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### Impact of the COVID-19 on Religious Practices of Muslim Students in Higher Education

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**Impact of the COVID-19 on Religious Practices  
of Muslim Students in Higher Education**

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### **Abstract**

Implications of religious practices in Islam go far beyond religiosity, and this paper analyzed the relationship between the COVID-19 pandemic and religious practices of Muslim students in higher education. The analyzed data is from the survey of the Muslim Student Life at Syracuse University and the Center for Islam in Contemporary World at Shenandoah University. The survey was conducted through a non-random convenience sampling from March 30th through April 10th of 2020 and had 498 responders. For this study, I analyzed 272 who provided their demographic information. The paper hypothesized and confirmed an overall increase in the engagement with the daily prayers due to the COVID-19 among the students that participated in the study. In addition, it found that age was not a significant predictor of how often Muslim students pray. These findings of an overall increase in prayer due to the COVID-19 replicate the previous research that Muslim students' religious practices stay the same or slightly increase during college life and are used as coping mechanisms for stress, anxiety, and unexpected life events. However, a mixed-method study is needed to understand better the broader roles of religious practices in Muslim students' lives, especially those less religious. Such research would deepen scientific knowledge about various roles of religious practices in the field of social sciences.

## **Impact of the COVID-19 on Religious Practices of Muslim Students in Higher Education**

### **Introduction**

This paper analyzes the relationship between the COVID-19 pandemic and religious practices of Muslim students in higher education. My research question focuses on the impact that the COVID-19 had on Muslim college and university students' religious practices in the United States. Prior research in social sciences indicates a positive correlation between college students' spirituality and life, but not necessarily college life and religiosity. In general, Hill (2009) indicated a decline in religiosity throughout the college. However, the study emphasized spiritual growth, which is in line with a few other studies (Mayrl & Oeur, 2009; Astin et al., 2011; Smith & Snell, 2009). This could be the case because of the benefits beyond spirituality itself. According to Astin et al. (2011), "spiritual growth enhances other college outcomes, such as academic performance, psychological well-being, leadership development, and college satisfaction" (p. 10).

Interestingly though, Astin et al. (2011) indicated that Muslim students scored high (38%) in religious commitment, and Islam was the only denomination whose attendance at religious services did not change throughout the college but remained constant and even increased (from 26% to 28%). A few qualitative studies (Philip et al., 2017; Ghorbani et al., 2007) indicated similar findings. They emphasized that religious practices, primarily daily prayers, are used to cope with stress, anxiety, and unexpected life events. Ghorbani et al. (2007) quoted El Azayem and Hedayat-Diba (1994). They discussed how daily prayers in Islam "guard against anxiety and depression" (p. 45) but pointed out a challenge to prove such claims

scientifically. Nonetheless, these and other findings below inspired my research interest concerning the COVID-19's impact on Muslim students' religious practices.

### *Literature Review*

To better understand and analyze my research question's data, I will review some empirical and theoretical works on similar premises, namely religious practices and religious and spiritual coping, connected with unexpected life events and uncertainty. Although there are no detailed studies that address COVID-19 and religiosity, I will give an overview of the literature that will provide the empirical and theoretical support for the data findings that I plan to analyze.

All studies below confirm a positive correlation between college students' religion and life. Arnett (2000) considered emerging adulthood to be a distinctive phase of development, and he built on Erik Erikson's (1950; 1969) prolonged adolescence theory, Daniel Levinson's (1987; 1996) study on the novice phase of development for the age group 17-33, and Kenneth Keniston's (1971) theory of youth. As mentioned above, Hill (2009) indicated a decline in religiosity throughout the college. However, he emphasized spiritual growth, which is in line with a few other studies (Mayrl & Oeur, 2009; Astin et al., 2011; Smith & Snell, 2009). According to Astin et al. (2011), "spiritual growth enhances other college outcomes, such as academic performance, psychological well-being, leadership development, and college satisfaction" (p. 10). Mayrl & Oeur (2009) referred to Bryant, Choi, and Yasuno's (2003) findings that 27% of students frequently attended worship services, and another 30 % of students said that they attended religious or worship services occasionally. Those findings were based on their study that included 3,680 participants from 50 different universities and colleges. Comparably, based on Astin et al.'s (2011) study, 69% of first-year students report that they occasionally pray, but only 28% claim to do so daily (HERI 2004).

Furthermore, Philip et al. (2019) mentioned that participants of their qualitative study have used and relied on coping strategies that are religious and spiritual in nature. Jessica, a Muslim in the study, emphasized praying. She said: "It's helpful, I think because when I pray, I feel more relaxed, and I think better. That's why if I'm so stressed, I just want to spend time to pray more" (p. 34). According to Astin et al. (2011), Muslim students scored high (38%) in religious commitment, and Islam was the only denomination whose attendance at religious services did not change throughout the college but remains constant and even increases (from 26% to 28%). Ghorbani et al. (2007) quoted El Azayem and Hedayat-Diba (1994) that "by following Islamic principles, Muslims can achieve and enjoy the four ingredients of a healthy and balanced life, namely, physical, social, mental, and spiritual health" (p. 49), and that daily prayers in Islam "guard against anxiety and depression" (p.45). Gorbani et al. (2007) pointed out a challenge to scientifically prove such claims. They proposed "a dialogical model of development" where broad "Western perspectives on religious motivation" can relate to certain religious practices of Islam (pp. 114-115). Their theoretical grounds are mostly based on the Iranian philosopher Abdolkarim Soroush (2003).

On the empirical side, Ghorbani et al. (2007) discussed several Muslim-specific measures, including The Muslim Attitude Toward Religion Scale (MARS), a 14-item instrument that records fundamental Muslim beliefs. It was used in Iran and Pakistan and indicated a positive correlation with both the Intrinsic and the Extrinsic Scales of MARS. Besides, in Pakistan, the scales were created to measure and capture the coping strategies Muslims try to employ when dealing with personal issues. It included some frequently used religious practices like prayers, supplications, and charity. Although a small, correlation between those scales and the frequently used religious practices for coping among Muslims was significant. In short, what

was proposed showed a possibility of the Allport and Ross (1967) "religious orientation types to be valid in Muslim samples" (Ghorbani et al., 2007, p. 126).

Similarly, Haque & Kashevarzi (2014) discussed the theoretical framework of mental health and psychology and proposed using sensitive religious models and traditional Muslim healing practices introduced by Al-Ghazali (1058-1111), Avicenna (980-1037), Abu Ali al-Miskawayh (940-1030 CE), Al-Kindi (d. 866), Abu Zaid al-Balkhi (850-934 CE), and Al-Razi (864-932 CE). The review of Haque, Khan, Keshavarzi & Rothman (2016) showed that integrating Islamic traditions into Western psychological models steadily emerges and argued that since it is a necessary novel practice, it will continue to trend as a subject scientific inquiry and empirical research. Their claim is based on the analysis of the assessment scales and measurements used with Muslim participants. Those included Abdel-Khalek's (2007) single-item measure to assess self-reported religiosity; the Religiosity of Islam Scale developed by Jana-Masri and Priester (2007); Alghorani (2008) measure of Islamic religiosity; Amer, Hovey, Fox, and Rezcallah's (2008) Brief Arab Religious Coping Scale (BARCS); Abu-Raiya, Pargament, Mahoney, and Stein's (2008) Psychological Measure of Islamic Religiousness (PMIR); Ghorbani, Watson, and Shahmohamadi's (2008) scale measuring religious commitments; AlMarri, Oei, and Al-Adawi's (2009) Short Muslim Belief and Practice Scale; Ghorbani, Watson, Geranmayepour, and Chen's (2014) Muslim Experiential Religiousness Scale.

Besides, Nguyen et al. (2013) study of mosque-based support indicated that those who receive such support are more likely to be happier and demonstrate well-being. Nguyen et al. (2013) reported a high level of congregational involvement among the study participants, nearly 65%, which in itself indicates how meaningful such engagement is for Muslims. Since it is an integral part of their well-being, they keep recreating congregational opportunities or simulate

them in various forms if physical gatherings are not possible, as is the time of the COVID-19 pandemic. According to Imber-Black (2020), when rituals lack, humans become more creative and develop new ones. He discusses changes with the celebration of Ramadan that significantly affected Muslim students. It entailed the cancelation of events, inability to go to the mosque for daily and weekly services, change in the strong tradition of breaking fast together (*iftar*), and traditional nightly prayers (*taraweeh*) during Ramadan when the community gets together. All these changes brought a lot of adjustment, creativity, anxiety, and stress. It was the first time for many Muslims to have such Ramadan or stay home for mandatory *Jumuah*/Friday prayer. Finally, the cancelation of Umrah and Hajj (small and big pilgrimage to Mecca) left scarves on the hearts and souls of so many Muslims who planned those trips for years.

Furthermore, several studies (Smith, 2003, Smith, 2005, Warner & Williams, 2010, Young-II and Wilcox, 2014) show that parents and family models of religious life and practices play an important, perhaps the most significant role in transmitting religious values, norms, and observance to the next generations. Smith (2005) found that teenagers, adolescents, emerging adults, college students do care about religion and respect it, and sometimes they inherit it without being aware of how it happened (Wuthnow, 2007). However, it cannot be taken for granted, especially in the United States (Warner & Williams, 2010). All mentioned is relevant and will inform my analysis as the COVID-19 returned most college students to their homes and cut institutional support and connections. They once again became dependent on family modeling or their religiosity, especially if we have in mind that according to Small and Bowman's (2011) study, students place their religious practices on pause, and come back to it after they depart from college (Clydesdale, 2007).



In sum, it is apparent from this overview of how important and meaningful religiosity among college students is, especially Muslim college students. However, my research interest goes beyond religiosity itself and explores the utilization of those practices as coping mechanisms during unexpected life events. Thus, I will reemphasize a few things based on the above literature review. Muslims' perception is that religious practices, like prayer, are already coping strategies in themselves and have a positive relationship with psychological and emotional well-being, life satisfaction, and happiness, and they ultimately result in spiritual growth. Nguyen et al.'s (2013) study indicates similar findings. Those who receive mosque-based support and congregate are more likely to be happier and demonstrate well-being. As Imber-Black (2020) pointed out above, the lack of such support and activities in connection to the COVID-19 will ultimately bring a lot of adjustment, creativity, anxiety, and stress. However, since the religious practices are believed to be the coping tools as well, they are expected to increase as a natural response to uncertainty and changes beyond their control and expectation. As Philip et al.'s (2019) study participant indicated "that's why if I'm so stressed, I just want to spend time to pray more" (p. 34), or Ghorbani et al. (2007) quoted El Azayem and Hedayat-Diba (1994) that "by following Islamic principles, Muslims can achieve and enjoy the four ingredients of a healthy and balanced life, namely, physical, social, mental, and spiritual health" (p. 49), and that daily prayers in Islam "guard against anxiety and depression" (p.45). Finally, multiple other qualitative studies (Khan, 2006; Meudini, 2006; Peek, 2005; Peek, 2003; Ribeiro & Saleem, 2010; Zine, 2001) indicate that Muslim students utilize their religious practices and faith when dealing with the challenges. Keeping in mind the above studies, I analyze the COVID-19 impact on Muslim students' religiosity.

### *Hypotheses*

Based on the literature review, religiosity and coping through religious practices play an important role in college and university students' lives, especially Muslim students. Accordingly, I am making the following predictions:

This paper's first null hypothesis is that any relationship between the COVID-19 pandemic and Muslim students' religious practices in higher education is random and due to chance. The first alternative hypothesis is that COVID-19 pandemic positively impacts Muslim students' religious practices.

The second null hypothesis is that any relationship between age and prayer engagement of Muslim students in higher education is random and due to chance. The second alternative hypothesis is that an increase in age positively impacts Muslim students' prayer.

### **Data and Methods**

#### *Data and Sample*

The data used for this analysis was collected through a survey developed by Muslim Student Life at Syracuse University (MSL) in partnership with the Center for Islam in the Contemporary World at Shenandoah University (CICW). This study's purpose was to understand better the impacts the COVID-19 pandemic had on Muslim students in higher education in the United States, including 42 out of the 50 U.S. states and the District of Columbia excluding the U.S territories. The study was conducted between March 30 and April 10 of 2020, through non-random convenience sampling, as it was distributed online at the peak of the COVID-10 pandemic. The unit of analysis for the study was individuals/people. The sampling frame included members of Muslim Students' Associations and Muslim chaplaincies across the country. Although the study reported 498 respondents, this paper focused on 272 respondents

who provided answers to the questions in the survey's demographic section. The small sample size and the focus on the students engaged with the organized Muslim organizations on campuses are limitations of this study.

### *Measures*

The primary dependent variable for this paper is prayer. Prayer is an ordinal variable that measured the frequency of respondents' engagement with the mandatory daily prayers in Islam. The engagement with the daily prayers is an essential indicator of religious practices and religiosity in Islam. The survey question asked how the engagement with the prayers was experienced in the context of the COVID-19 pandemic. It was coded [1] Significantly decreased, [2] Somewhat decreased, [3] Same, [4] Somewhat increased, and [5] Significantly increased.

Other covariates in the study are age, biological sex, and race-ethnicity. Age is an ordinal variable that measured age in age groups. It was coded [1] for ages under 18, [2] for ages 18-24, [3] for ages 25-34, [4] for ages 35-44, [5] for ages 45- 54, and [6] for 55-64. Sex is a dichotomous nominal variable that measures self-reported biological sex. Although the survey question could be confusing as it mentioned sex, gender, and gender identity as three different concepts, I measured only biological sex as a dichotomous nominal variable since response categories for biological sex were provided. It was coded [1] for female and [0] for male. Race-ethnicity is a multi-categorical nominal variable that measured self-reported race and ethnicity. It was coded [1] Hispanic, and Other, [2] Non-Hispanic Black, [3] Non-Hispanic White, [4] Asian, and [99] Missing and prefer not to answer.

### *Analytic plan*

As an overview of further analysis, I will start with a univariate analysis of the primary dependent variable, prayer, and the primary independent variable, age. This analysis presents the information on overall prayer engagement and what age groups participated in the survey. Besides, the analysis of each primary variable of interest one at a time indicates percentage distributions. It summarizes some other measures of these two ordinal variables that will be important for further testing, comparison, and interpretations. Hence, the univariate analysis provides a better understanding of who is included in the survey and is also essential and even more helpful when it comes to the generalization of findings.

Further, I utilized a Pearson correlation for the bivariate analysis because both the independent and dependent variables were continuous. Lastly, the OLS regression was utilized for multivariate analysis because the study's dependent variable was continuous. All analyses were conducted by using Stata/IC 16.1 Software.

## **Results**

### *Univariate*

All univariate results are reported in Table 1. The mean for the dependent variable, prayer, was 3.53 (SD=.84), and median of 3 (N=272). The two categories with the highest prevalence were same (52.57%) and somewhat increased (27.94%). The mean of the primary independent variable, age categories, was 2.44 (SD=.82), and median of 2 (N=272). The second category, ages 18-24, has the highest prevalence (70.96%), followed by the third category, age group 25-34 (18.38%).

### ***Bivariate***

The relationship between age and the prayer engagement was graphed utilizing a scatterplot and is provided in Figure 1. I utilized a Pearson correlation because both the independent and dependent variables were continuous. The independent variable ranged from 1 for ages under 18 to 6 for ages 55-64, while the dependent variable of prayer engagement ranged from 1 as significantly decreased to 5 significantly increased. The Pearson correlation value indicated a negligible, negative relationship,  $r = -.07$ ;  $N = 272$ ;  $p\text{-value} .27$ . This test indicated that age is not a significant predictor of how often people pray.

### ***Multivariate***

OLS regression was utilized for multivariate analysis because the study's dependent variable was continuous (Table 2). Model 1 controlled only for age. In Model 2, the covariates of biological sex and race-ethnicity were added. Analysis of the R-square value revealed that Model 2 explained more of the variance in the dependent variable, prayer engagement. Model 1 shows that, based on the dataset, as age increases, engagement with the prayer decreases ( $b = -.07$ ), but this relationship was not statistically significant. When controlling for other covariates in the study in Model 2, this relationship was replicated ( $b = -.07$ ), and again was not statistically significant. The only statistically significant predictor of prayer engagement in Model 2 was biological sex, with females engaging with the prayers more than males.

### **Discussion**

The univariate results confirm the first alternative hypothesis that the COVID-19 pandemic has a positive impact on Muslim students' religious practices in higher education as the mean was above the mid-point of 3, indicating an overall increase in prayer due to the COVID-19. In other words,

43.38% of students stated that their prayer level increased due to COVID-19. However, it is crucial to recognize that the majority of students, 52.57% stated that their level of prayer stayed the same, while only 4.04% stated their level of prayer decreased. According to univariate results, I rejected the first null hypothesis that any relationship between the COVID-19 pandemic and Muslim students' religious practices in higher education is random and due to chance. I thus confirmed the first alternative hypothesis that the COVID-19 pandemic has a positive impact on Muslim students' religious practices in higher education.

Furthermore, I tested my second null and alternative hypotheses in bivariate and multivariate analysis. The relationship between prayer and age was not statistically significant in bivariate nor multivariate analysis, which indicates that age is not a significant predictor of how often Muslim students pray. Per both bivariate and multivariate analyses, I failed to reject the second null hypothesis that any relationship between age and prayer engagement of Muslim students in higher education is random and due to chance. Thus, I also failed to confirm the second alternative hypothesis that an increase in age positively impacts Muslim students' prayer engagement in higher education. Therefore, both bivariate and multivariate results indicated that age was not a significant predictor of how often Muslim students pray.

### ***Interpretation of results***

Having in mind that 52.57% of Muslim students stated their level of prayer remained the same, and 43.38% that it increased due to the COVID-19, it indicates that the study mostly included Muslim students who are more religious and already engaged in the organized Muslim organizations and communities on the campuses. Those are students who already pray regularly or who indicated their engagement with the daily prayers since they received the survey link through their Muslim Chaplain, an Imam, or an MSA representative through an MSA listserv. On the other side, 4.04% of survey respondents stated that their level of prayer decreased, which

indicates that the survey reached a certain number of Muslim students who are not that religious or engaged with the daily prayers. These findings confirm the previous research and findings on Muslim students' spirituality and religious engagement on college campuses. Astin et al. (2011) indicated that Muslim students scored high (38%) in religious commitment, and Islam was the only denomination whose attendance at religious services did not change throughout the college but remained constant and even increased (from 26% to 28%). Although my analysis is based on a tiny sample of 272 students and most likely excluded Muslim students who are not involved in and engaged with MSAs and Muslim Chaplaincies, the findings are still very informative as they replicate the previous findings (Astin et al., 2011). Thus, although this paper's findings cannot serve as a national representative, they can be generalized to Muslim students who took the survey and those involved with campus Muslim communities. Those are Muslim students who usually tend to be more religious in their private lives as well.

This religious engagement of Muslim students can be analyzed and understood through various layers of the role that religiosity plays in their spiritual lives and their social life. On one side, daily prayers are a pillar of Islam, and in traditional interpretations, one cannot claim to be Muslim without those prayers. Further, it is the first thing that every believer will be asked about on the Day of Judgement. Besides, they represent a connection with God Almighty multiple times a day and submitting to His will and order. However, they also make room for self-care, as those times are times of rest, focus, meditation, contemplation, detachment from the worldly life, and an elevation of one's spirit in the realm of eternity, reminding and connecting him to the Hereafter, beyond time limit and worries of this temporary life. This spiritual journey reassures believers that they are not alone regardless of what they go through and gives them space to

complain to God as He listens and helps. Such an ongoing relationship brings relaxation, inner peace, life satisfaction, company and security, psychological and emotional well-being, which even increase in challenging times like the COVID-19 pandemic. In their study, Philip et al. (2019) mentioned praying as the specific characteristic of religious and spiritual coping. One of the Muslim participants in the study emphasized, "it's helpful, I think because when I pray, I feel more relaxed, and I think better. That's why if I'm so stressed, I just want to spend time to pray more" (p. 34). Also, Ghorbani et al. (2007) quoted El Azayem and Hedayat-Diba (1994) that "by following Islamic principles, Muslims can achieve and enjoy the four ingredients of a healthy and balanced life, namely, physical, social, mental, and spiritual health" (p. 49), and that daily prayers in Islam "guard against anxiety and depression" (p.45).

Daily prayers also have a significant role in a Muslim identity, as it is one of the key things that defines such identity. Being minority on college campuses, many Muslim students find solace and a sense of belonging and reclaim their identity through the daily prayers, which can be one way to read Astin et al.'s (2011) findings. On the other hand, all Muslims stick to the determined prayer times, face the same direction while praying (Kaaba in Mecca), and they are encouraged to pray in the congregation if they can. Among other things, all of these show the significance of social connectedness, which goes beyond spiritual connection. This significance becomes even more apparent in times like war, coups, revolutions, or any other social crisis when people unite around shared values and practices.

The COVID-19 paused most of the things, including organized religious gatherings, services, and worship (Imber-Black, 2020, Duric et al., 2020). Still, engaging with the daily prayers at home provided a sense of that social connectedness while feeling the vacuum of social distancing and reminding that 1.5 billion Muslims worldwide do the same thing as they do. Also,



the data was collected before the month of Ramadan. This is a time when Muslims start preparing and engage even more with religious practices. At the time of the survey, everyone was aware that Ramadan of 2020 will be a different and unique experience and that traditional communal Ramadan will not be there. This was a reason more for many to exercise their engagement with the prayers as the means of social connectedness, coping with stress, and unexpected changes. In summary, the increase in daily prayers due to the COVID-19 pandemic among Muslim college and university students can be understood through all these lenses. However, in short, such engagement was one of their coping strategies amid uncertainty caused by the pandemic. Also, it provided a sense of belonging and connection to the global Muslim community regardless of physical and social distance.

On the other hand, Qur'an frequently mentions prayer along with *zakah* or alms-giving, or even charity in general. In other words, prayers are supposed to motivate their performers to take care of those around them and do their part in making a better society. In the time of COVID-19, this had at least two implications. One was raising awareness of how important it is to take all measures to protect lives and thus pray at home instead of going to a mosque. Another implication was extending a hand of support to local and national organizations who worked diligently on social justice and equity and supporting those in need in the time of the pandemic. One such example can be found in chapter 107 of the Qur'an, where the prayer without attention to both internal and external meanings is criticized. For instance, Syracuse Muslim Students' Association collaborated in a campaign with other Northeast MSAs in April to raise money for businesses affected by the pandemic and Islamic Relief USA's Charity Week 2020 in October. In my interactions with the students, they shared that they found inspiration in their religion and that each prayer inspires them to do more good deeds and helps them internalize deeper

meanings of the prayers. They also mentioned that Islam teaches them how they are not true believers if they fall asleep with a full stomach while knowing that their neighbor is hungry and that the COVID-19 left many neighbors hungry. Besides, Syracuse MSA students believed that if they pray for others or help them with something during the COVID-19 that they are helping themselves as God Almighty promises an equal or even better reward in return. In this case, it literally could mean even protection and safety. Nonetheless, this awareness seemed to be more present among Muslim students at the peak of the first wave of the COVID-19 pandemic.

### ***Limitations***

One of the study's limitations is based on the assumption that the study excluded Muslim students who may be less religious and those who are not involved in MSAs and Muslim chaplaincies, but also Muslim students from the universities that do not have an organized MSA or a Muslim chaplaincy office. Besides, this paper is based on the sample size of 272 individuals, a tiny sample size. Although 498 individuals took the survey, only 272 provided all demographic information. It is also essential to recognize that 52.57% of Muslim students reported their prayer level stayed the same, while 4.04% stated their prayer level decreased. This is another indicator of the same limitation. It confirms that the survey mostly included college and university Muslim students who were already engaged with the daily prayers before the pandemic.

The survey question asked about the prayer experience due to the COVID-19 pandemic and should apply to all Muslim students who received the survey link, including Sunni and Shia Muslim students. Although this question applied to all students, I recognize it as one limitation of the survey since the form and number of daily prayers or, better to say, prayer times differ among Sunni and Shia Muslims. This general question about the daily prayers could create confusion or an assumption for Shia students that they are not included. A more precise question

could generate more responses and, more importantly, get more insights about the daily prayers. Similarly, the survey did not have any questions about Sunni or Shia or self-identifying as Sunni or Shia. This approach is rather a limitation than the advantage of the survey. The fact that many takers dropped off the survey after questions about their religious practices and did not answer any demographic questions may speak to this limitation.

Further, the data was collected through a non-random convenience sampling. Most survey responders received it from their Muslim representatives in one or another way while at home. Both leave some room for a potential bias. Although the survey was anonymous, students could perceive it differently when it comes from the religious offices and might want to look good "in front of" their representatives. On the other hand, being at home at the time of the survey could misrepresent their engagement with the daily prayers when they are on campus due to a different lifestyle, peer pressure, absence of family presence, and overall perception of how prayers resonate with them. Several studies (Smith, 2003; Smith, 2005; Warner & Williams, 2010; Young-II and Wilcox, 2014) show that parents and family models of religious life and practices play an important, perhaps the most significant role in transmitting religious values, norms, and observance to the next generations. This is relevant in connection to my analysis as the COVID-19 returned most college students to their homes and cut institutional support and connections. They once again became dependent on family modeling or their religiosity, especially if we have in mind that according to Small and Bowman's (2011) study, students pause with their religious practices while on college, and come back to it once they depart from college (Clydesdale, 2007).

Finally, I limited my analysis for this paper on the one dependent variable due to the class assignments' time constraints and nature. The prayer is the primary indicator of one's religiosity

and the leading representative of religious practices in Islam, but it is not the only one. The data had potential, and if I had additional time, I would develop or use one of the existing scales to measure Muslim students' religiosity. This scale would include other variables as *dhikr* or remembrance of God, fasting, engagement with the Holy scripture, voluntary prayers, charity, engagement with other religious literature, supplication or *dua*, and volunteering in the community, and many others. It would also be interesting to analyze various engagements with religious practices across different states and compare them with the number of COVID-19 cases at the time of the survey.

### **Conclusion**

As presented, the mean of the prayer was above the mid-point of 3, indicating an overall increase in prayer. In other words, 43.38% of students stated that their prayer level increased due to COVID-19. Those findings replicate the previous research that the religious practices of Muslim students included in this study stayed the same or slightly increase during college life (Astin et al., 2011). Besides, previous research shows that religious practices, primary prayers, are used more and as coping mechanisms when dealing with stress, anxiety, and unexpected life events (Ghorbani, Watson & Khan 2007), as is the COVID-19 in this study.

In terms of the next steps, it would be essential to do a qualitative study with students who report that their prayer engagement level remained the same or increased. This would provide a better understanding of what the prayer engagement means to them, especially in times of crisis, and see if there is a prayer engagement pattern among Muslim students. Besides, it is almost essential to do a qualitative study with the less religious Muslim students and those who are not engaged with any form of organized Muslim life on campuses, nor are they engaged with the daily prayers. It might be very informative and insightful to see how they feel about prayers and

the main reasons for them not being engaged with the prayers. Another quantitative study can be developed and distributed through a random sampling across the country based on those interviews.

Finally, due to the nature of religious practices, neither qualitative nor quantitative study alone can do justice to them. Mixed-method seems to be a better approach and should give a more extensive overview of what is important and what needs to be included in a survey. Such data would provide a more comprehensive platform for analysis and better represent the diversity within college and university Muslim students, not just those who are engaged with Muslim student life offices or MSAs.

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*Appendices: Tables and Figures***Table 1: Descriptives of all study variables**

Variable	Mean or %	SD	Median	Range	N
Prayer	3.53	.84	3	1-5	272
Age categories	2.44	.82	2	1-6	272
Biological sex (female)	54.41%			0-1	272
Race-ethnicity					272
Asian	34.56%				
Non-Hispanic White	31.99%				
Non-Hispanic Black	9.19%				
Hispanic & Other	20.22%				
Missing & Prefer not to answer	4.04%				

**Table 2: OLS regression analysis between DV (prayer) and all study variables**

Variable	Model 1				Model 2			
	b	SE	B	95% CI	B	SE	B	95% CI
Age	-.07	.06	-.06	(-.19, .05)	-.07	.06	-.07	(-.19, .05)
Female					.32**	.10	.19	(.12, .52)
Race-ethnicity								
Asian (ref)					-	-	-	-
Non-Hispanic White					-.09	.12	-.05	(-.33, .15)
Hispanic & Other					-.26	.14	-.12	(-.54, .01)
Non-Hispanic Black					.23	.18	.08	(-.14, .59)
Missing & Prefer not to answer					.04	.26	.00	(-.48, .55)
Intercept	3.70***	.16		(3.38, 4.01)	3.59***	.19		(3.21, 3.96)
R <sup>2</sup>	.0045				.0686			

Note: \* p<.05; \*\* p<.01; \*\*\* p<.001

Figure 1: The relationship between age and prayer

