THE RELATIONSHIPS AMONG INTRAPERSONAL COMMUNICATION DOMAINS AND HELPING BEHAVIOR

By

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ABSTRACT

Dialogical Self Theory (DST) posits that within the self subsists a “society of mind” in such a way that intrapersonal exchanges mirror interpersonal social interaction. This study investigates the extent to which prayer fits together with self-talk and internal dialogue under the umbrella of DST. The study also examines the extent to which these intrapersonal communication domains relate to helping behavior attitudes. Established measures of prayer (the Prayer Thoughts Scale), self-talk (the Self-Talk Scale and the Automatic Thoughts Questionnaire), internal dialogue (the Internal Dialogue Activity Scale-Revised) and attitudes about helping behavior (the New Helping Attitude Scale) were used in this study.

The results of this study moderately support the postulation that prayer is associated with self-talk and internal dialogue as forms of intrapersonal communication. Further, intrapersonal communication was moderately related to helping behavior attitudes.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF TERMS

STS Total - Self-talk total scores

STS Critical - Self-critical self-talk

STS Managing - Self-managing self-talk

STS Reinforcing - Self-reinforcing self-talk

STS Social - Social assessing self-talk

IDAS Total - Internal dialogue total score

IDAS Identity - Identity dialogues

IDAS Maladaptive - Maladaptive dialogues

IDAS Social - Social dialogues

IDAS Spontaneous - Spontaneous dialogues

IDAS Ruminative - Ruminative dialogues

IDAS Confronting - Confronting dialogues

IDAS ChangeP - Change of perspective dialogues

IDAS Supportive - Supportive dialogues

PTS Total - Prayer thought scale total scores

PTS Inward - Inward prayer

PTS Outward - Outward prayer

PTS Upward - Upward prayer

PTS_0 - Prayer frequency

ATQ-Total - Automatic thoughts scale- revised total scores

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

There seems to be some dichotomy between the external and internal communication activities of humans. Internal communication is personal and inward whereas external interactions are interpersonal and outward. However, the concept of intrapersonal communication or interactions blurs the dichotomy between the internal and the external. An interaction mostly connotes an external activity and the term intrapersonal connotes some sort of internal activity. Therefore, intrapersonal interaction is a paradoxical term in a certain sense. In his Dialogical Self Theory, Hermans (2010) elaborates on this blurred dichotomy of external and internal communication. He posits that the features of external communication (e.g., dialogue) can also be observed within the self as a "society of mind." The self comprises a society of mind in the sense that the self is predominantly formed through socialization in a globalized culture. Consequently, various elements, traditions and practices meet in the same person. According to Hermans, the self thus reflects a culture that is multi-faceted and is characterized by both contradicting and integrating features. This phenomenon is distinguished from multiple personality disorder or schizophrenia (Hermans, 2010; Lysaker & Lysaker, 2002). The Dialogical Self Theory also posits that intrapersonal communication has effects on social interactions while social interactions, in turn, influence the nature of intrapersonal communication.

Caughey (1984) also discussed the blurred dichotomy between the internal and the external by making the argument that individuals create an imaginary interaction that is a prototype of real social interactions. He suggested that people do not just watch television personalities but participate in an imaginary interaction with them. He further mentioned how powerful and important these imaginary interactions were in the lives of individuals who

engaged in them. In addition, Collins (2004) purports that our thoughts or imaginary worlds are formed from elements imported from models that are accessible in our external society.

The above discussion is the impetus for the present research that seeks to investigate the relationship between intrapersonal communication and social interactions, specifically, helping behavior. Helping behavior is a construct of interest because there is sparse research on the relationship between intrapersonal communication and helping behavior. However, there has been some research on the domains of intrapersonal communication and other aspects of social interaction including well-being(Puchalska, 2021; Puchalska-Wasyl & Zarzycka, 2020), educational interactions (Latinjak et al., 2023), sibling relationships(Brinthaupt & Dove, 2012), and leadership and conflict resolution (Hermans & Hermans-Konopka, 2010). Intrapersonal communication is the complex phenomenon of the interactions that go on within the self. I am going to focus on internal dialogue, self-talk, and prayer as forms of intrapersonal communication. There are other forms of intrapersonal communication, however, these three are the domains of interest in this research.

Self-talk can be defined as "self-directed or self-referent speech (either silent or aloud) that serves a variety of self-regulatory and other functions" (Brinthaupt, 2019, para. 7). Internal dialogical activity is defined as "engagement in dialogues with imagined figures, the simulation of social dialogical relationships in one's own thoughts, and the mutual confrontation of the points of view representing different I-positions relevant to personal and/or social identity" (Olés and Puchalska-Wasyl, 2012, p. 242). Prayer is communication with a non-present other (prayer target) that bears the semblance and effects of interpersonal communication. Helping behavior is defined as "the voluntary act performed with the intent to provide some benefit for another

person" (Dovidio, 1984, p. 364). The following literature review delves into these distinctions and gives the appropriate background and context for the proposed study.

CHAPTER 2

LITERATURE REVIEW

In this literature review, I first discuss the three types of intrapersonal communication relevant to this research— relatively brief overviews of self-talk and internal dialogue, and a more extensive review of the concept of prayer. I then examine how prayer fits together with self-talk and internal dialogue without prejudice to the differences among them. Finally, I review existing literature on helping behavior as it relates to intrapersonal communication. I conclude with a summary of my hypotheses that will attempt to fill the gaps in the literature.

The Nature and Functions of Self-talk

The conceptualization and discussion of self-talk dates as far back as the time of the ancient Greek philosophers. Both Plato and Aristotle acknowledged the phenomenon of self-talk though they differ on its structure. Plato purports a dialogical self-talk while Aristotle favors a monological structure to self-talk (Duncombe, 2016). A comprehensive definition of self-talk is offered by Latinjak et al. (2023) as " verbalizations addressed to the self, overtly or covertly, characterized by interpretative elements associated to their content; and it [self-talk] either (a) reflects dynamic interplays between organic, spontaneous and goal-directed cognitive processes or (b) conveys messages to activate responses through the use of predetermined cues developed strategically, to achieve performance-related outcomes" (p. 363).

I shall endeavor to unpack this definition. The first element in the definition is that self-talk consists of verbalizations. It constitutes syntactically recognizable communication (Van Raalte et al., 2016) that could be cue words, phrases, or statements (Zourbanos et al., 2016). These verbalizations are addressed to the self in the sense that both the receiver and the sender are the same person. Sometimes, self-talk is covert, that is, silent. Covert self-talk constitutes

verbalizations addressed to oneself in a small voice inside one's head (Theodorakis et al., 2000). Covert self-talk is sometimes referred to as inner speech or internal self-talk (Hardy, 2006). Self-talk could also be overt, that is, aloud. Overt self-talk is audible verbalization that could be heard by another person although it is addressed to the self. Overt speech is sometimes referred to as private speech or external self-talk.

The next element of the definition of self-talk is the "interpretive elements associated with their content." The interpretation of the content of self-talk relies solely on the individual using it, since both the sender and the receiver are the same person. This phenomenon is distinguishable from the objective use of language where words, phrases and statements have specific connotations generally accepted by a culture within a particular period of time. Thus, the interpretation of the contents of self-talk could be different from objective interpretation. In a study by Van Raalte et al. (2014), the interpretation of self-talk of participants differed from the interpretation of the researchers. In other words, the interpretation of self-talk is accessible only to those who originated it (Latinjak, 2019).

The final element of the definition of self-talk offered by Latinjak et al. (2023) speaks to the functions of self-talk. Self-talk could be organic or strategic. Organic self-talk refers to "intuitive and rational cognitive processing" while strategic self-talk uses "predetermined cue words and self-talk scripts" (p. 3). This study primarily focuses on organic self-talk. Organic self-talk is further distinguished into spontaneous self-talk and goal-directed self-talk. Spontaneous self-talk consists of verbalizations addressed to the self that are unintentional (that is, naturally occurring) and sometimes unconscious. It makes individuals aware of their psychological experiences, thought processes and emotions. For example, "I think I am getting fat" or "I just love my morning coffee." When self-talk is goal-directed, it is more intentional and

conscious and is intended to regulate behavior or solve a problem. For example, “You need to work harder, John” or “Calm down, don’t panic.”

Brinthaupt (2019) noted that frequency in self-talk can be partly explained by the social isolation hypothesis or the cognitive disruption hypothesis. A close look at these hypotheses reveals that self-talk is very much related to social interaction. According to the social isolation hypothesis, some individuals frequently use self-talk as a means of compensating for a lack of interpersonal social interaction. For example, individuals who were raised without siblings report more self-talk as adults than individuals who had siblings growing up (Brinthaupt & Dove, 2012). The cognitive disruption hypothesis suggests that individuals differ in self-talk frequency on the bases of the destabilizing events in their lives. In the event of an anomalous or disturbing occurrence, the individual by means of self-talk attempts to attain some normalcy and stability. For example, Shi et al. (2015) postulated that self-talk frequency was positively related to high public speaking anxiety. In other words, there is evidence that experiences with or expectations about social interactions are related to increased levels of self-talk.

The Self-Talk Scale (STS; Brinthaupt et al., 2009) assesses four main functions of self-talk, namely, self-criticism, self-reinforcement, self-management, and social assessment. Self-critical self-talk entails chastising oneself for something one feels they have done wrong that may have yielded unpleasant consequences. When individuals acknowledge to themselves something good, they have done or reward themselves for an action that yielded pleasant outcomes, they are engaging in self-reinforcing self-talk. Unlike self-critical and self-reinforcing self-talk that are reactive to past events, self-managing self-talk is more proactive as it helps the individual to manage and plan their actions. Social assessment is the function of self-talk associated with analyzing interactions with others in the past or planning interactions with others

in the future (Katarzyna & Olés, 2023). In addition to the functions of self-talk measured by the STS, the Automatic Thoughts Questionnaire-Revised (ATQ-R) measures the content of self-talk (Kendal et al., 1989). The content of self-talk, that is, the extent to which self-talk is negative or positive has an impact on the general wellbeing of individuals. For example, Hill et al. (1989) and Zimmerman et al. (2004) found that ATQ was useful to distinguish between individuals who suffered from depression and those who did not.

Simply put, self-talk refers to covert or overt verbalization addressed to the self that are either naturally occurring or directed towards an intended purpose. In this study, the function and content of self-talk is measured by the Self-Talk Scale (STS) and Automatic Thoughts Questionnaire – Revised (ATQ-R) respectively.

The Nature and Functions of Internal Dialogue

The concept of internal dialogue is built on the premises of Dialogical Self Theory. This theory posits that social interactions in society also take place within the self. According to Hermans and Hermans-Konopka (2010), the self is a composite of various cultures and points of view in the likeness of the multicultural society the self is developed in; a multicultural society characterized by contradictions, oppositions, and integrations of opinion. Each of these positions is expressed in what Hermans refers to as “I-position” and these I-positions engage in dialogues and exchanges that take after the interpersonal interactions in the society. For example, an individual considering a career path might engage in dialogues with various I-positions including, “I as a husband”, “I as an adventurer”, “I as a pessimist”, and “I as a money conscious person.”

In addition, I-positions could be the voices of individuals in our social space. In this instance, I-positions could be the voices of friends, family and other players in the interpersonal

communication that goes on in an individual's social space. For example, an individual while considering a career path may engage in internal dialogue taking the perspective of those who would be affected by the consequences of their choice such one's wife, friends, children etc. (Puchalska-Wasyl, 2022). Finally, an I-position can also be an articulation of a group ideology. For example, "I as an African", "I as an American", "I as a psychologist", "I as a Catholic". (Hermans & Hermans-Konopka, 2010).

Individuals are said to engage in internal dialogue when "they adopt (at least) two different viewpoints and the utterances formulated (silently or aloud) from these viewpoints respond to one another" (Puchalska-Wasyl & Zarzycka, 2021, p. 273). Like self-talk, internal dialogue can also be covert or overt. Internal dialogue is differentiated from schizophrenia. In schizophrenic episodes, an individual is dominated by one voice or by a cacophony of voices as opposed to internal dialogue where the individual has control over the exchanges between the I-positions (Lysaker & Lysaker, 2002).

Olès et al. (2020) identified types of internal dialogue according to the functions that they serve. For example, in identity dialogues, the individual engages in internal dialogues pertaining to self-identity, self-discovery, personal values, and life choices. Maladaptive dialogues are typically negative internal dialogues that are perceived by the individual as unpleasant and indulging in them makes the individual uncomfortable (with themselves). Social dialogues refer to the type of internal dialogues that simulate past, present, and future social interactions. Supportive dialogues serve the purpose of offering the support individuals could have received from their supportive others. Spontaneous dialogues are those that are carried out on a daily basis and include the deliberation of available options before a choice is made. Ruminative dialogues are the type of internal dialogue leading the individual to brood over past events especially

failures. In confronting dialogues, the individual argues with opposing aspects of the self. Change of perspective dialogues refer to the debate-style dialogue that is associated with changing a present belief or before making a decision.

In summary, internal dialogue takes after the Dialogical Self Theory that posits the self is a society of minds which find expression in various I-positions. The dialogues between these I-positions can be classified as identity dialogues, maladaptive dialogues, social dialogues, supportive dialogues, spontaneous dialogues, ruminative dialogues, confrontational dialogues and change of perspective dialogues.

Prayer as a Social Interaction

This section of the literature review discusses how prayer is related to social interaction. It has been early on highlighted that intrapersonal communication is modeled after physical interpersonal social interaction (Hermans & Hermans-Konopka, 2010; Caughey, 1984). Prayer also consists of social interactions between the praying individual and their prayer target. In this section, I will discuss prayer in relation to its theological underpinnings, the sociological perspective, and its possible emotional regulatory function. I will also briefly discuss prayer as a multidimensional phenomenon.

Many writers have supported the notion that prayer and social life are closely linked together. The ancient Latin expression, *lex orandi, lex credenda, lex vivendi* [the law of prayer is the law of belief and is the law of living] indicates the connection between belief, prayers, and way of life. That is, one's belief informs how one prays, which eventually informs how one lives. Therefore, prayer informed by belief has a bearing on conduct or behavior (Fournier, 2011; Smith, 2004).

Further, prayer is a didactic tool that serves as an internal compass for human conduct (Bandak, 2017). Prayer is not only confined to the circles of religious studies. It has a social dimension that transcends religious boundaries. For example, research shows that prayer is not only reported among the devout and zealous but also among those who do not claim to be religious people (Bandak, 2017; Gallup, 1985; Taylor, 1988).

As I noted earlier, prayer animates or reinvigorates social life in general. Not only does Hoffman (2017) report an animation of work among Benedictine sisters, but Schneider and Kastenbaum (1993) indicate that among hospice caregivers, prayer helps them to cope with the emotional stress associated with their job. It generally serves as a coping mechanism in all aspects of life (Bade & Cook, 1997; Cook & Bade, 1998; Koenig et al., 1997; Shackle & Brown, 1994). It has also been found that the practice of prayer is associated with greater purpose in life (Richards, 1991).

Sharp (2010) postulates that although prayer is imaginary, it is a legitimate social interaction on the grounds that prayer serves the same functions as the interactions with supportive others in concrete social interactions. There are several of these resources highlighted by Sharp, but I will highlight four relevant resources in relation to the same kind of support offered by prayer. In social interactions, individuals can reinterpret negative situations (Francis 1997), receive positive reflective appraisals (Cooley, 1902; Rosenberg, 1979; Merton, 2010), vent out negative emotions, and emulate a model for emotional regulation (Caughey, 1984; Collins, 2004; Hermans, 2010). Sharp argued these resources or benefits that are unintended consequences of social interactions can also be found in prayer.

Praying individuals also create perceptions of their praying targets as they would in interpersonal interaction (Cerulo, 2008; Sharp, 2010). Person perception refers to the cognitive

and psychological processes involved in forming impressions, making judgments, and understanding others (Fiske, 1993; Quinn et al., 2007). Impressions are formed of others either by direct observation or third-party opinion (Quadflieg & Westmoreland, 2019). With the accumulation of knowledge about God through various religious literatures, individuals believe they have a knowledge of God that is personal and intimate (Sharp, 2010). According to Capps (1982), humans learn about God and his will for them through “biblical stories, church doctrine and examples of spiritual persons” (p. 139).

It is noteworthy that the social profiles of praying individuals also affect the choice of their prayer target. According to the similarity attraction theory, individuals are more likely to interact with others they share some similarity with (Berscheid & Walster, 1969). This principle works in prayer as well as social interactions. For instance, Cerulo (2008) found that those who worked in influential positions like CEOs preferred to pray directly to God rather than through an intermediary. Presumably, because they are at the helm of affairs in the social domain, they understand what it means to wield power and cause things to happen. On the contrary, those who were engaged in services like nurses were more likely to pray to anthropomorphic prayer targets like Jesus or the saints because they identify more with these prayer targets and feel that God is “too busy” or "too removed" from their needs.

In addition to being an intimate and personal phenomenon, prayer is multidimensional in nature. The issue of construct validity arises in the study of prayer given its multidimensional nature. For example, research on the relationship between prayer and well-being has produced divergent results. Some studies find a negative relationship, others find a positive relationship while others find no relationship at all (Pulchaska-Wasyl & Zarzycka, 2020). These

inconsistencies are possibly a result of the multidimensional nature of prayer that researchers may have ignored or neglected.

In previous research, prayer was measured by a single item quizzing participants of the frequency of their prayer activities (Zarzycka et al., 2022). However, Spilka and Ladd (2002) opined that single item measurements of prayer could be misleading as they do not capture the multi-dimensional nature of prayer. Ladd and Spilka (2006) proposed that prayer is comprised of cognitive connections made by the praying individual in three directions. Thus, they proposed upward prayer, inward prayer, and outward prayer. Inward prayer seeks to establish a connection with the self. It is more inward looking and seeks to examine the self against religious dictates and doctrine. Meditative prayer and contemplation fall under this type of prayer. Outward prayer seeks to establish connection with other humans. This encompasses prayer for the temporal needs of others as well as one's own temporal needs. Intercessory prayer and prayer of petition fall in this category. Upward prayer seeks to establish a connection with one's prayer target. It fosters a human-divine relationship. Prayers of adoration and worship are types of prayers where this human-divine connection is established.

In summary, prayer is theologically understood to be closely related to social life. Prayer and social interactions are also related since they share common factors such as emotional regulation resources, person perception, and social profiling. Prayer can be studied empirically by focusing on its cognitive aspects and its multidimensional nature.

The Relationship between Prayer, Self-Talk, and Internal Dialogue

In this section, I explore the relationship between prayer, self-talk, and internal dialogue according to existing research and deductions from neurological evidence which together provide internally and externally contingent support for these relationships. Childs (1983) started

the conversation of a possible link between prayer and private speech or self-talk. He purported that the phenomenon of private speech among children constitutes the cognitive foundations for prayer later in life. He also noted that early in the child's development, private speech was used for self-regulation. It is easy for one to imagine that private speech and self-talk are very personal and have nothing to do with social interactions. On the contrary, private speech has been shown to increase among children when they had more objects and people in their presence (e.g., Schmidt, 1973). The conclusions arrived at by Childs will be discussed later in this section.

There is a theoretical and empirical overlap between self-talk and internal dialogue. That notwithstanding, there are clearcut distinctions between these two types of intrapersonal communication (Olés et al., 2020). Self-talk and inner dialogue are similar, first of all, because they are both intrapersonal communications. The active participant in this mode of communication is one and the same person, whether or not the voice of an imagined other is implied. They are similar also regarding the functions that they both serve. For example, social assessing self-talk positively correlates with social dialogues, and self-critical with ruminating dialogues (Olés et al., 2020). However, they differ in terms of the fact that internal dialogue has a dialogical element to it that is absent to a certain extent in self-talk. Self-talk could be a single word or commentary or auditory rehearsal (Brinthaupt et al., 2009). Pulchalska-Wasyl and Zarzycka (2020) noted that prayer in its entirety cannot be reduced to intrapersonal communication in the same vein as internal dialogue. However, at least, the cognitive aspects of prayer can be empirically studied. It is based on this cognitive aspect of prayer that a relationship can be established between prayer and other aspects of intrapersonal communication.

The extent to which prayer, self-talk, and internal dialogue are related is also supported by neurological evidence. Neurological evidence suggests that self-talk and internal dialogue

activate the same regions of the brain. However, internal dialogue additionally activates regions of the brain associated with the theory of mind (Alderson-Day et al., 2016). Both self-talk and internal dialogue activate the frontotemporal language regions and internal dialogue additionally activates regions in the temporal parietal junction (Ahmad, 2021).

Neuroimaging of prayer is not a novel practice. Scientists, since 1984, have tried to study the neurological activity associated with prayer (Schjødt et al., 2009). This is an interesting approach to investigate the phenomena of prayer because prayer is an intimate, personal, and spiritual activity. To study the neurology of prayer, Ladd (2015) accentuated the questions of the validity of neuroimaging of prayer and the challenges researchers are likely to encounter. That notwithstanding, neurological study of prayer has produced reasonably consistent results.

Neubauer (2013) identified that the same areas of the brain were activated during prayer, irrespective of its content, and during an imagined conversation between the participant and a loved one (which, by definition, is internal dialogue). By means of fMRI scans, results showed that the medial prefrontal cortex, posterior cingulate, and parietal lobe were activated during the period of praying and the period of an imagined conversation with a loved one. This indicated that primarily, the prayer target is perceived by the praying individual as a real person who can listen and respond to them. However, the lab setting of the experiment might invoke demand characteristics and possibly contaminate the brain activity during praying. After all, on a normal day, individuals do not pray with an EEG apparatus attached to their heads. Also, for those who do not pray or profess belief in a prayer target, it is unclear whether such brain activation will be absent.

Though the interaction in prayer is intrapersonal, there is a distinction between communicating with fictitious and real persons. Schjoedt et al. (2009) postulated that those who

engage in the activity of praying distinguished between praying to their prayer target and making wishes to Santa Claus. Prayer activated the same regions of the mind identified in Neubauer's (2013) study; namely, the medial left prefrontal cortex, posterior cingulate, and parietal lobe. In contrast, making wishes to Santa activated areas of the brain associated with inferior frontal gyrus and medial occipital gyrus, apparently because participants did not perceive Santa Claus as a real person.

One of the identified benefits of self-talk and internal dialogue is the crystallization of self-identity. Identity dialogues are identified by Olés et al. (2020) as a type of internal dialogue that specifically deals with self-identity issues of the individual who practices it. Prayer is also linked to identity. McKinney and McKinney (1999) found that prayer frequency was negatively correlated with identity moratorium among late adolescents. In other words, adolescents who had not made any commitment to their identity were less likely to pray. Prayer frequency was higher for individuals who had a defined concept of their self-identity. Contemplative prayer is also positively related to a sense of understanding of the self (Finney & Malony, 1985). In other words, those who pray in stillness and in silence were more likely to attain a deeper insight into their self-identity.

The parallels Baesler (2003) highlights between prayer and communication can also be seen in self-talk but most especially in internal dialogue. Social assessment self-talk and social dialogues are used by individuals to either prepare for or evaluate interpersonal interactions. Commitment to prayer and prayer frequency is also positively associated with greater interpersonal communication skills (Fallahi et al., 2020).

In summary, private speech in children is related to their prayer activity later in life. It has been demonstrated that self-talk and internal dialogue are related by the functions they both serve

as well as in identity formation. Neurological evidence also suggests that self-talk, internal dialogue, and prayer are related, with some suggestion that prayer is more similar to internal dialogue than to self-talk.

Prosocial Behavior and Intrapersonal Communication

In earlier sections, I have demonstrated how intrapersonal communication is potentially related to social behavior based on the ideas of Hermans and Hermans-Konopka (2010) and Caughey (1984). Intrapersonal communication is useful for emotional regulation (Sharp, 2010), public speaking (Shi et al., 2015), social perception and social profiling (Cerulo, 2008), decision-making (Olès et al., 2020), and identity formation (Mckinney & Mckinney 1999; Olès et al., 2020). This section of the literature review discusses the nature of helping behavior and how it is potentially related to intrapersonal communication.

Helping behavior is defined as "the voluntary act performed with the intent to provide some benefit for another person" (Dovidio, 1984, p. 364). Helping behavior falls under the broad category of prosocial behavior. What is considered to be helping behavior is based on the perspective of the benefactor or the one offering the help. In some cases, the beneficiary does not receive the help offered by the benefactor according to the benefactor's intention. Unlike altruism, which is an action that does anticipate any reward of any kind, helping behavior may or may not anticipate reward (Dovidio, 1984).

I purport a possible relationship between helping behavior and intrapersonal communication because some of the elements that enhance helping behavior are benefits or functions of intrapersonal communication. One such factor that enhances the likelihood of helping behavior is intentionality. Intentionality is the "ability of individuals to link their inner consciousness and perceptions with their purposes and actions" (Hockaday et al., 2011, p. 219).

Hockaday et al. (2011) concluded that individuals who engaged in self-talk regarding a particular desired behavior were more likely to engage in those behaviors as opposed to those who do not. Therefore, it is conceivable that individuals are more likely to engage in helping behavior when they have a high level of intentionality from their practice of self-talk.

Another factor that enhances the likelihood of helping behavior is one's self-representation or self-concept. Brown and Smart (1991) found that individuals were more likely to engage in helping behavior when they had self-representations of being kind, nice or compassionate. In other words, individuals who perceived themselves to be kind engage in helping behaviors, whereas others who perceived themselves to be unkind did not engage in helping behavior. However, Mruk (2006) provides theories and evidence that suggests that helping behavior serves to offset low self-esteem. Consequently, low self-esteem serves as a motivation for engaging in helping behavior. Einolf (2013) showed that daily spiritual exercises were a significant predictor of helping others. Though religion plays a role in helping behavior, research has posited that some individuals who identify themselves to be spiritual rather than religious are prone to helping behavior (Fuller, 2001; Marler & Hadaway, 2022; Saucier & Skrzypinska, 2006; Zinnabauer et al., 1997).

Further, the awareness and experience of emotions influence the likelihood of engaging in helping behavior. Positive emotions like happiness, contentment, hope, and gratitude enhance the likelihood of engaging in helping behavior while negative emotions like anger, disappointment, fear, and anxiety reduce the likelihood of engaging in helping behavior (Kleef & Lelieveld, 2022). However, according to the compensation theory (Jung, 1993) and distress relief theory (Caildini et al., 1981), feelings of negative emotions can be a motivating factor to engage in helping behavior. Feeling good about engaging in helping behavior sometimes serves to

counter negative feelings prior to the helping behavior. For example, Cialdini et al. (1981) found that helping behavior increased for saddened individuals than individuals with a neutral mood.

Depape et al., (2006) postulated that intrapersonal communication can facilitate the awareness and regulation of emotion. This suggests a potential relationship between intrapersonal communication and helping behavior so far as emotion is concerned.

In summary, the rationale for connecting helping behavior with intrapersonal communication is that the precursors of helping behavior are also benefits of intrapersonal communication. Intentionality, self-esteem (or a lack of it), and awareness of one's emotions provides that rationale to postulate a connection between helping behavior and intrapersonal communication.

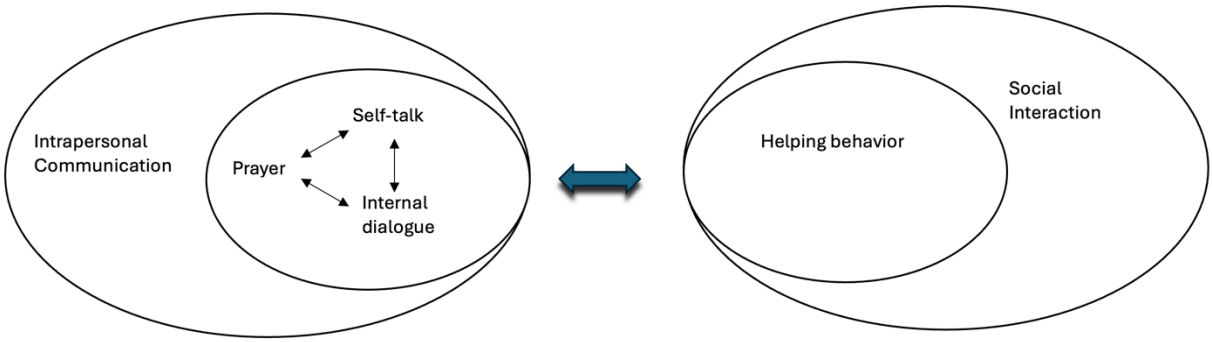

Fig. 1 Diagram Illustrating the Relationships Between Concepts

Statement of the Problem and Hypotheses

Currently reviewed research suggests a potential relationship among self-talk, internal dialogue, and prayer. The nature of self-talk, internal dialogue and prayer fit the criteria of the Dialogical Self Theory as internal communication that mirrors external social interactions (Hermans, 2010). In addition, the practice of self-talk, internal dialogue and prayer have some level of influence on a person's social interactions (Fallahi et al., 2020). They have similar functions such as self-regulation (Brinthaupt et al., 2009), emotional regulation (Sharp, 2010), and identity formation (Finney & Malony, 1985). Neurological evidence also ties self-talk, internal dialogue, and prayer together (Ahmad, 2021; Alderson-Day et al., 2016; Neubauer, 2013).

The reviewed literature also shows that some of the factors that enable helping behavior are functions of intrapersonal communication. Intentionality (Hockaday et al., 2011), self-awareness (Brown & Smart, 1991), and emotional awareness and regulation (Depape et al., 2006) are functions or benefits of intrapersonal communication.

Based on my review of the literature, I propose the following hypotheses:

H1: The frequency of inward prayer will be positively correlated with the frequency of self-critical self-talk, self-managing self-talk, and identity dialogues. Inward prayer enhances self-awareness and builds a connection with the self. Inward prayer also serves the purpose of self-evaluation just as self-critical and self-managing self-talk do (Brinthaupt et al., 2009; Ladd & Spilka, 2002). Identity dialogues also are centered around self-discovery and the formations of self-identity. The centrality of the self is expected to be the focus of inward prayer, self-critical self-talk, self-managing self-talk and identity dialogues.

H2: The frequency of outward prayer will positively correlate with the frequency of social assessing self-talk and social dialogue. Outward prayer features intercessory prayer for the needs of others known to the praying individual (Ladd & Spikka, 2002). It builds a connection between the praying individual and the social world around them. Social assessment self-talk and social dialogues reflect on past interpersonal conversations or simulate future conversations (Olés et al., 2020). The primary focus of these types of dialogue is the establishment of relationships with other people within the social world of the individual. Social assessment self-talk and social dialogues could serve as prompts to pray for the needs of others.

H3: The attitudes about helping behavior will positively correlate with the frequency of outward prayer, social dialogues, self-reinforcement self-talk, self-management self-talk and social-assessment self-talk while negatively correlating with inward prayer and self-critical self-talk. Outward prayer and social dialogues can potentially bring interpersonal relationships into the focus of the individual and are likely to provide a motive to engage in helping behavior. Outward prayer moves the praying individual to empathize with others (Ladd & Spilka, 2002). Social dialogues give the individual an opportunity to reflect on past conversations (Olés et al., 2020) that might prompt one to engage in helping behavior. A positive self-concept and self-representation are associated with the likelihood of engaging in helping behavior (Brown & Smart, 1991). I expect that individuals who engage in self-reinforcement self-talk are more likely to have a positive self-concept and a positive attitude toward engaging in helping behaviors to further reinforce themselves. Self-management is potentially positively associated with attitudes toward helping behavior because it helps the individual plan their actions and behavior (Olés et al., 2020). It may serve as a prompt to engage in helping behavior. Social assessment self-talk, like social dialogues, brings interpersonal relationships into the focus of the individual and may

increase the individual's tendency to engage in helping behavior. As past conversations are reassessed in intrapersonal communication, one is likely to revisit clues in the conversation that will increase one's proclivity toward helping.

On the other hand, helping behavior attitude is expected to negatively correlate with inward prayer and self-critical self-talk. This is because inward prayer and self-critical self-talk reflect on negative self-concepts. Inward prayer is characterized by the evaluation of oneself and the honest admission of one's flaws (Ladd & Spilka, 2002). Self-critical self-talk is primarily self-talk about negative events and a self-chastisement of what one has done wrong (Olés et al., 2020). The possibility of these resulting in a negative self-concept is the rationale for postulating that they will potentially be negatively correlated with helping behavior (Brown & Smart, 1991).

Table 1

Table Illustrating Hypotheses.

	Variable	**Correlate with**	**Rationale**
Hypothesis 1	Inward Prayer ⬆	Self-critical self-talk	These variables are concerned with self-evaluation, self-discovery, and self-awareness
		Self- managing self-talk	
		Identity dialogues	
Hypothesis 2	Outward prayer ⬆	Social assessing self-talk Social dialogues	Social assessing self-talk and social dialogues could serve as cues to pray for the needs of others
Hypothesis 3	Helping behavior attitudes ⬆	Outward prayer	Outward prayer moves individuals to sympathize with others which provides a motive for helping. Social dialogues and self-talk could serve as cues for helping others. Self-managing self-talk provides intentionality toward helping while self-reinforcing self-talk produces a positive self-concept that increases proclivity toward helping.
		Social assessing self-talk	
		Social dialogues	
		Self-managing self- talk	
		Self-reinforcing self-talk	
	Helping behavior attitudes ⬇	Inward prayer Self-critical self-talk	A negative self-concept resulting from these intrapersonal communication domains may reduce the likelihood of helping behavior

CHAPTER 3

METHOD

Participants

The total participants of the study were 136 individuals. Due to a survey completion rate lower than 90%, 34 participants were removed from the study and 2 participants did not consent to the study.

Participants (N= 100, 40 Female, 54 Male, 6 non-binary) of the study were 18 years and older with ages ranging from 18 to 76 (M = 27.11, SD =10.67). Table 2 presents the demographic data for the final sample. Twenty-eight percent of the participants where White/Caucasian, 5% Hispanic, 51%Black African, 8% African American, 1% American Indian, 5% Asian, 1% other and 1% preferred not to say. Forty-four of the participants were seminary students in Ghana. Forty participants were awarded credits for participating in the research through the SONA system. The educational level of participants ranged from high school to graduate degree. The percentage of participants with a graduate degree was 14%, 27% had an associate or technical degree, 32% had some college education 15% had some high school and 7% had some high school education or less.

Table 2

Descriptive Statistics for Demographic Variables

Variable	Category	*N*
Sex	Male	53
	Female	40
	Other	6
Education	Some High school or less	7
	High School	15
	Some College	32
	Associate or technical degree	27
	Graduate degree	14
	Prefer not to say	4
Race	White	28
	Hispanic	5
	Black African	51
	African American	8
	American Indian	1
	Asian	5
	Other	1
	Prefer not to say	1

Materials

The Self-Talk Scale (STS; Brinthaupt et al., 2009) was used to measure self-talk and its functions among participants. The STS is a 16-item measure that assesses when individuals use self-talk and the functions this practice serves for them. The STS measures self-critical self-talk (e.g., “I’m really upset with myself”), self-managing self-talk (e.g., “I need to figure out what I need to do or say”) , self-reinforcing self-talk (e.g., “I’m proud of something I’ve done”) and social-assessing self-talk (e.g., “I want to replay something I have said to another person”). All items on the scale are preceded with the stem, “I talk to myself when…” STS was chosen

because it encompasses both inner and private speech; that is silent and aloud self-talk. STS uses a 5-point frequency response format (1 = *never*, 5 = *very often*). The frequency scores were summed where high scores represented frequent self-talk. STS scores were standardized by calculating the average scores. This method of standardization enhanced comparison with other scales. Brinthaupt et al. (2009) and Brinthaupt and Kang (2014) provide evidence in support of the psychometric properties of the STS. The reliability of the STS is high and ranges from .79 to .89 (Brinthaupt et al., 2009). The construct validity of the STS was assessed using the Rasch model and ranged between 0.8 to 1.1. (The acceptable range for a good Rasch model is 0.5 to 1.5)

The Automatic Thoughts Questionnaire-Revised (ATQ-R) was used complementarily to the STS to measure the content of self-talk. The ATQ-R is a 40-item 5-point Likert scale (1 = *not at all,* 5 = *all the time*) with a scoring range between 40 – 200 where high scores indicate negative self-talk, and low scores indicate positive self-talk (Hollon & Kendall, 1980). ATQ-R scores were standardized by calculating the average scores. Ten scale items were reverse scored. Some examples of the ATQ-R include “I am no good,” “Nothing feels good anymore,” and “I am warm and comfortable.” Research supports the reliability and psychometric properties of ATQ-R. Internal consistency was assessed using Cronbach’s alpha. The overall Cronbach’s alpha was 0.91, indicating strong reliability (Burgess & Haaga, 1994; Hollon & Kendall, 1980). Convergent validity of the measure was supported by significant correlation with Automatic Thought Scale – Positive ($r = 0.74$, $p < 0.0001$).

Internal dialogue was measured by the revised Internal Dialogue Activity Scale (IDAS-R; Olés et al., 2020). IDAS-R is a 40-item tool that measures general internal dialogue as well as the eight types of inner dialogue according to function. IDAS-R is a 5-point Likert scale (1 = *never*,

5 = *very often*) that measures identity dialogues (e.g., "Through internal discussions I come to certain truths about my life and myself"), maladaptive dialogues (e.g., "The conversations I have in my mind upset me"), social dialogues (e.g., "When preparing for a conversation with someone, I practice the conversation in my thoughts"), supportive dialogues (e.g., "When I cannot speak with someone in person, I carry on a conversation with him/her in my mind"), spontaneous dialogues (e.g., "I converse with myself"), ruminative dialogues (e.g., I have conversations in my mind which confuse me"), confronting dialogues (e.g., "My internal conversations make it difficult for me to feel whole") and change of perspective dialogues (e.g., "When I don't know something and I cannot ask anybody about it, I try to figure it out in my thoughts). A summation of the items on each subscale indicates the score for that particular type of internal dialogue. Higher scores in any subscale indicates greater frequency for that type of internal dialogue. To aid comparison, IDAS-R subscales were standardized by calculating the average scores. Leontiev (2016) and Olés et al. (2020) provide support for the psychometric properties of the IDAS-R scale. The test-retest correlations were significant for all the items, as well as for the general test score ($r = 0.76$, $p < .05$). Construct validity was assessed using exploratory factor analysis which revealed an eight-factor solution explaining 61% of the total variance.

The cognitive aspect of prayer was measured by the Prayer Thought Scale (PTS; Ladd & Spilka, 2006). The PTS measures the cognitive directions established in prayer, that is, the predominant thoughts that occupy the mind of praying individuals when they pray. This tripartite model of assessing prayer captures its multidimensional nature (Pulchalska-Wasyl & Zarzycka, 2020). PTS is a 29-item scale with a 6-point response format (1 = *Never think about during prayer*, 6 = *always think about during prayer*). The PTS features three subscales, namely,

upward prayer, inward prayer and outward prayer. A summation of the items on each subscale indicates the score for that particular type of prayer. Higher scores in any subscale indicates greater frequency for that type of prayer. The PTS subscales were standardized by calculating their average scores. Most of the items on the survey constituted a single word or phrase which could come across as vague. These words or phrases were expanded to full sentences to enhance participant understanding while maintaining the import of the original questionnaire items. Examples of survey items include, “When I pray, I think about seeking assistance for others” and “When I pray, I think about examining myself”. Ladd and Spilka (2006) provide support for the psychometric properties of the PTS. A three-factor model showed a good fit to the data, χ^2 (14) = 27.26, p = 0.02, RSMEA = 0.04. The overall Cronbach’s alpha was 0.76 indicating strong reliability.

Helping behavior attitude was measured by the New Helping Attitude Scale (NHAS; Trzeciak et al., 2022; Nickell, 1998). The NHAS is a 12-item tool that measures people’s emotions associated with helping behavior. NHAS is a 5-point Likert scale (1 = *strongly disagree*, 2 = *Disagree*, 3 = *undecided*, 4 = *Agree*, 5 = *strongly agree*.). High scores indicate a positive attitude toward engaging in helping behavior. To enhance comparability with other scales, the averages of the NHAS scores were calculated. Some example items are “Helping people makes me feel at peace with myself” and “Helping others is a good use of my time.” Evidence for the validity of the NHAS is provided by Trzeciak et al. (2022) They reported a Cronbach’s alpha of 0.92 indicating strong reliability. The good model fit indices (Comparative Fit Index = 0.95; Tucker-Lewis Index = 0.94; Standardized Root Mean Squared Residual = 0.04) also indicates the construct validity of the scale.

Procedure

Approval from the IRB was obtained prior to the study (see appendix f). Consent forms and survey data were collected through the Qualtrics Software in the middle of the spring semester, 2024. The various measures used in the study were presented in a randomized order in the survey. Demographic data from participants was also collected. The survey was disseminated through the MTSU research pool of spring 2024, email, and on social media. At the end of the survey participants were asked if they were willing to help the researcher on another project. This was to help match participants' helping behavior attitude scores with their willingness to help when requested. The survey concluded with a debriefing statement (see appendix h).

Once the data were collected, they were cleaned in Microsoft Excel and exported to R (version 2024.04.0+735) for analysis. The subscales of all scale items were standardized by calculating the averages. Participants with completion rates lower than 90% were excluded from the study. Variables were coded as follows: self-talk total (STS Total), self-critical self-talk (STS Critical), self-managing self-talk (STS Managing), self-reinforcing self-talk (STS Reinforcing), social assessing self-talk (STS Social), internal dialogue total score (IDAS Total), identity dialogues (IDAS Identity), maladaptive dialogues (IDAS Maladaptive), social dialogues (IDAS Social), spontaneous dialogues (IDAS Spontaneous), ruminative dialogues (IDAS Ruminative), confronting dialogues (IDAS Confronting), change of perspective (IDAS ChangeP), supportive dialogues (IDAS Supportive), prayer thought scale total scores (PTS Total), inward prayer (PTS Inward), outward prayer (PTS Outward), upward prayer (PTS Upward), prayer frequency (PTS_0), Automatic thoughts scale- revised total scores (ATQ-R Total)

CHAPTER 4

RESULTS

Descriptive Statistics

Descriptive statistics are shown in Table 3. All variables were normally distributed. As seen from the table, participants recorded higher scores for self-talk than prayer and Internal dialogue. Participants engaged in self-managing self-talk more often than other types of self-talk and engaged in self-critical self-talk the least. Participants engaged in spontaneous dialogues the most. Maladaptive dialogues were the least used internal dialogues, followed by change of perspective dialogues and confronting dialogues.

The content of participants' self-talk was more positive than negative as seen in the ATQ-R scores. Participants engaged in outward prayer least but used more inward prayer and upward prayer. Participants recorded high prayer frequency scores. Most participants had a high/positive attitude towards helping. Seventy-four of the participants were willing to help (henceforth referred to as helpers) while 26 declined (henceforth referred to as non-helpers).

Table 3

Descriptive Statistics for the Major Measures

Variable	M	SD
STS Total	3.59	0.64
STS Critical	3.21	0.88
STS Managing	3.83	0.72
STS Reinforcing	3.65	0.82
STS Social	3.67	0.83
IDAS Total	3.08	0.59
IDAS Identity	3.60	0.68
IDAS Maladaptive	2.30	0.74
IDAS Social	3.44	0.77
IDAS Spontaneous	3.69	0.81
IDAS Ruminative	3.04	0.80
IDAS Confronting	2.64	0.81
IDAS Change of Perspective	2.92	0.74
IDAS Supportive	3.10	0.81
PTS Total	3.15	0.65
PTS Inward	3.17	0.84
PTS Outward	3.06	0.65
PTS Upward	3.17	0.84
Prayer Frequency	3.69	1.33
ATQ-R Total	2.10	0.63
NHAS	4.19	0.53
Age	27.11	10.67

Note. $N = 100$. STS – Self-talk scale, IDAS – Internal Dialogue Activity Scale, PTS – Prayer Thoughts, ATQ-R – Automatic Thoughts Questionnaire-Revised, NHAS – New Helping Attitudes Scale.

Test of Hypotheses

Table 4 shows the correlations between prayer thought subscales and the other major variables. Hypothesis 1 postulated that inward prayer would positively correlate with self-critical self-talk, self-managing self-talk and identity dialogues. In hypothesis 2, was it was posited that outward prayer was going to positively correlate with social assessing self-talk and social dialogues. I also expected that helping behavior would positively correlate with outward prayer, social assessing self-talk and social dialogues in hypothesis 3. Additionally, self-reinforcing self-talk, self-managing self-talk were expected to positively correlate with helping behavior. Self-managing self-talk was expected to positively correlate with helping behavior and helping behavior was expected to negatively correlate with inward prayer and self-critical self-talk

Hypothesis 1

There was moderate support for hypothesis 1(see Table 4). Inward prayer (PTS Inward) significantly corelated with identity dialogues (IDAS Identity). However, there was a weak positive correlation between inward prayer and self-critical self-talk, and with self-managing self-talk,

Hypothesis 2

There was no support for hypothesis 2. There was a weak positive correlation between outward prayer (PTS Outward) and social assessing self-talk (STS Social), and with social dialogues (IDAS Social).

Hypothesis 3

There was moderate support for hypothesis 3 (see Table 5). Helping behavior (NHAS Total) correlated positively with outward prayer (PTS Outward), and with self-reinforcing self-talk. Helping behavior (NHAS Total) correlated negatively and weakly with social dialogues

(IDAS social), and self-managing self-talk. There was a significant positive correlation between helping behavior (NHAS) and social assessing self-talk (STS Social).

Table 4

Correlations between Prayer and Other Variables

Variable	PTS_Total	PTS_Inward	PTS_Outward	PTS_Upward
STS_Total	0.26*	0.26*	0.22*	0.26*
STS_Critical	0.04	0.08	0.02	0.08
STS_Managing	0.18	0.16	0.16	0.16
STS_Reinforcing	0.39 **	0.41**	0.32*	0.41**
STS_Social	0.14	0.16	0.10	0.16
IDAS_Total	0.28*	0.22*	0.26*	0.22*
IDAS_Identity	0.36**	0.31*	0.36**	0.31*
IDAS_Maladaptive	0.28*	0.26*	0.23*	0.26*
IDAS_Social	0.08	0.07	0.05	0.07
IDAS_Spontaneous	0.08	0.02	0.09	0.02
IDAS_Ruminative	0.30*	0.20	0.28*	0.20
IDAS_Confronting	0.34*	0.30*	0.29*	0.30*
IDAS_Change of Perspective	0.12	0.03	0.12	0.03
IDAS_Supportive	0.20*	0.20*	0.16	0.20*
ATQ_Total	0.05	-0.06	0.04	-0.06
NHAS_Total	0.28 *	0.26*	0.29*	0.26*

$N = 100$; *$p < 0.05$; **$p < 0.001$ STS – Self-talk scale, IDAS – Internal Dialogue Activity Scale, PTS – Prayer Thoughts, ATQ-R – Automatic Thoughts Questionnaire-Revised, NHAS – New Helping Attitudes Scale

Table 5

Correlation Table of Helping Behavior Attitudes and Other Variables

Variable	NHAS
STS_Total	0.24*
STS_Critical	0.09
STS_Managing	0.06
STS_Reinforcing	0.33**
STS_Social	0.21*
IDAS_Total	0.18
IDAS_Identity	0.27*
IDAS_Maladaptive	0.01
IDAS_Social	-0.02
IDAS_Spontaneous	0.08
IDAS_Ruminative	0.08
IDAS_Confronting	0.16
IDAS_ChangeP	0.01
IDAS_Supportive	0.08
PTS_Total	0.28
PTS_Inward	0.26*
PTS_Outward	0.29*
PTS_Upward	0.26*
ATQ_Total	-0.04

$N = 100$; * $p < 0.05$, ** $p < 0.001$. STS – Self-talk scale, IDAS – Internal Dialogue Activity Scale, PTS – Prayer Thoughts, ATQ-R – Automatic Thoughts Questionnaire-Revised, NHAS – New Helping Attitudes Scale

Supplementary Analysis

Supplementary analyses were conducted to further explore the relationship among intrapersonal communication domains and helping behavior. There was a strong positive correlation between Inward prayer and self-reinforcing self-talk. Inward prayer also had moderate positive correlations with maladaptive dialogues and confronting dialogues (see Table 4).Further, outward prayer had moderate positive correlations with self-reinforcing self-talk, identity dialogues, ruminative dialogues, and confronting dialogues (see Table 4).

Helping behavior attitudes moderately correlated with inward prayer, outward prayer and with upward prayer (see Table 5). The supplementary analysis also reveals that prayer was a significant predictor of helping behavior attitudes (see Table 6).

Table 6

Regression Table Predicting Helping Behavior Attitudes.

Predictor	*B*	*b*	*beta*	*beta*	sr^2	sr^2	*r*	Fit
		95% CI		95% CI		95% CI		
		[LL, UL]		[LL, UL]		[LL, UL]		
(Intercept)	3.65**	[3.06, 4.24]						
STS_Total	-0.00	[-0.18, 0.17]	-0.01	[-0.26, 0.24]	.00	[-.00, .00]	.08	
IDAS_Total	0.01	[-0.17, 0.19]	0.02	[-0.23, 0.27]	.00	[-.01, .01]	.09	
PTS_Total	0.18*	[0.04, 0.31]	0.27	[0.06, 0.48]	.07	[-.03, .16]	.28**	
								$R^2 = 0.8$
								95% CI [.00,.17]

Note. A significant b-weight indicates the beta-weight and semi-partial correlation are also significant. b represents unstandardized regression weights. beta indicates the standardized regression weights. sr^2 represents the semi-partial correlation squared. r represents the zero-order correlation. Square brackets are used to enclose the lower and upper limits of a confidence interval. * Indicates $p < .05$. ** indicates $p < .01$. STS – Self-talk scale, IDAS – Internal Dialogue Activity Scale, PTS – Prayer Thoughts

Helping behavior was measured by directly asking participants to help the researcher in another project after they completed the survey. This was to validate the scores of participants on the helping behavior attitudes scale. There was a statistically significant difference in helping behavior attitudes scale scores between helpers (M = 4.26, SD = 0.56) and non-helpers (M = 3.98, SD = 0.38) $t(97) = -2.37$, $p = 0.02$, 95% CI [-1.01, -0.09]. Helpers scored higher on the helping attitudes scale than non-helpers Table 7 indicates no statistically significant difference in the self-talk scores of helpers and non- helpers. However, helpers and non-helpers differed in the content of their self-talk as measured by the ATQ-R. Helpers scored lower on the ATQ-R than non-helpers. There was a statistically significant difference in maladaptive dialogues and spontaneous dialogues between helpers and non-helpers with helpers scoring higher on both sub-scales. There was no statistically difference in prayer scores between helpers and non-helpers. However, they differed in their prayer frequency. Helpers engaged in prayer more often than non-helpers.

Table 7

T-test Results Comparing Helpers and Non-helpers on Self-Talk, Internal Dialogue and Automatic Thoughts Scales.

	Non-Helpers		Helpers						
	M	SD	M	SD	*t*	*df*	*p*	*d*	95% CI
STS_Total	3.60	0.69	3.59	0.62	0.05	96	.964	0.01	[-0.45, 0.47]
STS_Critical	3.13	0.92	3.24	0.87	-0.58	92	.565	-0.13	[-0.59, 0.32]
STS_Managing	3.85	0.77	3.82	0.71	0.21	96	.830	0.05	[-0.41, 0.51]
STS_Reinforcing	3.48	0.89	3.71	0.79	-1.21	96	.228	-0.29	[-0.75, 0.18]
STS_Social	3.75	0.89	3.64	0.82	0.55	96	.584	0.13	[-0.33, 0.59]
ATQ_Total	2.41	0.79	1.99	0.52	2.92	91	.004**	0.68	[0.21, 1.15]
IDAS_Malaptive	3.04	1.30	3.91	1.27	2.27	97	.026*	0.52	[0.06, 0.97]
IDAS_Spontaneous	3.42	0.80	3.79	0.80	-2.02	97	.046*	-0.46	[-0.91, -0.01]
Prayer frequency	3.04	1.31	3.91	1.27	-2.92	97	.004*	-0.68	[-1.14, -0.21]

Note. N = 100. * indicates p < .05, ** indicates p < .01. STS – Self-talk scale, IDAS – Internal Dialogue Activity Scale, PTS – Prayer Thoughts, ATQ-R – Automatic Thoughts Questionnaire-Revised, NHAS – New Helping Attitudes Scale

CHAPTER FIVE

DISCUSSION

One aim of the study was to examine the relationship among intrapersonal communications domains, namely self-talk, internal dialogue, and prayer. Results confirmed the findings of Olés et al. (2020) that there is a relationship between self-talk and internal dialogue. Prayer was found to have some relationship with self-talk and internal dialogue. Prayer as expected, correlated more positively with internal dialogue facets than with self-talk facets. As discussed in the literature review, prayer has a dialogical element to it which is also characterized by internal dialogue. Self-talk is mostly statements (Brinthaupt et al., 2009) whereas prayer and internal dialogue are more conversational in nature. This study throws more light on the findings of Neubauer (2013) concerning the dialogical element of prayer. The regions of the brain that are activated in prayer are the same regions of the brain activated in an imagined conversation with a loved one, which is, by definition, internal dialogue. It therefore makes sense that prayer correlated more positively with internal dialogue than with self-talk.

However, prayer had an interesting relationship with self-talk worthy that is of discussion. Self-reinforcing self-talk had a strong positive correlation with prayer in general and with each type of prayer. This suggests that most people who engage in prayer activities have a sense of satisfaction with themselves. Outward prayer features prayers of petition and intercessory prayers and leaves praying individuals with the consolation that their prayers will be answered. Prayers for others also makes praying individuals feel good about themselves as fulfilling a religious charge. It remains unclear why inward prayer had a strong positive correlation with self-reinforcing self-talk. One explanation could be that most people are generally satisfied with their self-evaluation during inward prayer and therefore did not chastise

themselves. This could also offer some explanation for the weak positive correlation between inward prayer and self-critical self-talk. Though it was hypothesized that inward prayer was going to strongly correlate with self-critical self-talk because they were both concerned with self-evaluation (Ladd & Spilka, 2002; Brinthaupt et al., 2009), it appears inward prayer was associated with more self-satisfaction. That might explain the strong positive correlation between inward prayer and self-reinforcing self-talk which gives people the opportunity to reflect on how proud they are of themselves for something they believe they have done right.

Following from the above-mentioned point is the relationship between a positive self-identity and prayer. McKinney and McKinney (1999) purported that there was a relationship between self-identity and prayer. That is to say, individuals who had a defined self-identity were more likely to pray. In this study it was found that identity dialogues highly correlated with prayer in general and the prayer thoughts subscales. Identity dialogues included items such as, "*Thanks to dialogues with myself, I understand myself better," "Thanks to dialogues with myself, I can answer the question, "Who am I?"* and "*Through internal discussions I come to certain truths about my life and myself."* Once again, it would appear that inward prayer and confronting dialogues led to a better understanding of the self rather than a chastisement of the self or self-blame. That will further offer some explanation to the positive correlation between confronting dialogues and identity dialogues.

With respect to helping behavior, most people believed that helping was important and that they felt good doing it, as seen from the high scores on helping attitudes scale. The moderate positive correlations between prayer and helping behavior attitudes provides further support that prayer serves as a moral compass (Bandak, 2017) and affects how people behave (Fournier, 2011; Smith, 2004).

Brown and Smart (1991) postulated that a positive self-concept was a key factor in engaging in helping behavior. On the other hand, Mruk (2006) concluded that people engaged in helping behavior as a means of compensating or offsetting a low self-esteem. This study, however, provides support for the position that having a positive self-concept was related to helping behavior attitudes as evidenced by the strong positive correlations between helping behavior attitudes and self-reinforcing self-talk. Whenever intrapersonal communication produced a negative self-concept as in self-critical self-talk, maladaptive dialogues and ruminative dialogues, individuals were less likely to engage in helping behavior. Therefore, results from this study suggest that a positive self-concept is a precursor to engaging in helping behavior. The results from this study thus does not support the compensation theory (Jung, 1993) and the distress relief theory (Caildini et al., 1981) that posits that individuals are likely to engage in helping behavior to offset or compensate for negative emotions.

Prayer was found to be a significant predictor of helping behavior attitudes. Though prayer was only associated with 8% of the variability in helping behavior attitudes, it is an interesting finding because human behavior is a very complex construct to predict (Epley & Dunning, 2006). There could be many variables that predict why an individual will engage in helping behavior. It appears that prayer is one such variable that can predict helping behavior.

The data also revealed that people generally talked to themselves more positively than negatively. Participants had low scores on maladaptive dialogues, confronting dialogues, and automatic thoughts which measured the content of self-talk. Additionally, self-critical self-talk recorded the lowest mean among the self-talk subscales. The predominance of positive intrapersonal communication is an indicator of positive and healthy mindset among the participants. Hollon and Kendall (1980) indicated that negative self-talk was associated with

anxiety and depression. There was a statistically significant difference between helpers and non-helpers in automatic thoughts, maladaptive dialogues, and prayer frequency. These relationships further advance the influence of intrapersonal communication on helping behavior.

Limitations of the study

The study used a total of five measures. Some measures had 40 items which considerably lengthened the survey. Given that there was no compensation for participants apart from the participants recruited through the SONA system, some participants abandoned the survey resulting in incomplete submissions and missing data. All constructs used in the study were operationalized using self-report measures. Consequently, the study was beset with the limitations of self-report surveys. For example, some intrapersonal communication is automatic and unconscious, therefore, self-report of intrapersonal communication may not capture such unconscious intrapersonal communication.

Further, the correlational design of the study is another limitation. This study design limits the extent of the casual conclusions that can be drawn from the study. Also, the complexity of prayer as a construct is a limitation of this study. Prayer has a metaphysical element because the prayer target is often a super-physical being. This study only taps into the cognitive aspects of prayer as it relates to other measurable variables.

Directions for future research

Future research can explore into more detail, the relationships between intrapersonal communication domains with particular attention to the subscales of self-talk scale, internal dialogical activity scale-revised, prayer thoughts scale. The Dialogical Self theory posits a bidirectional relationship between intrapersonal communication and social interactions, and this study examined the effect of intrapersonal communication on helping behavior as a form of social interaction. It would be interesting to explore the effects of helping behavior on

intrapersonal communication. Future research can investigate whether intrapersonal communication changes after individuals have engaged in helping behavior. Another possibility for future research is to induce specific types of intrapersonal communication and examine the effects they have on helping behavior. These suggested aims for future research have the potential to further navigate the relationship between intrapersonal communication and helping behavior attitudes.

A further worthy aim for future research could be to explore the environmental factors that enhance helping behavior. Will the tendency to engage in helping behavior be affected by specific external situations such the presence of other people, explicit request for help and perceived similarity? Moving away from helping behavior, it will be useful for future research to explore the relationship between intrapersonal communication and other aspects of social interactions.

Conclusion

This study set out to examine the relationship among prayer, self-talk, and internal dialogue as intrapersonal communication domains and to find out the extent to which these domains relate with helping behavior. It was predicted that certain types of prayer will correlate with some types of self-talk and internal dialogue. Overall, there was some support for this prediction. Self-reinforcing self-talk and identity dialogues were most related to prayer in general, as well as the types of prayer identified in this study. Intrapersonal communication was also related to helping behavior attitudes. Particularly, prayer was found to be a significant predictor of helping behavior attitudes.

This study suggests that individuals who engaged in prayer activities are more satisfied with themselves and have high sense of self-awareness. When individuals have a positive

concept of themselves, they were more likely to engage in helping behavior. This study was not bereft of limitations, however, it adds to the current discussion on the dialogical self-theory and intrapersonal communication.

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APPENDICES

APPENDIX A: Automatic Thoughts Questionnaire – Revised

Listed below are a variety of thoughts that pop into people's heads. Please read each thought and indicate how frequently, if at all, the thought occurred to you over the last week. Please read each item carefully the select appropriate answers in the following fashion (1 = "not at all", 2 = "sometimes", 3 = "moderately often", 4 = "often", and 5 = "all the time").

1. I feel like I'm up against the world.
2. I'm no good.
3. I'm proud of myself.
4. Why can't I ever succeed?
5. No one understands me.
6. I've let people down.
7. I feel fine.
8. I don't think I can go on.
9. I wish I were a better person.
10. No matter what happens, I know I will make it
11. I'm so weak.
12. My life's not going the way I want it to
13. I can accomplish anything.
14. I'm so disappointed in myself.
15. Nothing feels good anymore.
16. I feel good.

17. can't stand this anymore.

18. I can't get things started.

19. What's wrong with me?

20. I'm warm and comfortable.

21. I wish I were somewhere else.

22. I can't get things together.

23. I hate myself.

24. I feel confident I can do anything I set my mind to

25. I'm worthless.

26. I wish I could just disappear.

27. What's the matter with me?

28. I feel very happy.

29. I'm a loser.

30. My life is a mess.

31. I'm a failure.

32. This is super!

33. I'll never make it.

34. I feel so helpless.

35. Something has to change.

36. There must be something wrong with me.

37. I'm luckier than most people.

38. My future's bleak

39. It's just not worth it.

40. I can’t finish anything.

APPENDIX B: Internal Dialogical Activity Scale – Revised (IDAS-R)

INSTRUCTIONS: The following statements relate to your thinking about yourself and others. Read each of them carefully. Answer by circling one of the numbers that best describes your way of thinking. Please take your time and think carefully about each item, for example: *In novels and stories the most interesting parts to me are the dialogues*. Be sure to rate each item. Use the following scale to rate each item:

1	**2**	**3**	**4**	**5**
Never	**Seldom**	**Sometimes**	**Often**	**Very Often**

1.	I ask myself questions and try to answer them.	1	2	3	4	5
2.	My inner dialogues with myself and others hinder me from focusing on what I have to do.	1	2	3	4	5
3.	I imagine fictitious scenarios of conversations and events.	1	2	3	4	5
4.	When I remember the words that others have spoken to me in the past, I respond to them in my mind.	1	2	3	4	5
5.	I play out my internal dilemmas as discussions going on in my thoughts.	1	2	3	4	5
6.	In my mind, I discuss past thoughts I've had.	1	2	3	4	5
7.	I like to talk with the better side of my personality.	1	2	3	4	5
8.	When I don't know something and I cannot ask anybody about it, I try to figure it out in my thoughts.	1	2	3	4	5

9. It is easier for me to make a decision if I first carry out a discussion about it in my thoughts.	1	2	3	4	5
10. Imagining conversations feels strange to me.	1	2	3	4	5
11. Before an important meeting I visualize scenarios of discussions, imagining who will say what.	1	2	3	4	5
12. I “hear” the words that were spoken to me in the past as if they are directed to me now.	1	2	3	4	5
13. When I cannot find a definite solution for a conflict, I talk to myself.	1	2	3	4	5
14. I discuss with myself how my failures could have been avoided.	1	2	3	4	5
15. My “good” side argues with my "bad” side.	1	2	3	4	5
16. When talking to myself, I experience very strong conflicts that prevent me from finding a clear solution.	1	2	3	4	5
17. Thanks to dialogues with myself, I understand myself better.	1	2	3	4	5
18. It is very unpleasant to argue with myself in my thoughts.	1	2	3	4	5
19. In my thoughts, I debate the arguments of someone I am disagreeing with.	1	2	3	4	5
20. I carry on discussions in my mind with the important people in my life.	1	2	3	4	5
21. I talk with myself about those things that are important to me.	1	2	3	4	5
22. Some of the inner dialogues I have with myself and others heighten my sense of misfortune.	1	2	3	4	5
23. My internal conversations make it difficult for me to feel whole.	1	2	3	4	5
24. I discuss my problems with myself as if they are someone else’s problems rather than my own.	1	2	3	4	5

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Often**	**Very Often**

25. Through internal discussions I come to certain truths about my life and myself.	1	2	3	4	5
26. The conversations in my mind upset me.	1	2	3	4	5
27. I continue past conversations with other people in my mind.	1	2	3	4	5
28. When I am alone, I catch myself conversing with someone in my thoughts.	1	2	3	4	5
29. I talk to myself.	1	2	3	4	5
30. I have conversations in my mind which confuse me.	1	2	3	4	5
31. I argue with that part of myself that I do not like.	1	2	3	4	5
32. In my thoughts I take the perspective of someone else.	1	2	3	4	5
33. Thanks to dialogues with myself, I can answer the question, “Who am I?”	1	2	3	4	5
34. I would prefer not to carry on internal conversations.	1	2	3	4	5
35. When preparing for a conversation with someone, I practice the conversation in my thoughts.	1	2	3	4	5
36. When I cannot speak with someone in person, I carry on a conversation with him/her in my mind.	1	2	3	4	5
37. I converse with myself.	1	2	3	4	5
38. After failures, I blame myself in my thoughts.	1	2	3	4	5

39. I feel that I am two different people, who argue with each other, each wanting something different. 1 2 3 4 5

40. When I have a difficult choice, I talk the decision over with myself from different points of view. 1 2 3 4 5

APPENDIX C: New Helping Attitudes Scale

Using the scale below, please rate your level of agreement or disagreement for each of the following 12 statements. Please answer with as much honesty as possible.

1 Strongly Disagree 2 Disagree 3 Undecided 4 Agree 5 Strongly Agree

1. Helping others is usually a good use of my time.
2. If the opportunity presents itself, I enjoy doing what I can to help people in need.
3. Helping the people I love is one of the greatest joys in my life.
4. If a friend called and needed me right away, it would feel wonderful to drop everything and help.
5. I believe that doing volunteer work for humanitarian causes is very rewarding.
6. Volunteering my time gives me a warm feeling.
7. I believe that donating time or money to good causes is important.
8. Helping senior citizens is everyone's societal responsibility, even if they're not in our own family.
9. Teaching compassion should be part of the curriculum for preschoolers.
10. Helping people makes me feel at peace with myself.
11. Helping people in need makes me feel proud, but it's not something to brag about.
12. Helping others does *not* make them dependent; it gives them breathing room to help themselves.

APPENDIX D: Prayer Thoughts Scale

Please use the 1-5 scale to indicate the degree to which you think about each of the following words or phrases during your own prayers. If you never pray, please place a check in this box ☐ and then answer the questions according to what you think people who pray think about during prayer (e.g., put yourself into their place and imagine what they are thinking). Assume that each question begins with the stem, "When I pray, I think about..."

1. devoting myself
2. inner stillness
3. engaging in rituals and practices
4. examining myself
5. Silence
6. seeking assistance for others
7. my misery
8. accepting the pain of others
9. being radical
10. grieving
11. agonizing with others
12. being assertive
13. connecting with traditions
14. past, present and future commitments

15. asking for help for other people

16. judging myself

17. seeking to be revolutionary

18. making personal appeals

19. Carrying the distress of people

20. exploring signs and symbols

21. searching on behalf of someone else

22. quietude

23. evaluating my inner life

24. asking for things I need

25. requesting material needs

26. sadness

27. seeking to be bold

28. private experiences

APPENDIX E: Self-Talk Scale

Determine how true each item is for you personally by circling the appropriate number next to each item. Assume that each item begins with the statement: "I talk to myself when . . . " Be sure to rate each item. Please take your time and think carefully about each item. Use the following scale to rate each item:

1	2	3	4	5
Never	**Seldom**	**Sometimes**	**Often**	**Very Often**

I TALK TO MYSELF WHEN…

1. I should have done something differently.
2. Something good has happened to me.
3. I need to figure out what I should do or say.
4. I'm imagining how other people respond to things I've said.
5. I am really happy for myself.
6. I want to analyze something that someone recently said to me.
7. I feel ashamed of something I've done.
8. I'm proud of something I've done.
9. I'm mentally exploring a possible course of action
10. I'm really upset with myself
11. I try to anticipate what someone will say and how I'll respond to him or her
12. I'm giving myself instructions or directions about what I should do or say
13. I want to reinforce myself for doing well
14. Something bad has happened to me
15. I want to remind myself of what I need to do
16. I want to replay something that I've said to another person

APPENDIX F: IRB Approval

Office of Research Compliance
2269 Middle Tennessee Blvd.
Sam H. Ingram Bldg (ING) Room 010A
Box 124
Murfreesboro, TN 37132
www.mtsu.edu/irb

Date: February 5, 2024
PI: John Hagan
Department: Middle Tennessee State University, Psychology
Re: Initial - IRB-FY2024-151
The Relationship Between Intrapersonal Communication and Helping Behavior

The Middle Tennessee State University Institutional Review Board has rendered the decision below for the above referenced study.

Decision: Exempt
Category: Category 2.(i). 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:
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;

Findings:
Research Notes:

Please note that even though your proposed study is deemed exempt from further IRB review, the following apply to your approved study:

1. In accordance with 45 CFR 46.110, expiration dates do not apply to research eligible for Exempt Review under the Common Rule, and continuing review is not required by the IRB.
2. Any unanticipated harm to participants or adverse events must be reported to the Office of Compliance.
3. All modifications to the approved study must be submitted for review through Cayuse IRB for approval before their implementation. Adding new researchers constitutes a modification to the protocol. Per MTSU Policy, a researcher is defined as anyone who handles the data or interacts with participants. Everyone meeting this definition for this

project must have completed the required CITI training and received IRB approval prior to becoming actively involved in the project.

4. Closure of the study must be submitted within Cayuse when the study ends or when personal identifiers are removed from the data and all codes and keys are destroyed.
5. All research materials must be retained by the PI for at least three (3) years after study completion and then destroyed in a manner that maintains confidentiality and anonymity.

Sincerely,

The Middle Tennessee State University Institutional Review Board

APPENDIX G: Informed Consent

Primary Investigators: John Hagan & Dr. Tom Brinthaupt PI
Department & College: Middle Tennessee State University (MTSU) Department of Psychology, College of Behavioral and Health Sciences

Protocol Title: ID: IRB-FY2024-151 Date: 02-05-2024

Information and Disclosure Section
1. Purpose: This study is part of my master's thesis, and it examines the possible relationships between intrapersonal communication domains and how they relate to helping behavior.

2. Description: There are several parts to this project. After reading the informed consent form and giving your consent, you will complete a questionnaire that should take no more than 30 minutes. A debriefing statement is included at the end of the survey.

3. Duration: The survey should take you around 20-30 minutes to complete.

4. Here are your rights as a participant: Your participation in this research is voluntary. You may skip any item that you don't want to answer, and you may stop the experiment at any time (but see the note below) If you leave an item blank by either not clicking or entering a response, you may be warned that you missed one, just in case it was an accident. But you can continue the study without entering a response if you didn’t want to answer any questions. Some items may require a response to accurately present the survey.

5. Risks & Discomforts: There are no risks associated with participating in this study, beyond those ordinarily encountered in daily life.

6. Benefits: Completion of this survey will provide insight into further self-talk studies.

7. Identifiable Information: You will be asked to provide simple demographic information that includes age, gender and level of education. The principal investigators will be the only individuals to have direct access to your data. Research materials will be stored on a password-protected computer in a principal investigator's campus office.

8. Compensation: MTSU students participating via the SONA System will receive 1 SONA

credit as compensation if completed in Sona system. Non-MTSU students not completing survey in SONA system will not be compensated for completion of this study.

9. Confidentiality. All efforts, within reason, will be made to keep your personal information private but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human Research Protections, if you or someone else is in danger or if we are required to do so by law.

10. Contact Information. If you should have any questions about this research study or possibly injury, please feel free to contact John Hagan by email at jeh2ad@mtmail.mtsu.edu or my faculty advisor Dr. Tom Brinthaupt by telephone 615-898-2317 or by tom.brinthaupt@mtsu.edu. You can also contact the MTSU Office of compliance via telephone (615 494 8918) or by email (compliance@mtsu.edu). This contact information will be presented again at the end of the experiment. Informed Consent Middle Tennessee State University (MTSU).

I have read this informed consent document pertaining to the above identified research

- YES
- NO

APPENDIX H: Debreifing Statement

"You have finished the study! Thank you for your participation and help with our research. The goal of the study was to investigate the relationship between intrapersonal communication and helping behavior. Although we asked you whether you'd be willing to volunteer for an additional activity, there actually is no such activity. We simply wanted to see if you were willing to do so and to compare your responses to the Helping Attitudes Scale. If you have any questions at all regarding this study, please contact our research supervisor, Dr. Tom Brinthaupt. You can reach him at tom.brinthaupt@mtsu.edu or 615-898-2317. For additional information about giving consent or your rights as a participant in this study, please contact the Middle Tennessee State University (MTSU) Office of Compliance at 615-494-8918 or via email at irb_information@mtsu.edu. (http://www.mtsu.edu/irb)"