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Motivation to Volunteer

Lendi N. Joy

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Motivation to Volunteer

by

Lendi N. Joy

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
Department of Psychology
College of Arts and Sciences
University of South Florida

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Abstract

The rate of volunteering in the U.S. remains low in spite of the many positive benefits that volunteering yields. Prior research has suggested various theories to help explain motivation to volunteer. Nonetheless, none of the theories have been both comprehensive and specific enough to allow for their practical application in recruitment efforts or campaigns to increase motivations to volunteer. The purpose of the current study was to test a comprehensive model of volunteer motivation by integrating the Volunteering Functions Inventory into the Theory of Planned Behavior as behavioral and normative beliefs that influence attitudes and subjective norms. The hypothesized model also included control beliefs, which influence perceived behavioral control. The data were analyzed using latent variable path analysis and partially supported the hypothesized model. Implications for future research, policy makers, and volunteering organizations are discussed.
Introduction

The U.S. Department of Labor estimates that only 24.9% of Americans age 16 and older volunteer (Bureau of Labor Statistics, 2016). Researchers and policymakers have long contemplated this low rate of volunteer activity in the general population. Furthermore, this distribution of volunteers is not equal across all demographics and there exist many social and health disparities that make volunteering less accessible for individuals of low socioeconomic status or those struggling with chronic illness when compared to healthier individuals or those of higher socioeconomic status (Jenkinson et al., 2013). For example, of individuals who identify as White, 26.4% participate in volunteer activities. This number is 19.3% for Blacks, 17.9% for Asians, and 15.5% for Hispanics or Latinos. Moreover, more women (27.8%) than men (21.8%) participate in volunteering activities (Bureau of Labor Statistics, 2016). This discrepancy in the overall low rate of volunteering can also be seen across age groups, socioeconomic status, and ability levels (Martinez et al., 2006). This low prevalence of volunteering is concerning given that a large portion of the population and specific groups, in general, end up missing out on the benefits of volunteering.

Regardless of how volunteering is defined, one salient result across studies is that individuals who volunteer consistently perform better on indicators of well-being. For example, in a national longitudinal study of adults aged 25 and older, Thoits and Hewitt (2001) found that after controlling for well-being at baseline and levels of other community participation (e.g., attendance at religious and other social organizations),
low levels of volunteering were associated with lower levels of happiness, lower life satisfaction, lower self-esteem, lower mastery, lower self-reported physical health, and greater symptoms of depression. Moreover, other research has similarly found that individuals who participate in volunteering experience fewer depressive symptoms, lower rates of mortality and cognitive decline with age, as well as increased psychological adjustment, happiness, life satisfaction, and higher levels on measures of subjective well-being than those who do not volunteer (Anderson et al., 2014; Harris & Thoresen, 2005; Kim & Pai, 2010; Li & Ferraro, 2005; Meier & Stutzer, 2006; Mellor et al., 2008; Musick & Wilson, 2003; Post, 2005). What is more interesting is that consistent results regarding the benefits of volunteering have been found across studies using varying methodologies (see Anderson et al., 2014 for a review). Consequently, given the low rate of volunteering and the missed benefits to those who do not volunteer, it is important to understand why people do and do not volunteer and the factors that may influence an individual’s motivation to volunteer.

With the low rate of volunteering and all the missed benefits to those who do not volunteer, it is unclear what factors influence an individual’s motivation to volunteer. Over the years, there have been many perspectives across different disciplines on what motivates individuals to partake in volunteering. Although previous researchers have attempted to delineate what motivates some individuals to volunteer, much of the research to date has taken a qualitative approach, comes from a narrowly focused perspective, or has used overly simplistic models (e.g., Cnaan & Goldberg-Glen, 1991; Chacón, Pérez, Flores & Vecina, 2011; Frisch & Gerrard, 1981; MacNeela, 2008; Okun, Barr & Herzog, 1998). Furthermore, while there have been attempts at more comprehensive models of volunteer motivation, these models either have not adequately
explained the variance in volunteer behavior or they have used more general behavioral theories and thus lacked sufficient specificity such that there could be the adequate application of the research (Greenslade & White, 2005). The current study, therefore, seeks to test an integrated model that is specific to volunteer motivation.

**Defining Volunteering**

Throughout history, the term “volunteer” and its cognates have taken on numerous and disparate conceptions. In Hebrew, the term for volunteering comes from a word meaning “charitable donation,” which implies the giving of money (Cnaan, Handy, & Wadsworth, 1996). Divergent from this view, the word “volunteer” as first used in C. 1600 described individuals who enlisted in military services. The verb “volunteering” subsequently also denoted voluntary participation in the military services. While the term “volunteering” has expanded beyond its earlier uses, many researchers fail to give a clear definition of volunteering or instead define what it means to volunteer by their construct of interest (e.g., Temper, Seidman & Tufts, 1994). Thus, it has been difficult to understand what volunteering really is.

More recently, the Bureau of Labor Statistics (2016) classified only “unpaid work (except for expenses) through or for an organization” as volunteering, which similar to earlier definitions is narrowly focused and overlooks the many individuals who participate in informal volunteer activities outside of organizations. Additionally, while some researchers (e.g., Carson, 1999) may not exclude participation in programs such as Americorps, Volunteers in Service to America (VISTA), or even the U.S. volunteer armed services, the Bureau of Labor Statistics would not consider these activities to be volunteer activities. By contrast, other definitions of volunteering in the literature are too vague and do not give a clear account of what it means to volunteer. For example,
Wilson (2000) describes volunteering as “any activity in which time is given freely to benefit another person, group, or organization” (p. 1). This definition is too broadly focused and terms such as “given freely” can be interpreted as given by free will or, as suggested by the Bureau of Labor Statistics, given without compensation. Moreover, Temper, Seidman, and Tufts (1994) defined a volunteer as “anyone ordinarily thought of as a volunteer.” This definition is not only vague but also confusing as it attempts to use the term volunteer to define itself. Unfortunately, other researchers have also either not provided a volunteering definition or have used the word itself for definition in a circular fashion (e.g., Meier & Stutzer, 2008; Thoits & Hewitt, 2001).

In an attempt to synthesize the varying views of volunteering, Cnaan et al. (1996) outlined four common dimensions of volunteering to categorize definitions on a continuum from “purely defined” to “broadly defined” volunteering. These dimensions are the following: 1. Level of autonomy, which can range from complete free will to mandatory volunteering; 2. Level of compensation, which ranges from completely free with no expectation of any reward to some remuneration or reward that is lower in value than the service provided; 3. Level of organizational involvement, which ranges from informal, including help to friends and family to work formally organized by an organization; and 4. The beneficiary, which ranges from complete strangers to self-help. While the efforts of Cnaan and colleagues (1996) have helped classify types of volunteer activities, they still could not provide a clear definition of what volunteering is or is not.

Recognizing the disparate views of volunteering, the United Nations assembled a group of experts from ten different countries to create a “toolkit” to provide criteria for defining volunteering that could be used in research and surveys across nations. Three criteria for volunteering were set: “1. It is not undertaken primarily for financial gain; 2.
It is undertaken of one’s own free will; and 3. It brings benefits to a third party as well as to the people who volunteer” (Dingle, Sokolowski, Saxon-Harrold, Smith, & Leigh, 2001, p. 9). Within these criteria, the toolkit gives leeway for activities for which an individual is compensated, so long as compensation is below the market value of the work and compensation is not the primary objective. Furthermore, they acknowledge that volunteering is often not completely voluntary, but rather is done as a result of some social pressure or feelings of social obligation. Thus, acts are considered “of one’s own free will” as long as there is no requirement to complete the work, as would be the case for students who are required to volunteer as part of their school curriculum or an employee required to volunteer as a condition of employment.

This definition from Dingle (2001) provides the best balance for determining what constitutes volunteering by addressing the common factors of volunteer activities clearly and comprehensively. Unlike previous definitions, this definition provided by Dingle and colleagues does not restrict volunteer activities to only those that are organized by formal organizations. This definition also does not preclude compensation for volunteer activities, but rather provides a clear threshold of acceptable compensation. Furthermore, it addresses the question about what can reasonably be considered voluntary action. Likewise, other researchers have advocated for an expanded view of the term volunteering, such as the one provided by Dingle and colleagues, arguing that a broader view of volunteering better encompasses those activities oriented toward the greater good (Musick & Wilson, 2007; Shcervish, 1993). Considering its broad yet comprehensive nature, Dingle’s definition of volunteering provides an ideal framework for understanding individuals’ motivation to volunteer.
Understanding Volunteer Motivation

Undoubtedly, individuals are motivated to participate in volunteer activities for a multitude of reasons. Moreover, research suggests that these motivations are the best predictors of future volunteer activity (Allison, Okun, & Dutridge, 2002; Raman & Pashupati, 2002). Over the years, scholars across various disciplines have examined volunteering and volunteer motivation from different perspectives. Key disciplines that have been pivotal in advancing our understanding of what motivates some individuals to volunteer include sociology, economics, and psychology. Each of these perspectives on volunteer motivation attributes a social, psychological, or economic purpose or function to the volunteering activity and suggest that individuals are motivated by and participate in volunteering to fulfill these functions.

The Sociology Perspective on Volunteer Motivation

From a sociological perspective, volunteering is a social phenomenon that is a product of socialization from family, peers, and other social institutions that individuals take part in (Bekkers, 2007; Janoski, Musick, & Wilson, 1998; Wuthnow, 1995). Indeed, social learning theory (Bandura, 1977) suggests that individuals learn from observing others. Furthermore, research has long supported the notion that social interaction and connection is pivotal for human survival (Ainsworth, Blehar, Waters, & Wall, 1978; Baumeister & Leary 1995; Burns, Craft, & Roder, 2005; Heinrich & Gullone, 2006; Maslow, 1943). Through these social interactions with family, friends, and neighbors, individuals develop interdependence and a sense of solidarity with the community in which they live. As a result of this interdependence and sense of solidarity, individuals come to believe that they can rely on other members of society for support when needed and are in turn more likely to act in a manner that benefits other members of society,
such as by volunteering. Volunteering can also be an expression of group conformity or identification as well as an expression of commonly held human values such as generosity and compassion.

Sociologists also propose that volunteering serves the purpose of building relationships, increasing social collectivism, cohesion, and integration. Current literature suggests that volunteering provides individuals with opportunities to engage in activities of shared values with friends and family, fit into social groups that they may not otherwise be part of, build relationships that can enhance career growth, and in general expand their social networks (Clary et al., 1998; Grönlund et al., 2011; Papadakis, Griffin, & Frater, 2005; Snyder et al., 2000). This in turn builds larger and stronger social networks, which research has shown is related to a 50% increased likelihood of survival (Holt-Lunstad, Smith, & Layton, 2010). Thus, individuals may be motivated to volunteer through perceptions of social norms, a desire to be part of the social collective, feelings of social responsibility, or even for the varied social interactions and relationships that result from volunteer participation. While the sociological perspective on volunteer motivation has provided various social reasons why individuals may be motivated to volunteer, it does not account for the cost of volunteering to the individual, be that in the form of money spent for supplies or time spent volunteering rather than engaging in productive gainful activities. The sociological perspective also does not account for individual psychological factors, such as individual personality traits, that may help to explain an individual’s motivation to volunteer.

**The Economics Perspective on Volunteer Motivation**

From an economic perspective, individuals consider the costs and benefits of engaging in certain actions and do so if they perceive that the benefits of an action
outweigh the costs. Economists consider volunteering to be a consumption good or an investment/exchange good that individuals receive direct benefits from such as job training or positive feelings (Hackl, Halla, & Pruckner, 2007).

Considering volunteering as a consumption good, individuals may be motivated to volunteer simply because it makes them feel good. For example, individuals may care about the well-being of others and it makes them happy to see others thriving. Volunteering in turn provides individuals with a “warm glow” from contributing to the greater good (Andreoni, 1990). Additionally, individuals may derive pleasure from their volunteer work; they may feel a sense of pride or accomplishment in performing volunteer activities (Thoits, 2012).

As an investment or exchange good, individuals may be motivated to volunteer as a future assurance or in exchange for something they deem desirable. For example, individuals may acquire job training and other transferable skills that then enhance the individual’s career opportunities. Moreover, individuals may be motivated to volunteer as an investment in personal values and to increase the publically available goods and services that they value (Hustinx, Cnaan, & Handy, 2010). Studies have also suggested that volunteering may provide a “license” for individuals to engage in indulgent or self-interested behaviors (Jeong & Koo, 2015). Thus, individuals may be motivated to volunteer to abate negative feelings of shame or guilt.

Overall, the economics perspective seeks to understand why some individuals are motivated to spend their time volunteering considering the costs such as time, effort, monetary and physical investments. The economics perspective is a very pessimistic view of human nature and why people would volunteer, as it limits the decision to volunteer to a plus versus minus equation and completely discounts the fact that people
are much more complex in their decision-making and influences. While the economics perspective adds to the sociological perspective and explains volunteering as a good that individuals receive direct benefits from, like the sociological perspective, it neglects individual psychological factors that may affect motivation to volunteer.

**The Psychological Perspective on Volunteer Motivation**

In examining motivations to volunteer, early scholars (e.g., Batson, 1991; Hoffman, 1978; Oliner & Oliner, 1988; Smith, 1994) of the psychological perspective have examined individual factors (e.g., beliefs, values, etc.) and personality traits (e.g., generosity, empathy, extraversion, etc.) that may influence prosocial behaviors and sought to determine whether these dispositional traits or situational factors (e.g., the severity of need, relationship to recipient of help, cost of helping, etc.) were better predictors. From this perspective, prosocial behaviors can be broadly defined as “actions intended to benefit one or more people other than oneself” (Batson & Powell, 2003, p. 463) and while not all prosocial behaviors can be classified as acts of volunteering (e.g., holding a door open for someone), by definition, volunteering is a subset of prosocial behavior. These early studies found more support for situational factors than dispositional factors (e.g., Geer & Jarmecky, 1973; Piliavin & Piliavin, 1969; Piliavin & Piliavin, 1972). Nonetheless, a few researchers pointed out that while situational factors were better predictors of prosocial behaviors in a laboratory setting, they found support for dispositional factors when it came to nonspontaneous, longer-term helping (e.g., Oliner & Oliner, 1988). Volunteering was thus differentiated from other prosocial behaviors as a sustained and planned behavior that entails enduring psychological traits.
Researchers also began to look at aggregate measures of dispositional traits and found support for a prosocial orientation, also called an altruistic personality type or global helping traits, that leads some individuals to naturally be more helpful (e.g., Bierhoff & Rohmann, 2004; Carlo, Eisenberg, Troyer, Switzer, & Speer, 1991; Rushton, 1984). Traits associated with this personality type include helpfulness, social value orientation, empathic concern, perspective taking, self-efficacy, and positive self-esteem (Bekkers, 2005; Bussell & Forbes, 2002; Cohen, Vigoda & Samorly, 2001; Penner, 2002; Penner & Finkelstein, 1998). Indeed, studies have indicated that certain personality traits are related to increased motivation to volunteer. For example, Carlo and colleagues found that individuals who rated higher on extraversion and agreeableness reported greater motivation to volunteer and in turn volunteered more than individuals low on extraversion and agreeableness (Carlo, Okun, Knight, & de Guzman, 2005).

Given that volunteering often includes social components as suggested by the sociological perspective and that individuals often volunteer out of requests from others, it makes sense that extraversion and agreeableness would lend themselves to an increased desire and willingness to volunteer.

While there has been some support for differences in personality variables between those who volunteer and those who do not volunteer, these differences seem to disappear when accounting for perceived social norms and in situations where the individual perceives low behavior costs (Bekkers, 2004; Lissek, Pine, & Grillon, 2006). This point was demonstrated by Bronfenbrenner (1960), who found that when accounting for social and economic factors, personality does little in predicting community involvement. Accordingly, the psychological perspective has expanded beyond the initial separation of dispositional and situational factors that influence
motivation for volunteering and many scholars now adopt an interactionist approach, whereby dispositional and situational factors interact with cognitive and affective factors to produce behavior (e.g., Bandura, 1999; Krebs & Miller, 1985; Miller, 2011).

While the above-mentioned perspectives have enhanced our understanding of the motivation to volunteer, many of the theories have not been quantitatively tested and are based on qualitative research (e.g., Dawes & Larson, 2011). Additionally, research has shown that motivation to volunteer is a multifaceted phenomenon including social, economic, and psychological motives (Haski-Laventhal, 2009). That is, volunteering serves different functions for the collective community as well as for the individual; furthermore, individuals may hold multiple motives for engaging in the same volunteer behavior. In recent years, two major theoretical approaches have shed light on what motivates individuals to volunteer and have dominated the literature; specifically, Clary and Snyder’s (1991) Functional Approach to Volunteering (FAV) and Ajzen’s (1988) general Theory of Planned Behavior (TPB).

**The Functional Approach to Volunteerism**

According to the functional approach – based upon theories of attitudes by Katz (1960) and Smith, Bruner, and White (1956) – behaviors are objects of attitudes that arise from a cognitive evaluation of the behavior’s goal, motive, or function and an affective judgment about whether that function is positive or negative. Behaviors are then maintained if the perceived function is positively evaluated and the behavior does in fact fulfill its purpose and therefore the individual’s needs. Considering volunteering as an attitude object, the functional approach suggests that an individual’s attitudes about volunteering are preceded by an evaluation of the purpose or benefits of
volunteering. Individuals will then continue to volunteer if it fulfills its perceived purpose (Clary & Snyder, 1999; Wang, 2009).

Moreover, the functional approach suggests that because objects may serve more than one purpose, the attitude toward the object may consequently serve more than one function (Shavitt, 1990; Snyder & Omoto, 2009). Clary et al. (1998) applied this functional approach to volunteering and created the Volunteer Functions Inventory (VFI) that outlined and measured six functions or benefits that individuals believe volunteering serves and that motivate individuals to volunteer. The first function that volunteering may serve is the “value function”, which suggests that individuals volunteer because it provides opportunities to express personal values concerning altruism and benevolence (e.g., humanitarian values). The second function that volunteering may serve is the “understanding function”, which suggests that individuals volunteer because it provides opportunities to learn new skills and practice skills that would otherwise go unused (e.g., a baker volunteering as a tutor to utilize their teaching ability). The third function that volunteering may serve is the “social function”, which suggests that individuals volunteer because it provides opportunities to meet new people, make new friends, and become socially engaged (e.g., volunteering with friends or at an organizational event). The fourth function that volunteering may serve is the “career function”, which suggests that individuals volunteer because it provides career-related benefits (e.g., new skills, networking, etc.). The fifth function that volunteering may serve is the “protective function”, which suggests that individuals volunteer because it allows them to escape negative feelings and protects the individual’s ego from self-criticism (e.g., volunteering to distract/escape from personal troubles, feelings of guilt, etc.). Finally, the sixth function that volunteering may serve is the “enhancement
function”, which suggests that individuals volunteer because it provides psychological growth through an increased sense of meaning and self-worth (e.g., self-efficacy, feeling that one knows oneself better and is a better person due to volunteer contributions) (Clary et al., 1998).

The functions of the VFI integrate the social, economics, and psychological perspectives of volunteer motivation and provide a multidimensional approach to examining volunteer motivation. Furthermore, the VFI is the most widely used inventory of volunteer motivation and has been applied and validated in a wide variety of settings and languages (e.g., Brayley et al., 2014; Burns et al., 2005; Gage & Thapa, 2012; Greenslade & White, 2005; Jiranek, Kals, Humm, Strubel, & Wehner, 2013; Kim, Zhang, & Connaughton, 2010) as well as among volunteer and non-volunteer populations (Clary et al., 1998).

Despite the existing support for the VFI and the related functional approach, it is concerning that many researchers have taken for granted an assumption that individuals are motivated to volunteer because they believe that volunteering will serve at least any one of the six indicated functions of the VFI. In fact, several researchers who have taken a qualitative approach to examine volunteer motivation have not found a match of the qualitative answers that they receive with the proposed functions of the VFI. For example, when classifying answers from an open-ended prompt, Stergios and Carruthers (2002) found support for only five of the six proposed functions. Moreover, Allison and colleagues (2002) found that in addition to the six proposed functions of the VFI, volunteers also reported religiosity, enjoyment, and team building as motivations for volunteering. However, even though additional “functions” of volunteering were identified, this study only found that the value and social functions of the VFI were
predictive of volunteering, while the other four functions and the additional motivations identified through the open-ended prompts were not at all predictive of volunteering behavior (Allison et al., 2002). Conversely, Greenslade and White (2005) found that only the social function was able to predict volunteering, while Jiranek and colleagues (2013) found support for the understanding and value functions of the VFI.

Interestingly, as Brayley and colleagues (2015) suggest, it could be that the functions of the VFI, while not being explicitly stated by people who volunteer, really represent implicit behavioral beliefs that may drive the attitudes that people hold about volunteering. These attitudes may then influence an individual’s motivation and therefore the individual’s behavior. This may also explain the discrepancies between qualitative reports of volunteering motivation and the VFI as well as the discrepancies in the predictive validity of the functions of the VFI. Specifically, while each function itself may not be predictive of volunteering behavior, the functions may be related to more positive attitudes toward volunteering, which would in turn increase the behavior. Moreover, attitudes are distinct from the beliefs that influence them and are better predictors of behavior. An additional criticism of the VFI has been that it only focuses on what people are assumed to think about the benefits of volunteering and does not at all account for concrete or, cognitive, or emotional challenges that a person may face in considering the decision to volunteer (Greenslade & White, 2005, Warburton, Terry, Rosenman, & Shapiro, 2001).

**The Theory of Planned Behavior**

While the FAV provides a specific framework for examining the functions that volunteering may fulfill, which then influence motivation to volunteer, it fails to address the challenges that may facilitate or hinder participation in volunteering activities. The
TPB addresses this concern and incorporates elements of some of the aforementioned perspectives. The TPB (Ajzen, 1988) posits that motivation, as indicated by behavioral intention, is the most proximal predictor of behavior. Behavioral intention, in turn, is theorized to be determined by an individual’s attitudes toward the behavior, subjective norms (SN), and perceived behavioral control (PBC). Accordingly, the TPB would suggest that increasing attitudes, SN, and PBC would lead to greater intention to volunteer and therefore more volunteering.

**Attitudes.** Similar to the FAV, which is based on theories of attitudes and suggests that intention to volunteer is at least in part influenced by an individual’s attitude toward volunteering, the TPB also theorizes that attitudes are a predictor of behavioral intention. According to the TPB, attitudes are determined by an individual’s positive or negative evaluation of the behavior. An individual’s evaluation of a behavior is informed by certain attributes or behavioral beliefs that the individual associates with the behavior along with the value of the attributes that are associated with the behavior (Ajzen, 1985, 1991). As an example, an individual may associate volunteering with learning job-related skills. If the individual holds the behavioral belief that they will gain job-related skills from volunteering and the individual also highly values job-related skills, they will in turn have a positive attitude toward volunteering and thus be more motivated to volunteer and more likely to engage in volunteering. Indeed, researchers have associated positive attitudes toward volunteering with increased participation in volunteering (Janoski et al., 1998; Pfeffer & DeVoe, 2009; Taniguchi & Thomas, 2011).

**Subjective Norms.** Additionally, parallel to the sociological perspective, the TPB suggests that social factors may influence behavioral intentions. Specifically, the TPB theorizes that subjective norms in particular influence intention to volunteer.
Subjective norms are defined as the extent to which an individual perceives that salient others approve of and encourage their participation in the behavior (Ajzen, 1985, 1991). Additionally, more indirectly, subjective norms encompass the belief that salient others also hold positive attitudes toward engaging in the behavior themselves. Research suggests that subjective norms are influenced by normative beliefs, which can be injunctive or descriptive, and the individual’s desire to comply. Injunctive normative beliefs represent an individual’s perception that salient others want them to engage in a particular behavior, while descriptive beliefs represent an individual’s perception of what others actually do (Cialdini, Kallgren, & Reno, 1991). For example, an individual may hold the injunctive belief that their friends and family encourage their participation in volunteering, this may then lead to the subjective norm that the individual’s friends and family expect them to participate in volunteering, which may in turn increase the individual’s intention to volunteer. Equally, individuals may hold the descriptive belief that salient others engage in volunteering, which may lead to the subjective norm that volunteering is important to those around the individual and in turn increase the individual’s intention to volunteer. Unquestionably, the effect of social pressure on behavior is a well-documented and studied phenomenon (e.g., Asch, 1956; Cialdini & Trost, 1998; Milgram, 1964; Nowak, Vallacher, & Miller, 2003). Moreover, it is unsurprising that research has found that, individuals who are asked to volunteer and those who know someone who volunteers are more likely to volunteer themselves (Bekkers; 2007; Caro & Bass, 1995; Tang & Morrow-Howell, 2008; Wilson, 2000).

**Perceived Behavioral Control.** Unlike the previously mentioned perspectives of motivation (e.g. sociological perspective), the TPB addresses the challenges that may hinder volunteering in the form of perceived behavioral control (PBC). Perceived
behavioral control encompasses an individual’s perception of the ease or difficulty of performing a behavior and accounts for the perception of available resources and opportunities (Ajzen, 1991). The TPB asserts that control beliefs, which are beliefs about factors that may facilitate or hinder behavioral action, influence PBC. For example, with regard to volunteering, an individual may believe that they have a demanding schedule that would hinder their participation in volunteering. This in turn may lead to the belief that volunteering would be difficult and thus lower intention to volunteer. Similarly, an individual may believe that many available opportunities would facilitate their involvement in volunteering. This in turn may lead the individual to think that volunteering is easy and therefore increase the individual’s intention to volunteer. Research has indeed shown an association between PBC and intention to volunteer (Brayley et al., 2015; Warburton & Terry, 2000).

**Behavioral Intention.** Also distinct from the previously mentioned perspectives of motivation, the TPB predicts behavior through behavioral intention. Behavioral intention represents an individual’s plan, motivation, willingness, or readiness to perform a behavior (Ajzen, 2005; Jiranek et al., 2013). The TPB asserts that behavioral intention is the direct result of the aforementioned variables: attitudes, SN, and PBC. According to the TPB, more positive attitudes toward the behavior, greater perceived subjective norms, and greater perceived behavioral control should result in positive behavioral intention. Furthermore, given that people often do what they intend to do, behavioral intention has been theorized to be the most immediate predictor of behavioral engagement. (Ajzen, 2005). For example, if an individual has the intention to volunteer and subsequently participates in volunteering, the individual’s intention can be seen as a precursor to volunteering behavior. Generally, research on volunteering has
supported this link between intention to volunteer and actual volunteer behavior (Okun & Sloane, 2002).

Although the aforementioned TPB constructs are not specific to volunteering, research has demonstrated their usefulness in explaining volunteer behavior (e.g., Hyde & Knowles, 2013; Warburton & Terry, 2000). Furthermore, the TPB addresses the previously missing element of perceived behavioral control and research suggests that the TPB has stronger predictive validity than the aforementioned FAV (e.g., Greenslade & White, 2005). Nonetheless, a problem with the TPB as it has been studied in the volunteering literature is that its general nature precludes its real-world applicability when considering volunteer motivation. Specifically, while research has focused on the direct measures of attitudes, subjective norms, and perceived behavioral control, the items that make up these TPB constructs are so generic that they are not very useful in informing how to influence volunteering behavior. As an example, Okun and Sloane (2002) used the TPB to predict participation in volunteering; as a measure of attitude, participants were asked to rate on a 7-point scale “whether it would be beneficial, good, useful, pleasant, and enjoyable to volunteer.” (p. 246). Ratings for the five items were then averaged, with higher ratings indicating more positive attitudes toward volunteering. These researchers found that individuals with more positive attitudes toward volunteering were more likely to engage in volunteering, which would suggest that increasing positive attitudes toward volunteering may in turn increase volunteering. Nonetheless, the knowledge that an individual has a positive attitude toward volunteering is not actually helpful in informing how to increase another individual’s positive attitudes toward volunteering. Namely, understanding that attitudes, subjective norms, and perceived behavioral control affect intention to
volunteer can only be useful if we also understand the beliefs that individuals hold that then influence their attitudes, subjective norms, and perceived behavioral control specifically for volunteering behaviors. Thus, research is needed to examine the direct measures of the TPB as well as the indirect beliefs that influence attitudes, subjective norms, and perceived behavioral control.

**Proposed Integrated Model and Hypotheses**

Previous research has failed to provide a framework for understanding volunteer motivation that is both comprehensive and specific. The FAV provides a multifaceted framework, incorporating sociologic, economic, and psychologic perspectives, but fails to address factors that individuals may perceive to hinder their volunteer participation. Moreover, the TPB as currently used, addresses the factors that may hinder volunteer participation, but lacks in specificity that would allow for its application to efforts of increasing volunteer motivation. Thus, a model that is both comprehensive and specific is needed. As such, this study proposes an integrated model of volunteer motivation that combines the FAV and the TPB. Specifically, this study aims to test whether the functions posed by the VFI are behavioral and social norm beliefs, as suggested by Brayley (2015) and thus, represent the indirect component of the TPB that is often unmeasured. If the functions of the VFI act as beliefs, we might expect that the proposed functions fit within the full TPB model. In this integrated model, the assumed functions of the VFI, which are specific to volunteering motivation, serve as behavioral beliefs and beliefs about social norms, which would then inform the individual’s attitudes and subjective norms about volunteering. Given that the TPB also accounts for behavioral control, this study will also explore beliefs about the factors that may facilitate or hinder volunteering activities (see Figure 1). Establishing a comprehensive and specific model
of volunteer motivation holds important implications for organizations and policymakers who view volunteering as a public health intervention.

Figure 1. Proposed structural model for the theory integration. This figure describes the relationship between behavioral, normative, and control beliefs, the TPB variables, and intention to volunteer.
**Hypothesis 1.** There will be a significant and positive relationship between attitudes, SN, PBC, and their corresponding beliefs when controlling for demographic variables.

**Hypothesis 1a.** Behavioral beliefs as measured by the understanding, value, enhancement, protective, and career functions of the VFI will significantly and positively predict attitudes toward volunteering.

**Hypothesis 1b.** Normative beliefs as measured by the social function of the VFI will significantly and positively predict subjective norms for volunteering.

**Hypothesis 1c.** Control beliefs will significantly and positively predict perceived behavioral control for volunteering.

**Hypothesis 2.** When controlling for demographic variables, attitudes, SN, and PBC will all significantly and positively predict intention to volunteer.

**Hypothesis 3.** The VFI functions will serve as volunteer-specific behavioral and normative beliefs and will fit into a full TPB model along with control beliefs to indirectly predict intention to volunteer when controlling for demographic variables.

**Hypothesis 3a.** Behavioral beliefs as measured by the understanding, value, enhancement, protection, and career functions of the VFI will positively and significantly predict intention to volunteer by an indirect effect through attitudes.

**Hypothesis 3b.** Normative beliefs will positively and significantly predict intention to volunteer by an indirect effect through SN.

**Hypothesis 3c.** Control beliefs will positively and significantly predict intention to volunteer by an indirect effect through PBC.
Method

Participants

Participants were recruited through the University of South Florida (USF) SONA (psychology research pool) participant system. For determining sample size, there are no agreed-upon requirements for what constitutes an adequate sample size when conducting structural equation modeling (SEM). A power analysis was computed using semTools (Jorgensen et al., 2020) in R version 4.0.2 (R Core Team, 2020) to allow for an acceptable fit for RMSEA (MacCallum, Browne, & Suguwara, 1996). The power analysis suggested a sample size of 15. However, some researchers have suggested an N:q ratio, where q represents the number of free parameters within the model, for determining an adequate sample size. Suggestions for this ratio have been 5:1, 10:1, or even as high as 20:1 (Bentler and Chou, 1987; Jackson, 2003; Nunnally, 1967). Still, others have suggested a blanket rule that N should be 100 to 200, 500, or even greater than 1000 (Bentler & Chou, 1987; Costello & Osborne, 2005; Tabachnick and Fidell, 2001). Moreover, according to Kline (2015), the average sample size reported in studies using SEM analyses is about 200. Thus, the minimum target sample size for the current study was set to 200 participants. The inclusion criteria for this study were: any USF student who was at least 18 years of age, English speaking, and enrolled in a psychology course. There were no other exclusion criteria for the study. Participants acknowledged a statement of informed consent prior to participation in the study (see Appendix A).
Additionally, participants received extra credit in their psychology courses for their participation.

After screening the data, 362 participants were included in the study (see Data Screening section for full details). Participants were 34.8% freshman, 84.8% female, 58.0% White, aged 18 to 29 ($M = 19.83$, $SD = 1.98$), with an average GPA of 3.45. The majority of participants were full-time students (92.5%) taking an average of 13.5 credit hours. Of the total sample, 52.8% reported having no employment and 53.6% reported no current organizational involvement, with 13.5% of total participants having never participated in an organization in the past or at the time of the survey. Additionally, 21.8% of the sample reported current participation in an organization that required community service. In terms of volunteer activity, 49.2% reported involvement in at least one activity that was classified as volunteering (See Table 1 for complete demographics information).

**Measures**

*Demographic Questions*

Demographic information was collected via self-report (see Appendix B). Questions included age, gender, race/ethnicity, year in school, grade-point average, credit hours, hours of paid or unpaid labor, and organization involvement.

*Volunteering Activity*

In order to classify participants as volunteers or not, volunteers, the following activities were assessed based on the guidelines of the UN Volunteering Toolkit (see Appendix C; Dingle et al., 2001). The word “volunteer” and its derivatives were not used to decrease response bias as well as uncertainty about which activities qualify as volunteering. The measure included questions about participation in specific activities
(e.g., “Have you ever contributed to an organization or event aimed at promoting animal welfare”). The measure further included questions to assess the frequency of the activity and conditions under which the activity was carried out (e.g., for school, for compensations, etc.). Activities were classified as volunteering if about half the time or more they were completed of the individuals’ own free will and about half the time or less the activity was completed for compensation, for a school or work requirement, or a scholarship or award. Alternatively, activities were classified as community service if they were completed of the individuals’ own free will less than half the time, or more than half the time the activity was completed for compensation, for a school or work requirement, or a scholarship or award.

Table 1. Demographic Information

<table>
<thead>
<tr>
<th>Variable</th>
<th>M(SD)</th>
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<tbody>
<tr>
<td>Age</td>
<td>19.83(1.98)</td>
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<tr>
<td>GPA</td>
<td>3.45(0.43)</td>
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<tr>
<td>Credit Hours</td>
<td>13.49(2.42)</td>
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<table>
<thead>
<tr>
<th>Gender:</th>
<th>N (%)</th>
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</thead>
<tbody>
<tr>
<td>Female</td>
<td>307 (84.8%)</td>
</tr>
<tr>
<td>Male</td>
<td>49 (13.5%)</td>
</tr>
<tr>
<td>Other / Prefer not to say</td>
<td>6 (1.7%)</td>
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<table>
<thead>
<tr>
<th>Race / Ethnicity:</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>31 (8.6%)</td>
</tr>
<tr>
<td>Asian</td>
<td>32 (8.8%)</td>
</tr>
<tr>
<td>Hispanic only</td>
<td>55 (15.2%)</td>
</tr>
<tr>
<td>Multiracial</td>
<td>29 (8.0%)</td>
</tr>
<tr>
<td>White</td>
<td>210 (58.0%)</td>
</tr>
<tr>
<td>Other/Prefer not to say</td>
<td>5 (1.4%)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Ethnicity:</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Hispanic</td>
<td>85 (23.5%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class Standing</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen</td>
<td>126 (34.8%)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>73 (20.2%)</td>
</tr>
<tr>
<td>Junior</td>
<td>88 (24.3%)</td>
</tr>
<tr>
<td>Senior</td>
<td>75 (20.7%)</td>
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</table>

<table>
<thead>
<tr>
<th>Weekly Work Hours</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Job</td>
<td>191 (52.8%)</td>
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Table 1 (Continued)

<table>
<thead>
<tr>
<th>Major</th>
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</thead>
<tbody>
<tr>
<td>Arts &amp; Humanities</td>
<td>25 (6.9%)</td>
</tr>
<tr>
<td>Business</td>
<td>10 (2.8%)</td>
</tr>
<tr>
<td>Global &amp; Social Sciences</td>
<td>152 (42.0%)</td>
</tr>
<tr>
<td>Health &amp; Natural Sciences</td>
<td>149 (41.2%)</td>
</tr>
<tr>
<td>Math, Engineering, &amp; Technology</td>
<td>21 (5.8%)</td>
</tr>
<tr>
<td>Undeclared</td>
<td>5 (1.4%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parents Highest Level of Education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>10 (2.8%)</td>
</tr>
<tr>
<td>High school diploma</td>
<td>39 (10.8%)</td>
</tr>
<tr>
<td>Vocational training</td>
<td>11 (3.0%)</td>
</tr>
<tr>
<td>Some college</td>
<td>50 (13.8%)</td>
</tr>
<tr>
<td>Associate's degree</td>
<td>33 (9.1%)</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>111 (30.7%)</td>
</tr>
<tr>
<td>Master's degree</td>
<td>79 (21.8%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household Income</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $20,000</td>
<td>32 (8.8%)</td>
</tr>
<tr>
<td>$20,001 - $50,000</td>
<td>103 (28.5%)</td>
</tr>
<tr>
<td>$50,001 - $100,000</td>
<td>128 (35.4%)</td>
</tr>
<tr>
<td>$100,001 or over</td>
<td>99 (27.3%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Organization Involvement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>194 (53.6%)</td>
</tr>
<tr>
<td>One</td>
<td>101 (27.9%)</td>
</tr>
<tr>
<td>Two</td>
<td>43 (11.9%)</td>
</tr>
<tr>
<td>Three</td>
<td>14 (3.9%)</td>
</tr>
<tr>
<td>Four or more</td>
<td>10 (2.7%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Last Volunteering Activity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteered in last 6 months</td>
<td>178 (49.2%)</td>
</tr>
<tr>
<td>Community service in last 6 months</td>
<td>28 (7.7%)</td>
</tr>
<tr>
<td>Volunteered in last year</td>
<td>45 (12.4%)</td>
</tr>
<tr>
<td>Community service in last year</td>
<td>30 (8.3%)</td>
</tr>
<tr>
<td>Volunteered over a year ago</td>
<td>49 (13.5%)</td>
</tr>
<tr>
<td>Community service over a year ago</td>
<td>21 (5.8%)</td>
</tr>
<tr>
<td>None</td>
<td>11 (3.0%)</td>
</tr>
</tbody>
</table>

Beliefs

The Volunteer Functions Inventory (VFI; Clary et al., 1998) was used to assess behavioral and normative beliefs (see Appendix D). The VFI is a 30-item scale that assesses six motivating functions of volunteering. The six functions are assessed with five items each that are rated on a 7-point scale from “not at all important/inaccurate” to “extremely important/accurate.” Moreover, prior studies have shown that the VFI
evidenced adequate internal consistency and predictive validity (Chacón et al., 2011; Clary et al., 1998). Behavioral beliefs included the values function (e.g., “I feel it is important to help others”), the understanding function (e.g., “Volunteering allows me to gain a new perspective on things”), the enhancement function (e.g., “Volunteering increases my self-esteem”), the career function (e.g., “Volunteering experience will look good on my resume”), and the protective function (e.g., “Volunteering is a good escape from my own troubles”). Given that the social function subscale includes items that tap into both normative beliefs and subjective norms, the subscale was modified to include five items to assess injunctive (e.g., “People I’m close to want me to volunteer”) and descriptive normative beliefs (e.g., “My friends volunteer”). Furthermore, control beliefs (see Appendix D) were assessed on the same 7-point scale and included five items that assess factors that may hinder volunteering (e.g., “Family obligations often place unanticipated demands on my time”) or facilitate volunteering (e.g., “I often have the opportunity to volunteer”).

Theory of Planned Behavior

Because there is no standard TPB measure, the items used for each of the constructs were created using guidelines by Ajzen (2006, 2013) and based on TPB measures employed in prior studies on volunteering (Brayley et al., 2015; Greenslade & White, 2005; Okun & Sloane, 2002; Warburton & Terry, 2000) (see Appendix E). The TPB has evidenced adequate reliability and validity specific to volunteering with alphas ranging from .72 to .97 (Brayley et al., 2015; Greenslade & White, 2005). The measure contained 23 items to assess the TPB constructs. Attitudes were assessed using nine semantic differential scales (e.g. good/bad, interesting/boring, etc.) with the common stem, “to volunteer would be ...” To standardize responses across scales, items were
scored on a 7-point scale (anchor ratings were 1 and 7) with higher scores indicating more positive attitudes toward volunteering. The SN subscale included five items to assess perceived social approval and encouragement to volunteer (e.g., “most people who are important to me would approve of my engaging in volunteering in the next month”). The PBC subscale included five items to assess perceived control over volunteering (e.g., “it would be easy for me to volunteer”). Finally, the Volunteering intention subscale included four items that assess the individual’s subjective probability of volunteering in the next month. Again, to standardize responses, the SN, PBC, and volunteering intention subscales were rated on a 7-point scale from “strongly disagree/extremely unlikely” to “strongly agree/extremely likely” (e.g., “I am confident that I will volunteer in the next month”).

**Procedure**

Students in the USF psychology research subject pool signed up for the study via SONA (an online recruiting and data collection software used at USF). Following enrollment in the study, students who meet inclusion criteria received a Qualtrics link to the survey. Participants then read over an informed consent page, which described the study as an investigation to examine beliefs about volunteering. After providing informed consent (see Appendix A), participants were then directed to the survey, which took approximately 20 to 40 minutes to complete. Participants were assigned 1 point extra credit on SONA for completing the survey. The participant’s SONA ID identified all data collected and participants were asked to provide the last four digits of their University ID only for linking potential future data. A password-protected server that is only accessible by authorized research personnel secured all data.
Data Analyses

The Lavaan package (Rosseel, 2012) in R version 4.0.2 (R Core Team, 2020) was employed to conduct latent variable analysis and path analytic modeling. First, the analyses began with an examination of the measurement components of the overall structural model. Confirmatory factor analyses were conducted on the functions of volunteering (i.e., understanding, value, enhancement, protection, and career functions), normative beliefs, control beliefs, attitudes, subjective norms, perceived behavioral control, and intentions separately to assess how well the individual items reflected their latent constructs. Various CFA models were tested to attempt to improve model fit for the measures of each of the constructs. Thereafter, the overall measurement model was tested, which included all of the latent variables in the model, with non-directional pathways between them. Additionally, descriptive statistics were extracted to obtain means and standard deviations of the latent factors. Due to the categorical nature of the indicators, normal test theory assumptions of normality were not examined. Instead, all analyses utilized a robust estimation method that is resistant to violations of these assumptions. Further analyses assessed the influence of demographic variables on the dependent variables to determine the inclusion of covariates or control variables in the analyses. Finally, a path model was conducted to evaluate the hypothesized model of the specific relationship between beliefs, attitudes, subjective norms, perceived behavioral control, and intention to volunteer.
To test hypothesis 1, direct paths were written between behavioral beliefs and attitudes, normative beliefs and SN, and control beliefs and PBC. Likewise, to test hypothesis 2, direct paths were written between attitudes and intention to volunteer, SN, and intention to volunteer, and PBC and intention to volunteer. After assessing the direct effects of hypotheses 1 and 2, indirect paths from behavioral beliefs, normative beliefs, and control beliefs to intention were estimated to test the structural assumptions of the full TPB model and to examine whether the indirect effects partially or fully account for the relationships between behavioral, normative, and control beliefs and intention to volunteer (hypothesis 3).

Given that assumptions of normality were not met, maximum likelihood estimation with robust standard errors and a Satorra-Bentler (S-B) scaled test statistic (MLM) estimation was used due to its robustness against deviations from normality (Lei, 2009; Oranje, 2004; Yang-Wallentin, Jöreskog, & Luo, 2010). Although asymptotic distribution-free (ADF) estimation is often preferred in cases of non-normality (Li, 2016), both ADF and ML estimation methods assume that observed variables are measured continuously (Flora & Curran, 2004). Nonetheless, MLM has proven to be robust to violations of this assumption with variables including five or more categories (Finney & DiStefano, 2006; Rhemtulla, Brosseau-Liard, & Victoria Savalei, 2012) and all indicators included in the model used a 7-point scale. MLM further produces less biased standard errors of interfactor correlations when compared to ADF estimation methods (Beauducel & Herzberg, 2006; DiStefano, 2002).

Moreover, while bootstrapping is often employed in the analysis of indirect effects to provide bias-corrected 95% confidence intervals (Preacher & Hayes, 2004; Shrout & Bolger, 2002; Zhao, Lynch, & Chen, 2010), it does not provide a reliable way to
evaluate model fit. Conversely, MLM provides a robust correction to the standard errors, for bias-corrected 95% confidence intervals, as well as robust corrections for the model fit statistics, allowing for the use of traditional indices when assessing model fit (Satorra & Bentler, 1994, 2001). To that end, the overall model fit will be assessed using multiple indices, including model-based chi-square value (Joreskog, 1969), chi-square to degrees of freedom ratio (CMIN/DF; Kline, 2015), Comparative Fit Index (CFI; Bentler, 1990), the Standardized Root Mean Residual (SRMR; Hu & Bentler, 1999) and the Root Mean Square Error of Approximation (RMSEA; Steiger, 1990). The recommended guidelines suggest that a non-significant chi-square statistic, CMIN/DF < 3 (Kline, 2015), CFI > 0.95, SRMR < 0.08 (Hu & Bentler, 1999), and an RMSEA < 0.08 (Browne & Cudeck, 1993) indicate good model fit.
Results

Data Screening

Six hundred participants were recruited through SONA. To ensure the validity of responses, “instructional manipulation check” (IMC; Oppenheimer, Meyvis, & Davidenko, 2009) items were used throughout the survey, which instructed participants to select a particular response option (e.g., Please mark the circle that says “somewhat important/accurate.”). Upon submission of an incorrect response to the IMC, the survey was terminated and no credit was granted. A total of 178 participants were dropped due to incomplete data. No demographic differences were found between those who completed the study and those who did not. Of those whose participation was terminated, three contacted the PI to request a review of their responses and were allowed to resume the survey. Of those who requested a review of their responses, two completed the survey. This resulted in a total of 422 completed responses. Prior to analyses, the data were reviewed for the quality of responses and outliers. Given that the target population is a young adult college sample, 20 individuals were dropped due to their age being greater than three times the interquartile range above the mean (i.e. age > 29). Three additional participants were removed for endorsing that they were continuing education or non-degree seeking students. Finally, 37 multivariate outliers were identified and removed from the sample. Thus, the final total sample was 362.

In terms of missing data, twenty-one freshmen did not report a GPA (most likely due to being in their first semester), thus the average (3.45) was imputed. There was no
other missing data. All items were rated on a 7-point scale (anchor ratings were 1 and 7) and recoded so that higher scores indicate higher levels of the construct (e.g., higher scores on attitudes indicate more positive attitudes).

**Measurement Model**

**Volunteering Functions / Behavioral Belief**

The volunteering functions were examined as volunteering specific behavioral beliefs, which consisted of 25 items across five factors. First, the hypothesized 5-factor model was tested. This model did not quite meet criteria for acceptable fit; S-B scaled \( \chi^2 (245) = 640.685; p < .001; c = 1.201; \) CMIN/DF = 2.615; robust CFI = 0.898; SRMR = 0.068; robust RMSEA = 0.069 with 90% CI [0.062, 0.075], indicating that there was additional variance unexplained by the hypothesized model. After examining modification indices, which suggested the addition of various cross-loadings of indicators and error covariances between indicators across factors, one set of error covariances was included between items 3 and 5 of the career function. After correlating these errors, model fit marginally improved, with three of the five fit statistics indicating a good fit to the model, S-B scaled \( \chi^2 (244) = 622.307; p < .001; c = 1.201; \) CMIN/DF = 2.550; robust CFI = 0.903; SRMR = 0.067; robust RMSEA = 0.067 with 90% CI [0.060, 0.074]. Although the modified model did not quite meet criteria for acceptable fit to the data for two of the five indices, it is well known that the interpretation of fit indices is not absolute and some authors suggest that CFI values as low as .90 represent adequate model fit (Bentler & Bonett, 1980; McDonald & Ho, 2002). Furthermore, the modified model proved to be a significant improvement to the original model (\( cd = 1.201; \) TRd = 18.378; \( \Delta df = 1; p < .001 \)), thus, was retained in the structural analyses.
**Normative Beliefs**

The normative beliefs scale evidenced acceptable approximate fit to the data (S-B scaled $\chi^2(5) = 14.017; p = .016; c = 1.283; \text{CMIN/DF} = 2.803; \text{robust CFI} = 0.988; \text{SRMR} = 0.024; \text{robust RMSEA} = 0.080$ with 90% CI [0.032, 0.131]) and was retained in the structural analyses.

**Control Beliefs**

The initial specified model for control beliefs had poor fit to the data; S-B scaled $\chi^2(5) = 46.441; p < 0.001.; c = 0.971; \text{CMIN/DF} = 9.288; \text{robust CFI} = 0.406; \text{SRMR} = 0.086; \text{robust RMSEA} = 0.149$ with 90% CI [0.112, 0.190]. An examination of the parameter estimates revealed that items 2 and 5 did not load onto the control beliefs factors and modification indices suggested the addition of error covariances between the two items. Items 2 and 5 evaluate beliefs about facilitating factors, while items 1, 3, and 4 evaluate beliefs about barriers to volunteering. Given the poor fit of the initial model and the conceptual difference between beliefs about facilitators and barriers, the control beliefs subscale was subsequently divided into two factors: barrier control beliefs and facilitating beliefs. This modified model of control beliefs evidenced acceptable fit to the data, S-B scaled $\chi^2(6) = 10.375; p = \text{n.s.}; c = 0.955; \text{CMIN/DF} = 1.729; \text{robust CFI} = 0.938; \text{SRMR} = 0.048; \text{robust RMSEA} = 0.044$ with 90% CI [0.000, 0.088] and was retained in the structural analyses.

**Attitudes**

The initial specified model for attitudes did not quite meet criteria for acceptable fit to the data S-B scaled $\chi^2(27) = 136.602; p < .001; c = 1.712; \text{CMIN/DF} = 5.059; \text{CFI} = 0.943; \text{SRMR} = 0.035; \text{robust RMSEA} = 0.139$ with 90% CI [0.116, 0.162]. Modification indices were explored and given the nature of attitudes, a total of 10 error variances
were included in the model and yielded fit indices S-B scaled $\chi^2(17) = 24.591; p = \text{n.s.; } c = 1.636; \text{ CMIN/DF } = 1.447; \text{ robust CFI } = .996; \text{ SRMR } = 0.012; \text{ robust RMSEA } = 0.045$ with 90% CI [0.00, 0.081]. The modified model proved to be a significant improvement to the original model ($cd = 1.841; \text{ TRd } = 105.166; \Delta df = 10; p < .001$), thus, was retained in the structural analyses.

**Subjective Norms**

The initial specified model for subjective norms did not quite meet criteria for acceptable fit to the data for three of the five indices S-B scaled $\chi^2(5) = 31.224; p < .001; c = 1.333; \text{ CMIN/DF } = 6.245; \text{ robust CFI } = 0.965; \text{ SRMR } = 0.042; \text{ robust RMSEA } = 0.139$ with 90% CI [0.095, 0.188]. Based on the suggestion of the modification indices, the error variance of indicators 2 and 5 was included in the model given the level of similarity between the indicators. After this modification, model fit marginally improved S-B scaled $\chi^2(4) = 11.797; p = .019; c = 1.313; \text{ CMIN/DF } = 2.949; \text{ robust CFI } = 0.990; \text{ SRMR } = 0.017; \text{ robust RMSEA } = 0.084$ with 90% CI [0.031, 0.142]. The modified model proved to be a considerable improvement to the original model ($cd = 1.413; \text{ TRd } = 18.494; \Delta df = 1; p < .001$), thus, was retained in the structural analyses.

**Perceived Behavioral Control**

The initial specified model for perceived behavior control did not quite meet criteria for acceptable fit to the data for two of the four indices S-B scaled $\chi^2(5) = 49.745; p < .001.; c = 1.451; \text{ CMIN/DF } = 9.949; \text{ robust CFI } = 0.852; \text{ SRMR } = 0.077; \text{ robust RMSEA } = 0.189$ with 90% CI [0.144, 0.239]. Based on the suggestion of the modification indices, the error variances of indicators 2 and 4 and items 1 and 5 were included in the model given the level of similarity between the indicators. After this modification, model fit considerably improved S-B scaled $\chi^2(4) = 4.580; p = \text{n.s.; } c =
1.133; CMIN/DF = 1.145; robust CFI = 0.999; SRMR = 0.020; robust RMSEA = 0.021 with 90% CI [0.000, 0.090]. The modified model proved to be a significant improvement to the original model (cd = 2.732; TRd = 24.602; Δdf = 1; p < .001), thus, was retained in the structural analyses.

**Intention to Volunteer**

The intentions scale evidenced acceptable approximate fit to the data, S-B scaled $\chi^2(2) = 0.168; p = \text{n.s.}; c = 1.247; \text{CMIN/DF} = 0.084; \text{robust CFI} = 1.000; \text{SRMR} = 0.001; \text{robust RMSEA} = 0.000$ with 90% CI [0.000, 0.141] and was retained in the structural analyses.

**Full Hypothesized Model**

The overall measurement model was tested, which included all of the latent variables in the model, S-B scaled $\chi^2(1515) = 2434.749; p < .001; c = 1.098; \text{CMIN/DF} = 1.607; \text{robust CFI} = 0.9267; \text{SRMR} = 0.058; \text{robust RMSEA} = 0.043$ with 90% CI [0.040, 0.046]. As expected, all indicators were positively and significantly loaded onto their respective factors with factor loadings ranging from 0.457 to 1.685 (see Table 2). Also as expected, all latent variables within the model were significantly and positively related to one another, with the exception of barrier control beliefs, which was only significantly and negatively related to PBC (see Figure 2 for a graphical representation of the measurement model). All of the factors within the model had adequate internal consistency with alphas ranging from 0.71 to 0.96, except barrier control beliefs $\alpha = 0.34$ and facilitating beliefs $\alpha = 0.49$. Nonetheless, Ajzen (2006) suggests that the set of salient beliefs is not necessarily internally consistent from a theoretical perspective, thus, barrier and facilitating control beliefs were both retained in the model.
### Table 2. Measurement Model

<table>
<thead>
<tr>
<th>Item</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Understanding Function (α = .843)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I can learn more about the cause for which I am working.</td>
<td>0.760</td>
<td>0.058</td>
<td>0.708</td>
</tr>
<tr>
<td>2. Volunteering allows me to gain a new perspective on things.</td>
<td>0.695</td>
<td>0.043</td>
<td>0.722</td>
</tr>
<tr>
<td>3. Volunteering lets me learn through direct hands-on experience.</td>
<td>0.757</td>
<td>0.049</td>
<td>0.778</td>
</tr>
<tr>
<td>4. I can learn how to deal with a variety of people.</td>
<td>0.694</td>
<td>0.054</td>
<td>0.678</td>
</tr>
<tr>
<td>5. I can explore my own strengths.</td>
<td>0.688</td>
<td>0.061</td>
<td>0.673</td>
</tr>
<tr>
<td><strong>Value Function (α = .783)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I am concerned about those less fortunate than myself.</td>
<td>0.631</td>
<td>0.055</td>
<td>0.645</td>
</tr>
<tr>
<td>2. I am genuinely concerned about the particular group I am serving.</td>
<td>0.794</td>
<td>0.076</td>
<td>0.540</td>
</tr>
<tr>
<td>3. I feel compassion toward people in need.</td>
<td>0.717</td>
<td>0.057</td>
<td>0.793</td>
</tr>
<tr>
<td>4. I feel it is important to help others.</td>
<td>0.555</td>
<td>0.047</td>
<td>0.768</td>
</tr>
<tr>
<td>5. I can do something for a cause that is important to me.</td>
<td>0.632</td>
<td>0.057</td>
<td>0.707</td>
</tr>
<tr>
<td><strong>Enhancement Function (α = .841)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Volunteering makes me feel important.</td>
<td>0.890</td>
<td>0.066</td>
<td>0.657</td>
</tr>
<tr>
<td>2. Volunteering increases my self-esteem.</td>
<td>1.108</td>
<td>0.070</td>
<td>0.772</td>
</tr>
<tr>
<td>3. Volunteering makes me feel needed.</td>
<td>1.170</td>
<td>0.057</td>
<td>0.792</td>
</tr>
<tr>
<td>4. Volunteering makes me feel better about myself.</td>
<td>1.175</td>
<td>0.065</td>
<td>0.810</td>
</tr>
<tr>
<td>5. Volunteering is a way to make new friends.</td>
<td>0.709</td>
<td>0.065</td>
<td>0.569</td>
</tr>
<tr>
<td><strong>Protective Function (α = .804)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. No matter how bad I’ve been feeling, volunteering helps me to forget about it.</td>
<td>1.088</td>
<td>0.078</td>
<td>0.659</td>
</tr>
<tr>
<td>2. By volunteering, I feel less lonely.</td>
<td>1.103</td>
<td>0.075</td>
<td>0.697</td>
</tr>
<tr>
<td>3. Doing volunteer work relieves me of some of the guilt over being more fortunate than others.</td>
<td>0.776</td>
<td>0.089</td>
<td>0.460</td>
</tr>
<tr>
<td>4. Volunteering helps me work through my own personal problems.</td>
<td>1.314</td>
<td>0.062</td>
<td>0.789</td>
</tr>
<tr>
<td>5. Volunteering is a good escape from my own troubles.</td>
<td>1.327</td>
<td>0.065</td>
<td>0.820</td>
</tr>
<tr>
<td><strong>Career Function (α = .836)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Volunteering can help me to get my foot in the door at the place where I would like to work.</td>
<td>0.838</td>
<td>0.077</td>
<td>0.699</td>
</tr>
<tr>
<td>2. I can make new contacts that might help my business or career.</td>
<td>1.042</td>
<td>0.077</td>
<td>0.781</td>
</tr>
<tr>
<td>3. Volunteering allows me to explore different career options.</td>
<td>0.812</td>
<td>0.080</td>
<td>0.636</td>
</tr>
<tr>
<td>4. Volunteering will help me to succeed in my chosen profession.</td>
<td>1.143</td>
<td>0.069</td>
<td>0.784</td>
</tr>
<tr>
<td>5. Volunteering experience will look good on my resume.</td>
<td>0.785</td>
<td>0.076</td>
<td>0.714</td>
</tr>
<tr>
<td><strong>Normative Beliefs (α = .889)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. My friends and family volunteer.</td>
<td>1.076</td>
<td>0.075</td>
<td>0.669</td>
</tr>
<tr>
<td>2. People I’m close to want me to volunteer.</td>
<td>1.320</td>
<td>0.068</td>
<td>0.804</td>
</tr>
<tr>
<td>3. People I’m close to encourage me to volunteer.</td>
<td>1.576</td>
<td>0.061</td>
<td>0.880</td>
</tr>
<tr>
<td>4. People within my social circle volunteer regularly.</td>
<td>1.281</td>
<td>0.070</td>
<td>0.769</td>
</tr>
<tr>
<td>5. My family thinks I should volunteer.</td>
<td>1.323</td>
<td>0.071</td>
<td>0.775</td>
</tr>
<tr>
<td><strong>Barrier Beliefs (α = .344)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Family obligations often place unanticipated demands on my time.</td>
<td>0.673</td>
<td>0.120</td>
<td>0.429</td>
</tr>
<tr>
<td>2. I often have health issues that may prevent me from volunteering.</td>
<td>0.457</td>
<td>0.106</td>
<td>0.301</td>
</tr>
<tr>
<td>3. I expect that my school/work will place high demands on my time.</td>
<td>0.552</td>
<td>0.100</td>
<td>0.456</td>
</tr>
<tr>
<td><strong>Facilitating Beliefs (α = .490)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I often have the opportunity to volunteer. (R)</td>
<td>1.022</td>
<td>0.092</td>
<td>0.658</td>
</tr>
<tr>
<td>2. There are not many interesting volunteer opportunities.</td>
<td>0.759</td>
<td>0.080</td>
<td>0.493</td>
</tr>
<tr>
<td><strong>Attitudes (α = .960)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Bad / Good</td>
<td>0.795</td>
<td>0.048</td>
<td>0.887</td>
</tr>
<tr>
<td>2. Unsatisfying / Satisfying</td>
<td>0.898</td>
<td>0.056</td>
<td>0.830</td>
</tr>
<tr>
<td>3. Boring / Interesting</td>
<td>0.890</td>
<td>0.057</td>
<td>0.807</td>
</tr>
<tr>
<td>4. Unpleasant / Pleasant</td>
<td>0.895</td>
<td>0.052</td>
<td>0.856</td>
</tr>
</tbody>
</table>
Table 2 (Continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Unfavorable / Favorable</td>
<td>0.955</td>
<td>0.058</td>
<td>0.860</td>
</tr>
<tr>
<td>6. Detrimental / Beneficial</td>
<td>0.849</td>
<td>0.055</td>
<td>0.852</td>
</tr>
<tr>
<td>7. Unenjoyable / Enjoyable</td>
<td>0.879</td>
<td>0.056</td>
<td>0.809</td>
</tr>
<tr>
<td>8. Useless / Useful</td>
<td>0.773</td>
<td>0.043</td>
<td>0.845</td>
</tr>
<tr>
<td>9. Negative / Positive</td>
<td>0.741</td>
<td>0.052</td>
<td>0.832</td>
</tr>
</tbody>
</table>

Subjective Norms ($\alpha = .876$)

<table>
<thead>
<tr>
<th>Item</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People I know share an interest in volunteering.</td>
<td>1.408</td>
<td>0.066</td>
<td>0.849</td>
</tr>
<tr>
<td>2. Others with whom I am close to place a high value on volunteering.</td>
<td>1.457</td>
<td>0.060</td>
<td>0.876</td>
</tr>
<tr>
<td>3. Volunteering is an important activity to the people I know best.</td>
<td>1.431</td>
<td>0.062</td>
<td>0.857</td>
</tr>
<tr>
<td>4. Most people who are important to me would approve of my engaging in volunteering.</td>
<td>0.487</td>
<td>0.060</td>
<td>0.444</td>
</tr>
<tr>
<td>5. The people in my life whose opinions I value think it is desirable for me to volunteer.</td>
<td>1.170</td>
<td>0.075</td>
<td>0.746</td>
</tr>
</tbody>
</table>

Perceived Behavioral Control ($\alpha = .707$)

<table>
<thead>
<tr>
<th>Item</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have complete control over whether or not I will volunteer.</td>
<td>1.025</td>
<td>0.079</td>
<td>0.757</td>
</tr>
<tr>
<td>2. It would be easy for me to volunteer.</td>
<td>0.840</td>
<td>0.081</td>
<td>0.597</td>
</tr>
<tr>
<td>3. Events outside my control may stop me from volunteering. (R)</td>
<td>0.474</td>
<td>0.083</td>
<td>0.300</td>
</tr>
<tr>
<td>4. I am confident that I have the ability to volunteer.</td>
<td>0.673</td>
<td>0.075</td>
<td>0.583</td>
</tr>
<tr>
<td>5. It is mostly up to me whether or not I volunteer.</td>
<td>0.851</td>
<td>0.074</td>
<td>0.719</td>
</tr>
</tbody>
</table>

Volunteering Intention ($\alpha = .962$)

<table>
<thead>
<tr>
<th>Item</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It is likely that I will volunteer within the next six months.</td>
<td>1.685</td>
<td>0.059</td>
<td>0.960</td>
</tr>
<tr>
<td>2. I plan to volunteer within the next six months.</td>
<td>1.680</td>
<td>0.059</td>
<td>0.967</td>
</tr>
<tr>
<td>3. I do not intend to do any volunteer work within the next six months. (R)</td>
<td>1.517</td>
<td>0.073</td>
<td>0.857</td>
</tr>
<tr>
<td>4. I am determined to do some volunteer work within the next six months.</td>
<td>1.613</td>
<td>0.062</td>
<td>0.939</td>
</tr>
</tbody>
</table>

After fitting the full hypothesized model, latent means were extracted from the model. When comparing the current sample means for the VFI to those of prior studies, the scores obtained in the current study appear to be greater than those obtained in previous studies (e.g., Clary et al., 1998; Francis, 2011). Unfortunately, these studies did not provide correlation tables and tests of measurement invariance could not be conducted to determine whether these differences represent true differences in the levels of functional beliefs across groups. Nonetheless, the pattern of scores obtained in the current study were similar to those of previous studies. Overall, college students endorse greater beliefs about the value and understanding functions of volunteering, while endorsing fewer beliefs about the protection function of volunteering. Bivariate correlations of all latent variables in the model were also computed. A correlation table
with descriptive statistics is shown in Table 3. As expected, intention to volunteer was significantly and positively related to the understanding function ($r = .496, p < .001$), the value function ($r = .557, p < .001$), the enhancement function ($r = .318, p < .001$), the protection function ($r = .311, p < .001$), the career function ($r = .330, p < .001$), normative beliefs ($r = .404, p < .001$), and facilitating beliefs ($r = .691, p < .001$). Intention to volunteer was not related to barrier control beliefs ($r = -.058, p = \text{n.s.}$).

Furthermore, intention to volunteer was also significantly and positively related to attitudes ($r = .671, p < .001$), subjective norms ($r = .549, p < .001$), and perceived behavioral control ($r = .582, p < .001$). Moreover, attitudes was significantly and positively related to the volunteer specific behavioral beliefs ($r$’s ranging from .416 to .721, $p < .001$). Additionally, subjective norms was significantly and positively related to normative beliefs ($r = .831, p < .001$) and perceived behavioral control was significantly and negatively related to barrier beliefs ($r = -.256, p < .001$) and positively related to facilitating beliefs ($r = .813, p < .001$).

Of note, the relationships between the understanding and value function and the enhancement and protection functions were $r = .854$ and $r = .850$, respectively. Correlations of this magnitude between independent variables inflate standard errors, resulting in wider confidence intervals and instability in the model estimates. Furthermore, while the hypothesized model was deemed to have an adequate fit and the parameter estimates were sufficient, the residual covariances between the indicators across the two sets of functions were elevated. As such, further analyses were conducted examining a model that first combined the understanding and value functions (S-B scaled $\chi^2(1521) = 2417.260; p < .001; \text{cd} = 1.098; \text{CMIN/DF} = 1.589; \text{robust CFI} = 0.928; \text{SRMR} = 0.059; \text{robust RMSEA} = 0.042$), then a model combining the
understanding and value functions as one factor and the protection and enhancement function as another factor (S-B scaled \( \chi^2(1527) = 2399.983; p < .001; cd = 1.098; CMIN/DF = 1.572; \) robust CFI = 0.930; SRMR = 0.058; robust RMSEA = 0.042).

Neither of these models proved to be a good fit to the data, thus, in keeping with the theoretically hypothesized model, the initial model with the five VFI functions as behavioral beliefs was retained.

Figure 2. Structural Equation Model depicting the measurement of the hypothesized model. Error covariates and covariates between latent factors of the same level are not shown. Path widths are proportional to the magnitude of the standardized coefficient.

The influence of demographic variables on the dependent variables was also examined (see Table 4). GPA was found to be significantly and positively related to intention to volunteer and subjective norms. Participation in a greater number of organizations was associated with increased intention to volunteer, attitudes, and
subjective norms. More recent volunteer or community service activity was significantly and positively related to intention to volunteer, attitudes, subjective norms, and perceived behavioral control. Individuals whose parents had a bachelor’s degree had greater perceived behavioral control than those whose parents had a master’s degree and those whose parents did not obtain a high school diploma. Additionally, individuals whose parents had a bachelor’s degree had greater subjective norms than those whose parents had only a high school diploma or an associate’s degree. Females reported more positive attitudes toward volunteering than males. Individuals who worked 9 hours or less per week reported a higher intention to volunteer than those who worked 21 hours or more; and fewer subjective norms, and less perceived behavioral control than those who did not work at all or those who worked 21 hours or more. Although no significant differences in any of the dependent variables were found for family income in the present study, prior research has suggested that income is positively related to volunteering (e.g., Hackl, Halla, & Pruckner, 2007), thus family income was also included in the model. Subsequently, GPA, time since last volunteer experience, number of current organizations, autonomy in community service participation, gender, race and ethnicity, parents’ highest level of education, and family income were all entered as control variables.

Path Model - Hypothesis Testing

The hypothesized model stated that intention to volunteer would be predicted by behavioral beliefs, normative beliefs, and control beliefs via indirect effects through attitudes, SN, and PBC, respectively. Specifically, the model included paths from the understanding, value, enhancement, protection, and career functions to attitudes, from normative beliefs to SN, and from barrier beliefs and facilitating beliefs to PBC. The
Table 3. Latent Variable Correlations

<table>
<thead>
<tr>
<th></th>
<th>M(SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Intention</td>
<td>5.35</td>
<td>1.69</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Understand</td>
<td>5.85</td>
<td>0.76</td>
<td>.496</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Value</td>
<td>6.11</td>
<td>0.63</td>
<td>.557</td>
<td>.854</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Enhance</td>
<td>5.24</td>
<td>0.89</td>
<td>.318</td>
<td>.666</td>
<td>.505</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Protect</td>
<td>4.60</td>
<td>1.09</td>
<td>.311</td>
<td>.633</td>
<td>.511</td>
<td>.850</td>
<td></td>
<td></td>
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<tr>
<td>6. Career</td>
<td>5.84</td>
<td>0.84</td>
<td>.330</td>
<td>.661</td>
<td>.427</td>
<td>.518</td>
<td>.452</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. N. Beliefs</td>
<td>4.64</td>
<td>1.08</td>
<td>.404</td>
<td>.382</td>
<td>.381</td>
<td>.356</td>
<td>.334</td>
<td>.320</td>
<td></td>
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</tr>
<tr>
<td>8. Barriers</td>
<td>4.17</td>
<td>0.60</td>
<td>-.058</td>
<td>.168</td>
<td>.130</td>
<td>.271</td>
<td>.272</td>
<td>.376</td>
<td>.157</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Facilitators</td>
<td>4.86</td>
<td>1.06</td>
<td>.691</td>
<td>.669</td>
<td>.646</td>
<td>.395</td>
<td>.459</td>
<td>.406</td>
<td>.610</td>
<td>-.037</td>
<td></td>
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</tr>
<tr>
<td>10. Attitudes</td>
<td>6.33</td>
<td>0.79</td>
<td>.671</td>
<td>.692</td>
<td>.721</td>
<td>.530</td>
<td>.494</td>
<td>.416</td>
<td>.309</td>
<td>-.014</td>
<td>.647</td>
<td></td>
</tr>
<tr>
<td>11. SN</td>
<td>4.76</td>
<td>1.41</td>
<td>.549</td>
<td>.462</td>
<td>.486</td>
<td>.389</td>
<td>.387</td>
<td>.354</td>
<td>.831</td>
<td>.004</td>
<td>.642</td>
<td>.500</td>
</tr>
<tr>
<td>12. PBC</td>
<td>5.90</td>
<td>0.64</td>
<td>.582</td>
<td>.473</td>
<td>.443</td>
<td>.351</td>
<td>.327</td>
<td>.209</td>
<td>.334</td>
<td>-.256</td>
<td>.813</td>
<td>.618</td>
</tr>
</tbody>
</table>

Note. B. Beliefs = Behavioral beliefs, N. Beliefs = Normative beliefs, Barriers = Barrier beliefs, Facilitators = Facilitating beliefs, SN = Subjective norms, PBC = Perceived behavioral control. * p < .05. ** p < .01. *** p < .001.
The model then included paths from attitudes, SN, and PBC to intention to volunteer.

The model revealed mediocre fit to the data, S-B scaled $\chi^2(2946) = 4582.827; p < .001$; $c = 1.002$; CMIN/DF = 1.556; robust CFI = 0.886; SRMR = 0.072; robust RMSEA = 0.039 with 90% CI [0.037, 0.041]. Given the misfit in the measurement portion of the
analyses, it is unsurprising that the model yielded less than optimal fit. Although not all of the fit indices fell within the acceptable range, the SRMR, which is purported to be sensitive to misspecification of factor covariance(s) or latent structure and the RMSEA, which is sensitive to factor loadings were both within the acceptable range (Hu & Bentler, 1999). Additionally, the CMIN/DF, which indicates a discrepancy between the theoretical model and the sample data (Kline, 2015), was within the acceptable range. Thus, by three of the indices, which specify misfit in separate parts of the model, the hypothesized model showed acceptable approximate fit to the data and the interpretation of the model results proceeded. The model accounted for 61.3% of the variance in attitudes, 73.7% of the variance in SN, 85.1% of the variance in PBC, and 53.7% of the variance in intention to volunteer (Figure 3 shows the structural model).

**Hypothesis 1a**

Behavioral beliefs as measured by the VFI, was hypothesized to significantly and positively predict attitudes. Upon examining path coefficients, the standardized coefficient from the understanding function to attitudes was $B = 0.252$, $SE = 0.203$, $\beta = 0.242$, 95% CI [-0.131, 0.615], $p = \text{n.s.}$, which constituted a small effect. The standardized coefficient from the value function to attitudes was $B = 0.567$, $SE = 0.182$, $\beta = 0.452$, 95% CI [0.169, 0.736], $p < .001$ and constituted a medium to large effect. The standardized coefficient from the enhancement function to attitudes was $B = 0.259$, $SE = 0.182$, $\beta = 0.292$, 95% CI [0.075, 0.510], $p = .01$ and constituted a small to medium effect. The standardized coefficient from the protection function to attitudes was $B = -0.113$, $SE = 0.081$, $\beta = -0.156$, 95% CI [-0.374, 0.063], $p = \text{n.s.}$ and constituted a small effect. The standardized coefficient from the career function to attitudes was $B = -0.023$, $SE = 0.079$, $\beta = -0.025$, 95% CI [-0.171, 0.122], $p = \text{n.s.}$ These results suggest that
partially consistent with hypothesis 1a, the value and enhancement functions were significant and positive predictors of attitudes. Contrarily, the understanding, protection, and career functions did not at all predict attitudes.

Figure 3. Structural Equation Model depicting the structural paths. Dashed lines represent indirect paths. Path widths are proportional to the magnitude of the standardized coefficient.

**Hypothesis 1b**

Normative beliefs were hypothesized to significantly and positively predict SN. The standardized coefficient from the social function to subjective norms was $B = 1.029$, $SE = 0.077$, $\beta = 0.820$, 95% CI [0.775, 0.866], $p < .001$, which constituted a large effect. This is consistent with the hypothesis and suggests that normative beliefs do indeed significantly influence SN.
**Hypothesis 1c**

Control beliefs were hypothesized to significantly and positively predict PBC. The standardized coefficient from barrier beliefs to PBC was $B = -0.390$, $SE = 0.140$, $\beta = -0.323$, 95% CI [-0.474, -0.172], $p < .001$, which constituted a medium effect. The standardized coefficient from facilitating beliefs to PBC was $B = 0.496$, $SE = 0.072$, $\beta = 0.814$, 95% CI [0.692, 0.937], $p < .001$, which constituted a large effect. This is consistent with the hypothesis and suggests that barrier beliefs and facilitating beliefs both significantly influence PBC.

**Hypothesis 2**

Attitudes, SN, and PBC were all hypothesized to significantly and positively predict intention to volunteer. The standardized coefficient from attitudes to intention to volunteer was $B = 0.862$, $SE = 0.090$, $\beta = 0.438$, 95% CI [0.354, 0.521], $p < .001$, which constituted a medium to large effect. The standardized coefficient from SN to intention to volunteer was $B = 0.214$, $SE = 0.054$, $\beta = 0.187$, 95% CI [0.097, 0.277], $p < .001$, which constituted a small effect. The standardized coefficient from PBC to intention to volunteer was $B = 0.498$, $SE = 0.136$, $\beta = 0.216$, 95% CI [0.112, 0.321], $p < .05$, which constituted a small to medium effect. These results suggest that as hypothesized, attitudes, SN, and PBC all significantly and positively influence intention to volunteer.

**Hypothesis 3a**

Behavioral beliefs, as measured by the VFI functions, were hypothesized to have an indirect effect on intention to volunteer through attitudes. Specifically, the understanding, value, enhancement, protection, and career functions were expected to significantly and positively predict intention to volunteer through their relationship with
attitudes. Upon examining path coefficients for the indirect effects, the standardized coefficient from the understanding function to intention to volunteer was $\beta = 0.106$, 95% CI ($-0.058, 0.270$), $p = \text{n.s.}$ and constituted a marginal to medium effect. The standardized coefficient from the value function to intention to volunteer was $\beta = 0.200$, 95% CI ($0.070, 0.330$), $p = .003$ and constituted a medium to large effect. The standardized coefficient from the enhancement function to intention to volunteer was $\beta = 0.126$, 95% CI ($0.031, 0.222$), $p = .009$ and constituted a small to large effect. The standardized coefficient from the protection function to intention to volunteer was $\beta = -0.065$, 95% CI ($-0.160, 0.029$), $p = \text{n.s.}$ The standardized coefficient from the career function to intention to volunteer was $\beta = -0.009$, 95% CI ($-0.072, 0.055$), $p = \text{n.s.}$ These results suggest that partially consistent with the hypothesized model, the value and enhancement functions had significant and positive indirect effects on intention to volunteer. Contrarily, the understanding, protection, and career functions did not evidence an indirect effect on intention to volunteer.

**Hypothesis 3b**

Normative beliefs, as measured by the modified social function of the VFI was hypothesized to have an indirect effect on intention to volunteer through SN. Specifically, the normative beliefs were expected to significantly and positively predict intention to volunteer through its relationship with SN. Upon examining the path coefficient for the indirect effect, the standardized coefficient from normative beliefs to intention to volunteer was $\beta = 0.150$, 95% CI ($0.076, 0.225$), $p < .001$, and constituted a medium effect. Consistent with the hypothesized model, normative beliefs significantly and positively predicted intention to volunteer via an indirect effect through SN.
**Hypothesis 3c**

Control beliefs were hypothesized to have an indirect effect on intention to volunteer through PBC. Specifically, barrier beliefs were expected to significantly and negatively predict intention to volunteer, while facilitating beliefs were expected to significantly and positively predict intention to volunteer through their relationship with PBC. Upon examining path coefficients for the indirect effects, the standardized coefficient from barrier beliefs to intention to volunteer was $\beta = -0.070$, 95% CI (-0.113, -0.026), $p = .002$, and constituted a small to medium effect. The standardized coefficient from facilitating beliefs to intention to volunteer was $\beta = 0.177$, 95% CI (0.086, 0.267), $p < .001$ and constituted a medium to large effect. Consistent with the hypothesized model, barrier beliefs significantly and negatively predicted intention to volunteer and facilitating beliefs both significantly and positively predicted intention to volunteer via an indirect effect through PBC.

Although no hypotheses were made about the direct effects of behavior beliefs, normative beliefs, or control beliefs on intention to volunteer, exploratory analyses were conducted in a separate model. The addition of these paths did not change the fit indices, $cd = 1.054$; $TRd = 8.708$; $\Delta df = 8$; $p = n.s.$ Thus, in keeping with a more parsimonious model, the original model, including only indirect paths from behavioral beliefs (i.e., the understanding, value, enhancement, protection, and career functions of the VFI), normative beliefs, and control beliefs (i.e., barrier and facilitating beliefs), was retained given that it had greater degrees of freedom. This suggests that at least within the present sample, behavioral beliefs, normative beliefs, and control beliefs do not directly predict intention to volunteer, but rather the effect for at least some of the measured beliefs can be explained through attitudes, SN, and PBC.
Discussion

The goal of the present study was to test a comprehensive and specific model of volunteering motivation. A primary aim of the study was to integrate the VFI functions into the full TPB model as behavioral beliefs that may drive the attitudes that individuals hold about volunteering (Brayley, 2015), which then influence intention and therefore behavior. Prior research has shown support for the functional theory of volunteering as well as the general theory of planned behavior; however, neither theory in itself provides both a comprehensive and specific model for volunteering motivation. In the current study, a full TPB model was tested, including behavioral, normative, and control beliefs specific to volunteering. Results of the study partially support the hypothesized TPB model.

The hypothesized model suggested that the understanding, value, enhancement, protection, and career functions of the VFI would serve as volunteer-specific behavioral beliefs and predict attitudes toward volunteering, which would in turn predict intention to volunteer. Partially as expected, latent-variable path analysis provided some support for the functions of the VFI as behavioral beliefs in the full TPB model. Specifically, there was a significant and positive indirect relationship between the value function and intention to volunteer through attitudes. Additionally, there was a significant and positive indirect relationship between the enhancement function and intention to volunteer through attitudes. While the indirect paths from the understanding and career functions to intention to volunteer were not significant, the effects were small to
medium in nature. These results provide some evidence that at least the value and enhancement functions of the VFI may serve as volunteer specific behavior beliefs.

With regard to the value function, analyses supported the hypothesis that individuals’ beliefs that volunteering expresses personal values would be indirectly related to intention to volunteer through attitudes. Indeed, prior research has long supported the idea that personal values influence the perceived valence of behaviors (Boer & Fischer, 2013; Feather, 1992; Homer & Kahle, 1988; Milfont, Duckitt, & Wagner, 2010). Specifically, when behaviors are viewed as closely aligned with an individual’s values, the intrinsic attractiveness of the behavior is increased. Furthermore, individuals tend to use their personal values to plan for and guide future behaviors (Eyal, Sagristano, Trope, Liberman, & Chaiken, 2009; Westaby, 2005). Thus, it is unsurprising that values were the strongest predictor of attitudes and out of all the beliefs, had the strongest indirect effect on intention to volunteer.

One possible explanation for this strong value-attitude-behavior intention relationship may be an individual’s reasons for engaging in volunteering. According to Behavioral Reasoning Theory (BRT; Westaby, 2005), reasons are an important link between values and attitudes, which ultimately influence behaviors. BRT suggests that reasons are distinctly different from behavioral beliefs in that behavioral beliefs are the broad set of possible outcomes for engaging in a particular behavior while reasons represent the specific set of beliefs that individuals use to justify their behavior (Briggs, et al., 2010; Westaby & Fishbein, 1996; Westaby, 2005). Thus, while individuals hold many behavioral beliefs for volunteering, not all of these behavioral beliefs are actual reasons that individuals use to justify their volunteering behavior or lack of volunteering behavior. Future research should explore the role of reasons in intention to volunteer.
In considering the enhancement function, analyses supported the hypothesis that beliefs that volunteering provides opportunities for psychological growth would be indirectly related to intention to volunteer through attitudes. This suggests that individuals who hold beliefs that volunteering provides a way to develop their inner potential hold more positive attitudes toward volunteering, and in turn have a higher intention to volunteer. These findings are consistent with prior research that has shown that ego-involvement, which is the extent to which a behavior affects self-esteem, is related to the strength of attitudes toward a behavior (Park, Jung, & Lee, 2011). Specifically, when an individual perceives that an attitude object is related to their core values and self-concept, the individual’s attitude toward the object will align with their view of themselves, which is generally positive (Carpenter, 2018). For example, individuals with a positive self-concept, who also believe that volunteering provides opportunities for self-enhancement, would hold positive attitudes about volunteering and in turn have a higher intention to volunteer.

Furthermore, prior research has suggested that individuals who believe that the available volunteer opportunities are in alignment with their skillsets are more motivated to volunteer (Sundeen, Raskoff, & Garcia, 2007). It could be that individuals who engage in volunteer activities that align with their skill set feel important and that they have something of value to give, which in turn increases motivation to volunteer. Thus, it could also be that enhancement beliefs are related to the congruence of opportunities and skills. In terms of increasing motivation to volunteer, organizations could put effort into making their volunteers feel valued and needed. Additionally, recruitment campaigns could consider targeting individuals with specific skillsets.
Interestingly, while correlations show that the protection function was positively related to attitudes and intentions, these relationships disappear in the path model. Given that the zero-order correlations between the protection function and attitudes as well as intention to volunteer were significant and positive, it could be that due to the high correlation between the protection and enhancement functions, there was no additional unique variance for the understanding function to account for in attitudes. Nonetheless, a model combining the protection and enhancement function did not prove to be a better fit to the data. While it could be that the enhancement and protection functions are in fact a singular function, they were initially conceptualized as distinct functions and considering the marginal confidence interval obtained for the indirect effect of the protection functions, it is likely that the protection function is distinct from the enhancement function and indeed does not have an indirect effect on intention to volunteer. The protection function relates to beliefs about the egoistic benefits of volunteering and prior research on volunteering motivation has shown that motivations that are related to personal values and other-oriented motives are more influential than self-oriented motives (Briggs, Peterson, & Gregory, 2010). Additionally, individuals who report volunteering for egoistic motives tend to be less committed and stop volunteering once their egoistic motive is fulfilled (Hartenian & Lilly, 2009). While the protection and enhancement functions are similar in that they both may appear to be egoistic motivations, the enhancement function taps into self-actualizing motives of volunteering, while the protective function taps into self-abatement and ego-building. Indeed, research has shown a positive relationship between self-actualizing motives and prosocial behaviors and a negative relationship between ego-building motives and prosocial behaviors (Mowen & Sujan, 2005; Schultz et al., 2005). Thus, a possible
explanation for the lack of significant finding for the protection function may be that egoistic motives may be relevant when considering current volunteering behaviors, but not when considering future intentions to volunteer.

With regard to the understanding function, analyses did not support the hypothesis that individuals’ beliefs about the potential to acquire new skills would relate to attitudes that are more positive and in turn increased intention to volunteer. It is well known that college provides extensive career-related opportunities (Bosworth, 1994, Comings, Sum, & Uvin, 2000). Furthermore, in a nationally representative sample of over 400,000 college students, 98% of respondents reported attending college for reasons related to individual development (e.g., learn new interests and becoming cultured) (Milovanska-Farrington, 2020). Moreover, given the high correlation between the understanding and value functions and the inflated confidence interval for the indirect effect of understanding, it is possible that the understanding function may not present additional information beyond that of the value function. Accordingly, while taken by itself the understanding function is significantly related to intention, and individuals largely report holding beliefs that volunteering provides opportunities to bolster new skills, it could be that within a college sample these beliefs do not emerge as a significant predictor, given the myriad of other opportunities (e.g., taking a new class) to learn new skills.

Regarding the negative finding for the career function, this is not completely surprising because of the college student sample and the myriad of career-related benefits offered through universities. Considering the positive zero-order correlation between the career function and attitudes and intention to volunteer, it is likely that individuals may hold behavioral beliefs about the career benefits of volunteering;
nonetheless, these benefits do not stand out as significant predictors of attitudes and subsequently intention to volunteer within a college sample. It is possible that given the stage in life of the participants in the current study, other factors (e.g., values and self-enhancement) are more salient to attitudes and intention to volunteer. A further consideration is that, while the VFI has been validated in a college sample (e.g., Clary, 1998), the FAV as a volunteering motivation theory was designed to explain volunteering motives for the general adult population of volunteers. Past research suggests that the average volunteer is middle class, female, and white (Musick & Wilson, 2007). Additionally, according to the Bureau of Labor Statistics (2016), individuals aged 35 to 54 are more likely to volunteer than individuals aged 20 to 24. As such, it could be that the functions identified by the FAV may be better predictors of volunteering attitudes and intentions in an older adult population rather than a college sample.

As previously mentioned, the residual covariances between the indicators across the some of the VFI functions were elevated. This suggests that there may be additional variance that is unexplained by the hypothesized model and that, at least within the present sample, the VFI may include additional or fewer functions that were not theoretically predicted. Indeed, in a sample of 282 college students, Francis (2011) found that the factor structure of the VFI was unstable with some items inadequately loading onto their intended factors and others cross-loading on multiple factors. This study further suggested that generational differences might affect the importance of the VFI functions with regard to informing actual volunteer behaviors. Moreover, as mentioned, the VFI was designed for use within a general community sample of volunteers who may have different beliefs than a college sample or place differing levels of importance on the benefits or functions of volunteering. For example, within a college
sample, there may be different types of career-related benefits that one may derive from volunteering. Volunteering could provide both networking benefits and job-related skills; however, the VFI currently fails to capture the nuances of the functions with only five items per function. Taking these points into consideration, more exploratory analyses with the VFI functions are needed, as well as other possible functions that may be relevant to a college sample.

Concerning attitudes, the current study replicated findings of previous research showing that behavioral beliefs, which individuals hold about engaging in volunteering, influence attitudes toward volunteering (Brayley et al., 2014, 2015; Greenslade & White, 2005; Okun & Sloane, 2002; Warburton & Terry, 2000). Additionally, attitudes was the largest predictor of intention to volunteer, based on the beta weights of the predictor variables. Thus, attitudes that individuals hold toward volunteering may be the biggest factor influencing intention to volunteer, at least within the current sample. In spite of this, the hypothesized model only accounted for 61.3% of the variance in attitudes and 53.7% of the variance in intention to volunteer, leaving a large portion of the variance in both attitudes and intention unexplained, which is consistent with other studies (e.g., Brayley et al., 2015). Moreover, the TPB suggests that attitudes toward a behavior may be ambivalent when individuals hold both positive and negative behavioral beliefs (Ajzen, 1995, 2002). Positive behavioral beliefs are beliefs about the benefits and why an individual would engage in a particular behavior (e.g., I can help others by volunteering). On the other hand, negative behavioral beliefs are beliefs about the cons, or why an individual would not engage in a particular behavior (e.g., Volunteering is a waste of my time). In the context of the current study, all of the proposed behavioral beliefs were positive; thus, the potential influence of negative behavioral beliefs on
attitudes and intention to volunteer remains unclear. Future studies should consider associations of negative behavioral beliefs on attitudes and intention to volunteer.

Furthermore, although beliefs can be positive or negative, only the beliefs that are salient to the individual influence attitudes toward the behavior. As such, Ajzen suggests eliciting salient beliefs from the respondent or completing pilot work within the population of interest rather than suggesting a list of beliefs that may include many beliefs that are not salient for the individual or population studied (Ajzen, 2002). The current study used the functions of the VFI as the set of behavioral beliefs; however, the importance of the outcome of each belief was not evaluated. As previously mentioned, it could be that not all of the beliefs included were relevant to the current sample. For example, while an individual may hold high beliefs that volunteering makes them feel less lonely, feeling less lonely may not be an important outcome of volunteering for the individual. This may, explain why a large portion of the variance in attitudes and intentions was unexplained. Nonetheless, given that the aim is ultimately to understand potential motivating factors that could increase volunteering, there is value in using predetermined lists of beliefs. While eliciting beliefs may provide insight into which beliefs are salient for the target population, there may be beliefs that are not readily recalled in the exact moment that the respondent is asked; however, these beliefs may ultimately be a significant influence on attitudes and subsequently volunteering behavior. This point is especially relevant when considering the recruitment of individuals who have never volunteered. Specifically, some individuals may not have had formal exposure to volunteering and as a result, cannot fathom the possible benefits of volunteering. Intrinsically, these individuals may not consider factors that if suggested may ultimately influence their decision to volunteer. As such, future studies
should not completely abandon predetermined lists of beliefs, but rather they should also include open-ended questions to elicit salient beliefs. Future studies should also evaluate the importance of each of the beliefs for the individual.

The model further hypothesized that normative beliefs would predict SN and subsequently predict intention to volunteer. The results of this study were consistent with this hypothesis, however should be interpreted with caution given the high correlation between normative beliefs and SN. Nonetheless, the results are consistent with prior research on social norms, which suggests that individuals modulate their behaviors based on their perception of what those around them are doing as well as perceived peer pressure (Greenslade & White, 2005; MacGillivray & Lynd-Stevenson, 2013; Warburton & Terry 2000). This suggests that an individual’s beliefs about what salient others do and what others expect them to do are positively related to the perception that others approve of and encourage volunteering. Moreover, research has shown that individuals are more likely to engage in the behaviors that they perceive others around them are engaging in. In fact, in a mixed-methods study using the TPB with a sample aged 18 to 25, researchers found that subjective norms emerged as the only predictor of self-reported intention to volunteer and again was the only predictor of subsequent objectively observed volunteering behavior (Veludo-de-Oliveira, Pallister, & Foxall, 2013).

Interestingly, the Corporation for National and Community Service (CNCS) estimated that in 2015 only 24.1% of college students within the state of Florida, where the current study was conducted, volunteered. This rate is 25.7% nationally, ranging from 18.1% to 45% across states. The overall low rate of volunteering among college students is similar to the national average of adult volunteers. Additionally, even with
such low rates of volunteering among college students, data from the U.S. Census Bureau sadly suggests that this rate is twice that of same-age individuals who are not enrolled in college (Dote, Cramer, Dietz, & Grimm, 2006). Moreover, social norms theory suggests that individuals misperceive behaviors and attitudes within their social groups and that social norms are really social misperceptions (McAlaney, Bewick, & Hughes, 2011; Perkins, & Berkowitz, 1986). Unsurprisingly, within the current sample, individuals who participated in a greater number of organizations, those who more recently volunteered, as well as those who chose to participate in an organization that requires community services, all had higher subjective norms and higher intentions to volunteer. These findings suggest that individuals who are exposed to more opportunities to volunteer have greater perceptions that others around them value and encourage volunteer participation.

In terms of increasing normative beliefs and subjective norms within a college sample, state legislators may consider incorporating service learning and volunteering into the core curricular requirements of colleges and universities (Gottlieb & Robinson, 2002). Additionally, college administrators and organization leaders may also consider setting community service requirements for participants of all campus-based organizations. Conversely, state legislators, college administrators, and organization leaders should also consider the potential for volunteering and community service requirements to have an adverse effect. While beyond the scope of the present study, it is unclear whether participation in organizations that require community service may change the nature of the relationship between normative beliefs, SN, and intention to volunteer. For example, individuals within the current study who were required to participate in an organization that required community service had lower subjective
norms than individuals who chose to participate in an organization that required community service. One explanation is that those individuals who have both requirements to participate in an organization and requirements to engage in community service may feel coerced into these activities. In such cases, individuals may perceive these requirements as behavioral constraints rather than approval and encouragement. Along these lines, prior research on social influences has suggested that coercion may have a boomerang effect and produce outcomes contrary to those intended (Baumrind, Larzelere, & Owens, 2010; Forsyth, 2012; Nowak et al., 2003; Patterson, 2016). Thus, future research should examine the potential moderating effects of requirements in organization involvement and community service participation on the relationship between normative beliefs, SN, and intention to volunteer.

The current study also hypothesized that control beliefs, including beliefs about facilitating factors as well as barriers, would predict PBC and in turn predict intention to volunteer. The current analyses supported these hypotheses and are in line with prior research that has shown that perceived barriers and facilitating factors influence an individuals’ perception of the ease with which they can engage in a behavior (Kidwell & Jewell, 2003; Martinez & Lewis, 2016). This suggests that individuals who perceive fewer barriers and more facilitating factors have a greater perception that volunteering would be more feasible for them and within their control. Indeed, prior research has shown that the availability of resources and opportunities that facilitate a behavior increases an individual’s volitional control, which in turn increases intention to perform the behavior (Greenslade & White, 2002; Hardin-Fanning, & Ricks, 2017). Contrariwise, research has also shown that individuals who perceive that there are barriers to performing a behavior feel that the behavior is more difficult to engage in and that they
have less control over whether they can perform the behavior or not (Ajzen, 1991; Conner, & Armitage, 1998; Greenslade & White, 2002). Although the current study found support for the proposed model, it should be noted that the ratings for barrier beliefs were relatively low. This may suggest that, at least for the present sample, individuals perceive few barriers to engaging in volunteering. Nonetheless, 87% of the current sample indicated that they felt that schoolwork would place high demands on their time. Consequently, incorporating service learning and volunteering into the college curriculum may help to further reduce barrier beliefs.

**Limitations and Strengths**

Although the analyses provide some support for the integration of the VFI functions into a full TPB model as volunteer specific beliefs, this study is not without limitations. First, this study used a convenience sample of students enrolled in psychology courses. While USF, the university from which the current sample was taken, has a diverse range of programs and degree options, the majority of participants (83%) reported a declared major in global and social sciences or health and natural sciences. As such, the current sample includes limited representation from individuals with undeclared majors or those majoring in math or engineering, humanities, or business. Given the limited variability in representation of different majors, results of the current study may not generalize to students within other academic areas at the current institution, or with students at other colleges and universities. Future research is needed with more diverse sampling methods to evaluate differences in volunteering motivation for individuals pursuing other majors.

Another limitation of the current study is the use of self-report for all variables. Thus, relationships found in the study may have been due to common-method variance,
which is “variance that is attributable to the measurement method rather than to the constructs the measures represent” (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003, pp.879). Additionally, responses may have been influenced by social desirability. Namely, participants may have responded in a way that they thought was socially appropriate. The effect of social desirability may be reflected in the high scores for the values function as well as high ratings on intention to volunteer. Alternatively, it could be that these scores do indeed reflect genuine value beliefs as well as intentions. Of note, nearly half of the present sample (49.2%) reported engaging in at least one volunteer activity within the past six months. This rate is twice the rate estimated for college students by the CNCS (2015). This could indicate that the rate of volunteering among college students may be grossly underestimated by the CNCS, or that these findings may further reflect self-report bias. Alternatively, it may be that the current sample of individuals is particularly oriented to volunteering for various reasons that are beyond the scope of this study. Future studies should include behavioral observations and examine the accuracy of self-reported volunteering.

A further limitation of the present study is its cross-sectional design, which precludes inferences of causality. Also of note, while nearly half of the current sample had volunteered within the past six months, the current study made no distinctions between episodic and consistent volunteering. Moreover, the current study relied on self-reported intention to volunteer. While intention is theoretically the most proximal predictor of a behavior, prior research suggests that intention is only mildly to moderately related to actual behavior (Sheeran & Webb, 2016; Webb & Sheeran, 2006). Thus, future studies should include longitudinal methods that include objectively measurable behavior to examine the relationship between intention to volunteer and
observed behavior. Additionally, due to the online nature of the study, there may be concerns about data quality. Prior research has suggested that data collected through online surveys is comparable in quality to data collected in-person (Gosling, Vazire, Srivastava, & John, 2004; Luce et al., 2007). Nonetheless, the current study followed recommendations by Gosling and Mason (2015) and included automated prompts for missed items (Johnson, 2010) as well as IMC items throughout the survey (Oppenheimer et al. 2009).

In spite of the aforementioned limitations, this study also demonstrated several strengths. First, this study demonstrated a strength in the use of SEM. One advantage of SEM is its ability to model latent variables and account for measurement and random error that is not attributable to the constructs of interest (Bollen 1989; Kline, 2015). In so doing, SEM can provide unbiased estimates of the true effects of beliefs on attitudes, SN, and PBC and the true effects of these on intention to volunteer. A second advantage of SEM is its ability to provide global fit indices to evaluate the structure of a theoretical model (Nachtigall, Kroehne, Funke, & Steyer, 2003; Tomarken, & Waller, 2005). For example, the observed variables of the latent construct attitudes are assumed to relate to the observed variables of the latent construct intention through the relationship between the two latent constructs attitudes and intention. Using SEM this implied pattern of associations is tested and the global fit indices indicate whether the hypothesized model fits the observed data. Another advantage of SEM is its ability to evaluate complex models and summarize multiple linear equations simultaneously. Specifically, by using SEM, this study was able to simultaneously test the relationship between behavioral beliefs and attitudes, normative beliefs and SN, and control beliefs and PBC, as well as test the relationship between attitudes, SN, PBC, and intention.
Conversely, other statistical techniques (e.g. multiple regression) would require such a complex model to be evaluated in a piecemeal fashion.

In conclusion, Prior research has successfully used the TPB to explain a variety of behaviors including volunteering (Ajzen, 2011; Downs & Hausenblas, 2005; Okun & Sloane, 2002; Warburton & Terry, 2000). Nonetheless, its application for increasing intentions to volunteer has been limited due to the general nature of the theory, which is not specific to volunteering. Although previous research has attempted to extend and add to the TPB, much less work has been done to examine the underlying beliefs that influence individuals’ attitudes, SN, and PBC. Overall, the current study provides support for the TPB and integrates the functions of the VFI as volunteering specific beliefs. The results from this study can help assist policymakers and administrators in designing requirements for core curricula, and guide organizations in creating specific recruitment materials based on factors that may increase attitudes, SN, and PBC.
References


variables analysis: Applications for developmental research (pp. 399–419).


Appendices
Appendix A: Informed Consent

Informed Consent to Participate in Research
Information to Consider Before Taking Part in this Research Study
Title: Beliefs and Thoughts about Volunteering
Pro # Pro00041958

Overview: You are being asked to take part in a research study. The information in this document should help you to decide if you would like to participate. The sections in this Overview provide the basic information about the study. More detailed information is provided in the remainder of the document.

Study Staff: This study is being led by Lendi Joy who is a graduate student at USF. This person is called the Principal Investigator. She is being guided in this research by Dr. Vicky Phares. Other approved research staff may act on behalf of the Principal Investigator.

Study Details: The purpose of the study is to understand people’s beliefs about volunteering and what motivates some people to volunteer. The study will involve a 30-minute online questionnaire.

Participants: You are being asked to take part because we are interested in your thoughts about volunteering.

Voluntary Participation: Your participation is voluntary. You do not have to participate and may stop your participation at any time. There will be no penalties or loss of benefits or opportunities if you do not participate or decide to stop once you start. You have the alternative to choose not to participate in this research study. Your decision to participate or not to participate will not affect your job status, employment record, employee evaluations, or advancement opportunities. Your decision to participate or not to participate will not affect your student status, course grade, recommendations, or access to future courses or training opportunities.

Benefits, Compensation, and Risk: There are no direct benefits to participating in this research. There is no cost to participate. This research is considered minimal risk. Minimal risk means that study risks are the same as the risks you face in daily life.

Confidentiality: Even if we publish the findings from this study, we will keep your study information private and confidential. Anyone with the authority to look at your records must keep them confidential.

Why are you being asked to take part?
The research focuses on the population of college students within the University of South Florida.

Study Procedures
If you take part in this study, you will be asked to complete a survey through Qualtrics. This questionnaire includes questions about your attitudes and knowledge of health care needs for sexual or gender minorities. The survey can be completed in 30 minutes. You will not be asked for any information that could be used to identify you during the completion of the study. Your answers to the survey questions will be submitted anonymously.
Alternatives / Voluntary Participation / Withdrawal
You do not have to participate in this research study. Your professor may provide an alternative assignment as a non-research alternative involving comparable time and effort to that which is involved in the research.
You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Your decision to participate or not to participate will not affect your student status, course grade, recommendations, or access to future courses or training opportunities.

Benefits and Risks
You will receive no benefit from this study. This research is considered to be minimal risk.

Compensation
We will not pay you for the time you volunteer while being in this study. You will, however, receive credit through the SONA system, per departmental guidelines.

Privacy and Confidentiality
We will do our best to keep your records private and confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Certain people may need to see your study records. The only people who will be allowed to see these records are: The principal investigator, advising professor, and The University of South Florida Institutional Review Board (IRB).
It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online. Confidentiality will be maintained to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet. However, your participation in this online survey involves risks similar to a person’s everyday use of the Internet. If you complete and submit an anonymous survey and later request your data be withdrawn, this may or may not be possible as the researcher may be unable to extract anonymous data from the database.

Contact Information
If you have any questions, concerns, or complaints about this study, please contact the PI, Lendi Joy, at lnjoy@mail.usf.edu or (813) 974-9222. If you have questions about your rights, complaints, or issues as a person taking part in this study, call the USF IRB at (813) 974-5638 or contact by email at RSCH-IRB@usf.edu.
We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. You can print a copy of this consent form for your records.
I freely give my consent to take part in this study. I understand that by proceeding with this survey that I am agreeing to take part in research and I am 18 years of age or older.
Appendix B: Demographic Questions

1. Gender:
   a. __Female
   b. __Male
   c. __Transgender Female
   d. __Transgender Male
   e. __Gender Variant/Non-Conforming
   f. __Not Listed (please specify)
   g. __Prefer not to respond

2. Race/Ethnicity:
   a. __African American/Black
   b. __Asian/Pacific Islander
   c. __Hispanic/Latino
   d. __Multiracial
   e. __Indigenous from the Americas
   f. __Caucasian/White
   g. __Not Listed (please specify)
   h. __Prefer not to respond

3. Class status:
   a. __Freshman
   b. __Sophomore
   c. __Junior
   d. __Senior
   e. __Graduate student
   f. __Professional student
   g. __Continuing education student
   h. __Non-degree seeking student

4. Age: _____

5. How many hours do you work for pay both on and off campus? _____

6. Do you participate in any of the following organizations
   a. Sorority / Fraternity
   b. Sports team (including intermural)
   c. Religious / Spiritual organization
   d. Honors Societies
   e. Diversity / Cultural
   f. Civic engagement
   g. Other student organization
   h. Other community organization

7. Current GPA: _______
8. **Student Status:**
   a. ___Full-time
   b. ___Part-time

How many credit hours are you currently taking? _____
Appendix C: Community Involvement Questionnaire

People often do things to help others or to solve some problems in their community without being paid to do so or being required to do so for school, work, or by the authorities.

Please indicate whether you have participated in the activities listed below. Report only those activities that required you to do something without being required/ordered to do it or without being rewarded for it. (Note: The reimbursement of expenses incurred while doing the task do not count as “reward” for this purpose.)

[The following illustrates the organization of the survey instrument and the order of questions.]

Have you ever . . . [description of activity]?
(E.g. Have you ever removed trash or debris from the public areas of your community?)
  a. Yes
  b. No

[Display logic: if “no,” the participant will be asked about the next activity. If “yes” the following questions were displayed.]

1. With whom did you [description of activity]? (check all that apply)
   a. Friends
   b. Family
   c. Alone
   d. Colleagues
   e. Strangers
   f. Other (please specify)

2. When you [description of activity] did someone offer you a reward, or did you asked for or expect to receive such a reward?
   a. Always
   b. Most of the time
   c. About half of the time
   d. Sometimes
   e. Never

3. When was the last time you [description of activity]?
   a. Over a year ago
   b. 6 months to 1 year ago
   c. 1 month to 6 months ago
   d. Less than 1 month ago

[Display logic: if participant endorsed participation within the last year]

4. How often did/do you [description of activity]?
   a. Once
   b. 2-4 times
c. 5-9 times
d. About 1 time per month
e. 2-4 times per month
f. 5-6 times per month
g. 7+ times per month

[Display logic: if participant endorsed participating in activity less than one time per month]

5. Within the past year, how many hours did you [description of activity]?
   a. 1-4 hours
   b. 5-10 hours
   c. 11-16 hours
   d. 17+ hours

[Display logic: if participant endorsed participating in activity at least one time per month]

6. On average, how many hours per month do you [description of activity]?
   a. 1-4 hours
   b. 5-10 hours
   c. 11-16 hours
   d. 17+ hours

[Display logic: if participant endorsed participation in organizations]

7. Did you [description of activity] with one of the organizations you are involved with?
   a. Always
   b. Most of the time
   c. About half of the time
   d. Sometimes
   e. Never

8. Who sponsored the activity? (check all that apply)
   a. Government agency
   b. Nonprofit organization
   c. School
   d. Hospital / clinic
   e. Political party/organization
   f. Church / religious organization
   g. Cooperative
   h. Business office
   i. Campus organization
   j. Spontaneous action of family, friends, colleagues, or neighbors
   k. Other (please specify)
9. Did you receive compensation when you [description of activity]? (including but not limited to food, travel, materials, and/or cash payments)
   a. Always
   b. Most of the time
   c. About half of the time
   d. Sometimes
   e. Never

10. Did you [description of activity] as part of hours completed for a scholarship or other award consideration?
    a. Always
    b. Most of the time
    c. About half of the time
    d. Sometimes
    e. Never

11. Did you [description of activity] as part of a class, job, and/or other school requirements? (Not including activities completed with your organizations or for scholarship consideration)
    a. Always
    b. Most of the time
    c. About half of the time
    d. Sometimes
    e. Never

12. When you [description of activity] did you do so of your own free will? (Only consider unpaid activities that you completed without a requirement to benefit someone or something other than yourself.)
    a. Always
    b. Most of the time
    c. About half of the time
    d. Sometimes
    e. Never

[The following is the list of activities that participants were asked about.]

1. Have you ever taken part in trash, recycling, or waste cleanup/removal in your community?
2. Have you ever helped to make improvements to the public areas of your community, such as roads, bridges, buildings, playgrounds, or green areas—for example by planting trees, restoring historical sites, etc.?
3. Have you ever helped to prepare for a natural disaster or helped to provide relief from such a disaster— for example by building barriers/sandbagging; protecting buildings and other structures; extinguishing fires; removing debris; evacuating flood or fire victims; searching for people lost in the wilderness, mountains, or at sea; or providing medical care, counseling, food, or shelter?
4. Have you ever taken part in any direct action, such as a vigil, surveillance, citizen’s arrest, or other direct intervention to address or prevent an activity that is illegal or otherwise detrimental to your community?

5. Have you ever helped to resolve a dispute between your group/community and another group/community or between other groups, factions, communities, or nations?

6. Have you ever helped to provide social assistance to underserved populations such as individuals who are in poverty, elderly, disabled, destitute, ill, homeless, or have behavioral problems (mental health, substance abuse, or delinquency) — for example by giving food, shelter, companionship, medical assistance, training, counseling, etc.?

7. Have you ever helped to build structures designed to house or help underserved populations (individuals who are in poverty, elderly, disabled, destitute, ill, homeless, or have behavioral problems, etc.) — for example, temporary shelters, housing, health care centers, and utilities?

8. Have you ever helped to provide services to children and young people, such as unpaid babysitting or childcare, tutoring, training, counseling or mentoring, rehabilitation, advocacy, or the prevention or correction of delinquency, neglect, abuse, or exploitation of children?

9. Have you ever contacted and organized people to advance a political interest, such as the right to political representation, religious freedom, diversity/minority rights, immigration, encouraging people to participate in elections, or helping political candidates, etc.?

10. Have you ever participated in a direct action, such as a public demonstration, vigil or march, or writing letters to public officials, to bring public attention to a problem faced by your community or the broader natural environment or a social and political issue, such as human rights abuses, discrimination, the destruction of the environment, unfair labor practices, issues of wages, or workplace safety, etc.?

11. Have you ever contributed to a church or other religious organization (excluding monetary contributions) — for example by participating as an altar boy, greeter, or other ministries; organizing a bake sale or other fundraiser; providing transportation or other services, etc?

12. Have you ever donated hair, blood, or other biological material — for example, bone marrow, organs, etc.?

13. Have you ever contributed to a program designed to provide health care or treatment, or to disseminate knowledge about health, disease, reproductive health, personal hygiene, or healthy lifestyles/wellness?

14. Have you ever contributed to an organization or event aimed at promoting animal welfare?

15. Have you ever helped to organize a public event aimed at distributing knowledge or professional/life improvement skills, such as a public lecture, professional conference, seminar, discussion forum, workshop, etc.?

16. Have you ever helped to promote a general understanding of the law and legal rights, or the idea of equal and fair access to the law?

17. Have you ever helped to plan, perform, set up, advertise, manage, provide assistance at, or clean up after a cultural, sporting, or recreational event for public entertainment, such as a musical concert, dance/theatrical performance, lecture,
reading/spoken word, art fair, baseball, etc.? (Do not report activities undertaken exclusively for your own enjoyment.)

18. Have you ever taken part as a contestant, team member, or participant in any other events or organizations **NOT IDENTIFIED** in the preceding question whose main purpose was to serve a public cause, such as raising funds for medical research, helping victims of natural disasters or human rights abuses, promoting peace, human/animal/environmental rights, civic virtues, or social justice? (Do not report activities that were undertaken exclusively for your own enjoyment and were not intended to serve any public purpose.) ____________________
Appendix E: Theory of Planned Behavior

The following questions relate to your attitudes and thoughts about volunteering. Please circle the appropriate number on each row.

**Attitudes**
To volunteer would be ...
1. Bad 1---2---3---4---5---6---7 Good
2. Unsatisfying 1---2---3---4---5---6---7 Satisfying
3. Boring 1---2---3---4---5---6---7 Interesting
4. Unfavorable 1---2---3---4---5---6---7 Favorable
5. Unpleasant 1---2---3---4---5---6---7 Pleasant
6. Detrimental 1---2---3---4---5---6---7 Beneficial
7. Unenjoyable 1---2---3---4---5---6---7 Enjoyable
8. Useless 1---2---3---4---5---6---7 Useful
9. Negative 1---2---3---4---5---6---7 Positive

**Subjective Norms**
1. People I know share an interest in volunteering.
2. Others with whom I am close to place a high value on volunteering.
3. Volunteering is an important activity to the people I know best.
4. Most people who are important to me would approve of my engaging in volunteering.
5. The people in my life whose opinions I value think it is desirable for me to volunteer.

**Perceived Behavioral Control**
1. I have complete control over whether or not I will volunteer.
2. It would be easy for me to volunteer.
3. Events outside my control may stop me from volunteering. (R)
4. I am confident that I have the ability to volunteer.
5. It is mostly up to me whether or not I volunteer.

**Volunteering Intention**
1. It is likely that I will volunteer within the next six months.
2. I plan to volunteer within the next six months.
3. I do not intend to do any volunteer work within the next six months. (R)
4. I am determined to do some volunteer work within the next six months.
Appendix F: IRB Letter

September 4, 2019

Lendi Joy  
Psychology  
4202 East Fowler Ave  
PCD4118G  
Tampa, FL 33620

RE: Exempt Certification  
IRB#: Pro00041958  
Title: Understanding Motivation to Volunteer and its Benefits

Dear L. Joy:

On 8/30/2019, the Institutional Review Board (IRB) determined that your research meets criteria for exemption from the federal regulations as outlined by 45 CFR 46.104(d):

(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) Any disclosure of the human subjects’ responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, educational advancement, or reputation; or (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by 45 CFR 46.111(a)(7).

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF HRPP policies and procedures.

Please note, as per USF HRPP Policy, once the exempt determination is made, the application is closed in ARC. This does not limit your ability to conduct the research. Any
proposed or anticipated change to the study design that was previously declared exempt from IRB oversight must be submitted to the IRB as a new study prior to initiation of the change. However, administrative changes, including changes in research personnel, do not warrant an Amendment or new application.

We appreciate your dedication to the ethical conduct of human subjects research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

Melissa Sloan, PhD, Vice Chairperson
USF Institutional Review Board