample was collected, missing data led to problems with

the data. It was impossible to discern which group participants were assigned to unless

they chose to write in responses to the writing prompts. Participants in the third group,

the control group not given a writing prompt, were shown a text box and had the option

to write a response, rather than being directed straight to the SELSA. This opened the

possibility for a confounding variable. I revised the survey to correct both of these issues

and elected to go with Qualtrics, which offered what I needed for the survey. I also

elected to pay Qualtrics for participants to save time in the new round of data collection.

Participants were randomly assigned to groups. Data were collected electronically

through an online survey. Data were analyzed via planned contrasts conducted using

SPSS.

Definitions of Terms

Attitude: A person's approval or disapproval of the behavior (Marta et al., 2014).

Charitable behaviors: Prosocial behaviors that involve the donation of money or

time (such as volunteering) with the intention of helping others (Winterich et al., 2013;

Winterich & Zhang, 2014).

Emotional loneliness: A lack of more intimate social relationships felt as a loss

(Drennan et al., 2008; Weinsten et al., 2016).

Perceived behavioral control: A person's belief in his or her capability to perform

the behavior.

Priming: Exposing participants to one stimulus to evoke thoughts about another

stimulus (Collins & Loftus, 1975).

Sense of belongingness: Sense of familiarity with others (Seppala et al., 2013). Separate but related to loneliness and cognitive in nature (Fowler, Wareham-Fowler, & Barnes, 2013).

Social loneliness: A lack of broader social networks arising from a deficit in social support networks (Drennan et al., 2008; Weinstein et al., 2016).

Spreading activation: Primed concepts activate related concepts that already exist in a person's knowledge base (Collins & Loftus, 1975).

Subjective norm: A person's perception of the expectations of others regarding performance of the behavior (Marta et al., 2014).

Theory of planned behavior: The intention to engage in a behavior is a function of the presence of perceived control over a person's behaviors, a person's own attitude toward the behavior, and subjective norms regarding the behavior (Marta, Manzi, Pozzi, & Vignoles, 2014).

Assumptions

The following assumptions were made regarding the execution of the study. First, it was assumed that the design was effective to determine the influence of thinking about charitable behaviors and adequate to address the issues. Second, it was assumed that the loneliness measure used in all conditions measured immediate feelings of loneliness. Third, it was assumed that participants responded honestly to the writing prompts and on the loneliness scales. Fourth, it was assumed that the control writing task did not elicit thoughts about charitable behaviors.

Scope and Delimitations

The first primary research problems regarding the correlation between prosocial behaviors and loneliness were the lack of experimental research. That was the reason for conducting an experiment. The second primary problem was the need for more targeted examination of the nature of the correlation. Researchers had begun examining the role of thinking about prosocial behaviors and its correlation with loneliness, but they had yet to examine immediate effects on loneliness. Investigating the prosocial behavior of volunteering (an example of charitable behavior) added to the body of knowledge. Such specificity was essential for applying the knowledge and bringing about the positive social change of decreasing and preventing loneliness. Because I only addressed thoughts about one type of charitable behavior and two types of loneliness, the scope was narrow.

The sample for this dissertation was obtained by Qualtrics. The sample from this study was randomly selected from members of this panel living in the United States and age 18 or older. Participants were part of Qualtrics research panels, which they joined through third party sources.

<center>**Limitations**</center>

Design Limitations

There may be something common to people who elect to participate in the Qualtrics pools that does not apply to the general public, limiting the external validity of results. Although focusing on thoughts about the charitable behavior of volunteerism in particular added needed specificity to the existing literature, it also narrowed the generalizability of the results. Another limitation was that participants might not actually have thought about what the writing prompts asked them to think about. Furthermore,

demand characteristics may have influenced internal validity if participants became

aware of the purpose of the study, influencing their responses. To reduce this risk, the

informed consent document did not include any statements about the hypotheses.

Bias

There was potential for the writing prompts to reflect biases that may have

threatened construct validity. Having the questions edited and conducting the experiment

online rather in a face-to-face setting addressed this limitation. Aspects such as tone of

voice and body language that may contribute to biased presentation were absent from the

delivery of prompts.

<div align="center">**Significance**</div>

If this dissertation had resulted in empirical support that thinking about engaging

in charitable behaviors influences rates of loneliness, mental health professionals would

have gained direction for intervention with patients suffering from severe loneliness. For

example, narrative psychotherapists could guide clients through narratives about

charitable behaviors. Cognitive behavioral therapists could give clients assignments with

charitable behaviors as the main themes and tasks. The mediational model used as the

framework for this study contributed new information to the literature, because the model

detailed the connection between thinking about charitable behaviors and the reduction of

loneliness.

Loneliness has been described as an emotional experience and as a behavioral

deficit of social interactions (Drennan et al., 2008; Weinstein et al., 2016), but little was

known about the cognitive component. Researchers had found correlations between

thinking about prosocial behaviors and levels of loneliness, positive affect, sense of

belongingness, and actual participation in prosocial behaviors later (Alden & Trew, 2013; Baskin, Wampold, Quintana, & Enright; Greitemeyer, 2009; Greitemeyer & Oswald, 2011; Macrae & Johnson, 1998; Mouratidis & Sideridis, 2009; Nelson & Norton, 2005). This study might have demonstrated that activation of one social concept leads to activation of related social concepts. Findings that determined whether or not thoughts can reduce immediate feelings of loneliness provided novel information and experiment-based findings to that existing literature.

The application of findings could lead to broader positive social change. Scholars suggested that stimulating thoughts about engaging in charitable behaviors may make people more likely to engage in charitable behaviors. Macrae and Johnson (1998) primed one group of participants with prosocial thoughts by having them read sentences that included helping words. Compared with a control group that was not primed, the primed participants displayed higher rates of helping behaviors. Nelson and Norton (2005) found that, compared with a nonprimed control group, their participants primed with prosocial thoughts by completing a task describing the characteristics of a superhero were more likely to engage in volunteerism. Greitemeyer and Oswald (2011) found that priming participants with prosocial thoughts influenced their behaviors to be more prosocial. Increased participation in charitable behaviors may positively influence society in the form of increased productivity of charitable organizations.

<div style="text-align:center">Summary</div>

In this chapter, I highlighted the positive correlations between loneliness and both mental and physical ailments and even death. There was a call for empirical research to address this problem. Scholars revealed more information about the nature of loneliness

and a negative correlation between prosocial behaviors and loneliness. Merely thinking about engaging in certain prosocial behaviors is also negatively correlated with loneliness. There is a need for empirical research on how loneliness might be reduced. Researchers also call for studies that are focused on addressing the types of prosocial behaviors.

Chapter 2 provides a detailed account of the literature review that was conducted in order to form and support hypotheses and methodology of this dissertation.

Chapter 2: Literature Review

Introduction

Scholars established the need for research regarding thoughts about engaging in charitable behaviors and its influence on loneliness. The purpose of this dissertation was to address this research need. Scholars have shown a positive correlation between loneliness and both mental and physical health problems (Franklin, 2009; Gerst-Emerson & Jayawardhana, 2015, Heinrich & Gullone, 2006; Jaremka et al., 2014). Researchers suggested that prevention and treatment of loneliness should be a higher priority in research and the mental and physical health sectors (Gerst-Emerson & Jayawardhana, 2015, Heinrich & Gullone, 2006; Jaremka et al., 2014). Researchers also showed a negative relationship between loneliness and prosocial behaviors (Gries & Buhs, 2014; Woodhouse et al., 2012), including charitable behaviors such as volunteering (Winterich et al., 2013; Winterich & Zhang, 2014). Furthermore, research conducted within the last decade about peoples' thoughts about planning and engaging in future prosocial behaviors showed correlations between thoughts, prosocial behaviors, and loneliness (Mouratidis & Sideridis, 2009; Vanhalst et al., 2012).

The theoretical framework for this dissertation included spreading activation theory. According to the spreading activation theory, when people are primed semantically, they pull information about the primed subject into their working memories or short-term memories (Collins & Loftus, 1975). A framework for a psychological theory of loneliness proposed by Peplau and Perlman (1979) also served as part of the theoretical foundation. This framework focuses on loneliness as a social deficiency that is subjective in nature and influenced by the amount of perceived control people believe

they have over their social interactions. Furthermore, perceived control is a factor in how a person experiences feelings of loneliness, in the likelihood that an individual will engage in charitable behaviors, and in the likelihood that thinking about charitable behaviors will increase the likelihood of actually engaging in charitable behaviors.

This chapter begins with a summary of the strategy used to select literature. This chapter also includes a review of the research on the relationship between loneliness and mental and physical health problems, as well as the relationship between the two different types of loneliness: social and emotional. It includes findings from existing studies in which researchers also manipulated participants' prosocial thoughts. It includes a discussion about a relationship between loneliness and both prosocial behaviors in general and the charitable behavior of volunteerism. I review the gaps and imitations in the existing literature and explain how I addressed them. It also includes reviews of the theories involved in the theoretical foundation and explanations of how each pertains to charitable behaviors.

Literature Search Strategy

A search of peer-reviewed literature was conducted digitally through electronic databases such as Academic Search Complete, PsycARTICLES, PsycBOOKS, PsycEXTRA, PsycINFO, SocINDEX with Full Text, ProQuest Central, Social Sciences Citation Index, and Science Direct. Key words used to search the databases included *loneliness, social loneliness, emotional loneliness, prosocial behaviors, charitable behaviors, volunteer*, and *theory of planned behavior*. The sources of literature reviewed for this study were obtained in digital format. The review included literature published between 1979 and 2016.

Theoretical Framework

The theoretical foundation of this dissertation partly reflected a mediational model, as depicted below in Figure 1. The first relationship in the mediational model is that thinking about engaging in charitable behaviors creates a perceived ability to participate in a positive social interaction. Alden and Trew (2013) provided an example of why prosocial behaviors, such as charitable behaviors, are judged as positive social interactions. For 4 weeks, Alden and Trew asked 780 undergraduate students to either engage in acts of kindness 2 days per week (experimental group) or engage in safety behaviors or report life events 2 days per week (control groups). Alden and Trew found that participants who completed kind acts, including charitable behaviors specifically, experienced a significant increase in positive affect, as compared with the control groups. These results may be explained by correlations between kindness and helping and increases in positive self-evaluation (Williamson & Clark, 1989) and sense of social worth (Grant & Gino, 2010).

The second relationship in the mediational model was that self-identifying a controllable positive social interaction increases a sense of belongingness. Positive social interactions influence feelings of social connections, even in the face of social rejection, because social connection influences emotional regulation and interrupts antisocial behaviors (Twenge et al., 2007). An increased sense of belongingness then decreases feelings of loneliness. Sense of belongingness is a distinct variable from loneliness, because sense of belongingness is cognitive in nature and separate from other factors that are related to loneliness, such as social support (Fowler et al., 2013). Sense of

belongingness also involves a sense of similarity with others, another related but separate component of loneliness (Seppala et al., 2013).

Thinking about engaging in a specific charitable behavior. → Perceived ability to participate in a positive social interaction. → Increased sense of belongingness. → Decreased feelings of loneliness.
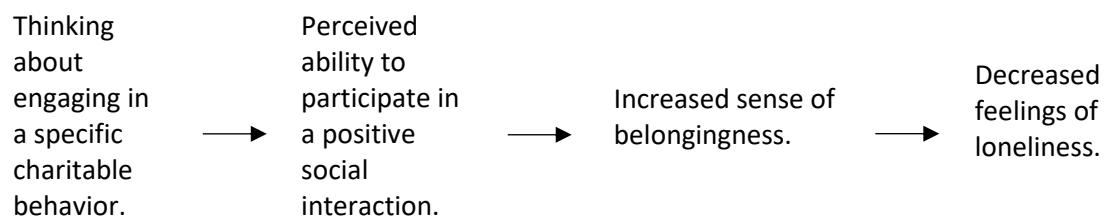
Figure 1. Mediational model of the relationship between thinking about charitable behaviors, belongingness, and loneliness.

Baskin et al. (2010) found belongingness to be a moderator of the positive correlation between low peer acceptance and loneliness among 294 middle school students. Baskin et al. found that even among students who experienced low peer acceptance at school, those who felt a strong sense of belongingness to any other social group experienced significantly less loneliness than those low in belongingness. Mouratidis and Sideridis (2009) highlighted how this moderation relates to thoughts about prosocial behaviors. Mouratidis and Sideridis found that among 243 elementary school students, those who chose to think about a prosocial goal experienced a stronger sense of belongingness, regardless of peer acceptance. Thinking about a prosocial goal was positively correlated with sense of belongingness. Mouratidis and Sideridis explained that sense of belongingness was negatively correlated with loneliness. Thinking about a prosocial goal also overrode any interactions with peer rejection (Mouratidis & Sideridis, 2009). Mouratidis and Sideridis explained that peer rejection was positively correlated with loneliness. Both of the aforementioned studies were correlational in nature. This study added experimental findings to the literature. It was

also conducted with adult as opposed to adolescent and child participants, further expanding the scope of the literature.

Spreading Activation Theory

The spreading activation theory partly explained why opening access to structures of prosocial knowledge through priming would contribute to an increase in prosocial behaviors. Spreading activation means a primed concept activates additional related concepts within a person's knowledge base (Collins & Loftus, 1975). It is based on Quillian's (1969) theory of semantic memory: the full meaning of any concept involves the entire network of related concepts. One assumption of semantic processing is that upon stimulation of a concept, activation spreads first to the most accessible or strongly linked concepts (Collins & Loftus, 1975). A second assumption is that the longer a person continuously processes a concept, the longer it can be activated, and only one concept can be activated at any given time (Collins & Lofts, 1975). Consequently, the more concepts that are primed, the less time each will be activated. A fourth assumption is that the more aspects two concepts share, the more easily activation will spread from one to the other (Collins & Loftus, 1975). Another assumption is that a person must possess enough evidence of a link between two concepts to connect them (Collins & Loftus, 1975).

To put the spreading activation theory in the context of social interaction, Abbate, Rugieri, and Boca (2013) explained that when people experience stimuli, any social knowledge stored in their memories that is related to the stimulus has a chance of immediate and simultaneous activation, regardless of people's awareness and attention. Once activated, this stored knowledge may influence behaviors. Furthermore, Abbate et

al. explained that the information recalled is often the result of learned stereotypes. Participants who think about charitable behaviors will most likely experience activated memories of knowledge associated with stereotypes that they have learned and retained regarding engaging in charitable behaviors.

Gino and Desai (2012) explained that early childhood memories are important in the process of memory recall increasing prosocial behaviors. Therefore, there could have been spreading activation to many different types of memories. Participants may have experienced recall of childhood memories regarding prosocial behaviors, and these memories might have affected loneliness.

Concepts activated by thinking about charitable behaviors. Liu and Aaker (2008) described concepts activated when primed to think about donating time to charitable behaviors. These concepts include emotional wellbeing and personal happiness. Thinking about spending time in general activates thoughts about how to make that time spent an emotionally meaningful experience. Thinking about spending time donating time to charitable behaviors activates emotional goal concepts, making the connection between charitable contribution of time and emotional wellbeing. Liu and Aaker tested a theoretical model whereby asking people to think about donating time activates an emotional mindset that giving leads to happiness, which leads to actual contribution of time to charitable behaviors, which Liu and Aaker found to be substantiated through both laboratory and field experiments. Liu and Aaker suggested that thoughts about potential economic value of time donated, the concept of empathy, and an easy and vivid visualization of themselves helping may have also been activated and may have played a role in the actual engagement in charitable donations of time.

Furthermore, Liu and Aaker found these results to be significant when thinking about donating time but not when thinking about donating money, as thinking about donating money activates a different series of concepts, such as goals of economic utility and beliefs about attaining economic utility goals.

Moral identity is one concept activated by thinking about charitable behaviors (Winterich et al., 2013). Reed, Aquino, and Levy (2007) asked 242 adults (undergraduate students, administrative staff, and other community members) to read scenarios about donations of money versus time and then answer questionnaires about giving. Reed et al. found that people perceived the act of donating time rather than money as more moral and self-expressive. Reed et al. found that although people with higher organizational statuses prefer donating money over time, this preference is not as strong for people high in self-important moral identity. Reed et al. also found that regardless of status, when the moral self is primed and the donation of time has a perceived moral purpose, people's preferences for donating time over money were stronger. Participants in the experimental group of the present study were asked to think about the charitable behavior of donating time. According to Reed et al., this may prime their moral selves in a way that the control groups will not experience, which will partially explain any differences in feelings of loneliness found between the three groups.

The processes by which activated concepts may influence loneliness. The increased emotional wellbeing described by Liu and Aaker (2008) might influence loneliness through activation of reward centers in the brain that are similarly activated through relationships with close friends and significant others (Harbaugh, Mayr, & Burghart, 2007). It might also occur through activation of thoughts about the positive

social implications of volunteering time (Reed et al., 2007). Empathy and loneliness have also been found to be negatively correlated (Beadle, Brown, Keady, Tranel, & Paradiso, 2012). These studies are all correlational in nature and do not provide any information about influence. The present study was experimental and addressed this gap in information.

Baldwin and Kay (2003) gave participants a questionnaire to assess attachment anxiety and then asked them to complete what they believed was an attitude questionnaire. Baldwin and Kay manipulated feelings of rejection and acceptance by including a bogus questionnaire with rejection and acceptance feedback, each paired with a particular tone. Baldwin and Kay found that participants lower in attachment anxiety displayed inhibition of rejection expectations when hearing a tone that they had been conditioned to associate with interpersonal rejection. Baldwin and Kay explained that heightened accessibility to negative memories and expectations through priming facilitates spreading activation to other negative memories and expectations, and vice versa. Similarly, Dutton, Lane, Koren, and Bartholomew (2016) found in their experimental study of 686 university students and 278 adults participating in an online version that participants shown images of a secure base prime attachment between two people experienced a decrease in anger and anxiety as opposed to participants in control groups. These studies involved similar priming and spreading activation as might have occurred in the present study.

Yildiz (2016) explained that loneliness is not necessarily correlated with the actual experience of participating in relationships with others, but rather with a person's perception (or thoughts about) the quality of these social interactions. Because charitable

behavior is a type of social relationship and a type of prosocial behavior, if the

participants in this dissertation thought about volunteering time at a charitable

organization of their choice, they might also have experienced an increase in

belongingness and subsequent decrease in loneliness. This would have been true even if

there are other factors in their lives that might be positively correlated with loneliness.

A Social Psychological Framework on Loneliness and Perceived Control

Peplau and Perlman (1979) outlined a framework for a social psychological

theory on loneliness that is separate from but related to the aforementioned mediational

model. Peplau and Perlman conceptualized loneliness as a social deficiency and a lack of

the sense of belongingness discussed in the mediational model constitutes a social

deficiency. The mediational model includes the aspect of perceived ability to participate

in prosocial behaviors, suggesting an element of control over a person's social behaviors.

Peplau and Perlman believed loneliness to be subjective in nature and influenced by the

amount of control people feel over their social situations. Scholars have used Peplau and

Perlman's framework in their descriptions of loneliness (Caputo, 2015; Hawkley &

Cacioppo, 2010; Tzouvara, Papadopoulos, & Randhawa, 2015). The framework also

aligned with a study by Vanhalst et al. (2012), who found that among participants who

controlled their ruminations about loneliness, loneliness was not significantly positively

correlated with depression, as it was with participants who did not control their

ruminations.

Peplau and Perlman (1979) drew from the theory of learned helplessness,

explaining that people who attribute their loneliness to controllable causes are more likely

to believe that they can cope with their loneliness. Peplau and Perlman suggested that

one way perceived control influences loneliness is through the ability to identify a controllable coping mechanism for loneliness. One assumption of this dissertation was that charitable behaviors are a coping mechanism for loneliness and asking participants to choose and describe which charitable organization they could donate time to afforded them the element of perceived control. One limitation of Peplau and Perlman's framework is that it pertains to future rather than immediate feelings of loneliness. Peplau and Perlman compared measurements of loneliness immediately before and after thinking about or engaging in a controllable coping mechanism, so it is unclear whether they were measuring loneliness that had been influenced by a condition of the study or a culmination of previous experiences. I stopped reviewing here due to time constraints. Please go through the rest of your chapter and look for the patterns I pointed out to you. I will now look at your Chapter 3.

The influence of perceived control on loneliness is further explained by the locus of control theory. Among 260 Chinese college students, Ye and Lin (2015) found that greater loneliness was associated with a greater external locus of control (a person's belief that his or her life is controlled by factors they cannot influence). These findings were based on responses to a questionnaire about social media use and various measures of locus of control, loneliness, and online social interaction preferences. Specifcially, external and internal locus of control were measured with Rotter's (1966) Locus of Control Scale, one scale that contained external versus internal options. As with the framework by Peplau and Perlman (1979), it is unclear whether Ye and Lin's (2015) study highlights a correlation between perceived control and future or immediate feelings

of loneliness. The present study addressed this gap by specifically measuring immediate feelings of loneliness.

Gordijn (2009) also found a positive correlation between external locus of control and loneliness among HIV patients in the Netherlands. It is possible for even those with a predisposition towards an external locus of control to develop an internal locus of control through learning what a person can and cannot control (Ahlin & Atunes, 2015, Murphy, Hunt, Luzon, & Greenberg, 2013). However, people cannot infer a causal or immediate relationship between locus of control and loneliness, as these studies are correlational in nature and do not specify whether immediate or future loneliness was measured. The experimental design of the present study addressed this gap.

The difference between immediate and future feelings of loneliness might lie in a distinction between trait loneliness and state loneliness. Trait loneliness refers to chronic loneliness, while state loneliness refers to more temporary, situational, and immediate feelings of loneliness (Hawthorne, 2008; Houghton, Hattie, Carroll, Wood, & Baffour, 2016, Houghton, Hattie, Wood, Carroll, Martin, & Tan, 2014). It is unclear in the existing literature whether or not there is a relationship between trait loneliness and state loneliness, or whether or not perceived control influences each type of loneliness differently. However, researchers have expressed the belief that it is important not to overestimate the personal and underestimate the situational influences on loneliness (Perlman & Peplau, 1982; Weiss, 1982). Wiseman (1997) described using both the state and trait loneliness versions of the UCLA Loneliness Scale by Russell, Peplau, and Cutrona (1982).

The specific charitable behavior of interest in this dissertation was volunteering. The relationship between volunteering, perceived control, and loneliness might be due to a correlation between volunteering and loneliness that is mediated by perceived control. Mellor, Hayashi, Firth, Stokes, Chambers, and Cummins (2017) found that the volunteers who experienced increased wellbeing reported higher levels of perceived self-control than the volunteers who did not experience increased wellbeing. Once again, the authors of this study did not distinguish between immediate and future feelings of loneliness. It is therefore important to note that part of the effect of thinking about charitable behavior might not be measured in the study, but would occur later. Immediate feelings of loneliness were measured in this dissertation, thereby addressing this gap. It was be important to ensure that trait loneliness was measured separately from state loneliness, thereby addressing the gaps in the literature.

Loneliness and Health Problems

Researchers have found positive correlations between loneliness and certain physical and mental health issues, including inflammation, fatigue, back pain, headache, nausea, colds, appetite troubles, depression, substance abuse, and suicide (Franklin, 2009; Gerst-Emerson & Jayawardhana, 2015, Jaremka et al., 2014). Among these, inflammation, pain, depression and fatigue are also positively correlated with higher rites of overall health problems, serious illnesses, and even death (Jaremka et al., 2014). The positive correlation between loneliness and heart attack is higher than the positive correlation between smoking and heart attack (Franklin, 2009). Gerst-Emerson and Jayawardhana (2015) suggested that treating and preventing loneliness should be a higher priority within the healthcare fields. Heinrich and Gullone (2006) suggested that

clinicians should focus on eliminating the social relationship deficits that contribute to loneliness. Given the correlational nature of these studies, little may be concluded about the actual effect of loneliness on mental and physical health.

Social Loneliness versus Emotional Loneliness

Loneliness is a dichotomous concept composed of both social loneliness and emotional loneliness. Social loneliness refers to a lack of broader social networks. Emotional loneliness refers to a lack of more intimate social relationships (Weinstein et al., 2016). In both dimensions, loneliness refers to the loss of needs, or a discrepancy between what people want in terms of interpersonal relationships, and what is actually available to them. Social loneliness arises from a deficit in integration with a supportive social network, whereas emotional loneliness arises from the loss of a romantic other, children, or some other more significant intimate relationship in a person's environment (Drennan et al., 2008).

Many existing instruments of loneliness actually only measure social loneliness. Drennan et al. (2008) explained that using instruments that distinguish between the two (such as the Social and Emotional Loneliness Scale by DiTommaso and Spinner (1997)), help researchers understand the specific nature of loneliness. There are correlational findings but no experimental research regarding the distinction between social and emotional dimensions of loneliness.

For example, Drennan et al. found a positive correlation between divorce and emotional loneliness among older female adults but not older male adults. Among a sample of people between the ages of 30 and 76 years, Dykstra and Fokkema (2007), found that the overall correlation between divorce and loneliness was greater for males

than females. The researchers also found higher correlations between divorce and emotional loneliness for women who place high importance on relationships than women who do not. The researchers explained that the levels of social and emotional loneliness a person experiences are therefore mediated by specific relationship aspects as well as overall relationship preferences. Peerenboom, Collard, Naarding, and Comijs (2015) found that depression was positively correlated with emotional loneliness but not with social loneliness. On the other hand, Dragset, Espehaug, and Kirkevold (2012) found that depression was positively correlated with both social and emotional loneliness. Both the Peerenboom et al. and Dragset et al. studies took place in Norway with samples of elderly nursing home patients. It was therefore crucial in this dissertation to measure emotional and social loneliness separately, as the previously existing literature was still unclear about how the two differ.

Peplau and Perlman (1979) suggested that loneliness resulting from a deficit in one type of relationship can be alleviated through interactions in another type of relationship. Heinrich and Gullone (2006) supported this in their explanation that to reduce or prevent loneliness, a person does not necessarily have to engage in intimate or confidant relationships, only relationships that meet social needs such as social integration, reassurance of worth, nurturance, and reliance alliance. Thus, the hypotheses of this dissertation are that participants primed with thoughts of charitable behaviors will score lower on both social and emotional loneliness. Regardless of the outcome, this dissertation provided empirical information about the influence of thinking about charitable behaviors on both social and emotional loneliness, since each dimension was measured separately.

Priming with Prosocial Thoughts

Greitemeyer and Oswald used priming to manipulate prosocial thoughts in two separate studies, one in 2009 and another in 2011. In the 2009 study, the researchers primed one group of participants with prosocial song lyrics and another with neutral song lyrics. In the 2011 study, the researchers primed one group by having them play a prosocial video game and the other by having them play a neutral video game. The researchers found that the participants primed with prosocial thoughts displayed more prosocial behaviors.

Greitemeyer and Oswald (2009, 2011) based their studies on the earlier studies of Macrae and Johnson (1998) and Nelson and Norton (2005). Macrae and Johnson primed one group of participants with prosocial thoughts by having them read sentences including helping words. Compared with a control group that was not primed, primed participants displayed higher rates of helping behaviors. Nelson and Norton primed one group of participants with prosocial thoughts by having them describe the characteristics of a super hero. Compared to a non-primed control group, these participants were more likely to engage in volunteerism. The priming used in these studies was similar to that used in the present study.

The Theory of Planned Behavior

The theory of planned behavior helps explain the role that priming played in this dissertation. According to the theory, a person's intention to engage in a behavior is a function of the presence of perceived behavioral control (a person's belief in his or her capability to perform in the behavior), attitude (or a person's approval or disapproval of the behavior) and subjective norm (a person's perception of the expectations of others

regarding performance of the behavior) (Marta et al., 2014). Jiranek et al. (2013) explained that intention is the most important mediational factor when it comes to actually engaging in charitable behaviors.

Nelson and Norton (2005) explained that priming participants with thoughts about volunteering during an experiment might have long-term effects on future behavior by influencing participants' goals to include volunteerism. Further, Manzi, Pozzi, and Vignoles (2014) found that, consistent with the theory of planned behavior, perceived control over an person's ability to volunteer was positively correlated with the likelihood of actually engaging in the behavior of volunteering. Future charitable behaviors of participants were not measured as part of this study. However, this information provided directions for future research in this area in order to expand upon the overall purpose of this dissertation, which was to address the social problem of loneliness.

The Correlation Between Prosocial Behaviors and Loneliness

Researchers have found a negative correlation between loneliness and prosocial behaviors among adolescents (Gries & Buhs, 2014; Woodhouse et al., 2012). Gries and Buhs found that engaging in prosocial behaviors moderated the positive relationship between peer victimization and loneliness. Woodhouse et al. (2012) found that adolescents who scored higher in prosocial behavior also scored lower in loneliness. This correlation applies to charitable behaviors, prosocial behaviors involving the donation of time or money with the intention of helping others (Winterich et al., 2013; Winterich & Zhang, 2014). Gillath et al. (2005) found a negative relationship between participants' levels of loneliness and their self-reported time spent volunteering, which was the specific charitable behavior of investigation in this dissertation.

Research shows that considering and planning a person's own future charitable behaviors has a similar negative correlation with loneliness. Mouratidis and Sideridis (2009) found thoughts about prosocial behaviors were negatively correlated with loneliness. Students who focused their thoughts on a social development goal that included improvement of prosocial skills reported more perceived belongingness and less loneliness. Students felt less lonely when thinking about their prosocial goals even if they had little actual social interaction.

Integration and Evaluation of Past Research and Present Research

The existing body of literature on prosocial behaviors and loneliness was relatively recent and therefore limited in many ways. Many of the samples studied in past research were limited to children and adolescents, so the adult population of this dissertation expanded the breadth of the literature. The majority of the existing literature was correlational or meditational. To address this limitation, this dissertation was a randomized experimental study with two control groups, a group with a control writing condition, and a group with no writing condition.

Some of the studies reviewed measured loneliness using scales that measured both social and emotional loneliness, but many used scales that did not distinguish between the two. In the studies that that did involve scales that measured both dimensions, the majority of the authors did not distinguish between them in the results or discussions. In this dissertation, the two dimensions were distinguished in measurement as well as reports and discussions of findings.

Winterich and Zhang (2014) explained the need for additional research on charitable behaviors specifically. Monetary donations and the donations of time through

volunteer services significantly influence the economy. According to Lee and Shrum (2012), more studies are needed about the relationships between charitable behaviors and social needs. Since volunteerism is a form of charitable behavior involving the donation of time, and loneliness represents a deficit in social needs, this dissertation addressed both of these gaps.

Additionally, it was important to ensure that this dissertation remained consistent with the tenants of Peplau and Perlman's (1979) framework, as well as the theory of planned behavior. It therefore involved the hypothesis that thinking about a specific and controllable coping mechanism (engaging in charitable behaviors) would influence immediate feelings of loneliness. Participants had the element of control by identifying specific organizations to which they could donate time, as opposed to general thoughts about engaging in charitable behaviors.

Summary and Conclusions

This literature review examined studies in the areas of loneliness and prosocial behaviors separately, as well as studies on the correlation between loneliness and prosocial behaviors. Studies on loneliness included the physical and mental health problems associated with loneliness, as well as information about social versus emotional dimensions of loneliness. Studies on prosocial behaviors pointed to the need for more specified research on different types of prosocial behaviors. This dissertation focused on volunteering time, one component of a specific type of prosocial behavior known as charitable behavior.

There were many important things already known from the existing literature as a result of experimental research. Completing kind acts, including charitable behaviors

specifically, leads to increased positive affect (Alden and Trew, 2013). People who think about donating time, as opposed to people who think about donating money, experience the activation of an emotional mindset that giving leads to happiness, which in turn leads to actual contribution of time to charitable behaviors (Liu & Aaker, 2008). There was also a great deal known about existing relevant correlations. There are negative correlations between prosocial behaviors (both thoughts about and actual behaviors) and loneliness. There are positive correlations between loneliness and many mental and physical health ailments. There is a positive correlation between perceived control and feelings of loneliness. Furthermore, it was known that loneliness is a dynamic concept. There are two types of loneliness (social and emotional), as well as two aspects of loneliness (chronic trait and temporary situational).

There was a great deal of information assumed based on existing literature but not yet thoroughly explored through research. Through spreading activation, thinking about charitable donation of time may activates the concepts of emotional well-being, empathy, and moral identity. It was known that there are negative correlations between well-being and loneliness and empathy and loneliness, but there is no existing research about correlations between moral identity and loneliness. It was unclear based on current research whether perceived control influences immediate feelings of loneliness or just future feelings of loneliness. The primary gap in the existing literature was the lack of experimental research examining the influence of thoughts on charitable behaviors on immediate loneliness. This dissertation was therefore be experimental in nature and measured those specific variables.

Many of the studies in the literature review involved the correlation between mere thoughts about prosocial behaviors and loneliness. The focus of this dissertation was to examine the influence on loneliness of thoughts about volunteering time spent engaging in charitable behaviors. This contributed to the existing body of literature in two important ways. First, it addressed the need for more experimental research in this area. Second, it narrowed the focus from prosocial behaviors in general to volunteering in particular, adding depth to the existing literature. This approach was informed by the social psychological framework of loneliness proposed by Peplau and Perlman (1979), as well as the theory of planned behavior. The next chapter discusses the methodology, setting, sample, instrumentation, and statistical analysis that were used in this dissertation.

Chapter 3: Research Methods

Introduction

The purpose of this quantitative, experimental study was to investigate the influence of thinking about charitable behaviors on loneliness. Loneliness is positively correlated with many mental and physical health problems, so researchers have identified the importance of learning more about what might reduce feelings of loneliness. Researchers have found negative correlations between prosocial behaviors and loneliness, as well as correlations between thinking about prosocial behaviors and loneliness (Gries & Buhs, 2014; Mouratidis & Sideridis, 2009; Vanhalst et al., 2012; Woodhouse et al., 2012). The aim of this study was to provide depth and quantitative data to the existing research.

This chapter begins with an overview of the research design and rationales. This includes a description of the study variables, an explanation of the connection between the research questions and the research design, an explanation of why the design is needed to advance knowledge on the topic, and a description of time and resource constraints associated with the design. In this chapter, I focus on methodology. I include a definition and description of the target population. I outline the intended sample and sampling procedures. I detail the plan for recruitment, participation, and data collection. I describe instrumentation and operationalization of constructs. I identify potential threats to validity. Finally, I outline ethical procedures, including what institutional review board (IRB) approvals were needed, ethical concerns and how they were addressed, and how confidential data were protected.

Research Design and Rationale

I addressed the questions of whether or not feelings of social and emotional loneliness would immediately lower among participants who thought about charitable behaviors. I followed a quantitative experimental approach to answering these questions. Specifically, I compared levels of social and emotional loneliness of participants given a charitable behaviors' writing prompt, participants given a control writing prompt, and participants given no writing prompt.

The experimental approach was appropriate for this study, because the randomized experiment allowed for conclusions about contributory causation. Participants were randomly assigned to groups, and the independent variable was manipulated. Scores on the loneliness scale reflected the influence of thinking about charitable behaviors versus thinking about a control prompt and not being given a prompt. I did not address a possible correlation between thoughts about charitable behaviors and loneliness.

An experimental approach to studying the influence of thinking about charitable behaviors on immediate feelings of loneliness provided novel information to the existing literature. Mouratidis and Sideridis (2009) found a negative correlation between thinking about prosocial behaviors and decreases in loneliness, but not necessarily immediate feelings of loneliness. Authors of correlational studies called for more experimental research (Alden & Trew, 2013; Baskin et al., 2010; Greitemeyer, 2009; Greitemeyer & Oswald, 2011; Macrae & Johnson, 1998; Nelson & Norton, 2005).

Methodology

Population

The target population for this study was all adults age 18 or older living in the United States.

Sampling

The sampling strategy for this study was convenience sampling. I payed Qualtrics to obtain 160 responses. The study was sent to participants ages 18 and over living in the United States. There were no exclusion criteria other than age. G*Power analysis software was used to determine a sample size of at least 158 participants. This sample size accounted for an effect size of $f = .25$, selected because it represents a medium effect size. This was appropriate given that it is not clear what effect size should have been expected. The probability error was $\alpha = .05$, and the power was .80.

Procedures

The recruitment procedure can be found in Appendix A. Before beginning the study questions, participants were prompted to read and agree to an informed consent document. Following participation, participants were provided with a debriefing document. The debriefing statement can be found in Appendix C.

Data were collected via responses to an online questionnaire using an online survey company. This questionnaire included the demographic questions, the responses to the writing prompts in the two writing conditions, and the questions included in the Social and Emotional Loneliness Scale for Adults (SELSA; DiTommaso & Skinner, 1993). The order in which participants completed the participation tasks was as follows: demographic questions (included in Appendix B), writing prompt, the SELSA, and the

manipulation check. The participants in the no prompt group proceeded directly to the

SELSA from the demographic questions. Participants were randomly assigned to

conditions (data collection began with the Walden University Research Participation

Pool). The study was then removed from this platform, and data collection began from

the Facebook dissertation survey exchange groups. I was approved to post my study to

the groups. The data collected from these samples were unusable, so data were then

collected by Qualtrics.

Instrumentation and Operationalization of Constructs

Loneliness was measured using the SELSA, developed by DiTommaso and

Spinner (1993). This was the most appropriate measure for this study, because it includes

and distinguishes between the social and emotional dimensions of loneliness, and this

study had separate hypotheses for each of these dimensions. The scale is available in the

Walden Library via the PsycTESTS database. The scale includes documentation of the

permission to reproduce and use this scale for noncommercial research without seeking

written permission (DiTommaso & Spinner, 1993).

The dependent variable of immediate feelings of loneliness was operationalized

by scores on the SELSA. Participants rated each of the 37 items on a 7-point response

scale, where 1 = *strongly disagree*, 2 = *disagree*, 3 = *somewhat disagree*, 4 = *neither

agree nor disagree or does not apply*, 5 = *somewhat agree*, 6 = *agree*, and 7 = *strongly

agree*. Twenty-three of the items were reverse-scored. The scores represent how lonely

each participant feels. An example of a regularly scored social loneliness item is "I don't

have a friend(s) who understands me, but I wish I did." An example of a reverse-scored

emotional loneliness item is "I have someone who fulfills my emotional needs."

Ireland and Qualter (2008) used the SELSA in their correlational study on bullying and social and emotional loneliness among adult male prisoners. Ireland and Qualter found each subscale to have high reliability ($\alpha = .89$ for the emotional loneliness scales, and $\alpha = .95$ for the social loneliness scale (emotional loneliness on the SELSA is measured by the romantic and family subscales combined). Initial validation studies of the SELSA showed overall high concurrent validity tested for interrelationships with the UCLA Loneliness Scale ($r = .79$ on the social subscale, $r = .40$ on the romantic subscale, and $r = .37$ on the family subscale; DiTommaso & Spinner, 1993). DiTommaso and Spinner (1993) also found good discriminant validity when tested for interrelationships with the social and emotional loneliness measurement items used by Russell, Cutrona, Rose, and Yurko (1984). DiTommaso and Spinner found that their Romantic subscale was strongly correlated with Russell's et al. emotional loneliness item ($r = .69$) but weakly associated with the social loneliness item ($r = -.14$). In regards to their social loneliness subscale, DiTommaso and Spinner found the opposite to be true ($r = .57$ for social and $r = .27$ for emotional).

Manipulation of Independent Variable

The independent variable of assigned condition was operationalized as three levels of writing prompts: a writing prompt for thinking about charitable behaviors, a control writing prompt, and no writing prompt. The prompts were given following the demographic survey. The question for the charitable thoughts group read "In 100 words, describe a specific charitable organization in your community to which you could donate time volunteering." The question for the control prompt read "In 100 words, describe the

layout of the grocery store you most frequently shop in." These prompts were researcher-developed, as there were no existing studies of this design.

Data Analysis Plan

The Statistical Package for Social Sciences (SPSS) was the data analysis software used for this study. Rosnow and Rosenthal (1988) explained, "there is an increase in statistical power that derives from employing a focused rather than an omnibus test of significance" (p. 204). Therefore, planned contrasts were performed, within the one-way ANOVA program in SPSS, in order to test the hypotheses. Planned contrasts were conducted comparing two conditions at a time, as specified in the research hypotheses below. Results were interpreted by comparing mean scores for each planned contrast. A 95% confidence interval was used. The following descriptive statistics were reported: mean SELSA scores and effect sizes using the point-biserial correlation coefficient r_{pb} (two values reported for the social subscale, and two for the emotional subscale), standard deviation, and standard error for each group. The point-biserial was used because the independent variables were dichotomous, and the dependent variable was continuous (Kemery, Dunlap, & Griffeth, 1988).

Missing Data and Outliers. The data were screened for missing data and outliers. Results were reported both with and without outliers.

Manipulation Check. The following manipulation check question ensured that the manipulation was successful: "While completing this questionnaire how much did you think about volunteering for a charitable organization: 0 Not at all, 1 A Little, 2 Some, 3 A Lot."

Research Questions

1. Does thinking about engaging in charitable behavior decrease social loneliness?

    a) Null Hypothesis 1: There will be no difference in social loneliness scores between participants who write about engaging in charitable behaviors and participants who write about a topic not related to charitable behaviors.

    b) Research Hypothesis 1: Participants who write about engaging in charitable behaviors will score significantly lower on social loneliness than participants who write about a topic not related to charitable behaviors.

    c) Null Hypothesis 2: There will be no difference in social loneliness between participants who write about charitable behaviors and participants who are not given a writing prompt.

    d) Research Hypothesis 2: Participants who write about engaging in charitable behaviors will score significantly lower on social loneliness than participants who are not given a writing prompt.

2. Does thinking about engaging in charitable behavior decrease emotional loneliness?

    a) Null Hypothesis 1: There will be no difference in emotional loneliness between participants who write about engaging in charitable behaviors and participants who write about a topic not related to charitable behaviors.

    b) Research Hypothesis 1: Participants who write about engaging in charitable behaviors will score significantly lower on emotional loneliness than participants who write about a topic not related to charitable behaviors.

c) Null Hypothesis 2: There will be no difference in emotional loneliness

between participants who write about engaging in charitable behaviors and

participants who are not given a writing prompt.

d) Research Hypothesis 2: Participants who write about engaging in charitable

behaviors will score significantly lower on emotional loneliness than

participants who are not given a writing prompt.

Threats to Validity

Threats to External Validity

Using sampling from the Qualtrics panels posed threats to external validity.

Participants who chose to participate in these panels might have an unknown quality in

common that mediated the influence of thinking about charitable behaviors on loneliness

in a way that does not apply to participants who chose not to participate in this study.

Focusing on thoughts about the charitable behavior of volunteering further narrowed the

generalizability of the results. Donation of money and items are also considered to be

charitable behaviors, and I did not take those behaviors into account.

Threats to Internal Validity

It is possible that participants might not actually have thought about what the

writing prompts asked them or intended for them to think about. Demand characteristics

might also have influenced internal validity. Participants might have become aware of

the purpose of the study, and this awareness might have influenced their responses. To

reduce this risk, the informed consent document did not include any statements about the

hypotheses.

Threats to Construct Validity and Statistical Conclusion Validity

I created the writing prompts; therefore, they might have reflected biases which could have threatened construct validity. Having the questions edited and conducting the experiment online helped reduce this threat, because further biases could be expressed through tone of voice and body language. An assumption about the nature of the data was that they followed a normal distribution curve, and they were analyzed using this test. If this assumption was incorrect, it could have led to either Type I or Type II error. This risk was minimized by using a large sample and having a nearly equal distribution of participants in each condition.

Ethical Procedures

The IRB application was presented in order to obtain IRB approval for access to participants and data. The Research Ethics Planning Worksheet was used to prepare for the IRB application.

Treatment of Human Participants

Participants provided responses anonymously. I made no offer of compensation for participation. There were no consequences imposed if the participants refused participation or withdrew from the study, and this was stated in the informed consent document. The online participation pool did not offer any credit to participants. Qualtrics did offer compensation to participants through their third party partners. This information was included in the informed consent.

In completing the SELSA, participants may have experienced psychological discomfort due to thinking and responding about loneliness. Scholars have found correlations between loneliness and mental health issues, including suicide. It was,

therefore, crucial that the informed consent document included a statement about the risk of experiencing difficult emotions during participation.

Treatment of Data

All data were kept anonymous and confidential to the best of my ability. Data storage was a more difficult to control online versus in hard copy, so technical measures were taken to ensure password protection and content security. Only the dissertation committee and I had access to the data. The resulting dissertation will be disseminated to the program director and the university research review team, and to online dissertation databases.

<div align="center">

Summary

</div>

I tested the hypothesis that thinking about charitable behaviors influences immediate feelings of social and emotional loneliness. Participants included 171 adults 18 years or older living in the United States. Participants under the age of 18 were not eligible. Participants were randomly assigned to one of three independent variable groups. The study was conducted via an online survey that included demographic questions, writing prompts (in two of the groups), and the SELSA. Chapter 4 provides a summary of the actual data collected, the intervention fidelity, and the results.

Chapter 4: Results

Introduction

The purpose of this study was to investigate the influence of thinking about charitable behaviors on immediate feelings of loneliness. The goal of this study was to expand the knowledge and contribute quantitative data to the existing research to provide information on treatment and prevention of loneliness. This chapter provides a description of the data collection procedures, the demographic characteristics of the sample, and the results of the study.

Research Questions and Hypotheses

1. Does thinking about engaging in charitable behavior decrease social loneliness?

    a. Null Hypothesis 1: There will be no difference in social loneliness scores between participants who write about engaging in charitable behaviors and participants who write about a topic not related to charitable behaviors.

    b. Research Hypothesis 1: Participants who write about engaging in charitable behaviors will score significantly lower on social loneliness than participants who write about a topic not related to charitable behaviors.

    c. Null Hypothesis 2: There will be no difference in social loneliness between participants who write about charitable behaviors and participants who are not given a writing prompt.

    d.   Research Hypothesis 2: Participants who write about engaging in charitable behaviors will score significantly lower on social loneliness than participants who are not given a writing prompt.

2. Does thinking about engaging in charitable behavior decrease emotional loneliness?

    a.   Null Hypothesis 1: There will be no difference in emotional loneliness between participants who write about engaging in charitable behaviors and participants who write about a topic not related to charitable behaviors.

    b.   Research Hypothesis 1: Participants who write about engaging in charitable behaviors will score significantly lower on emotional loneliness than participants who write about a topic not related to charitable behaviors.

    c.   Null Hypothesis 2: There will be no difference in emotional loneliness between participants who write about engaging in charitable behaviors and participants who are not given a writing prompt.

    d.   Research Hypothesis 2: Participants who write about engaging in charitable behaviors will score significantly lower on emotional loneliness than participants who are not given a writing prompt.

Data Collection

Data collection began with the online survey company Survey Monkey. As the initial recruitment method, the survey was posted to the Walden University Research Participation Pool on June 21, 2018. By August 22nd, only 22 participants had taken the

study, so I requested permission from the IRB to post the study to three dissertation

survey exchange groups on Facebook. I obtained permission from the administrators of

all three Facebook groups to post the study. A sample of 159 participants was collected

between the Facebook groups and the online participation pool, but a report of missing

data revealed problems with the data. It was impossible to discern which independent

variable condition participants were assigned to unless they chose to write in responses to

the writing prompts. Furthermore, participants in the third group, the control group not

given a writing prompt, were shown a text box and had the option to write a response,

rather than being directed straight to the SELSA. This opened the risk of a confounding

variable.

I revised the survey to correct both of these issues, and I elected to go with

Qualtrics, which offered what I needed for the survey. I also elected to pay Qualtrics for

participants to save time in the new round of data collection. I received IRB permission

to execute these changes on January 7th, 2019. The study was launched on Qualtrics on

January 16, 2019. A sample of 171 participants was collected, and the survey was closed

on January 21, 2019. Only the Qualtrics participants were included in the statistical

analyses presented in this chapter. Due to a technological error, the question assessing

participant gender was not included in the survey, so this information is missing from the

results.

Baseline Descriptives and Demographic Characteristics

The first demographic of interest was age. Figure 1 shows frequencies for age.

The mean age of participants was between 31- and 40-years-old, making up 31.5% of the

sample, ($N = 53$). Of the rest of the sample, 2.4% ($N = 4$) were between 18- and 20-years-

old, 19.6% ($N = 33$) were between 21- and 30 -years-old, 21.4% ($N = 36$) were between

41- and 50-years-old, 13.7% ($N = 23$) were between 51- and 60-years-old, 8.4% ($N = 14$)

were between 61- and 70-years-old, 2.4% ($N = 4$) were between 71- and 80-years-old,

and 0.6% ($N = 1$) of the sample were between 81- and 90-years-old. Table 1 provides

information on age and random assignment to experimental conditions.
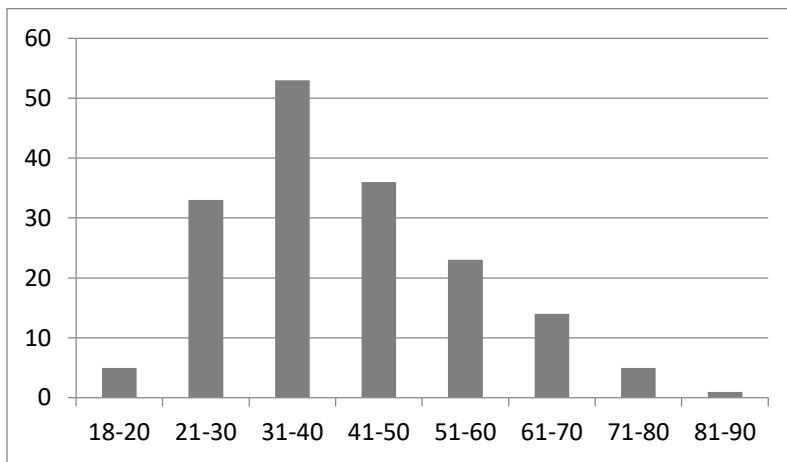
Figure 1. Sample Distribution based on age.

Table 1

Participant Age by Condition

Age	Charitable Writing Condition	Control Writing Condition	No Writing Prompt Condition
18-20 N (%)N (%)	3 (6)	1 (2)	0 (0)
21-30 N (%)	12 (23)	9 (16)	12 (20)
31-40 N (%)	16 (31)	17 (30)	20 (33)
41-50 N (%)	8 (15)	16 (29)	12 (20)
51-60 N (%)	8 (15)	8 (14)	7 (12)
61-70 N (%)N (%)	3 (6)	4 (7)	6 (10)
71-80 N (%)N (%)	1 (2)	1 (2)	3 (5)
81-90 N (%) N (%)	1 (2)	0 (0)	0 (0)
90+ N (%)N (%)	0 (0)	0 (0)	0 (0)
Total	52	56	60

The second demographic of interest was ethnicity. Figure 2 shows frequencies for ethnicity. The mean ethnicity of the sample was European American at 67.4% (N = 113). Of the remaining participants, 6.5% (N = 11) identified as African American, .6% (N = 1) as Native American, 6.5% (N = 11) as Asian or Asian American, 6.5% (N = 11) as Hispanic/Latino, and .6% (N = 1) as other. In addition, 11.9% (N = 20) of participants elected not to disclose their ethnicity. Although it was originally planned to include data on gender, an error occurred, and this question was not included in the final survey. Table 2 provides information on ethnicity and random assignment to experimental conditions.
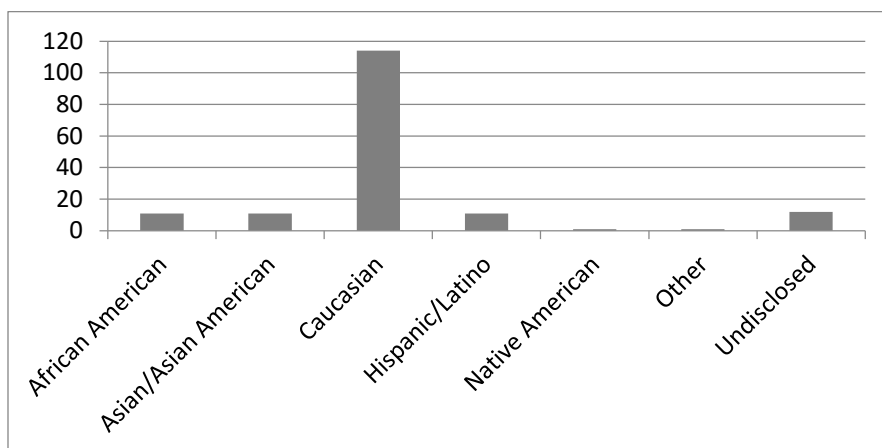
Figure 2. Sample distribution based on ethnicity.

Table 2

Participant Ethnicity by Condition

Ethnicity	Charitable Writing Condition	Control Writing Condition	No Writing Prompt Condition
African American *N (%)*	3 (5)	3 (5)	5 (8)
Asian/Asian American *N (%)*	4 (8)	7 (13)	0 (0)
Caucasian *N (%)*	36 (69)	35 (62)	43 (72)
Hispanic/Latino *N (%)*	2 (4)	3 (5)	6 (10)
Native American *N (%)*	0 (0)	0 (0)	1 (2)
Other *N (%)*	0 (0)	1 (2)	0 (0)
Undisclosed *N (%)*	9 (17)	7 (13)	5 (8)
Total *N (%)*	52	56	60

Qualtrics recruited participants from market research panels that they joined via third party sources. Sources included airlines offering miles for participation, stores and business offering points for their retail consumers, and other services and business offering rewards to general consumers. The only qualifier Qualtrics used was that participants were over the age of 18, and they randomly selected the people to whom they sent the survey. The sample was, therefore, is representative of adults age 18 or over living in the United States who chose to participate in consumer rewards initiatives. Due

to the missing data about gender, it is not possible to assume that the sample was representative of the target population in regard to gender.

Intervention Fidelity

An analysis of skewness was conducted to determine if the results were normally distributed across the different writing conditions of the independent variable. Skewness values were .38 for the Social Loneliness subscale and -.19 for the Emotional Loneliness Subscale. These values both fall into an acceptable range. Within writing conditions, for social loneliness, skewness values were .33 for the charitable writing condition, .83 for the control writing condition, and .01 for the no writing prompt condition. For emotional loneliness, skewness values were -.28 for the charitable writing condition, .09 for the control writing condition, and -.36 for the no writing prompt condition.

Manipulation Check

The following manipulation check question was asked to see if the manipulation was successful: "While completing this questionnaire how much did you think about volunteering for a charitable organization: 0 Not at all, 1 A Little, 2 Some, 3 A Lot." The results of the manipulation check are reported in Table 3. Table 4 provides the means and standard deviations for the manipulation check.

Table 3

Manipulation Check by Condition

Condition	Not at All N (%)	A Little N (%)	Some N (%)	A Lot N (%)
Charitable Writing Condition	21 (40.4)	10 (19.2)	16 (30.8)	5 (9.6)
Control Writing Condition	30 (53.6)	11 (19.6)	7 (12.5)	8 (14.3)
No Writing Condition	36 (60)	11 (18.3)	8 (13.3)	5 (8.4)
Total	87	33	32	18

Table 4

Manipulation Check Means and Standard Deviations

Condition	M	SD
Charitable Writing Prompt	2.10	1.05
Control Writing Prompt	1.88	1.11
No Writing Prompt	1.70	1.00

A planned contrast revealed that there was a significant difference between participants in the charitable writing condition and the control condition that received no writing prompt ($t(165) = 1.87$, $p < .05$). This is expected, given that participants in the charitable writing condition were asked to respond to a prompt about volunteering for a charitable organization. Similarly, a significant difference was expected but not reported, between participants in the charitable writing prompt condition and those in the control writing prompt condition ($t(165) = 1.18$, $p = .24$).

Missing Data and Outliers

There were three cases removed prior to data analysis. One participant skipped one question of the social loneliness scale. This participant was assigned to the charitable writing condition. A second participant skipped one question of the emotional loneliness scale. This participant was also assigned to the charitable writing condition. The third

participant skipped two questions, one question from each scale. This participant was assigned to the condition with no writing prompt.

There were two cases with *z* scores less than -2 and three cases with *z* scores larger than 2 on the measure of social loneliness only. There were five cases with *z* scores less than -2 on the measure of emotional loneliness only. There were two cases with *z* scores less than -2 and four cases with *z* scores larger than 2 on both the social and emotional loneliness scales. Table 5 provides exact *z* scores for all of these cases.

Table 5

z Scores for Outliers

Case	Emotional Loneliness Z	Social Loneliness Z
3	-2.89	-2.53
4	-2.54	-0.75
5	-2.37	-0.70
6	-2.02	-2.19
9	-1.76	-2.09
15	-1.50	-2.62
22	-1.24	-2.76
26	-.97	-2.14
44	-.63	-2.05
162	1.29	2.36
166	2.24	1.50
167	2.77	1.79
168	2.94	2.60
169	3.20	-0.75
170	3.20	2.98
171	3.20	2.99

Results for Hypotheses

Planned contrasts were conducted within a one-way ANOVA to determine differences in loneliness scores on the SELSA between three groups of participants. The experimental group was prompted to write about charitable behaviors. The first control group was prompted to write about something other than charitable behaviors, and the second control group was not given a writing prompt.

Statistical Assumptions

Levene's test was conducted to determine homogeneity of variance. For social loneliness, Levene's statistic was $F(2, 165) = .07, p = .93$. The null hypotheses of equal variances was not rejected; the variances were equal. For emotional loneliness, Levene's statistic was $F(2, 165) = 2.21, p = .11$. The null hypotheses of equal variances was not rejected; the variances were equal. I stopped reviewing here due to time constraints.

Please go through the rest of the chapter and look for the patterns I pointed out to you. I will now look at Chapter 5.

One-Way ANOVA Descriptives

The overall purpose was to determine if thinking about charitable behaviors through being prompted to write about charitable behaviors would lead to decreased social and emotional loneliness. A one-way ANOVA (Table 6) revealed no significant difference in social loneliness between participants who were prompted to write about charitable behaviors, participants who wrote about a topic not related to charitable behaviors, and participants who were not given a writing prompt ($F(2,165) = .72$, $p = .49$). Neither was there a significant difference in emotional loneliness between the three groups ($F(2, 165) = .69$, $p = .50$).

Table 6.

One-Way ANOVA Comparisons of Emotional and Social Loneliness from a Charitable Writing, Control Writing, and No Writing Prompt Group

		Sum of Squares	*df*	Mean Square	*F*	*Sig.*
Emotional Loneliness	Between Groups	631.46	2	315.73	.72	.49
	Within Groups	72445.11	165	439.06		
	Total	73076.57	167			
Social Loneliness	Between Groups	184.30	2	92.15	.69	.50
	Within Groups	22018.34	165	133/44		
	Total	22202.64	167			

Research Question 1

The first research question was if thinking about engaging in charitable behavior, through being prompted to write about them, decreased social loneliness. Figure 3 shows

the mean social loneliness scores across the independent variable conditions. Table 7

shows descriptive statistics for social loneliness.

Figure 3. Means for social loneliness across independent variable conditions.

Table 7.

Number of Participants, Means, Standard Deviation, Standard Error, and 95% Confidence Interval for Social

Loneliness by Independent Variable Writing Condition

Group	N	M	SD	95% Confidence Interval		Standard Error
				Lower Bound	Upper Bound	
Charitable Writing Prompt	52	62.03	11.81	58.98	65.56	1.64
Control Writing Prompt	56	61.62	11.44	58.56	64.69	1.53
No Writing Prompt	60	59.86	11.43	56.86	62.77	1.48

A planned contrast revealed no significant difference in social loneliness scores

between participants who wrote about engaging in charitable behaviors and participants

who wrote about a topic not related to charitable behaviors ($t(165) = -.29$, $p = .77$). The

null Hypothesis 1 was not rejected. A planned contrast revealed no significant difference in social loneliness scores between participants who wrote about engaging in charitable behaviors and participants who were not given a writing prompt ($t(165) = -1.12$, $p = .26$). The null Hypothesis 2 was not rejected.

Research Question 2

The second research question was if thinking about engaging in charitable behavior decreased emotional loneliness. Figure 4 shows the mean emotional loneliness scores across the independent variable conditions. Table 8 shows descriptive statistics for emotional loneliness. A planned contrast revealed no significant difference in emotional loneliness between participants who wrote about charitable behaviors and those who wrote about a topic not related to charitable behaviors ($t(165) = -1.04$, $p = .30$). The null hypothesis was not rejected. A planned contrast revealed no significant difference in emotional loneliness between participants who wrote about charitable behaviors and those who were not given a writing prompt ($t(165) = -1.06$, $p = .27$). The null hypothesis was not rejected.
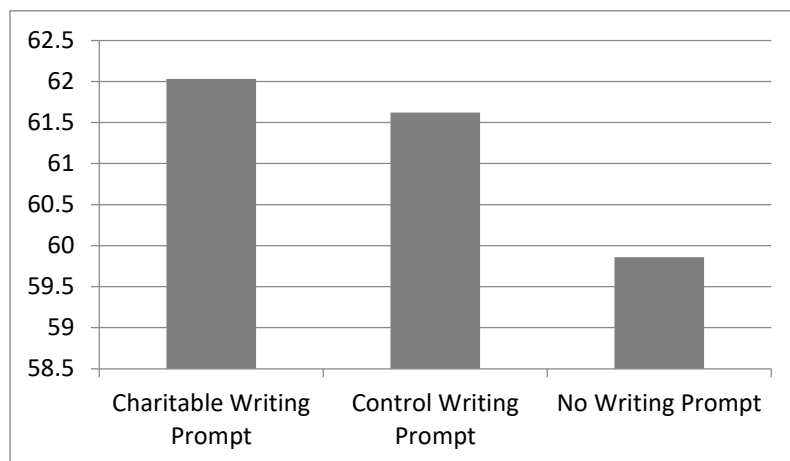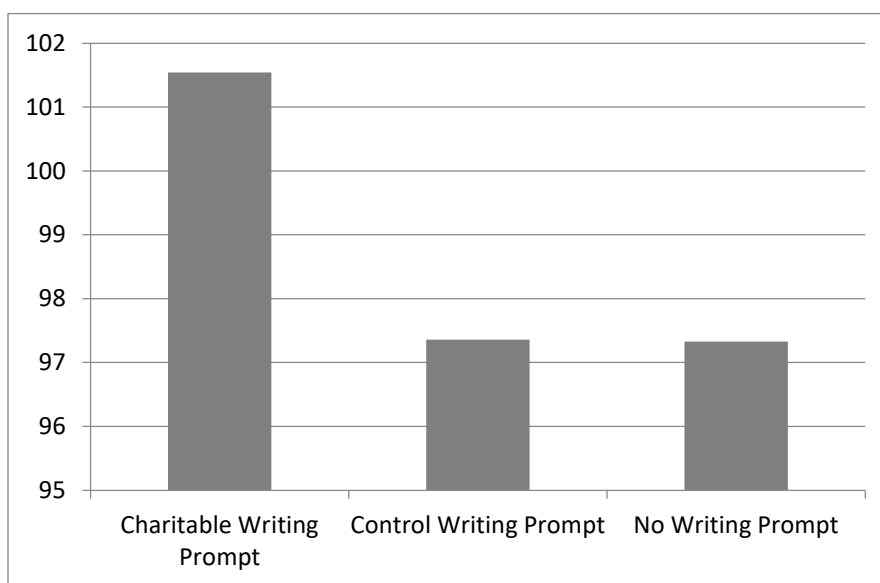
Figure 4. Means for emotional loneliness across independent variable conditions.

Table 8.

Number of Participants, Means, Standard Deviation, Standard Error, and 95% Confidence Interval for

Emotional Loneliness by Independent Variable Writing Condition

| | | | | 95% Confidence Interval | | |
| | | | | Lower | Upper | Standard |
Group	*N*	*M*	*SD*	Bound	Bound	Error
Charitable Writing Prompt	52	101.54	21.57	95.53	107.54	2.99
Control Writing Prompt	56	97.36	24.34	90.84	103.88	3.25
No Writing Prompt	60	97.33	16.54	93.06	101.61	2.14

Analyses with Outliers Removed

A second one-way ANOVA was conducted with planned contrasts following

removal of the aforementioned outliers. Findings were similar. There was no significant

difference in emotional loneliness between participants who were prompted to write

about charitable behaviors, participants who wrote about a topic not related to charitable

behaviors, and participants who were not given a writing prompt ($F(2,149) = .46$, $p =$

.63). Neither was there a significant difference in social loneliness between the three groups ($F(2, 149) = .46$, $p = .75$).

A planned contrast revealed no significant difference in emotional loneliness scores between participants who wrote about engaging in charitable behaviors and participants who wrote about a topic not related to charitable behaviors ($t(149) = .93$, $p = .35$). A planned contrast revealed no significant difference in emotional loneliness scores between participants who wrote about engaging in charitable behaviors and participants who were not given a writing prompt ($t(149) = -.69$, $p = .49$).

A planned contrast revealed no significant difference in social loneliness scores between participants who wrote about engaging in charitable behaviors and participants who wrote about a topic not related to charitable behaviors ($t(149) = -.07$, $p = .94$). A planned contrast revealed no significant difference in social loneliness scores between participants who wrote about engaging in charitable behaviors and participants who were not given a writing prompt ($t(149) = .68$, $p = .50$).

Summary

The results of this study did not support rejection of the null hypothesis for social loneliness or emotional loneliness. The mean levels of social and emotional loneliness were highest among the participants in the experimental writing group. This was the opposite of what was expected in the research hypotheses. These results suggest that priming people to think about engaging in charitable behaviors either does not influence immediate feelings of loneliness, or perhaps increases immediate feelings of loneliness. It is also possible, based on the results of the manipulation check, that the priming intervention did not work as planned, and participants in the experimental group did not

actively think about engaging in charitable behaviors. Chapter 5 provides a more detailed

interpretation of the findings and thoughts about further directions for research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this experimental study was to investigate the influence of thinking about charitable behaviors on immediate feelings of loneliness. In presenting the results of this study, I contributed to the existing knowledge about the correlation between prosocial behavior and loneliness. Specifically, I added to the existing literature by investigating the influence of thinking about prosocial behaviors, rather than the influence of actually engaging in prosocial behaviors. Furthermore, I added to the literature by investigating the influence of thinking about a specific type of prosocial behavior, the charitable behavior of volunteering. I prompted participants in the experimental group to think about charitable behavior by asking them to read and respond to a writing prompt describing a volunteer organization in their area. I found that there was no evidence of meaningful differences in emotional or social loneliness between participants in the group that wrote about engaging in charitable behaviors and participants who wrote about a topic other than charitable behaviors or participants who did not complete a writing prompt.

This chapter includes an interpretation of these findings, a discussion of the limitations of the study, recommendations for future research, and implications of the findings.

Interpretation of the Findings

Scholars have supported a negative correlation between prosocial behaviors and scores on loneliness (Woodhouse et al., 2012). Existing literature does not contain experimental investigation explaining this correlation. Through this study, I expanded

the existing knowledge through such an investigation of the possibility that thinking about engaging in charitable behaviors could lead to decrease in immediate feelings of loneliness, as compared with not thinking about engaging in charitable behaviors. I found that participants who thought about engaging in charitable behaviors did not score lower in immediate feelings of loneliness. This provides the professional community with questions to address in future studies, which are presented throughout this section. The higher levels of loneliness I observed for the charitable writing group is most likely due to random variation, based on the insignificant p values.

Existing literature also contains findings that support a negative correlation between planning a person's future charitable behaviors and feelings of loneliness (Mouratidis & Sideridis, 2009). It was previously unclear whether evoking thoughts about charitable behaviors among a sample of participants would lead to a decrease in immediate feelings of loneliness as compared with not thinking about engaging in charitable behaviors. Through the writing prompts, I sought to evoke thoughts about charitable behaviors among a randomized sample, and then immediately afterwards, I measured their current feelings of loneliness. The findings of this study do not confirm that being prompted to think about charitable behaviors led participants to immediately feel any less lonely than participants who were not prompted to think about charitable behaviors. It is possible that the negative correlation found in previous research reflects a third variable rather than a causal relationship between the variables. Future research should investigate possible third variables.

The theoretical framework of this study included a meditational model. This meditational model was partially based on a social psychological framework of loneliness

proposed by Peplau and Perlman (1979). Informed by the theory of learned helplessness, Peplau and Perlman conceptualized loneliness as a self-perceived social deficiency and issues related to control over social situations. This is why I structured the writing prompt to allow participants to feel a sense of control over the social situation of engaging in charitable behaviors. I asked participants to respond about a charitable organization that they could donate time to through volunteering. This prompted the thought that, whether or not they were already volunteering with the organization, they had the ability to volunteer time to the organization.

According to the meditational model, thinking about engaging in charitable behaviors creates a perceived ability to participate in a positive social interaction, which increases a person's sense of belongingness and leads to decreased feelings of loneliness. The findings do not confirm that thinking about engaging in a charitable behavior ultimately leads to an immediate decrease in feelings of loneliness. Another possibility for the discrepancy between expectations of the model and the findings is that thinking about engaging in a charitable behavior led to a delayed rather than immediate decrease in loneliness, as has been found in existing studies. This study was novel in its measurement of immediate rather than delayed feelings of loneliness.

Collins and Loftus (1975) explained that the longer a person processes a concept that he or she has been primed by words to think about, the longer this concept can be activated, and the more likely it will spread to the activation of related thoughts. In this study, the participants in the experimental group were primed through the writing prompt to think about engaging in charitable behaviors, which theoretically would have activated thoughts that would lead to an immediate decrease in loneliness. Said thoughts included

prosocialness and collective efficacy. It is not known exactly how long participants processed these concepts. Perhaps they did not process the concepts long enough for semantic priming to activate the thoughts necessary for a decrease in immediate feelings of loneliness.

Another possibility is that participants in the charitable writing group did not perceive engaging in the charitable behavior they thought about as a positive social interaction, and therefore did not experience an increase in sense of belongingness. The study was partly based on spreading activation theory, or the notion that semantic priming pulls relevant information into the working memory (Collins & Loftus, 1975). The manipulation, the experimental writing prompt, was intended to prime participants to think about concepts that should lead to the perception of a positive social interaction (such as prosocialness and collective efficacy). It is possible that the charitable writing prompt did not prime participants to think about concepts that might have led to the perception of a positive social interaction. Therefore, the findings that thinking about engaging in charitable behaviors did not lead to a decrease in loneliness could be partly explained by a weak manipulation.

A third possibility is that participants perceived an ability to participate in a positive social interaction, but it did not increase their sense of belongingness. An explanation for this possibility is that thinking about engaging in a charitable behavior, but not actually engaging in that behavior, made participants feel socially disconnected in the moment of completing the survey, which reduced sense of belongingness and increased immediate feelings of loneliness. Acknowledging that a person could donate time (as the wording of the prompt suggested), but knowing that a person does not do so,

could constitute the type of social deficit that Peplau and Perlman (1979) discussed in their framework of loneliness. Furthermore, an increased sense of belongingness is partly the result of sense of similarity with others. This writing prompt did not prompt people to think about similarity with others, or others at all.

It is possible that the independent variable, manipulation, was not reliable. Participants in the experimental group might not have actually thought about engaging in charitable behaviors, or they might not have thought about them long enough for spreading activation to occur. One participant appeared to respond by just hitting random keys: "Djsdtdsetgcftujgjdudjuduei92idh2ojcbfhehhdbcjxjxhdjdjfjdjhdjxsokhdjdhdjjxjdjdhddh," and another participant provided a coherent but unrelated response of, "Can't wait to see football com back on." It is impossible to tell if these participants even read the prompt, so I cannot conclude that they thought about engaging in charitable behavior. Other participants responded in such a way that they clearly read the prompt but may not have thought about engaging in charitable behavior as intended. Examples included "I could spend time with any number of groups, but I would not. Therefore, it seems pointless to name a specific body only to state that I could but would not. There's far better ways to spend one's time and to contribute to society without such sappy 'giving back,'" "I don't donate anything cause im on welfare at the moment & pregnant," "none I dont dont voluteer for any charity," "i dont have one hundren words that i could writr fir this because i think that is out of controll so see you later thenk you," "I do not donate or volunteer," "NONE, THAT'S HOW I PLAN TO DO THAT!!!!" and "I have no interest in volunteering for charity." I believe that when selecting from a diverse sample of

participants, these sort of responses from some participants are inevitable, as not all participants are going to take the study seriously. Qualtrics selects participants from third party rewards programs. Participants only had to respond to all questions to receive their rewards, but the quality of their responses had no bearing. This is something to consider for data collection procedures in future studies.

Limitations

Limitations to Generalizability

People who choose to participate in surveys through Qualtrics third parties might have something in common that does not apply to the general population of adults over the age of 18 living in the United States. Participants all received some sort of award for participating, which could have been a moderator variable. Participants in the experimental group were prompted to write about volunteerism, so results cannot be generalized to all charitable behaviors, such as donating money. Without having data about participant gender, it is impossible to know if these results apply equally to people of all genders.

Limitations to Internal Validity

There might have been something about the control writing prompt that primed participants in that group to think about positive social interactions or feel an increased sense of belongingness. Although none of the written responses were consistent with this idea, it was impossible to control or assess for any personal memories or semantic associations that may have come up for participants as they described their usual grocery stores. While responding, they could have recalled familiar staff and memories of interactions with their friends and family members that took place in the stores.

Recommendations

Replicating this study with adjustments would increase understanding of these results and provide continued additions to the existing literature. First, the loneliness measure could be administered after a longer period of time to determine if the influence on delayed loneliness is different. Second, more time could be spent on the priming intervention to ensure that participants have enough time with the material for it to enter their working memories. A literature review for this study should include a thorough investigation of the time and attention requirements for processing new information at the level of the working memory. Future researchers could also assess for how participants currently actually engage in charitable behaviors, and follow-up studies could assess for participants' future engagement in charitable behaviors.

The outcome of thinking about charitable behaviors in the context of this study could still be beneficial if it led participants in the experimental group, more than those in the two control groups, to actually participate in charitable behaviors. Researchers showed a positive correlation between thinking about engaging in prosocial behaviors and actually engaging in prosocial behaviors (Greitemeyer, 2009; Greitemeyer & Oswald, 2011; Macrae & Johnson, 1998; Nelson & Norton, 2005). Future studies should include a follow-up assessment of participant rates of later participating in charitable behaviors.

Future studies should address the limitations on generalizability. Demographic data on participant gender should be collected. The study could be replicated with other types of prosocial behaviors, such the charitable behavior of donating money and other

helping behaviors. Data should be collected from a wider sample than is offered by those who choose to participate in Qualtrics' third party reward programs.

Finally, future studies should include a stronger manipulation of the independent variable. It is clear from the participant responses above that many participants either did not understand the prompt or may not have truly thought about engaging in charitable behaviors. The open-ended nature of the prompt allowed for some participants to ruminate on negative thoughts about engaging in charitable behaviors. Perhaps participants should read passages and respond to closed-ended questions instead of writing open-ended responses to vague prompts. The control condition should also be better thought-out to ensure that there is minimal opportunity for participants to think about the possibility of participating in positive social interactions.

Implications

The goal of this study was to discover information that could help prevent and alleviate feelings of loneliness. It is not yet clear from the results that merely thinking about engaging in charitable behaviors can reduce immediate feelings of loneliness. Until more research is conducted and more is understood about the relationship between prosocial behaviors and loneliness, mental and physical health professionals should continue to encourage individuals to actually participate in charitable behaviors, as research has already shown this to be negatively correlated with feelings of loneliness (Alden & Trew, 2013; Baskin et al., 2010). The correlational findings may reflect third variables rather than a causal relationship.

This was the first study to experimentally address the influence of thinking about engaging in charitable behaviors on immediate feelings of loneliness. It therefore

established a foundation for continued empirical growth within the topic. A large body of experimental findings is necessary for mental and physical health professionals to begin implementing measures for more effectively and, more importantly, preventing loneliness.

Conclusion

This study contributes novel and valuable knowledge to the existing body of research on prosocial behaviors and loneliness. Although the null hypotheses were not rejected, it is valuable to know that simply priming participants to think about engaging in charitable behaviors did not reduce immediate feelings of loneliness. This will prevent future researchers from repeating similar mistakes. Instead, they can contribute further by addressing the limitations and implementing the recommendations made in this chapter. Future researchers can use this study as a foundation upon which to make small changes in the methodology and procedures to discover more information about how to treat and prevent loneliness through engagement in prosocial behaviors.

A good place to start would be to make changes to the writing prompts in order to determine if there were something missing from them that inhibited the process of thinking about engaging in charitable behaviors leading to an immediate reduction in loneliness. Some of the participants in the experimental group misunderstood the prompt, and seemed to think it is was required that they already be donating time to a charitable organization in their area. A phrase could be added to the prompt letting participants know that they do not have to have previously or currently donated time volunteering. Conversely, perhaps the prompt should be simplified to ask participants to describe a charitable organizations in their area where it is possible to donate time volunteering. The

implication that it is possible, and that it exists in their area, would still evoke the element of their control over the social behavior, but would reduce the risk of misinterpreting the instructions.

The aforementioned changes to the writing prompt will also serve as a first step in determining if there is a fundamental issue with the mediational model. Perhaps the participants in the experimental group of this study did not experience an increase in sense of belongingness. It might be possible that thinking about engaging in charitable behaviors will never affect sense of belongingness, or it might be possible that the wording of the prompt in this study inhibited the expected increase in sense of belongingness.

The results of this study do not necessarily rule out the possibility that thinking about engaging in volunteering could reduce immediate feelings of loneliness, but it does open doors for addressing new questions. Thinking about engaging in volunteerism might activate different concepts than thinking about engaging in other forms of prosocial behavior. Furthermore, thinking about engaging in volunteering might activate different concepts than actually engaging in volunteerism. Future research should explore the differences between thinking about engaging in volunteering and actually engaging in volunteerism.

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Appendix A: Recruitment Procedures

Qualtrics recruits participants through methods such as email, logging in to see if they

have any new survey participation opportunities, social media, gaming sites, and third-

party source loyalty program web portals who partner with Qualtrics to provide

customers with surveys to take as reward incentives. There is no recruitment statement,

only a generic and simple statement inviting participants to take the survey.

Appendix B: Demographic Questions

Please click the button next to the appropriate choice:

Age:

☐ 18-20

☐ 21-30

☐ 31-40

☐ 41-50

☐ 51-60

☐ 61-70

☐ 71-80

☐ 81-90

Ethnicity:

☐ African American

☐ Caucasian/White

☐ Native American

☐ Asian, Asian American

☐ Hispanic/Latino

☐ Other

Appendix C: Debriefing Document

Thinking About Engaging in Charitable Behaviors, and Its Influence on Loneliness

Thank you for your participation in this study.

This study is designed to learn more about the influence that thinking about charitable behaviors, particularly volunteering, has on immediate feelings of loneliness. Previous research has shown relationships between prosocial behaviors like volunteering and feelings of loneliness. In this study, the goal is to prompt thinking about charitable behaviors and determine whether or not this has an immediate influence on feelings of loneliness.

This study consisted of three groups. Participants were randomly assigned to groups. In one group, participants were prompted to think about engaging in charitable behaviors. In a second group, participants were prompted to think about something other than charitable behaviors. A third group did not receive any prompts. All participants responded to the same questions measuring the level of loneliness they were feeling in that moment.

The data will undergo statistical analysis to determine whether or not there were significant differences in levels of loneliness between participants in the three different groups. Specifically, I hypothesize that participants who were prompted to think about charitable behaviors will experience lower feelings of loneliness than those in the other two groups. All data will be kept confidential.

You may request a summary of the findings.

Thank you very much for your time. Your participation is a valuable contribution.