



Understanding College Students' Perceptions Regarding Mindfulness: The Impact on Intellectual Humility, Faith Development, Religious Communication Apprehension, and Religious Communication

Jason S. Wrench¹ · Narissra Maria Punyanunt-Carter² · Adolfo J. Garcia³

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Abstract

The objective of the investigation was to test the impact of mindfulness on intellectual humility, faith development, religious communication apprehension, and religious communication. A new scale was developed to measure religious communication. Results revealed (a) mindfulness predicted faith development, intellectual arrogance, and openness; (b) mindfulness predicted less religious communication apprehension, (c) mindfulness did not predict religious communication. Findings help support the notion that greater mindfulness favorably impacts humble faith development. Mindfulness also seemed to buffer less anxiety but with no significant increase in religious communication.

Keywords Faith development · Intellectual humility · Mindfulness · Religious communication · Religious communication apprehension

✉ Narissra Maria Punyanunt-Carter
n.punyanunt@ttu.edu

Jason S. Wrench
wrenchj@newpaltz.edu

Adolfo J. Garcia
garciaaj@newpaltz.edu

¹ Department of Communication, SUNY New Paltz, Coykendall Science Building 51, New Paltz, NY 12561, USA

² Department of Communication Studies, Texas Tech University, 3003 15th. Street, Lubbock, TX 79409-3083, USA

³ Department of Communication, SUNY New Paltz, Coykendall Science Building 49, New Paltz, NY 12561, USA

Introduction

A recent poll conducted by Gallup (2016) revealed that eight out of ten Americans associate themselves with a religion. Studies have suggested that religion constitutes one of the main frameworks that structures and organizes our interpretation of the social environment and is an important motivator or inhibitor for communication initiation (Wrench et al. 2006; Punyanunt-Carter et al. 2010). Wood (2004) suggested that mindfulness (the ability to concentrate our attention) was important for scholars. Huston et al. (2011) discovered that mindfulness training had meaningful applications for communication scholars. However, little research has focused on how mindfulness and religious beliefs influence human communication (Wrench et al. 2006; Punyanunt-Carter et al. 2010). There is also a feeling that secular mindfulness has diluted religious morality or sound ethical choice-making (Krägeloh 2016). Specifically, Krägeloh argued that mindfulness practice had been eluted from its original ethical features that stem from Buddhism, and people who focus on mindfulness do not typically focus on the virtuous aspects. This study closes the gap by investigating how mindfulness is associated with markers of religious maturity, namely intellectual humility, and faith development. We also sought to investigate how these markers impact communication outcomes, specifically religious communication apprehension and religious communication.

In the USA, there is abundant religious diversity, yet there is limited religious pluralism, or acceptance of opposing religious views (Polinska 2011). Just as prevalent is religious disaffiliation or the phenomenon of withdrawing from religious involvement (Bromley 1991). The problem is that regardless of affiliation, “genuine engagement with the other requires more than a tacit acceptance that difference exists” (Polinska, p. 160). We can say that religious difference is tolerated rather than understood. One explanation is that people may not be mindfully aware of their religious beliefs, and also experience religious communication apprehension. So, engaging in productive communication about religious differences may only be possible when we are mindful about our faith and beliefs, which in turn can influence our abilities to communicate. Scholars have argued that the answer to sound religious engagement lies with mindfulness practice (Koenig 2011; Plante 2010; Wenk-Sormaz 2005). This study investigates mindfulness, intellectual humility, faith development, religious communication apprehension, and religious communication. Thus, we sought to explain how mindfulness can impact communication regarding religion at varying levels of religious maturity. Hence, it is important to begin with research on mindfulness and its impact on other variables.

Literature Review

Mindfulness

Mindfulness is a trait that is beneficial to spiritual growth and improving communication about religion (Koenig 2011; Pargament 1997; Plante 2010). Barnes

et al. (2007) described mindfulness as being in the present moment and being fully aware of your surroundings. Mindfulness disengages “individuals from automatic thoughts, habits, and unhealthy behavior patterns” (Brown and Ryan 2003, p. 823). Mindfulness is a form of contemplative practice that has gained popularity, heralded by scholars like Kabat-Zinn (2011) and Goleman (1988). To de-secularize mindfulness, scholars have gravitated toward language such as mindfulness to separate the religious from secular (Stratton 2015). Yet, it appears that the very secularizing of mindfulness carries with it concerns about losing its moral foundation (Krägeloh 2016). Schultze (2005) called this the “God Problem” because there has been a neglect of the influence of god in the study of human communication for fear of stigma or credibility. There is empirical evidence that religious mindfulness or spirituality has positive outcomes versus secular mindfulness (Wachholtz and Pargament 2005, 2008). Mindfulness has been incorporated widely by many religious traditions.

Although mindfulness is associated with Buddhism and Hinduism, contemplative practice and mindfulness have been integral to many religions including Islam, Hinduism, Judaism, Christianity (Goleman 1988; Plante et al. 2010) that are over 2500 years old (Germer et al. 2005). There are four commonalities among traditions (Oman 2010). They are (a) setting-aside time for regular practice, (b) emphasizing virtues and character strengths, like compassion, wisdom, and humility, (c) training one attention to stabilize the mind throughout the day to allay stressors of work and life, using centering, or repeating mantras or holy names, (d) and receiving spiritual motivation that can “transmit words of revered or instructive spiritual models, such as Jesus, the Buddha, Muhammad...” (p. 9). Hence, contemplative practice, which includes mindfulness, helps “cultivate an inner life characterized by grace, patience, gratitude, and benevolence, which are associated with mental balance, psychological well-being, and resilience to depression” (Greeson et al. 2015, p. 172).

So, mindfulness is religiously ubiquitous, and spiritual and/or religious coping mechanisms seem to help with stressful situations. For example, couples who engage in mindfulness are better able to manage the birth of a new child (Van Tongeren et al. 2017), and relationship counseling works better when mindfulness is involved (Carson et al. 2004; David and Stafford 2015). Secularly, mindfulness has many personal and prosocial paybacks that are relevant to religious communication. Mindfulness increases altruism and compassionate responses to suffering (Condon et al. 2013; Hutcherson et al. 2008; Weng et al. 2013). It lessens mind-wandering, improves mood, and creates greater non-attachment to negative thoughts (Levinson et al. 2014). Mindfulness can reduce habitual responding (Wenk-Sormaz 2005), increases social-connectedness (Hutcherson et al. 2008) and overall seems to impact health and psychological well-being (Bodenlos et al. 2015; Brown and Ryan 2003; MacDonald and Baxter 2016).

In all, mindfulness literature indicates its potential for helping people engage in religious communication. We contend that practicing mindfulness can enhance religious communication, a form of spiritual competence (Hodge 2007; Leigh et al. 2005). Spiritually competent people have also gained religious maturity. Next, we presented variables related to religious maturity.

Religious Maturity

The following concepts, intellectual humility and faith development, are factors toward the attainment of spiritual or religious maturity. Although there can be other indicators of religious maturity, like spiritual competence (Hodge 2007) or spiritual competency (Dailey et al. 2015), these measures were focused on counseling programs. Hence, they were not about an individual's attainment of religious maturity.

Faith Development

Cullen (2011) argued that mindfulness was secular and noted that it allows "access to insight and deep levels of mind without religion [...] without having to believe in something on faith alone" (p. 190). Faith development describes someone who has progressed on a chosen religious path by challenging and critically examining the accepted views of the religion and finding congruity with their own beliefs. This scrutinizing process can be described as "the formation of mature religiousness" (Leak 2008, p. 123). Therefore, faith development is a measure of religious maturity. Leak (2008) described Fowler's (1981, 1991) well-established theory of faith development and concluded that "faith development is characterized by increasing complexity, differentiation, autonomy, humility, and activism in one's faith" (p. 124). Hence, humility is part of faith development.

One study found that family communication patterns influenced children's religiosity and spirituality (Fife et al. 2014). Family patterns predict religious faith and both intrinsic and extrinsic religiosity, which are the motivations for expressing one's religion. An extrinsically motivated person is influenced by how religion can help meet needs, like social connections or dealing with trying times. An intrinsically motivated person is influenced by religion itself, holding all other needs secondary. An extrinsic motivation typically means that faith development has not progressed as much as that of someone with intrinsic religiosity. Intrinsic motivation helps explain how a religiously mature person can acquire mindful intellectual humility.

Intellectual Humility

Intellectual humility is defined as having insight into the limitations of one's knowledge and monitoring arrogance, which is "marked by the ability to present one's ideas in a non-offensive manner and receive contrary ideas without taking offense, even when confronted with alternative viewpoints" (McElroy et al. 2014, p. 20). Recognizing when one is intellectually fallible has been associated with various communication outcomes. For example, intellectual humility positively influences whether someone forgives after a transgression (Hook et al. 2015). Intellectual humility predicted other variables like perspective-taking, empathy, gratitude, altruism, benevolence, and less power-seeking (Krumrei-Mancuso 2017), and was associated with greater openness, curiosity, acceptance of ambiguity, and lower dogmatism (Leary et al. 2017). Leary also found that high intellectual humility was associated with less certainty about one's religion and claims made about

one's religion. Hence people with higher humility judged others less harshly about their religious views. So, humility is in part about intellectual openness, but it also involves monitoring one's communication that could be perceived as intellectually arrogant.

A lack of humility can create challenging communication encounters because sticking fervently to one's religious position can be perceived as argumentativeness or arrogance. Therefore, engaging in religious dialogue, therefore, necessitates greater frankness and mindful attention to one's egotism and faculties for trusting others (McElroy et al. 2014). For example, Hook et al. (2015) found that in the context of religious leaders who transgressed, intellectual humility was associated with forgiveness, whereas arrogance can negate the perceived value of the leader.

Religious leaders may enhance others' perceptions by communicating humbly. Mindful individuals monitor their experiences with a non-judgmental attitude and actively listen and provide support (Jones et al. 2016). Presumably, mindful individuals also have religious maturity, which guides their communication. Next, we present two interrelated aspects of communicating about religion.

Communication About Religion

We conceptualized communication about religion as ease in communicating about one's religious faith unhampered by communication apprehension. When someone experiences apprehension, generally the quality of their communication diminishes, decreasing has communication competence (McCroskey 1982). Therefore, communicating about religion entails first experiencing less apprehension, and then engaging in actual religious communication.

Religious Communication Apprehension and Religious Communication

In 2008, Punyanunt-Carter, Wrench, Corrigan, and McCroskey defined religious communication apprehension as "the anxiety or fear associated with either real or anticipated interaction about religion with people of other religions" (p. 1). Punyanunt-Carter et al. (2008) discovered a significant relationship between religious communication apprehension and religious receiver apprehension. Tolerance for religious disagreement, homonegativity, and ethnocentrism was found to be associated with communication apprehension (Wrench et al. 2006). In a recent study, French Catholics and newly emigrated Muslims were compared (Croucher 2013). The findings showed that Muslims, which have a power disadvantage given the establishment of Catholicism in France, had higher apprehension, lower willingness to communicate, and lower communicative competence. The finding suggests that apprehension limited the exchange of religious conversation.

Religious communication in the present study is defined as actual engagement and sharing of ideas and principles about one's religion. Previous research (Punyanunt-Carter et al. 2010) explored religious communication apprehension and associations with willingness to communicate, tolerance for disagreement, and religious-based communication. Findings support the notion that religious

communication is hampered by apprehension. Another study found that higher religiosity predicted cognitive reappraisals (Vishkin et al. 2016). Garland et al. (2009) found that more mindful people also experienced greater positive reappraisals. So, religious people will likely also communicate with greater mindfulness. Some evidence suggests that mindfulness equates to greater interaction and involvement in communication (Garcia et al. 2017), yet little is known how mindfulness directly impacts religious communication. Research suggests that looking at religious communication at an interpersonal level is important.

Further, apprehension about religious communication is context dependent. For instance, an individual is more likely to communicate their religious perspectives with fellow believers and unlikely to do so with others who disdain their religious beliefs. Hence, the purpose of this study is to understand the connection between mindfulness and religious communication.

Altemeyer and Hunsberger (1992) defined “religious fundamentalism,” as the belief that there is one set of religious teachings that clearly contains the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity; that this essential truth is fundamentally opposed by forces of evil which must be vigorously fought; that this truth must be followed today according to the fundamental, unchangeable practices of the past; and that those who believe and follow these teachings have a special relationship with the deity (p. 118).

Studies on religious fundamentalism have shown positive associations with one’s belief in science, dogmatism, and religious ethnocentrism (Altemeyer and Hunsberger 2004). Further, Wrench et al. (2006) found a negative association with religious fundamentalism and religious disagreement. Understanding how religious fundamentalism and mindfulness influence each other will help in determining how people interpersonally communicate their religious ideals.

Rationale

A great deal of effort has been expended to understand mindfulness, yet there is little empirical evidence about the influence of mindfulness on spiritual maturity and communication (e.g., Wood 2004). We propose that individuals who have a greater awareness of their religious beliefs and values will be able to communicate in ways congruent with their beliefs, and will be more mindfully aware during these interactions. As such, mindfully aware individuals can have less apprehension about religious communication and have more religious communication. Previous research seems to indicate the possibility of these relationships.

Faith development describes a person who has found refuge within religion and has overcome belief challenges. Religious maturity should describe to some degree an observant and non-judgmental mind.

H1: Students who report more mindfulness will score higher on faith development than students who report lower mindfulness.

Gaining intellectual humility appears to explain forgiveness and less arrogance. Therefore, humility is in part knowledge of limitations, which is mindful inner awareness.

H2: Students who report more mindfulness will score lower on intellectual arrogance and higher on intellectual openness than students who report lower mindfulness.

Being more religious impacted religious-based communication and apprehension, yet little is known about the influence of mindfulness on these. So, we proposed the following hypotheses related to communication about religion.

H3: Students who report more mindfulness will score lower on religious communication apprehension than students who report lower mindfulness.

H4: Students who report more mindfulness will score higher on religious communication than students who report lower mindfulness.

Methods

Participants

Participants included 539 college students age of 20.74 years ($SD=2.27$). More than half of the participants were female ($n=364$, 67.5%) and most were White (69.4%, $n=374$), while 6.5% ($n=35$) were Black/African American, 1.9% ($n=10$) were Asian, 17.3% ($n=93$) were Hispanic, .8% ($n=4$) were Native American/Pacific Islander, .7% ($n=3$), and 1.5% ($n=8$) were classified as “Other.” A vast majority reported that they were heterosexual ($n=480$, 89.1%) and 46.2% ($n=249$) said that they were Republican.

Procedures

Before data collection, IRB approval was obtained at both educational institutions. Participation was solicited from undergraduate college students at a large public university in the southwestern USA ($n=396$) and a mid-sized university in the northeast ($n=143$). After providing informed consent, participants in the southwest completed an online questionnaire and were awarded extra credit (less than 2% of a course grade) for their participation. Equivalent options were given to the students by their instructors for those who did not wish to participate in this particular study. Participants in the northeast were offered extra credit and completed the survey in a paper format.

Measures

Five-Facet Mindfulness Questionnaire (FFMQ)

All participants completed the FFMQ (Baer et al. 2004), which assesses five facets of a general tendency to be mindful in daily life. Items are rated on a 5-point Likert-type scale ranging from 1 (*never or very rarely true*) to 5 (*very often or always true*). Looking at the dimensions of the construct of mindfulness can help researchers understand what components of mindfulness are most noteworthy in this context. Observing ($\alpha = .62$) is an ability to notice sensation or thoughts in the body and attend to external and internal stimuli, describing ($\alpha = .88$) is a natural ability to be able to put thoughts into words even when experiencing tough emotions, acting with awareness ($\alpha = .81$) is being able to act with concentration without getting lost in thoughts or feelings, non-judging of inner experience ($\alpha = .87$) is not criticizing ideas or thoughts that arise, and non-reactivity to inner experience ($\alpha = .74$) is an ability to decenter emotions or let go of thoughts or emotions. Research has shown acceptable alphas ranges from .72 to .92 (Jones et al. 2016; Baer et al. 2004).

Faith Development Scale

Faith Development was measured using the Revised Faith Development Scale (FDS) by Harris and Leak (2013). The FDS is comprised of eight item pairs from which one statement is chosen. For instance, “I believe totally the teachings of my church,” and “I find myself disagreeing with my church over numerous aspects of my faith.” Each item pair contains two opposing statements, which has varying levels of faith development. Each participant obtained a “1” if they picked an item reflecting a higher degree of faith development and a “0” if they picked the item corresponding to lower levels of faith development. Possible scores range from 0 to 8. The internal consistency estimate was also acceptable for these eight items (*Kuder–Richardson reliability index* = .75).

Intellectual Humility

Intellectual humility was measured with the self-report version of the 16-item Intellectual Humility Scale (HIS) created by McElroy et al. (2014). There are two dimensions to this variable: Intellectual Openness (IO, “I seek out alternative viewpoints.”) and Intellectual regulation of arrogance (IA, “I often becomes angry when my ideas are not implemented.”). The questionnaire contains items on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores indicated more openness or arrogance, and the arrogance subscale was reverse coded. The Cronbach’s alpha coefficients were .91 for the total score, .92 for intellectual openness, and .93 for intellectual arrogance.

Religious Communication Apprehension

The Religious Communication Apprehension (RCA) scale was originally created by Punyanunt-Carter et al. (2008) to examine the fear or anxiety associated with communicating about religion. RCA is measured using a ten-item bipolar adjective scale with seven steps, which gives the scale a range from 10 to 70. In the current study, scores ranged from 10 to 62. The alpha reliability found for the Religious CA measure in the current study was 0.88 ($M=30.93$, $SD=10.52$).

Religious Communication Scale

The authors of the current study created the Religious Communication Scale (RCS) and conceptualized as a measure of the amount of actual communication or engagement that a person undertakes about religion. This variable is different from RCA because it emphasizes actual communication rather than the apprehension associated with perceived or actual communication. Although the measure is conceptually based on McCroskey's (1992) willingness to communicate but in the context of religious communication, the items generated for the measure are not verbatim. The measure consists of 15 Likert-type items ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores represent regular or common communicative interactions.

The dimensionality of the 15 items was conducted using a maximum likelihood exploratory factor analysis with an oblique rotation. 12 of the items loaded on one of two factors, so three items were dropped from the analysis and the dimensionality of the 12 items was reevaluated. There were only two eigenvalues above 1.0, so a two-factor solution for the model accounted for 62.84% of the variance (Table 1).

Table 1 Exploratory factor analysis for Religious Communication Scale

Item	Factor 1	Factor 2
1. Communicating about religion is a natural part of my day	.856	-.247
2. I often tell people how my religion has impacted my life	.811	-.394
3. When other people bring up topics, I regularly relate the topic back to religion	.764	-.137
4. Religion is a common topic for me to talk about with others	.751	-.404
5. I believe that it is natural to communicate whenever necessary about religion	.623	-.429
6. I regularly bring up issues of religion when engaged in conversation with others	.601	-.028
7. I do not talk to others about my religious beliefs	-.361	.797
8. I cannot imagine openly discussing my religious beliefs with others	-.096	.769
9. I keep my religious beliefs to myself	-.367	.767
10. When others raise religious issues in conversations, I rarely voice my own beliefs	-.236	.703
11. I avoid talking about my religious beliefs with others	-.226	.665
12. Talking about the topic of religion is hard for me	-.121	.631

As a further exploration of the overall model, the initial factor structure aligned 5 items with one factor and the other ten either overlapped both factors or aligned on the second factor. A confirmatory factor analysis using STATA 15.0 was conducted analyzing the two-dimensional structure of the model. Initial confirmations of fit did not yield an adequate fit, so three of the initial fifteen items were dropped from the second factor (Fig. 1). The Chi-square for the model was statistically significant, $\chi^2(53)=112.57, p<0.005$. However, the two-dimensional model yielded an adequate model fit (RMSEA = .046 [CI 0.034–0.057], CFI = .97, TLI = .96). The first factor consisted of items that examine the normalcy of religious communication in one's day-to-day life ($\alpha=872, M=15.09, SD=5.06$). The second factor consisted of items that examine an individual's unwillingness to communicate about religion ($\alpha=866, M=15.39, SD=4.81$).

Results

The purpose of this study was to examine the relationship between mindfulness (observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience) and religion (religious communication, religious communication apprehension, faith development, and intellectual humility). To analyze these relationships, a multivariate regression was utilized using mindfulness as the independent variable and the religion variables as the dependent variable. The overall model was statistically significant, *Wilks* $\Lambda=.02, F(828, 1346.6)=1.43, p<0.005$. With the overall model being statistically significant, the individual multivariate models were analyzed: faith development ($F=5.22, p<0.005, R^2=.07, RMSE=2.04$), intellectual arrogance ($F=10.34, p<0.005, R^2=.13, RMSE=5.01$), intellectual openness ($F=14.28, p<0.005, R^2=.17, RMSE=4.13$), religious

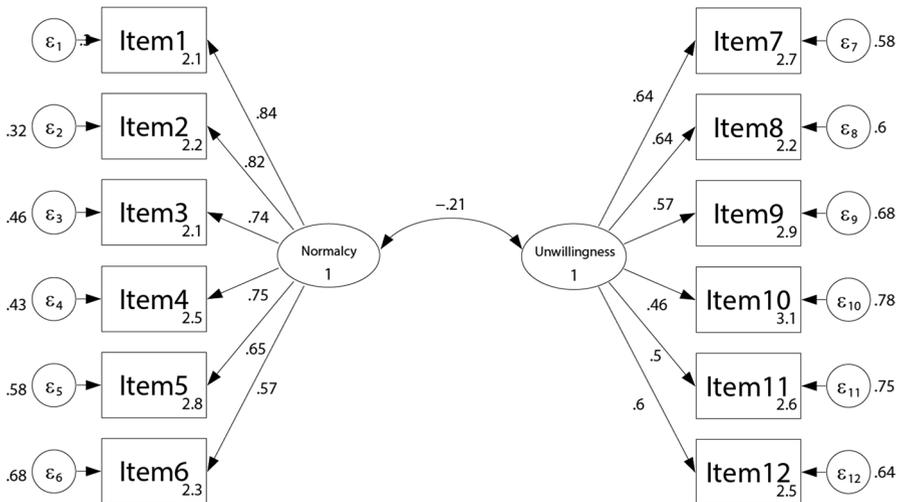


Fig. 1 Confirmatory factor analysis of the Religious Communication Scale with standardized weights

communication apprehension ($F=6.34$, $p<0.005$, $R^2=.08$, $RMSE=10.35$), normalcy of religious communication ($F=0.57$, $p=0.72$, $R^2=.01$, $RMSE=5.02$), and unwillingness to communicate about religion ($F=3.12$, $p<0.005$, $R^2=.04$, $RMSE=4.82$). Variables accounting for unique variance within the model can be seen in Table 2.

Hypothesis 1 offered that greater mindfulness predicted greater faith development. It was partially supported. Mindful observing negatively predicted faith development and mindful non-judging of inner experience positively predicted faith development. It seems that not attending to internal and external stimuli (observing) enhanced faith development in a significant way, yet not evaluating emotions did increase faith.

Hypothesis 2 proposed that greater mindfulness predicted greater intellectual humility. It was mostly supported. Mindful acting with awareness and non-judging negatively predicted intellectual arrogance. Mindful observing and non-reactivity to inner experience positively predicted intellectual openness. It appears that not attending to one's actions in the present moment and being judgmental explains intellectual arrogance, and observing without reacting predicts openness.

Hypothesis 3 proposed that more mindfulness predicted less religious communication apprehension. This hypothesis was partially supported since mindful describing and non-reactivity to inner experience negatively predicted apprehension, but the other three mindfulness facets did not predict apprehension. So, not having the ability to label emotions and describe experiences and being reactive both predict apprehension.

Hypothesis 4 anticipated that greater mindfulness predicted more religious communication. There was no significant relationship between mindfulness and religious communication. Thus, hypothesis 4 was not supported.

Discussion

Studies have shown how mindfulness can affect many different variables. Results in this study found that mindfulness can predict faith development, intellectual arrogance, and openness. The connection between mindfulness and faith development makes sense because faith development furthers a person's religious journey. What drives the connection of faith to mindfulness is the connecting link to practices. Therefore, one would expect a connection of faith to mindfulness, but possibly not with the concept of mindfulness. Mindfulness is a by-product of practices that are faith-driven that generate the result of mindfulness. Plante (2010) noted that mindfulness could help a person concentrate on their faith. Oman (2010) posited that to be mindful, one must incorporate their religious ideas into their practice.

As stated earlier, being intellectually arrogant means that one is upset when one's ideas are not implemented. Mindfulness helps people to implement their ideas by focusing their energy in the moment and regulating intellectual arrogance. Further, mindfulness can help predict intellectual openness, which means that individuals look for other viewpoints. As supported by Levinson et al. (2014), mindfulness

Table 2 Multivariate regression analysis

	Parameter estimate (β)	<i>t</i>	<i>p</i> value	95% confidence interval
<i>Faith development</i>				
Observation	-.06	-2.73	0.007	-0.11 to -0.02
Describing	-.04	-1.50	0.135	-0.08 to 0.01
Acting with awareness	.01	0.22	0.824	-0.04 to 0.05
Non-judging of inner experience	.05	2.61	0.009	0.01 to 0.09
Non-reactivity to inner experience	.02	0.69	0.491	-0.04 to 0.08
<i>Intellectual arrogance</i>				
Observation	-.03	-0.52	0.603	-0.14 to 0.08
Describing	.08	1.45	0.147	-0.03 to 0.20
Acting with awareness	-.24	-4.16	0.000	-0.35 to -.013
Non-judging of inner experience	-.17	-3.29	0.001	-0.27 to -0.07
Non-reactivity to inner experience	-.16	-2.18	0.030	-0.30 to -0.02
<i>Intellectual openness</i>				
Observation	.24	5.15	0.000	0.15 to 0.34
Describing	.11	2.19	0.029	0.01 to 0.20
Acting with awareness	-.01	-0.22	0.827	-0.10 to 0.08
Non-judging of inner experience	.01	0.19	0.853	-0.07 to 0.09
Non-reactivity to inner experience	.16	2.64	0.009	0.04 to 0.27
<i>Religious communication apprehension</i>				
Observation	.05	0.46	0.644	-0.18 to 0.29
Describing	-.25	-2.10	0.036	-0.49 to -0.02
Acting with awareness	-.19	-1.56	0.120	-0.42 to 0.05
Non-judging of inner experience	-.12	-1.19	0.236	-0.33 to 0.08
Non-reactivity to inner experience	-.47	-3.18	0.002	-0.76 to -0.18
<i>Religious communication (normalcy)</i>				
Observation	-.04	-0.69	0.494	-0.15 to 0.07
Describing	-.01	-0.15	0.880	-0.12 to 0.11
Acting with awareness	-.00	-0.07	0.942	-0.12 to 0.11
Non-judging of inner experience	-.03	-0.53	0.599	-0.13 to 0.07
Non-reactivity to inner experience	.11	1.56	0.120	-0.03 to 0.25
<i>Religious communication (unwillingness)</i>				
Observation	.07	1.19	0.236	-0.04 to 0.17
Describing	-.14	-2.54	0.012	-0.25 to -0.03
Acting with awareness	-.02	-0.36	0.719	-0.13 to 0.09
Non-judging of inner experience	-.06	-1.29	0.198	-0.16 to 0.03
Non-reactivity to inner experience	-.04	-0.55	0.583	-0.17 to 0.10

allows individuals to have more non-attachment, which leads to more openness to ideas.

Previous research has suggested a connection between mindfulness and religious communication (Polinska 2011). Further, findings from this study revealed that

mindfulness predicts less religious communication apprehension. Leigh et al. (2005) indicated that mindfulness helps to improve and augment individuals' spiritual competence. In turn, mindfulness can help people develop more confidence to communicate their ideas and opinions about religion. Therefore, people would be less apprehensive about communicating about religion.

Interestingly, results showed that mindfulness does not predict religious communication. Findings from the current study suggest that being mindful and communicating about religion are two distinct categories. The Religious Communication Scale measured the quantity of communication regarding religion. A mindful person does not necessarily have to engage in religious communication because that person is focused on the current moment. Further, mindful persons are aware of their surroundings and may not feel the need to engage in conversations about religion (Wenk-Sormaz 2005), because they may notice that others are not receptive to this information and/or perhaps they are more aware of how others might respond to topics concerning religion.

Limitations

In this study, there were a few limitations that may have affected the results. First, this data was collected using a convenience sample of college students, who were awarded extra credit for their participation. College students might not be cognizant of their level of mindfulness and/or their perception about faith/religion compared to non-college students. Second, the content or topic of this study might have averted some participants' participation in this survey. For some, religion is a very sensitive and delicate topic. Certain participants might have felt uneasy or self-conscious about this study. Third, the researchers used two different methods for collecting data. One way was done in a paper format and the other was done online via Qualtrics.

Future Research

There are still several unanswered questions regarding this topic. For those interested in pursuing this area, there is still more research that needs to be done. First, future research should employ a more varied population sample. It would be interesting to see if older adults respond differently compared with younger adults, since older adults may be more religiously mature. Second, it might be interesting to see if geographic location makes a bigger difference comparing highly religious areas to less religious places. Third, future research should utilize more open-ended questions to understand mindfulness and religious communication better. Finally, other variables beyond mindfulness could affect religious communication apprehension and religious communication. We used a secular measure of mindfulness, which could be influencing results. Exploring the possibility of a religious mindfulness measure is warranted.

Conclusion

The results of this study show support for using religious fundamentalism to further understand the mediating effect of mindfulness on religious maturity (Wrench et al. 2006). Mindfulness is an important aspect to understand regarding religious communication. Previous work on mindfulness has shown that mindfulness training has practical communication applications (e.g., Huston et al. 2011). Specifically, findings from this study showed that mindfulness could predict faith development, intellectual arrogance, and openness. Further, mindfulness predicts less religious communication apprehension, but mindfulness does not predict religious communication. All in all, the current investigation uses a secular approach to mindfulness, but further study is necessary to bring to light how religious communication can be influenced by moral or religious thought.

Compliance with Ethical Standard

Conflict of interest The authors declare that they have no conflict of interest.

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