# Religiosity, Personality Development and Protective Mechanism against Disobedience: A Review

## KHAIRUL ANWAR MASTOR\* & HASNAN KASAN

## ABSTRACT

This paper reviews selected articles on the role of religiosity in two main aspects: personality development and protective mechanism against disobedience. In the first part, several studies consistently found that religiosity and personality are highly correlated. Agreeableness and Honesty-Humility are two main personality characteristics that reflect the personality of religious people. These findings correspond to the existing literature on Islamic principle of akhlak vis-àvis personality that indicated the desirable and virtuous characteristics of people with faith. The second part is on the role of religiosity as a protective mechanism against various acts of disobedience. Reviews of selected work indicated that generally, higher religiosity cause the lower involvement in alcoholic drinking, tax evasion, depressive syndrome and drug usages. New studies on exploring the underlying process on causation effects of religiosity from Islamic perspective, on the personality development and as protective mechanism against different forms of disobediences are thus, strongly recommended.

*Keywords: Religiosity; personality; protective mechanism; disobedience* 

### INTRODUCTION

We generally observe that religious people have different personality traits representation in comparison with the less religious people. Religious people are typically more serene, calm, less angriness, more patience, more agreeable, more generous, easy-to-forgive others and more compliance, thus more obedience. On the other hand, less religious individuals are likely to be seen as bad-temper, less cooperative, easy to quarrel, less patience, prone to follow desires, and thus probably more engaging in disobedience acts. Two basic assumptions underlie the present paper: First, personality traits representation of religious person differs from less religious individuals. This entails an interesting question – why do they differ and whether religiosity is one of the causal factors which influence personality traits development? Second, religious people tend to have stronger wills to avoid disobedience acts. The relevant question again is why and how does religiosity play a function of protective mechanism against disobedience?

In this paper, we intend to examine these two assumptions and perhaps, get plausible answers, by reviewing selected work in the area of religiosity and personality and with special focus among Muslim society. We also refer to selected work dealing with religiosity as significant variable in lowering the disobedience tendency. Our major proposition is that religiosity plays dual role - in the development of personality and as protective mechanism against acts of disobedience. This paper is divided into three parts. Part one is on religiosity and personality while the second part is on protective function of religiosity. The final part discusses future direction of research work in the area of religiosity.

## Religiosity

Religiosity is an interesting concept when we perceive it as fundamental in determining human characteristics, thought and behavior. It refers generally to the degree of religiousness – to what extent one is following the religious injunctions, order and regulations. Its conceptual definition varies by scholars involved in the studies of religiosity including the Muslim scholars. Classical work on Islam described religiosity as multidimensional concept incorporating the beliefs and practices as fundamental and closely interrelated. Based on many discussions on the concept of religiosity, Al-Khalifah (1994) re-conceptualized religiosity as comprising of two interrelated dimensions - covert and overt dimensions. The belief (or covert) dimension represents an individual's full and sincere belief in God as the Creator of the universe and as the only One worthy of worship, and one's beliefs in His angels, books, messengers, the Day of Judgment and the hereafter and in fate. The second one is the conduct (or overt) dimension. It emphasizes the degree to which the belief dimension of religiosity is reflected throughout the believer's daily behavior and actions via the full obedience and compliance to God's commands and the avoidance of those acts and behavior forbidden by God" (p. 4).

Similar perspective on religiosity dimension is proposed by Krauss et al. (2006). Religiosity from Islamic perspective is defined in two main aspects - Islamic worldview and religious personality. The Islamic worldview reflects the Islamic *tawhidic* paradigm (doctrine of divine unity/oneness of Allah). It is deeply rooted in the understanding and realization of faith or *iman* within oneself. Thus, a person internalizing Islamic worldview is believed to possess the genuine and sincere belief in the existence of Allah, His messengers, the angels (malaikah), the Book (Quran), the Qada and Qadar concept. Religious personality, on the other hand, is the *'manifestation of one's religious world-view in righteous works or the particular ways that a person expresses his or her traits or adapts to diverse situations in the world'* (p. 240). Krauss et. al. perceive that religious personality is known as *akhlak islamiyyah* – Islamic notion of refined character. This is indeed close to the meaning of personality we focus in this paper.

Several other conceptual definitions of religiosity have also been proposed which are quite similar. Salleh (2012) define religiosity as 'the state of one's belief in God, characterized by his piety and religious zeal' (p.266). This indicates that if someone is pious and very obedient in observing the religious obligations and rituals, his or her religiosity is high. Tiliouine and Belgoumidi (2009) propose four categories of religiosity – belief, practice, religious altruism and religious enrichment. Belief is about faith matters such as believing in Allah, Judgment Day, Hell, Paradise and sacred Books. Religious practice dealing with practical matters like daily prayer, fasting, prohibition of alcoholic drinks, and others. Religious altruism refers to relationships with others like being good to parents, relatives and neighbours. The fourth one, Religious Enrichment, deals with activities that broaden religious knowledge and spiritual experience. These four dimensions are measured using Comprehensive Measure of Islamic Religiosity (CMIR) developed by Tiliounine and Belgoumidi (2009) for the use in Muslim society. If one scores higher scores on these four CMIR categories, the higher one's religiosity.

Taken as a whole, the basic concept of religiosity indicates that the creed (*iman*) is fundamental and crucial aspect of a Muslim's life as it influences the real life behaviors. *Iman* affects how overall life including on how we treat our colleagues, family and even strangers, what and how we eat and drink and many others. Henceforth, religiosity play an important role in shaping our mind, building our personality and character, acts as the internal fuel and energy for a Muslim to obey obligations according to the guidelines and regulation prescribed in Quran and Sunnah. In the next part, we shall explain what personality is all about, briefly, and relate to the role of religiosity in shaping the personality of the Muslims.

### Personality

Generally, personality is about our disposition or characteristics that differentiate our-selves from the other individuals. When we describe our colleagues as being humble, dislike open disagreement, being patience, being talkative, easily get angry and other personal qualities, we are indeed telling about one's personality traits. Such individual aspect of representation is found to be stable, consistent and has been shown to be linked with genetic factor (McCrae et al., 2000). Thus, personality term typically refers to personality traits. However, studies have also found that environmental factor also influence our personality development. In other words, personality might change due to internal or external environment or even both. One of theory explaining the environmental effect on personality development is Social Investment Theory (Roberts et al., 2005). It posits that our social investment in organized institutions like marriage, work and also religion are likely to affect our personality development represented by our thought, feeling and behavior -through a long period of time. Marriage, school or involvement in religious life and institution is known as external environment. On the other hand, internal environment refers to the inner ecology of human psyche, including the spirituality which developed through one's closeness to Allah SWT (or religiosity). Here, we foresee the likelihood that religiosity influences one's personality traits development.

Earlier work has been spent on understanding the basic characteristics and dimension of personality traits. One of the foremost and important characteristics is that personality traits are universal (McCrae & Costa, 2005) and this is well accepted by many researchers. However, scholars differ in the number of basic personality traits dimensions- some claim that there are three, five or even up to six dimensions. The most popular one is the Big Five model or Five Factor Model in that human has five shared, similar dimensions of personality - Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. The model has been confirmed in a wide range of cultures and languages, including American-English, Dutch, Flemish, Roman and Trisection Italian, German, Czech, Filipino, Japanese and Russian (De Raad 2000). It has been studied in a wide range of additional languages, such as Chinese (Yang & Bond, 1990), Hebrew (Almagor et al. 1995), Hungarian (Szirmak & De Raad 1994), Polish (Szarota 1995), Malav (Mastor et al. 2000), Greek (Saucier et al., 2005) and Turkish (Somer & Goldberg 1999). Thus, the Big Five represents a "grand unified theory" for personality (Digman 1990). Most of the research on the Big Five is based on adults, but there is a growing body of evidence to support its applicability to adolescent's population. For example, research on adolescence has found that the Big Five to be related to such diverse criteria and constructs as intelligence, school performance, future career success, stress and coping, social competence, and peer relationships (Lounsbury et al. 1999).

The other two models are HEXACO model and the Eysenckian or Big Three model. The HEXACO model suggests that human personality comprises of 6 major domains – Honesty-Humility, Emotionality, Agreeableness, Extraversion, Conscientiousness and Openness (Ashton & Lee, 2008; Lee & Ashton, 2004, 2005). Big Three model proposes Psychoticism, Extraversion and Neuroticism as the major dimension of personality (Eysenck, 1991).

### RELIGIOSITY INFLUENCES PERSONALITY DEVELOPMENT?

We propose that religiosity is the best variable candidate to be associated influencing our personality development. As religiosity implies the degree of one's consciousness and closeness to Allah, it can be expected that person of higher religiosity tend to abide the religious injunction,

duties and avoid what are being prohibited – as sign of close bonding with Allah. How does religiosity relate or contribute to the development of personality? In many religious books, the benefits of some religious obligations on personality characteristics of individuals are frequently mentioned. For instance, fasting helps develop patience and steadfastness, daily *solat* or prayer helps develop our meticulousness, commitment and punctuality. Going for Hajj also help one to develop steadfastness, strong, teamwork quality and being more considerate and compassion to others. Statements linking effects of religious rituals and obligations on personality are numerous, but nevertheless, there is still lack of studies proving these. One of the reasons could be due to lack of measuring instrument such as Islamic religiosity instruments which are required for such studies.

Studying the effect of religiosity on many aspects of life requires valid, good measuring instruments. Before the year of 2000, there were no religiosity instruments for the Muslims since most the religiosity instruments were of Western and Christian based. But things have changed where there are now quite a comparable number of instruments measuring Islamic religiosity or religiosity from Islamic perspective. Growing number of studies have been done to prove with empirical findings of the relationship between religiosity and personality from Islamic perspective.

Research on religiosity and personality generally asks participants to complete religiosity and personality questionnaires and data were analyzed using the correlation and regression analyses. Religiosity instruments generally employ Likert-scale assessments since religious attitude and practices are appropriately measured along continuum of scale. We found in the selected studies that in general and consistently, religiosity is positively related to desirable personality traits. Table 1.0 shows some selected studies published beyond the year 2000 that we reviewed.

Studies	Muslim /Non- Muslim	Ν	Types of Respondents/ Country	Correlation between personality & religiosity	Religiosity Scale	Personality Model
Saroglou et al., (2005)	Non- muslim	221		(+) Honesty	Religiosity scale	HEXACO
Lee et al., (2005)	Non- muslim	164	College students USA	(+) Honesty-Humility	Religiosity scale	HEXACO
AbdKhalek (2013)	Muslim	227	College students Kuwait	(-) Psychoticism	Muslim attitude towards religiosity	Eysenck Big 3 Model
Aghbabaei & Arji (2014)	Muslim	507	College students, Iran	(+) Honesty-Humility	Muslim religiosity scale	HEXACO
Aghbabaei (2014)	Muslim	1,000	College students, Iran	(+) Agreeableness (+) Conscientiousness	Muslim religiosity scale	Five Factor Model

TABLE 1.0. Summary of findings on religiosity and personality in the selected studies (2005-2014)

In the first paper we reviewed, Saroglou, Pichon, Trompette, Verschueren, and Dernelle (2005) found that the HEXACO model of Honesty subscale was related to higher scores on spirituality and religiosity. Another study by Lee et al. (2005) also found that among the HEXACO factors, Honesty–Humility is the strongest correlate of religiosity. Thus, religious individuals are generally humble and honest in their personality representation.

A study on relating religiosity and the Big Three personality model was conducted by Abdel-Khalek (2013) using227 Kuwaiti Muslim undergraduates. The Arabic versions of the

Eysenck Personality Questionnaire and the Muslim Attitude towards Religiosity Scale were used. Men were found to be higher than female on psychoticism on personality scale with a medium size effect. Psychoticism was negatively correlated with religiosity for both men and women. In addition, religiosity significantly correlated with extraversion (positive) and neuroticism (negative) in women. The only predictor of religiosity was low psychoticism in men and women.

Recently, Aghababaei (2014) used the Big Five model of personality in 4 studies among Iranian students (total N=1000) and found that religiousness is strongly associated with Agreeableness and Conscientiousness – replicating the findings of Piedmont (2005). This suggests that higher religiousness implies higher scores on agreeableness and conscientiousness. Evidence for the general factor of personality (GFP) was also found in the analyses of correlations among scores on the Big Five and religiosity. Also, a GFP was positively correlated with gratitude to God, interest in religion, intrinsic religiosity and extrinsic-personal religiosity, but not extrinsicsocial religiosity. Another recent work using HEXACO model is by Aghababaei and Arji (2014) and found similar findings. Cumulatively, these studies suggested that religious persons in general, have desirable and pleasant personality profile.

Some scholars offer explanation on why religious persons are in good, pleasant personality. Emmons, Barrett and Schnitker (2008) explain that religious persons would presumably be expected to report higher scores on Honesty-Humility (in the HEXACO model) because they are prosocial, empathic and because it is important for them to be fair and "honest". Another explanation is by Eriksson and Funcke (2014) whom suggested that more religious people tend to make more positive self-judgments than less religious people, and one plausible hypothesis is that religious self-stereotyping is involved. Religious self-stereotyping implies inferring judgments about oneself from the stereotype of the religious group to which one belongs. According to Eriksson and Funcke, religious self-stereotyping is not about perceiving him or herself as good in all aspects, but that goodness only applies to behaviour that reflects typical stereotype of religious people. This kind of stereotyping is akin to the other impression management.

Meta-analyses of studies from several countries have established that impression management scores consistently tend to be higher among the devoutly religious (Sedikides & Gebauer 2010). The debate on how to interpret this finding is still ongoing, but we think there is compelling support for at least some of the effect being due to a tendency among religious people to enhance their self-descriptions (Burris & Navara 2002; Sedikides & Gebauer 2010). A plausible mechanism is that religious individuals are motivated to perceive themselves as exemplary religious group members (Burris & Jackson 2000).

It seems that most of the reasoning on why religious people were higher on Honesty-Humility seems not purely religious and thus, superficial. In Islam, being honest and humility is among refined character or *akhlak* as enjoined by Prophet Muhammad SAW. Religious stereotyping may not be quite accurate to explain the positive self-judgement of religious person. Most of the time, positive self-judgment is used to increase the level of self-esteem. According to Islam, being honest is ordained in Islam and Allah is pleased with someone who is honest. Thus, current literatures on religiosity from non-Muslim perspective seem to have a different perspective towards life, and perhaps life hereafter. The underlying premises are different. It has not been completely and satisfactory explanation on why religious people possess desirable and pleasant personality. We might think that there is causal relationship between the antecedents, which is religiosity, and the development of personality. Hence, future studies should focus on the causal analysis of the effects of religiosity on the development of personality.

### RELIGIOSITY AS PROTECTIVE MECHANISM

The aim of this part is to examine the extent to which religiosity especially within Islamic context, can be viewed as an effective mechanism against disobedience acts. To accomplish this, we will (a) review selected published work on the role of religiosity in preventing different type of disobedience acts, (b) discuss the possible mechanism on how religiosity functions as important internal force in preventing disobedience acts within a Muslim society, (c) lay out future research that will help expand the knowledge and importance of religiosity in managing our life accordingly. Summary of research work on the effects of religiosity on preventing disobedience acts is shown in the Table 2.

Studies	Muslim/Non- Muslim	Ν	Types of Respondents/ Country	Findings (Correlation of DA with religiosity)	Disobedience Acts (DA)	Instruments
Stack & Kposowa (2011)	Non- Muslims & Muslims	50,547	56 countries	Negative	Suicide	World Values/European Values Surveys
Kagimo et. al., (2013)	Muslims	1,224	Youth, South Africa	Negative	Alcoholic drinking Illicit sex	-
Gomes et. al., (2013)	Non-Muslim	12,595	College students, Brazil	Negative	Alcohol, drugs & Tobacco	Frequency of Prayer etc
Arfken et. al., (2013)	Muslims	1,224	College students USA	Negative	Alcohol	Web-based survey
Unterrainer et al., (2013)	Non-Muslim	389	Community – drug user, USA	Positive	Drug	MI-RSWB
Burke et. al., (2014)	Non-Muslim	2,312	College students, USA	Negative	Alcohol	Core Alcohol and Drug Survey

Table 2. Selected studies on religiosity and some disobedience acts

Our first paper we reviewed is by Kagimo et al. (2013) whose study was on the association between religiosity and behaviours, and the likelihood of reduction of new HIV infections among 1,224 Muslim youths. They found that respondents with Sujda, the hyperpigmented spot on the forehead due to prostration during prayers – sometimes observed among those who consistently performing *solat* (prayer) - were more likely to abstain from sex, be faithful in marriage, and avoid alcohol and narcotics. This is in line with the Quranic verse mentioning that solat (prayer) prevent oneself from doing *maksiat* (big and small sins). Also, this study found that those wearing Muslim cap which commonly seen as external indication of religiosity among men, were more likely to abstain from sex and avoid alcohol and narcotics. Females wearing the long dress (Hijab)also as an external sign of religiosity were more likely to avoid alcohol. This work shows that religiosity play its role as protective function against disobedience.

Another study is on the preventive function religiosity on alcohol consumption among Muslims. Arfkenet et al. (2013) studied potential association of alcohol use with religiosity, personal proscriptive belief, and social influences among156 Muslim U.S. college students. In unadjusted analyses, students who were lifetime abstainers were more likely to hold personal proscriptive belief than drinkers and scored high on religiosity scale. Lifelong abstainers were more likely to report fewer students, fewer Muslim students, and fewer of their friends drank alcohol. They also were more likely to report that they attended high school with more Muslims

and currently live in neighbourhoods with more Muslims. This shows the importance of surrounding or environment as one of the important factors in safe-guarding *iman* or maintaining religiosity. In this study, lifetime abstinence was associated with high private religiosity, personal proscriptive religious beliefs, and more proscriptive social influences.

Stack and Kposowa (2011) studied the relationship between religion and suicide acceptability using data from the combined World Values/European Values Surveys for 2000 (50,547 individuals nested in 56 nations). The results of a multivariate hierarchical linear model indicated that persons residing in nations with relatively high levels of religiosity, who are affiliated with one of four major faiths, are religiously committed, and are engaged with a religious network are found to be lower in suicide acceptability. The religious integration perspective, in particular, is empirically supported; affiliation with Islam is associated with low suicide acceptability. These are remarkable findings that support the positive role of religiosity on preventing suicidal cases, especially the work was conducted by the non-Muslim scholars.

Gomez et al., (2013) investigated the relationship between religiosity and drug use among Brazilian university students. In this study, 12,595 university students were divided into two groups according to their attendance at religious services: frequent attenders (FR; 39.1%) and nonfrequent attenders (NFR; 60.8%). Individual multivariate logistic regression models indicated that drug use over the last 30 days was higher among NFR students even after controlling for demographic variables. NFR students were more likely to use alcohol and at least one illicit drug compared to FR students. Religiosity was found to be a strongly protective factor against drug use among Brazilian university students. However, more studies are needed to identify the mechanisms by which religiosity exerts this protective influence.

Later study by Unterrainer et al. (2013) using a sample of addiction in-patients (N = 389) assessed by the Multidimensional Inventory for Religious/Spiritual Well-Being (MI-RSWB) and compared with a matched group of non-addicted community controls (N = 389). RSWB was found to be substantially lower in people with substance use disorders compared to the normal sample. Discriminate functional analysis showed that Experiences of Sense and Meaning, General Religiosity, and Forgiveness were the dimensions of RSWB that strongly distinguished the groups. Within the group of people with substance use disorders, RSWB was strongly positively associated with the personality dimensions of Conscientiousness, Agreeableness, and Openness as well as Sense of Coherence and positive Coping styles. The study suggests that therapeutic intervention programs focusing on building a positive and meaningful personal framework, akin to that of a religious/spiritual orientation, may contribute to positive outcomes in addiction treatment.

Recent study was done by Burke (2014) who found that religiosity is associated with lower alcohol use by college students. A modified version of the Core Alcohol and Drug Survey was administered online with a sample of 2,312 students. As hypothesized, self-identified religious and spiritual students differed significantly on key variables related to religious practices, alcohol consumption, and postmodern social values.

These studies have shown that religiosity, as the identified important variable in preventing disobedience. In fact, the type of disobedience shown here are mostly a serious one because they involve life. Suicidal attempt, drinking alcohol, drug misuse and smoking are all life-related risk behaviour that could lead to death.

#### DISCUSSION

This paper review selected work on how religiosity plays its role in developing personality and as of preventive measures against disobedience acts. We found that across different nation and religious affiliations, there was a consistent finding that religiosity is associated with good personality profiles. Personality profiles corresponded closely with religious persons of different religion are likely to be those who are honest, humble, agreeable, but conscientious. Although samples were predominantly college students but generalizing it to the other population could be possible since the stability nature of personality traits. For example, compared to adults, old people were consistently considered less impulsive and lower in activity, more agreeable, and more likely to prefer routine (McCrae et al. 2005; Soto et al. 2011; Donnellan & Lucas 2008). It seems that religious people may inherit some old people personality profiles like being more agreeable.

At this point, it is interesting to make initial analyses why religious people possess those desirable personality traits. The most plausible and parsimonious explanation for these findings is that religion generally guides their people to be good, although the principles underlying the teaching may differ. In Islam, for example, being honest or being truthful is part of religious teaching. Neglecting honesty or lying is thus, one form of sins. In Islam, good character or akhlak is among the fundamental aspect of good Muslims. Good character or personality is a product of most obligations especially the rituals. For example, *solat* or daily prayer is said to nurture the punctuality, discipline and meticulousness - that one is trained to observe the prayer on time, following the rules and regulation of the prayer and perform the prayer to the perfectness. So far, these are assumptions through the teaching of religion, but a proper empirical support is needed. Also, fasting in Ramadan is meant for developing patience, trustworthy (that one can easily break a fast by eating secretly) and persistence. Mastor et al. (2013) studied the effect of fasting in Ramadan and found the increase of positive emotion and patience throughout the month. This finding may help explain the positive effects of religiosity on the personality development as a whole. For further understanding the influence of religiosity on the personality development, more studies need to be conducted, especially within Islam and the Muslims.

On the role of religiosity as protective mechanism against the disobedience acts, we found similar results in all studies reviewed. Religiosity is associated negatively with alcoholic consumption, drug usages, smoking, illicit sex, and suicidal acts. Interestingly again, this pattern is similar across cultural and religious backgrounds – suggesting the positive effects of religiosity on human behaviour. Perhaps the functional theorists put forward the importance of religion on the creation and maintenance of social order. They consider religion to be the basis and source of social values and norms by which people are united and their behaviour and activities are regulated (Durkheim 1951).

### CONCLUSION AND FUTURE DIRECTION OF STUDIES

One important observation is that most of the studies we reviewed only provide correlational perspective between religiosity and personality. However, so far, we could not answer the question of whether there is some causal influence of religiosity on personality (whereby religion makes one higher in Honesty–Humility, for example) or personality (particularly high Honesty–Humility) predisposes people to be religious. Future studies should be designed to investigate the mechanism of interaction between the different religiosity factors and sub-factors that contribute toward personality development.

Ideally, we should study the effects of different religiosity dimensions in order to get a comprehensive picture of the effect of religiosity in preventing disobedience acts. In this paper, the reviews were on serious disobedience acts like suicide, alcoholic drinking, smoking and drug usages. It would be recommended that future studies can focus on other common disobedience acts like cheating, seeing pornography, disobey rules and regulations, not performing daily prayer, not fasting during Ramadan, talking bad about others, not covering *aurah* and many other common disobediences. These acts could be driven due to the weak religiosity – as the grand hypothesis of the future studies. If we were to study these phenomena among Muslims especially, the use of uniform measure of religiosity is thus recommended. Such a design would allow a direct and unambiguous comparison of the effects of religiosity in developing personality and as protective function is deemed important and necessary in the near future.

### REFERENCES

- Abdel-Khalek, A.M. 2013. Personality dimensions and religiosity among Kuwaiti Muslim college students. *Personality and Individual Differences* 54(2): 149-152.
- Aghababaei, N. & Arji, A. 2014. Well-being and the HEXACO model of personality. *Personality* and *Individual Differences* 56: 139-142.
- Aghababaei, N. 2012. Religious, honest and humble: Looking for the religious person within the HEXACO model of personality structure. *Personality and Individual Differences* 53(7): 880-883.
- Aghababaei, N. 2013. Between you and God, where is the general factor of personality? Exploring personality-religion relationships in a Muslim context. *Personality and Individual Differences* 55(2): 196-198.
- Al-Khalifah, A.H. 1994. Religiosity in Islam as a protective mechanism against criminal temptation. *American Journal of Islamic Social Sciences* 11(1): 1.
- Almagor, M., Tellegen, A. & Waller, N.G. 1995. The Big Seven model: A cross-cultural replication and further exploration of the basic dimensions of natural language trait descriptors. *Journal of Personality and Social Psychology* 69(2): 300.
- Arfken, C.L., Ahmed, S. & Abu-Ras, W. 2013. Respondent-driven sampling of Muslim undergraduate US college students and alcohol use: pilot study. *Social psychiatry and psychiatric epidemiology* 48(6): 945-953.
- Ashton, M.C. & Lee, K. 2008. The prediction of Honesty–Humility-related criteria by the HEXACO and Five-Factor Models of personality. *Journal of Research in Personality* 42(5): 1216-1228.
- Ashton, M.C., Lee, K., Perugini, M., Szarota, P., De Vries, R.E., Di Blas, L., Boies, K. & De Raad,
  B. 2004. A six-factor structure of personality-descriptive adjectives: solutions from psycholexical studies in seven languages. *Journal of personality and social psychology* 86(2): 356.
- Burke, A., Van Olphen, J., Eliason, M., Howell, R. & Gonzalez, A. 2014. Re-examining religiosity as a protective factor: Comparing alcohol use by self-identified religious, spiritual, and secular college students. *Journal of Religion and Health* 53(2): 305-316.
- Burris, C.T. & Jackson, L.M. 2000. Social identity and the true believer: Responses to threatened self-stereotypes among the intrinsically religious. *British Journal of Social Psychology* 39(2): 257-278.

- Burris, C.T. & Navara, G.S. 2002. Morality play or playing morality?: Intrinsic religious orientation and socially desirable responding. *Self and Identity* 1(1): 67-76.
- Costa Jr, P.T., Terracciano, A. & McCrae, R.R. 2001. Gender differences in personality traits across cultures: robust and surprising findings. *Journal of personality and social psychology* 81(2): 322.
- Costa, P.T. & MacCrae, R.R. 1992. *Revised NEO personality inventory (NEO PI-R) and NEO fivefactor inventory (NEO-FFI): Professional manual.* Psychological Assessment Resources, Incorporated.
- Digman, J.M. 1990. Personality structure: Emergence of the five-factor model. *Annual review of psychology* 41(1): 417-440.
- Eriksson, K. & Funcke, A. 2014. Humble self-enhancement: Religiosity and the better-thanaverage effect. *Social Psychological and Personality Science* 5(1): 76-83.
- Eysenck, H.J. 1991. Dimensions of personality: 16, 5 or 3? Criteria for a taxonomic paradigm. *Personality and individual differences* 12(8): 773-790.
- Gomes, F.C., de Andrade, A.G., Izbicki, R., Almeida, A.M. & de Oliveira, L.G. 2013. Religion as a protective factor against drug use among Brazilian university students: a national survey. *Revista Brasileira de Psiquiatria*, 35(1): 29-37.
- González, A.L. 2011. Measuring religiosity in a majority Muslim context: Gender, religious salience, and religious experience among Kuwaiti college students—A research note. *Journal for the Scientific Study of Religion* 50(2): 339-350.
- Kagimu, M., Guwatudde, D., Rwabukwali, C., Kaye, S., Walakira, Y. & Ainomugisha, D. 2013. Religiosity for promotion of behaviors likely to reduce new HIV infections in Uganda: A study among Muslim youth in Wakiso district. *Journal of religion and health* 52(4): 1211-1227.
- Krauss, S.E., Hamzah, A.H., Suandi, T., Noah, S.M., Juhari, R., Manap, J.H., Mastor, K.A., Kassan, H. & Mahmood, A. 2006. Exploring regional differences in religiosity among Muslim youth in Malaysia. *Review of religious research* 238-252.
- Lee, K. & Ashton, M.C. 2004. Psychometric properties of the HEXACO personality inventory. *Multivariate behavioral research* 39(2): 329-358.
- Lee, K., Ashton, M.C. & de Vries, R.E. 2005. Predicting workplace delinquency and integrity with the HEXACO and five-factor models of personality structure. *Human performance* 18(2): 179-197.
- Lounsbury, J.W., Smith, R.M., Levy, J.J., Leong, F.T. & Gibson, L.W. 2009. Personality characteristics of business majors as defined by the big five and narrow personality traits. *Journal of Education for Business* 84(4): 200-205.
- Mastor, K. A., Kasan, H., Wilt J. & Revelle, W. 2013. Using multilevel modelling to study affect changes during Ramadan fasting. Paper presented at the 1<sup>st</sup> World Conference on Personality, 23 March 2013, Stellenbosch, South Africa.
- Mastor, K.A., Jin, P. & Cooper, M. 2000. Malay culture and personality: A Big Five perspective. *American Behavioral Scientist* 44(1): 95-111.
- McCrae, R.R. & Terracciano, A., 2005. Universal features of personality traits from the observer's perspective: data from 50 cultures. *Journal of personality and social psychology* 88(3): 547.
- McCrae, R.R., Costa Jr, P.T., Ostendorf, F., Angleitner, A., Hřebíčková, M., Avia, M.D., Sanz, J., Sanchez-Bernardos, M.L., Kusdil, M.E., Woodfield, R. & Saunders, P.R. 2000. Nature over nurture: temperament, personality, and life span development. *Journal of personality and social psychology* 78(1): 173.

- Roberts, B.W., Wood, D. & Smith, J.L. 2005. Evaluating five factor theory and social investment perspectives on personality trait development. *Journal of Research in Personality* 39(1): 166-184.
- Salleh, M.S. 2012. Religiosity in development: A theoretical construct of an Islamic-based development. *International Journal of Humanities and Social Science* 2(14): 266-274.
- Saroglou, V. 2010. Religiousness as a cultural adaptation of basic traits: A five-factor model perspective. *Personality and social psychology review* 14(1): 108-125.
- Saroglou, V., Pichon, I., Trompette, L., Verschueren, M. & Dernelle, R. 2005. Prosocial behavior and religion: New evidence based on projective measures and peer ratings. *Journal for the Scientific Study of Religion* 44(3): 323-348.
- Sedikides, C. & Gebauer, J.E. 2010. Religiosity as self-enhancement: A meta-analysis of the relation between socially desirable responding and religiosity. *Personality and Social Psychology Review* 14(1): 17-36.
- Sisask, M., Värnik, A., K [otilde] lves, K., Bertolote, J.M., Bolhari, J., Botega, N.J., Fleischmann, A., Vijayakumar, L. & Wasserman, D. 2010. Is religiosity a protective factor against attempted suicide: a cross-cultural case-control study. *Archives of Suicide Research* 14(1): 44-55.
- Somer, O. & Goldberg, L.R. 1999. The structure of Turkish trait-descriptive adjectives. *Journal* of personality and social psychology 76(3): 431.
- Stack, S. & Kposowa, A.J. 2011. Religion and suicide acceptability: A cross-national analysis. *Journal for the scientific study of religion* 50(2): 289-306.
- Szarota, P. 1996. Taxonomy of the Polish personality-descriptive adjectives of the highest frequency of use. *Polish Psychological Bulletin* 27: 343-352.
- Szirmák, Z. & De Raad, B. 1994. Taxonomy and structure of Hungarian personality traits. *European Journal of Personality* 8(2): 95-117.
- Tiliouine, H. & Belgoumidi, A. 2009. An exploratory study of religiosity, meaning in life and subjective wellbeing in Muslim students from Algeria. *Applied Research in Quality of Life* 4(1): 109-127.
- Unterrainer, H.F., Lewis, A., Collicutt, J. & Fink, A. 2013. Religious/spiritual well-being, coping styles, and personality dimensions in people with substance use disorders. *International Journal for the Psychology of Religion* 23(3): 204-213.

KHAIRUL ANWAR MASTOR Pusat Citra Universiti Universiti Kebangsaan Malaysia 43600, UKM Bangi Selangor, Malaysia

HASNAN KASAN Pusat Citra Universiti Universiti Kebangsaan Malaysia 43600, UKM Bangi Selangor, Malaysia

\*Corresponding author: kam2000@ukm.edu.my