Relationship between Religious Identity and Cyberbullying: The Case Study of Ferdowsi University of Mashhad, Iran

Seid Mahdi Seidzadeh Sani[1] & Zahra Farhadi Alashti[2]
Ferdowsi University of Mashhad, Iran

Abstract

This study examines the relationship between cyberbullying and religious identity among the students of Ferdowsi University of Mashhad, employing the descriptive methodology of correlation type. The statistical population consists of 580 students at bachelor's and master's levels, as well as those studying Ph.D. The data is collected by Stratified Random Sampling. Stark and Glock's religiosity scale and a researcher-made questionnaire about cyberbullying were prepared. The face and content validity of the questioners was confirmed by the experts of this field; moreover, their reliability with Cronbach's alpha coefficient (83 %) was estimated to be at a good level. Data analysis is performed using SPSS 24, and descriptive statistics were used for determining frequency, percentage, average, and standard deviation. Also, due to the asymmetrical data distribution, Spearman's correlation coefficient was used. According to the results of Spearman's correlation, there is a weak negative correlation between students' religiosity and cyberbullying crime (rs = –0.2), and this value is significant at the statistical level 0.01. Therefore, with an increase in the religiosity variable, sexual and non-sexual cyberbullying decreases very slightly.

Keywords: Religious Identity, Cyberbullying, Correlation, Criminology, Field Study.

Introduction

For centuries, the impact of religion as an intellectual and social asset for coping with the desire to hurt the others have been taken for granted. By the entrance of cyberspace to human life, the new form of life – called digital life – has challenged the previous assumptions about the association between faith and criminal engagement. Parallel to the amazing platform provided by the internet for all users, notably the digital generation, the

---

[1]Assistant Professor, Department of Criminal Law and Criminology, Faculty of Law and Political Sciences, Ferdowsi University of Mashhad, Mashhad, Iran. Email: seidzadeh@um.ac.ir (Corresponding Author)
[2] Ph.D. Student, Department of Criminal Law and Criminology, Faculty of Law and Political Sciences, Ferdowsi University of Mashhad, Mashhad, Iran. Email: z.farhadialashti@mail.um.ac.ir

rate of crimes – not least online harassment, stalking, or cyberbullying – has increased sharply. According to the National Center for Education Statistics (2018), "Nearly 1 in 5 students (21%) report being bullied during the school year, impacting over 5 million youth annually" (Musu, Zhang, Wang, Zhang, & Oudekerk, 2019). Moreover, according to Patchin's fieldwork (2019), about 37% of youth between the ages of 12 and 17 have experienced cyberbullying victimization, and 30% have been victimized more than once.

Iran, as a Muslim country with the majority of Shiite Muslims in the world, has faced a 900% increase in cybercrimes during the last seven years (Jam-e Jam, 2018). As statistics showed in 2018, cyberbullying has increased to 60% compared to 2016 (Fars News, 2018). The high rate of cyberbullying and lack of official statistics about the profile of cyberbullying offenders has raised the question of whether or not religious people hurting others in cyberspace. A goodly number of quantitative criminological studies has explored the association between religious and spiritual beliefs on criminality (Johnson, Larson, Li, & Jang, 2000; Baier, C. J., & Wright, 2001; Benda and Corwyn, 2001; Weaver, Flannelly& Strock, 2004; Yeung, Chan, and Lee, 2009; Kelly, Polanin, Jang, & Johnson, 2015). Also, in recent years, some researches have focused on schools to evaluate the relationship between the students' spiritual beliefs and bullying participation (including cyber and non-cyber) (Triantoro, 2015; Willis, 2015; Mercado-Crespo, 2013). Some researchers have found a positive correlation between the deterrent function of religion and criminal engagement (Laird, Marks, & Marrero, 2011; Chadwick and Top,1993; Willis, 2015; Nazoktabar, Zahedi & Nayebi, 2006). Also, other studies have questioned the inverse relationship between religiosity and delinquency (Hirschi and Stark,1969; Baier and Wright, 2001).

The controversial results about the controlling effect of religion on criminality encourage some researchers to change their lenses. For them, the reasons for the existence or non-existence of a significant relationship between religiosity and crime may be sought in the moral structure of the population under study because the findings will differ according to the religious or non-religious premise on which they are grounded. For instance, Albrecht, Chadwick, and Alcorn (1977) believed that Hirschi's study was conducted in a region (i.e., west of USA) where the religious affiliations are less than other areas (i.e., south of USA). The lack of an inverse relationship between delinquency and religiosity is not, therefore, unexpected. In this regard, some researchers (Stark, 1996; Stark, Kent, and Doyle 1982) believe to investigate any correlation between religious affiliations and delinquency; one should first pay attention to the population of the study. Dividing the communities into *moral* and *secular* communities, they assume that in the former many people are a member of the church and assume church attendance as a rule in their lives. In the latter, however, people have no remarkable participation in the church. In their opinion, such classification is a prerequisite for interpreting the relation between religiosity and criminality. In religious communities, therefore, there is a strong inverse correlation between religiosity and delinquency. In contrast, in secular societies, religion has no considerable deterrent effect on delinquency rate, or it is even pointless.

What distinguishes the current study from the same studies is, first, the fact that few studies have been dedicated to investigating the association between religious beliefs and cybercrimes. Since cyberspace provides the possibility of anonymous activities for the users, their identity and religious adherences are not visible – which causes the offender to commit an offense without fearing to lose his/her religious status. Secondly, the majority of these studies have investigated the role of religions and prevalent beliefs in Western

countries, ignoring, more often than not, the role of Eastern religions in controlling criminal phenomena. Thirdly, most literature is related to bullying at the pre-university levels, while few studies have been done about the prevalence of bullying in higher education. However, as Webber and Ovedovitz (2018) argued, there is no justification for thinking that "bullying ends in high school and picks up again in the workplace after students are awarded college degrees" (p. 96). Finally, conducting these kinds of projects about Iran seems to be more critical because there have always been many conflicts about developing access to cyberspace and benefitting from the right of free flow of information. The state's grip over cyberspace and reduction by the state of internet bandwidth may, therefore, be justified by the purported decrease in crime rate induced by such actions. Accordingly, in the present study we attempt to answer this question: Is religion still able to preserve its preventive and controlling function in cyberspace? In the case of a positive answer, which dimensions of religiosity result in improving self-control and preventing the crimes on individual level? We have studied a religious community to answer these questions.

1. Theoretical Background

There has been a paucity of writings about the role of religion in preventing delinquency (Bernard, Snipes & Gerould. 2010; Cullen, 2010). Religion can promote crime prevention by strengthening self-control. By relying on civil partnership and not harassing others, religion – as a social construction in religious societies – plays a controlling role, for it prevents its followers from harming others. Therefore, in communities where religion has an essential role in the establishment of the criminal justice system, the reinforcement of religious identity and internalization of the belief system are strongly emphasized. In religious societies like Iran, the authorities utilize it as a tool for managing the criminal phenomena by focusing on the dynamic role religion plays in decreasing the crime rate.

Despite there being studies about the effect of religiosity on criminal involvement in the works of Lombroso (1911) and Bainbridge (1989), the fundamental discussions on the impact of religion as a controlling force shall be found in the works of sociologists such as Durkheim (1995) and Geertz (1966). Relying on the unifying effect of religion, they see it as a *system* with coherent characteristics, which fulfills a social function. They believe that religion, as an effective force in the establishment of the criminal justice system, can create a feeling of solidarity and belonging, resulting in a society with shared understanding.

Contrary to Durkheim, Marx (2001; 2008) has an instrumentalist outlook on religion. He considers religion as a tool for preserving the existing social order, oppressing the masses, and a tool for protecting social classifications. Despite fundamental differences in Durkheim's and Marx's attitudes, Kerley (2018) believed in both of these thinkers: religion has a social function and is a mechanism for social control (p. 195). Laying stress on reward and penalty in the "hereafter", religions instill a kind of obedience in their followers and reinforce religious feelings. In other words, as Peoples and Bailey (2012) argued, religion encourages people to be accountable against other society members through its teachings and doctrines, and as a kind of social control mechanism, it helps social order (p.321).

2. Methodology

2.1. Participants and sample

The statistical population of this research consists of 580 students studying at Bachelor's, Master's, and Ph.D. level at the Ferdowsi University of Mashhad, located in the city of Mashhad (except, of course, for the Faculty of Arts which is in the neighboring city, Neyshabur) in 2017-18 academic year. Since the number of students at the bachelor level was three times larger than that of students at advanced studies, the samples of undergraduate students were weighing three times more than master's and Ph.D. students. The criterion for determining the statistical population was, therefore, an equal chance for all students to take part in the study, regardless of whether or not they live in Mashhad and field of study. The questionnaires were distributed in shared general courses of all majors (for undergraduate levels) and shared internet sites (for Master's and Ph.D. levels). Three hundred four of the respondents were female (52.4%), and 275 were male (47.4%). Three hundred sixty of the respondents (62.1%) were studying at the undergraduate level, 120 at Master's (20.7%), and 100 at the Ph.D. level (17.2%). The size of female respondents (52.5%) was larger than the male respondents (47.5%) (see Table 1).

Table 1. Demographic profile of the respondents

Items	Frequency	Percentage	Valid Percentage
		Age Groups	
18–30	512	88.3	90.0
31–41	52	9.0	9.1
42–53	5	0.9	0.9
		Marital Status	
Single	478	82.4	82.4
Married	102	17.6	17.6
		Sex	
Female	304	52.4	52.5
Male	275	47.4	47.5
		Grade	
Bachelor	360	62.1	62.1
Master	120	20.7	20.7
Doctoral	100	17.2	17.2

2.2. Procedures

The current study examines the relationship between cyberbullying and adherence to Islam using a correlative method. The data were collected in Stratified Random Sampling methodology and Cochran Sampling Formula from 580 students. The completion of the scale took an average of 10 minutes. Ethical approval was obtained through the dean of the Faculty of Law and the university's fieldwork management. All respondents provided their consent for being a part of the statistical population, and there was not any limitation

for those wishing to withdraw from the survey without any prejudgment. Despite emphasizing the anonymity of the participants in questionnaires and the lack of any field for writing personal identification, the anonymity of the respondents was highlighted before the distribution of questionnaires.

2.3. Measures and analytic strategy

By using the *self-report methodology*, the present study attempts to investigate the correlation among dimensions of religiosity and cyberbullying. Data were collected by a scale containing 37 items. It was a researcher-made questionnaire and consisted of three sections. In the first section, the participants' general specifications (including sex, age, marital status, level of education) are asked. In the second section, by using a 15-item cyberbullying scale (CBS), the rate of students' cyberbullying participation is evaluated from the beginning of the academic year 2017-18. The items are inspired by Patchin and Hinduja CBS (2011; 2015) and also the Illinois traditional bullying scale (Esplage and Holt, 2001). It is divided into two sub-groups, namely, of *non-sexual cyberbullying* (10 items) and *sexual cyberbullying* (5 items). The method of scoring items is based on the spectrum of Likert's four-choice scale, and the answers vary from "never" (0 point), "Once" (1 point), "Less than five times" (2 points), "More than five times" (3 points) and "Always" (4 points). The sum of items varies from 0-60. The higher point in each sub-scale indicates that the act was frequently committed. Therefore, the closer the sum of cyberbullying points gets to 0, the less will be the rate of delinquency; and the closer the sum gets to 60, the higher will be the rate of delinquency.

The third section measures the diverse dimensions of religiosity. Religion's multi-dimensional measures, Khraim (2010) argues, provide the researcher with a more thorough understanding of the importance of each aspect of religiosity (p. 167), allowing them analyze the association among each dimension and the other variables. Therefore, in the third part, religiosity rate is evaluated by using Stark and Glock's religiosity scale (1968).[3] It studies five dimensions, including *ideological* (religious beliefs), *ritualistic* (religious acts), *experiential* (religious emotions), *consequential* (religious effects), and *religious thoughts*. The last one was not considered due to vast religious propaganda in Iran, which may have an effect on this dimension. This scale consists of 22 items and is based on the Likert scale. Each item has five value spectrums (including "completely agree," "agree," "no opinion," "disagree," and "completely disagree"), and the value of each item varies from 0-4. The sum of items ranges from 0-88. The points of 29.3≥ represent weak religiosity, 29.3-58.6 indicates moderate religiosity, and 58.6≤ shows intense religiosity. Finally, for evaluating the P-value, the Spearman test is used, and it is significant (P -value= 0.05).

---

[3] The majority of this questionnaire items is designed by using native model of Stark and Glock's religiosity questionnaire (Serajzadeh, 1998). Only 4 items including religious ceremonies attendance, Congregational Prayer attendance, women's absence in stadiums due to religious grounds, serious fighting with not observing Hijab are deleted. The reason for deleting items of Congregational Prayer attendance and cooperating with religious institutes with the average of 0.7 and 1 respectively is due to their low frequency among the students of Ferdowsi University of Mashhad. One of the reason for low frequency of these items is the effect of political variables on them and many Iranian religious citizens are not adherent to them. Therefore, it is not fair to divide people to religious and nonreligious population based on these items. On the other hand, the item of serious fighting with not observing Hijab had a conceptual ambiguity for participants and the purpose of fighting was not clear, so this item was deleted as well. Finally, women's absence in stadiums due to religious grounds represents the governing board perception of religiosity; the public viewpoint of the society tends to remove these limitations. Considering the independence of this research, this item is not compatible with majority of society's religious values, thus it was deleted.

The data are analyzed by using SPSS 24 at two levels: descriptive and analytical. To confirm the validity of cyberbullying scale, face and content validity are used, and the newest CBSs are employed. Furthermore, to evaluate the reliability of the questionnaire, Cronbach's alpha coefficient is used (Cronbach's alpha> 0.7) (83%). The significant value of the subscales is estimated as less than 0.05 by using Kolmogorov-Smirnov and Shapiro-Wilk test; as a result, by excluding the null hypothesis (normally distributed data), the alternative hypothesis is proved.[4]

3. Results and Discussion

3.1. Rate of cyberbullying engagement

The average score of the cyberbullying in the statistical population is 2.5. Given the determined standard level for low delinquency rate (0-20), it can be deduced that the students of Ferdowsi University of Mashhad seldom commit cyberbullying. Moreover, the population enjoys a high level of security. In this sense, it should be noted that 97.8% of the respondents (N=567) has received a low score of delinquency (0-20).[5] That is because 59.8% of the respondents (N=347) – who include more than half of the statistical population – have no cyberbullying history, neither sexual nor non-sexual (see Table.2). 1.9% of the respondents (N=12) received an average score for delinquency (20-40). Moreover, only one person (0.2%) whose score was 42 is at the upper spectrum of delinquency (40-60). Since the maximum rating (i.e., 60) for delinquency was not observed, it would suggest no respondents committed all the crimes listed.

Table 2. Cyberbullying Engagement

	Non- Sexual cyberbullying	Sexual cyberbullying
Mean	2.07	.5
Standard Deviation	4.26	1.5

Sexual cyberbullying (mean=0.5) is less prevalent than non-sexual cyberbullying (mean=0.2). 84.5% (N=490) of the respondents never participated in sexual cyberbullying. Given that the maximum score for sexual cyberbullying (20) was not obtained, it can be stated that none of the respondents committed all types of sexual cyberbullying. The maximum score for sexual cyberbullying is 12, which only 0.3% of the respondents (N=2) acquired. Among five types of sexual cyberbullying studied, inviting others to watch pornographic movies (mean=0.20) and insulting others by messages, jokes, and sexual expressions (mean=0.15) are the most frequent crimes. Forcing others to have immoral relationships with recording online chat (mean=0.04), threatening to have an illicit love affair through menacing to reveal the private photos and videos (mean=0.04) and sexual harassment of others by sending annoying photos (mean=0.06) are considered

---

[4] Abnormally distributed data hypothesis of subscales is proved by coefficient of kurtosis and Skewness. The coefficient of Skewness for delinquency and religiosity is 6.8 and 2.8 respectively and the coefficient of kurtosis is 50.5 and 12.8 respectively. Since these figures are more than 2, the data distribution is asymmetrical.

[5] Of course, it should be mentioned that one of the disadvantages of self-report is the probability of distorting reality. The respondents in an unconsciously defense mechanism represent himself/herself better than he/she actually is.

as the least frequent sexual cyberbullying. In every five areas, more than 90% of respondents claimed they had never committed these crimes.

Table 3. Descriptive Statistics of Bullying

Standard Deviation	Average	Item	Kind of Bullying
0.817	0.37	Annoying or ridiculing by online sharing of text message	
0.622	0.18	Sharing someone's videos for ridiculing or enraging them	
0.732	0.24	Sharing someone's videos in cyberspace without their permission, aimed at ridiculing or harming them	Non-sexual cyberbullying
0.585	0.19	Creating a profile similar to others for ridiculing or enraging them	
0.619	0.20	Inviting people to uncommon online groups without their request	
0.692	0.22	Sending obnoxious messages to annoy online group members	
0.743	0.30	Sending impolite or threatening messages to annoy people	
0.498	0.13	Removing members from the group by spreading false rumors	
0.497	0.12	Sharing people's secrets in cyberspace and motivating others to do the same	
0.465	0.10	Paving the way for taking advantage of people through threatening to send personal or embarrassing information	
0.319	0.4	Threatening to have an illicit love affair through menacing to reveal the private photos and videos on the internet	
0.575	0.15	Insulting others by messages, jokes, and sexual expressions	sexual cyberbullying
0.380	0.06	Sexual harassment of others by sending online photos	
0.669	0.20	Inviting others to receive or send pornographic movies in cyberspace	
0.282	0.04	Forcing others to have an immoral relationship by recording online video chat	

As mentioned earlier, non-sexual cyberbullying constitutes a significant part of cyberbullying among respondents. Sexual cyberbullying (amounting to 5.5%) consists of the total bullying rate. 60.7% of the respondents (N=352) did not commit non-sexual cyberbullying. 96.6% (N=360) received a low score of cyberbullying (0-13.3). Only two students (0.4) had a high rate of delinquency. Online sharing of text messages intended to annoy or ridicule others (mean=0.37), and taking advantage of people through threatening

to send personal or embarrassing information (mean= 0.10) were the most and the least frequent non-sexual cyberbullying, respectively.

Moreover, the results showed more men (mean=4.40) than women (mean=0.93) (p=0.00), more singles (mean=2.89) than married (mean=1.08) (p=0.02), and more undergraduate students (mean=3) than the master (mean=1) and Ph.D. students (mean=1) (p=0.00) have committed cyber-bullying.

3.2. Rate of religiosity

The average score of religiosity is 56.95, indicating the moderate level of religiosity (26-78) (Fig.1). 0.2% of the respondents (N=1) has acquired the lowest and highest religiosity score (4 and 88, respectively). More than half of respondents have moderate religiosity rate (88.3%). 3.4% (N=28) are very religious (78-104). The highest frequent score of religiosity is 68 and 69 (6.7%) (N=39). Also, the highest rate of peoples' religiosity is observed in the ideological dimension (mean=21.3). Following this rate, there are the emotional (mean=16.5), ritualistic (mean=12.6), and consequential dimension (mean= 8.2.)
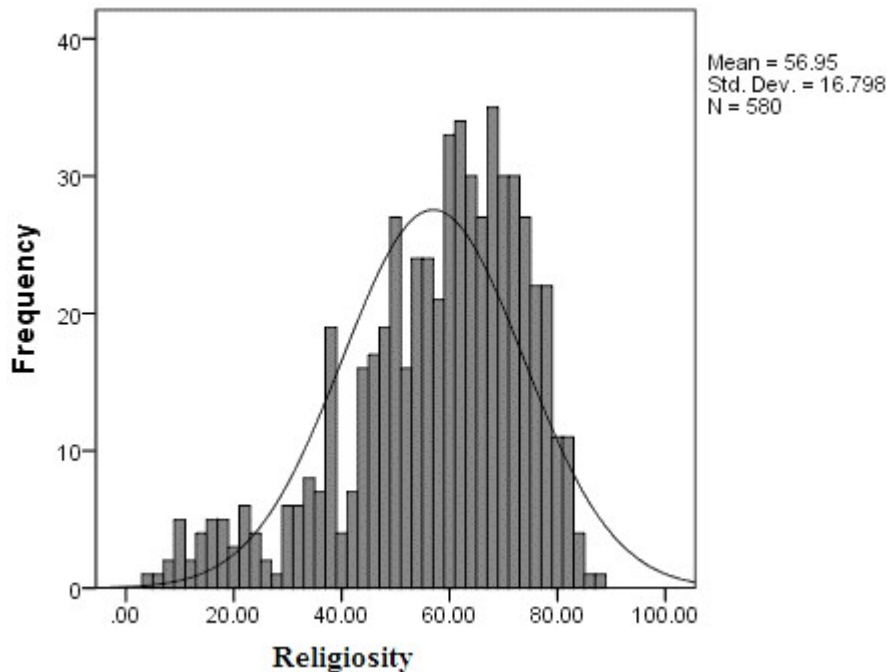

Figure 1. The average score of religiosity

The items coming first are related to the *ideological dimension*. According to Stark and Glock (1968), the ideological dimension means religious beliefs to which followers are expected to adhere. In this part, the participants' rate of belief in Islamic concepts including God, Satan, Angels, the Day of Resurrection, weighing of deeds, the necessity of enjoying the good, forbidding the evil, belief in the Holy Quran, and the Rise of the Savior is assessed. The average 21 of religiosity score indicates the high rate of students' belief in the Shiite denomination (18.6-28). In this regard, it should be stated more than 69.5% of the participants are placed within the higher decile of religiosity, and only 6.5 of

the respondents have weak Islamic beliefs. The highest rate of ideological beliefs is related to faith in the existence of God; 69 % of the respondents are totally theists (N=400).

The *emotional dimension* of religiosity, as the second dimension of religiosity, indicates emotions, imaginations, and feelings related to having a relationship with the divine essence, e.g., God, ultimate reality, or transcendental power. Believers' not having any fear of death, feeling close to God, religious beliefs giving meaning to life, the profound spiritual feeling in the holy shrines of Imams[6] and the infallible, the sense of fearing God in some life dimensions and feeling regret for misconduct, as well as imploring God for compensation of guilt are considered as six existing items for evaluating this dimension. 8.6% of the respondents (N=50) did not exhibit the emotional dimension of religiosity (0-8). 35.2 % were moderately (8-16), and 56.2% were highly religious (16-24). Sixty participants (10.3%) obtained the highest score (18), which represents a profound emotional dimension. Forty-three of the respondents (7.4%) who acquired the maximum rate of this dimension (24) were considered totally religious.

The third dimension is the *ritualistic dimension*, which includes adherence to religious duties such as worshiping, saying prayers, attending religious rituals and ceremonies, and fasting. Attending the congregational prayer, fasting in Ramadan, recitation of the Holy Quran, saying prayers, attending the sacred rites, and feast days are the items for evaluation of the ritualistic dimension of respondents. The average of the statistical population had a moderate score (mean=12.6). The bell-shaped distribution of religiosity score in the histogram diagram confirms this fact. 24.7% and 47.2% of the respondents have obtained weak and moderate ritualistic scores, respectively. Moreover, 28.1% is in the high level of ritualistic religiosity. Saying prayers (mean=3.05) and fasting in Ramadan (mean=2.9), respectively, were the most frequent. Also, recitation of the Holy Quran (mean=1.9) and attending the congregational prayer (mean=1.1) were the less frequent religious rituals among respondents.

Consequential dimension, the fourth and the last dimension, "refers to the social expectation religious individuals are not only characterized by a specific religious experience and behavior, but their religious belief will also shape the way they lead their daily lives" (Huber, 2009, p.34). Among the five aspects suggested by Stark and Glock religiosity, this dimension has received the greatest share of criticism. As Cornwall, Albrecht, Cunningham, and Pitcher (1986) argued, this dimension is the result of religiosity, not a dimension thereof (p. 232). The criteria for evaluation of this dimension are variable and can include a large number of actions performed or avoided on ideological grounds. In view of the official reading of Islam – and particularly Shia Islam – in Iran, four dimensions were delineated in this study: prohibiting the trade of alcoholic drinks, considering tax evasion as wrongdoing, the importance of political leaders' being religious or non-religious, and the impossibility of applicability of Islamic rules to today's society are considered as the factors for determining the respondents' adherence to consequential dimension. Among the four dimensions, the lowest score is for the consequential dimension. Even though most of the respondents believe in Islam (more than 69.5%), religious thoughts did not affect all peoples' life. Also, more than 48% of the respondents have received an average score of religiosity, and 19 of the respondents are religious in terms of this dimension completely.

---

[6] According to the Twelver branch of Shia Islam, Imams are the rightful successors of Islamic prophet Mohamad.

Table 4 Descriptive Statistics of Religiosity

Standard Deviation	Average (from 4)	Item	Religiosity Dimensions
1.4	3.2	The existence of Satan	Ideological
1.2	2.1	Prevalence of corruption in society in case of enjoying the good, forbidding the evil	
1	3.1	Weighing of deeds in the Resurrection	
1	3.3	The Holy Quran is the absolute reality	
1.2	2.9	The Rise of Savior	
1.1	3	Believing in the existence of Angels	
1	3.4	The existence of God	
1.2	2.4	Whoever believes in God has no fear of death	Emotional
0.9	2.9	Sometimes I feel closer to God	
1.2	2.5	Without religious beliefs, I feel life is empty	
1.1	2.7	Feeling close to God in the holy shrines of Shiite Imams and the infallible	
1.1	2.7	Sometimes I fear God	
1.06	3.1	The feeling of repentance and asking for a chance to compensate for the guilt	
1.3	2.3	Not being strict about trading alcoholic drinks	
1	3.1	Considering tax evasion as wrongdoing	
1.3	1.2	The importance of political leaders' being religious or non-religious	
1.3	1.5	Impossibility of applicability of Islamic rules to today's society	
0.9	1.1	Attending the congregational prayer	Ritualistic
1.4	2.9	Fasting in Ramadan	
1.1	1.9	Recitation of the Holy Quran	
1.38	3.05	Saying prayers	
1.09	1.7	Attending the religious ceremonies and feast days	

3.3. Correlation between religious identity, and cyberbullying engagement

Due to the asymmetric distribution of data, Spearman's correlation test (r_s) was used to evaluate two independent variables of religious identity and cyberbullying engagement. The results indicate a negative correlation between students' religiosity and cyberbullying engagement ($r_s = -0.2$), and this value is significant at the 0.01 statistical level. Since the amount of r_s is less than 0.05 and is between 0 to 0.29, this represents the weakness of this significant correlation, implying that the inverse correlation between religious identity and cyberbullying variables is weak. We cannot assume that with an increase in respondents' religious identity, their criminality will remarkably decrease. Therefore, the zero hypotheses based on the existence of a correlation between cyberbullying and religiosity is confirmed. The findings of this study support Hirschi and Stark's (1969) opinions that the possibility of committing crime among those who do not believe in the hellfire is more than believers. In other words, as Khosroshahi and Hosseinabadi (2016) argued, peoples' profitable desires of the hereafter and fear of losing paradise prevent them from committing crimes (p. 102). Spiritual investments of people fulfil a controlling function and even the ambiguity of users in cyberspace will not make them lose their achievements. It should, nevertheless, be kept in mind that the existing negative relation is very weak.

Iranian students at all pre-university levels and undergraduate programs are bound to pass general Islamic thought courses. As Iranian citizens, they are always facing widespread religious propaganda. However, the existing negative correlation is not strong. Thus, the criticism made on Hirschi (Albrecht, Chadwick, and Alcorn, 1977) about limiting his study on non-religious people do not apply to Iranian society. Although citizens can ignore some parts of religious propaganda, they deal with religious symbols and elements every day through mass media, billboard advertising, and outdoor and university advertising. They are also bound to observe particular religious' standards; female students, for instance, must wear *hijab*, have no much makeup, and respect religious mottos. Although they live in a religious environment, there is no strong negative correlation between students' religious identity and cyberbullying engagement.

The correlation coefficient between *non-sexual cyberbullying* and the *ideological dimension* is –0.163. Given that the rate of r_s is less than 0.29, it shows that there is a weak inverse correlation between these two variables ($p<0.05$). Some authors believe those who believe in the afterlife and religious sanctions exhibit a lower crime rate than do non-believers (Shariff and Rhemtulla, 2012; Wright, 2016; Ellis, 1985). The results of the study showed there is a weak correlation between religiosity and criminality, and other factors such as social control are also effective.

There is also a very weak negative correlation between *non-sexual cyberbullying* and the *emotional dimension* ($r_s = -0.138$) ($p=0.001$). Therefore, an increase in religious feelings and emotions and the sense of belonging to God does not lead to a noticeable decrease in non-sexual cyberbullying. The respondents' emotions, such as repentance after wrongdoing or fearing death, were not too keen to prevent non-sexual cyberbullying relatively. Besides, there is a weak negative correlation between *non-sexual cyberbullying* and *consequential dimension* ($p<0.05$) ($r=-0.198$): the higher the point for religious identity dimension, the relatively less non-sexual cyberbullying engagement.

Regarding the effect of ritualistic religious variables on crime rate, some studies assert that the frequency of attending religious rituals and services has a significant inverse impact on drug offenses among the youths (Johnson, Larson, Li, & Jang, 2000). The results of our study cannot confirm such a conclusion, and as some criminologists have stated, different

outcomes are obtained based on the type of crimes. According to our findings, there is a significant weak negative correlation (r=-0.090) (p=0.029) between variables of *non-sexual cyberbullying* and *performing Islamic rituals*. With the increase in observing Islamic rituals, the rate of cyberbullying will change slightly.

In a general view, there is a negative correlation (r=0.178) (p<0.05) between respondents' *religiosity rate* and *sexual cyberbullying*. The correlation coefficient between *sexual cyberbullying* and *ideological dimension* is -0.178, indicating a significant negative correlation between sexual cyberbullying and the rate of religious ideology (p<0.05). With an increase in the ideological religiosity variable, therefore, criminality will slightly decrease. There is also an inverse correlation between two variables of *sexual cyberbullying* and *emotional religiosity* (r=-0.113). Due to the low rate of p (0.007), it can be inferred that those respondents who experience a higher rate of emotional religiosity have committed less sexual cyberbullying.

The findings of the study indicate there is a weak negative correlation between *sexual cyberbullying* and the *consequential dimension* of religiosity (r=-0.202). Given that p=0, this relation is significant but weak. It suggests that with an increase in the rate of consequential religiosity variable, cyberbullying increases slightly. There is a negative correlation between *sexual cyberbullying* and the *ritualistic dimension* (r=-0.059). In view of the fact that the significant rate (i.e., 0.155), there is a weak significant inverse relation (p<0.05).

Conclusion

Employing empirical methods, this study intended to examine the relationship between religiosity and cyberbullying. Exploring the subject in a country run by religious principles, i.e., Iran, with the highest internet penetration rate in Asia, could provide essential findings for criminologists studying the preventive function of religion in criminal engagement. The results of our study suggest a low cyberbullying rate among students. The prevalence of non-sexual cyberbullying is more than the sexual type. Moreover, this study was carried out in a religious country and the city of Mashhad – perceived to be religious due to having the shrine of Imam Reza, the eighth Shiite Imam. Despite this, the respondents were not highly religious; 88.3% of respondents had an average level of religiosity. Our research affirms the negative correlation between religiosity and committing cyberbullying among students. It showed students with more religious beliefs committed less cyberbullying. However, it suggests that the association between religious identity and cyberbullying variables is fragile. Therefore, religious characteristics could not greatly impact on the cyberbullying rate. This is also a significant finding. We acknowledge the current study suffers from some methodological limitations because it is based on samples from Ferdowsi University of Mashhad. It will, therefore, prove useful if some studies are conducted on the general public of the city. Moreover, Mashhad is not the only sacred city in Iran, and the results cannot be generalized to other contexts.

Acknowledgments

References

Albrecht, S., Chadwick, B., & Alcorn, D. (1977). Religiosity and Deviance: Application of an Attitude-Behavior Contingent Consistency Model. *Journal for the Scientific Study of Religion, 16*(3), 263-274. DOI:10.2307/1385697

Bainbridge, W. (1989). The Religious Ecology of Deviance. *American Sociological Review, 54*(2), 288-295. Retrieved from http://www.jstor.org/stable/2095796

Baier, C. J., & Wright, B. R. E. (2001). "If you love me, keep my commandments": A meta-analysis of the effect of religion on crime. *Journal of Research in Crime and Delinquency, 38*(1), 3-21.http://dx.doi.org/10.1177/0022427801038001001

Bernard, J., Snipes, J & Gerould. A. (2010). *Vold's Theoretical criminology*. New York: Oxford University Press.

Benda, B., and Corwyn. R. (2001). Are the Effects of Religion on Crime Mediated, Moderated, and Misrepresented by Inappropriate Measures? *Journal of Social Science Research,* 27(3), 57–86, DOI: 10.1300/J079v27n03_04.

Chadwick, B.A., & Top, B.L. (1993). Religiosity and delinquency among LDS adolescents. *Journal for the Scientific Study of Religion,* 32(1), 51-67. http://dx.doi.org/10.2307/1386913.

Cullen, Francis T. (2010). Toward a criminology of religion: Comment on Johnson and Jang. In: *Contemporary issues in criminological theory and research: The role of social institutions; Papers from the American Society for Criminology 2010 Conference.* Edited by Richard Rosenfeld, Kenna Quinet, and Crystal Garcia, 151–161. Belmont, CA: Wadsworth.

Cornwall, M., Albrecht, S., Cunningham, P., & Pitcher, B. (1986). The Dimensions of Religiosity: A Conceptual Model with an Empirical Test. Review of Religious Research, 27(3), 226-244. doi:10.2307/3511418

Durkheim, E. (1995). *Elementary Forms of the Religious Life: Newly Translated by Karen E. Fields*. USA: Free Press.

Ellis, L. (1985). Religiosity and Criminality: Evidence and Explanations of Complex Relationships. Sociological Perspectives, 28(4), 501–520. doi:10.2307/1389231

Espelage, D. L. & Holt, M. (2001). Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. *Journal of Emotional Abuse*, 2, 123–142. doi:10.1300/J135v02n02_08

Geertz, C. (1966). Religion as a cultural system. In M. Banton (Ed.), *Anthropological Approaches to the study of religion* (pp. 1-46). London: Tavistock.

Hirschi, T., & Stark, R. (1969). Hellfire and Delinquency. *Social Problems*, 17(2), 202-213. DOI:10.2307/799866

Huber, S. (2009). *Religion Monitor 2008: Structuring Principles, Operational Constructs, Interpretive Strategies.* In: Stiftung, B. (ed.) *What the World Believes: Analysis and Commentary on the Religion Monitor 2008* (pp. 17-51). Gütersloh: Verlag Bertelsmann Stiftung.

Johnson, B.R., Larson, D.B., Li, S.D., & Jang, S.J. (2000). Escaping from the crime of inner cities: Church attendance and religious salience among disadvantaged youth.

Kerley, K.R. (2018). Religion and Crime: Theory, Research, and Practice. USA: Mdpi AG.

Kelly, P. E., Polanin, J. R., Jang, S. J., & Johnson, B. R. (2015). Religion, Delinquency, and Drug Use: A Meta-Analysis. *Criminal Justice Review*, 40(4), 505–523. https://doi.org/10.1177/0734016815605151.

Khraim, H. (2010), "Measuring Religiosity in Consumer Research from an Islamic Perspective." *Journal of Economic and Administrative Sciences*, *26*(1), 52-78. https://doi.org/10.1108/10264116201000003

Khosroshahi, Gh., Javadi Hossein Abadi, H. (2015). An Analysis of the Relationship Between Religious Identity and the Prevention of Crime. *Criminal Law Research*. *5*(17). 91-125.

Laird, R.D., Marks, L.D., & Marrero, M.D. (2011). Religiosity, Self-Control, and Antisocial Behavior: Religiosity as a Promotive and Protective Factor.

Lombroso, C. (1911). *Crime Its Causes and Remedies*. Boston: Little Brown.

Marx, K. (2001). *Marxism, Socialism and Religion*. Australi: Resistance Books.

Marx, K., Engels, Friedrich. (2008). *On Religion*. USA: Dover Publications

Mercado-Crespo, M.C. (2013). The Role of Connectedness and Religious Factors on Bullying Participation among Preadolescents in Puerto Rico. *(Doctoral Dissertation)*. Retrieved from https://scholarcommons.usf.edu/etd/4545.

Musu, L., Zhang, A., Wang, K., Zhang, J., and Oudekerk, B.A. (2019). Indicators of School Crime and Safety: 2018 (NCES 2019-047/NCJ 252571). National Center for Education Statistics [NCES], U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC. Retrieved from https://nces.ed.gov/pubs2019/2019047.pdf

Nazoktabar, H., Zahedi M J., Nayebi H. (2006). The Role of Religiosity in Preventing the Delinquency of Tehranian Juvenile. *Social Welfare*. 6 (22) :233-260.

Patchin, J. W., & Hinduja, S. (2011). Traditional and Nontraditional Bullying Among Youth: A Test of General Strain Theory. *Youth & Society*, *43*(2), 727–751. https://doi.org/10.1177/0044118X10366951.

Patchin, J. W. (2019). "2019 Cyberbullying Data." Retrieved from, https://cyberbullying.org/2019-cyberbullying-data.

Patchin, J. W. & Hinduja, S. (2015). Measuring cyberbullying: Implications for research. *Aggression and Violent Behavior*, volume 23. 69-74. http://dx.doi.org/10.1016/j.avb.2015.05.013.

Peoples, J & Bailey, G. (2012). *Humanity: An Introduction to Cultural Anthropology*. USA: Wadsworth Publishing.

Serajzadeh SH. (1998). *Muslims, religiosity and delinquency: an examination of Iranian youth. Ph.D.* diss., University of Essex.

Stark, R., & Glock. C. Y. (1968). *American piety: The nature of religious commitment*. USA: University of California Press.

Stark, R. (1996). Religion as Context: Hellfire and Delinquency One More Time. *Sociology of Religion, 57*(2), 163-173. Retrieved from http://www.jstor.org/stable/3711948

Stark, R., Kent, L., & Doyle, D. P. (1982). Religion and Delinquency: The Ecology of a "Lost" Relationship. *Journal of Research in Crime and Delinquency*, *19*(1), 4–24. https://doi.org/10.1177/002242788201900102

Shariff, A. F., & Rhemtulla, M. (2012). Divergent effects of beliefs in heaven and hell on national crime rates. PloS one, 7(6), e39048. DOI:10.1371/journal.pone.0039048.

Triantoro, S. (2015). 'Are daily spiritual experiences, self-esteem, and family harmony predictors of cyberbullying among high school students?', *International Journal of Research Studies in Psychology*. 4(3), 23-33.

Weaver A., Flannelly K.& Strock A. (2004). "A Review of Research on the Effects of Religion on Adolescent Tobacco Use Published between 1990 and 2003." *Adolescence*, 40 (160),762-776.

Webber, M.A., & Ovedovitz, A.C. (2018). Cyberbullying among College Students: A Look at Its Prevalence at a U.S. Catholic University. *International Journal of Educational Methodology*, 4(2), 101-107. doi:10.12973/ijem.4.2.101.

Willis, M. (2015). *The relationship between religiousness and bullying among parochial high school students in the southeast (Doctoral Dissertation).* Retrieved from digitalcommons.liberty.edu/doctoral/1015

Wright, J. D. (2016). More Religion, Less Justification for Violence, *Archive for the Psychology of Religion*, 38(2), 159-183. DOI: https://doi.org/10.1163/15736121-12341324.

Yeung, J. W. K., Chan, Y.-C., & Lee, B. L. K. (2009). Youth Religiosity and Substance Use: A Meta-Analysis from 1995 to 2007. *Psychological Reports*, *105*(1), 255–266. https://doi.org/10.2466/PR0.105.1.255-266.

900% increase in cybercrimes. (4 August 2018). Retrieved fromvhttps://www.magiran.com/article/3782470