

EXPLORATION OF FACTORS INFLUENCING SPIRITUAL INTELLIGENCE AMONG THERAVADA BUDDHISTS IN BANGKOK

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Abstract: The topic of spiritual intelligence has received more interest from researchers as a new theory of intelligence in recent years. The current study attempted to investigate factors influencing spiritual intelligence. The factors were classified into three categories: three demographic factors (gender, age, socioeconomic status), two theoretically-related psychological constructs (universal-diverse orientation and cognitive flexibility), and seven religious practices (spreading Dhamma of Buddha, listening and discussing Dhamma with monks or Buddhist teachers, attending meditation courses, praying, giving food to monks, maintaining the Five Precepts, and meditating). Participants consisted of 200 Theravada Buddhists in Bangkok. Each participant was administered instruments which aimed to elicit self-reported ratings of spiritual intelligence (SI), universal-diverse orientation (UDO), and cognitive flexibility (CF). Regression analysis employing the forward selection procedure for entry of the predictive variables in predicting SI was conducted. Results revealed four factors that significantly predicted SI (in rank order), namely: (1) socioeconomic status, (2) religious practice of spreading Dhamma of Buddha, (3) age, and (4) universal-diverse orientation. The combination of these four factors explained significant variance in SI. Other factors examined were not significant in predicting SI. Based on the results, the researcher suggested that the practice of spreading Dhamma of Buddha (for Theravada Buddhists) and the practice of accepting differences in others (based on the UDO concept) should be fostered to increase SI. Further related studies along the same avenue are needed to identify other factors or practices that could influence SI among Theravada Buddhists.

Keywords: Intelligence, Spiritual Intelligence, Religions, Buddhism, Thailand

Introduction

The topic of intelligence has been the subject of scientific debates (King & DeCicco, 2009; Neisser et al., 1996). Although the psychometric approach to intelligence has attracted the most attention and is the most widely used in practical settings, other approaches to intelligence have been suggested by various theorists and cannot be ignored. The variety of concepts of intelligence comes from various points of view such as cultural, developmental, neural, and biological (Neisser et al., 1996).

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Amongst the well-known intelligence theories are intelligence quotient (IQ) and emotional intelligence (EQ) which treat intelligence as one model or type. A well-known and different concept emerged in 1983 when Howard Gardner proposed the idea of “multiple intelligences”. The idea differentiates intelligence into eight (and later nine) types. Later on, more types of intelligence have been proposed by theorists, including the concept of *spiritual intelligence* (SI) which has gained attention in the past decade.

Spiritual intelligence (SI) is not to be confused with spirituality. Spirituality is “the degree to which an individual endorses a relationship with God or transcendent force that brings meaning and purpose to one’s existence” (Armstrong, 1996, as cited in Berkel, Armstrong, & Cokley, 2004, p. 2). It is commonly viewed as an integral part of religious experience. SI, on the other hand, is “the adaptive use of spiritual information to facilitate everyday problem solving and goal attainment” (Emmons, 2000b, p. 59).

Spiritual intelligence (SI) helps us to answer the ultimate questions of life such as, “Who am I?” “Why am I here?” “Where have I come from?” or “Why do we die?” Apart from solving questions related to spiritual concerns, SI can be used to solve problems in non-spiritual contexts such as day-to-day problem solving. Spiritual intelligence is associated with the development and application of values that benefit the greater or common good. Some of these include tolerance, compassion, ecological preservation, and values associated with self-actualization (Kunzmann & Baltes, 2002; Sisk & Torrance, 2001, as cited in Nasel, 2004). Although there is no research that shows the relationship between SI and health, recent research has suggested that spiritual beliefs, commitments, and practices appear to be related to such positive outcomes as physical, emotional, and psychological well-being, positive interpersonal functioning, marital satisfaction and stability, and enhanced quality of life (Hintikka, 2001; Roth, 1988; Seybold & Hill, 2001, as cited in Nasel, 2004).

Interest in SI has emerged in Thailand recently, as evidenced by a number of studies and newspaper articles related to this construct (e.g., Ittivarakorn, 2009; Kumbannaruk, 2011; Pengpinit, 2006; Suphawittayanipan, 2009; Tangjai, 2009). Like other new concepts, the understanding or usage of the term “spiritual intelligence” in Thailand is inconsistent.

In spite of increased interest in the importance of SI, research on the phenomenon is still limited in the East, compared to the broad coverage of the topic in the West. Based on a review of the existing literature, it can be argued that the study of SI in Thailand is very limited. Current studies in Thailand are mainly within the context of organizational psychology, and with very specific populations only. The limitation in context and population leaves a gap on what is the SI of the general Thai population. Furthermore, there are not enough studies that focus on factors that impact on SI. Past research had established that there is a positive correlation between SI and some demographic factors (e.g., age) (Amram, 2007; King 2008a) and related psychosocial variables e.g., work enjoyment (Ittivarakorn, 2009), happiness, organizational citizenship (Suphawittayanipan, 2009). Still there is no Thai-based study devoted to factors influencing SI per se. The current study attempted to bridge the knowledge gap by exploring the influence of several variables on SI, including

theoretically-related psychological constructs, religious practices, and demographic factors.

Two constructs have been shown to be conceptually related to SI: universal-diverse orientation and cognitive flexibility. “*Universal-diverse orientation*” (UDO) refers to the extent to which one is aware of and accepting of both the similarities and the differences among people (Miville et al., 1999). On a different note, one of the core criteria for intelligence is that it should facilitate adaptation, problem-solving, and reasoning in all environmental contexts (King & DeCicco, 2009) which suggests the ability to be flexible and open-minded towards life problems and circumstances. This relates to the concept of “*cognitive flexibility*” (CF) which was described by Martin and Rubin (1995) as a person’s (1) awareness that, in any given situation, there are options and alternatives available; (2) willingness to be flexible and to adapt to the situation; and (3) degree of self-efficacy in being flexible.

With Thailand being a predominantly Buddhist nation, the behavior of Thai people in terms of religious practices was also factored into the current study. This research, thus, examined the impact of certain religious practices on SI. More specifically, this study involved the population of Buddhists who practice *Theravada Buddhism* – the main religion of Thailand. In addition, the current study explored the possible impact of selected demographic characteristics (gender, age, and socioeconomic status) on SI.

Literature Review

Intelligence: An Overview

Intelligence refers to the ability to learn or understand or to deal with new or trying situations, according to the Merriam-Webster dictionary. It is also described as the ability to apply knowledge to manipulate one's environment or to think abstractly, as measured by objective criteria (tests). Many conceptions equate intelligence with the adaptive problem-solving behavior (Emmons, 2000a).

One of the most well-known intelligences is intelligent quotient (IQ) – a score derived from a standardized test designed to assess human intelligence. The two well-known tests for IQ are the Stanford-Binet Intelligence Scale (SBIS) and Wechsler Adult Intelligence Scale (WAIS). High IQ score is moderately associated with academic achievement (Neisser et al., 1996, as cited in Plotnik, 2002, p. 289). It is said that IQ is the best predictor of job performance (Ree & Earles, 1992). However, there is no/weak association between IQ and happiness (Diener, 1984, as cited in Weiten & Lloyd, 2006, p. 20) and success in work, love, and social relationships (Epstein & Meier, 1989, as cited in Weiten & Lloyd, 2006, p. 113).

Researchers later introduced other intelligence concepts such as emotional intelligence (EQ). EQ is described as the ability to perceive emotion, integrate emotion to facilitate thought, understand emotions, and to regulate emotions to promote personal growth (Salovey & Mayer, 1997). It is related to life success, life satisfaction and well-being, physical and mental health, interpersonal relationships, academic achievement, and more (Goleman et al., 1995, as cited in Shabani, Hassan, Ahmad, & Baba, 2010).

Another leading concept of intelligence is multiple intelligences, proposed by Howard Gardner in 1983. Gardner defined intelligence as a set of abilities that are used to solve problems and fashion products that are valuable within a particular cultural setting or community. Unlike previous models of intelligence, Gardner's theory differentiates intelligence into eight types: spatial, linguistic, logical-mathematical, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalistic. Apart from the given eight types, Gardner (1993) also considered a ninth intelligence which he called "existential intelligence" – the ability to explore the nature of existence in its multifarious guises. Existential intelligence qualifies well with the intelligence criteria, yet it is not easily included among the multiple intelligences, chiefly from the lack of convincing evidence about brain structures and processes dedicated to this form of computation (Gardner, 2000). The question about relationship between existential intelligence and spiritual intelligence has been explored by Halama and Strizenec (2004) who proposed that they are related and overlapping constructs with some common as well as unrelated aspects.

Spiritual Intelligence

Definition of spiritual intelligence (SI) is varied due to varying perceptions of different authors. King (2008a, 2008b) defined SI as a set of mental capacities which contribute to the awareness, integration, and adaptive application of the nonmaterial and transcendent aspects of one's existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states. This definition by King (2008) combines the ability of a person in problem solving, meaning production, mental capacity, and self-transcendence through the use of spiritual resources.

The benefits of SI are normally linked with solving problems of existential and moral concerns (Wolman, 2001). In addition, SI can also assist in dealing with mundane, day-to-day problem solving. By becoming spiritually intelligent, a person imbued with a sense of the sacred can bear difficulties associated with the activity, solve problems, and plan effective action. This applies to each individual task as well as the person's life as a whole. In terms of physical health, numerous research outcomes show that the relationship between religion or spirituality and health is complex, suggesting the largely beneficial influence of religion and spirituality on mental and physical health (Nasel, 2004, Saad, Hatta and Mohamad, 2010).

Although the concept of SI is quite new in Thailand, there has been an increase in related studies and articles in recent years (e.g., Ittivarakorn, 2009; Kumbannaruk, 2011; Pengpinit, 2006; Suphawittayanipan, 2009; Tangjai, 2009). A review of the literature revealed two main points of view about SI within the Thai context. One viewpoint shows the concept of SI as being linked with religion and philosophy. Tangjai (2009) used the term "spiritual quotient" (SQ) interchangeably with spirituality, superconscious mind, and wisdom. Within this paradigm, SI is perceived as the ultimate development of the mind which is beyond intelligence. Another position comes from various industrial and organizational psychologists and students (e.g., Ittivarakorn, 2009; Suphawittayapinan, 2009; Kumbannaruk, 2011) who perceived SI as the ultimate intelligence which utilizes all parts of the brain to create peak performance in a person.

King (2008b) proposed four core components of SI: critical existential thinking (CET), personal meaning production (PMP), transcendental awareness (TA), and conscious state expansion (CSE). Based on this model, King (2009) developed and validated the Spiritual Intelligence Self-Report Inventory (SISRI-24), a 24-item self-report measure that displayed excellent internal reliability and is a good fit to the model. The characteristics of emotional stability, agreeableness, and open-mindedness seem to be more commonly used for expressing SI (Noble, 2001, as cited in Hosseini et al., 2010a). Yet, capacities and skills which have been linked with SI may vary from individual to individual, due to personal differences in terms of personality, spiritual tendencies, religious background, and religious practices.

In the context of this study, factors that hypothetically influence SI were classified into three categories: demographic factors, theoretically-related psychological constructs, and religious practices. Based on an extensive review of the literature, this study included the demographic factors of gender and age due to lack of conclusive evidence on their impact on spiritual intelligence (Amaran, 2007; King 2008). Socioeconomic status had not been examined in terms of its relationship with SI; hence, the outcome in this regard would add to the body of knowledge about SI. The constructs of universal-diverse orientation and cognitive flexibility that are deemed theoretically related to SI, but which have not been empirically examined in relation to SI were incorporated in this study. And, finally, the aspect of religious practices which is hypothesized to have an impact on SI was included in this study to determine its influence on spiritual intelligence.

Conceptual Framework

The conceptual framework indicates the general direction of the current study; that is, to explore the factors influencing spiritual intelligence among Theravada Buddhists (in Bangkok). Three categories of factors were examined in this study: (1) demographic factors (gender, age, and socioeconomic status); (2) constructs that are theoretically related to SI (universal-diverse orientation and cognitive flexibility), and (3) religious practices. The conceptual framework of the study is depicted in Figure 1.

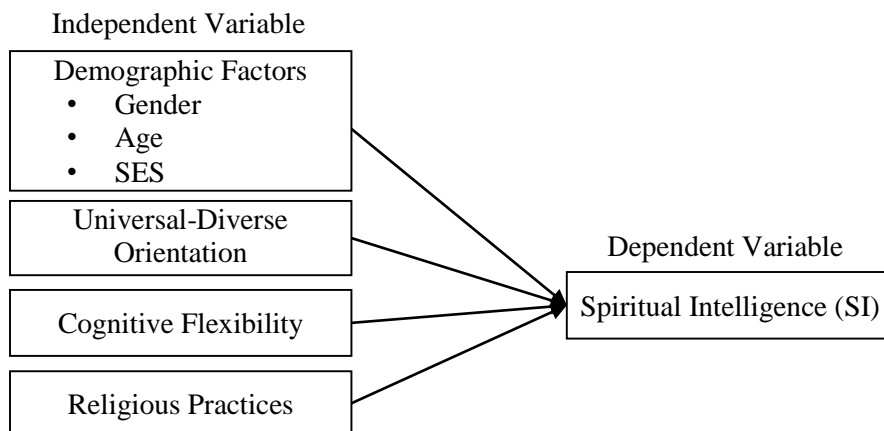


Figure 1: Conceptual Framework of the Study

The following hypotheses were generated for testing.

- H1:* After accounting for demographic variance, universal-diverse orientation will significantly contribute to the variance in spiritual intelligence.
- H2:* After accounting for demographic variance, cognitive flexibility will significantly contribute to the variance in spiritual intelligence.
- H3:* After accounting for demographic variance, religious practices will significantly contribute to the variance in spiritual intelligence.

Method

Participants

The participants of the study consisted of 200 Theravada Buddhists in Bangkok, aged 20 years and above, using the mix of quota sampling method and cluster sampling method. The quota sampling method was utilized to ensure that the sample distribution represented the Bangkok population in terms of gender, age, and socioeconomic status. The cluster sampling was employed to ensure that data collection covered all three areas of Bangkok: inner Bangkok, middle Bangkok, and outer Bangkok.

Instrumentation

The research instrument employed in the current study was a survey questionnaire in Thai which consisted of a series of researcher-constructed questionnaires and Thai adaptations of standardized Western scales or measures which, collectively, aimed to provide a profile of the factors influencing spiritual intelligence. The composite structure of the survey questionnaire was made up of the following sections:

1. The demographic section of the questionnaire was developed by the researcher to obtain selected demographic characteristics of the participants' such as gender, age and socioeconomic status.
2. The Spiritual Intelligence Self-Report Inventory (SISRI-24) is a 24-item self-reported scale developed by David B. King in 2009. From the scale validation conducted by the scale developer, SISRI-24 shows high internal reliability with a Cronbach's alpha of 0.92. The individual subscale shows adequate alpha coefficients ranging from 0.78–0.91. The average inter-item correlation was 0.34, with split-half reliability at the 0.91 level.
3. The 15-item Miville-Guzman Universality-Diversity Scale-Short (M-GUDS-S) is a short form of the 45-item M-GUDS that was reported to have good content and construct validity and internal consistency as well as test-retest reliability in numerous validation procedures to assess UDO (Fuentes et al., 2000; Miville et al., 1999). Internal consistency and retest reliability estimates ranged from .89–.95.
4. The Cognitive Flexibility Scale (CFS), developed by Martin and Rubin in 1995, includes 12 items. Initial findings by Martin and Rubin (1995) showed internal reliability and construct and concurrent validity for the CFS.
5. The religious practices part of the questionnaire was adapted from a questionnaire included in Pinprayong's (2006) thesis titled, "Practices along the Buddhist way". Pinprayong developed the questionnaire from the 10

bases of meritorious action from Buddha's teachings. The questionnaire was selected for use in the current study because of its contents coverage as well as its ease of application. This questionnaire contained 10 questions.

Procedure

Data was collected through a combination of face-to-face interviewing and self-administration of the questionnaire. To represent the actual geographical proportion, data was collected from nine districts from inner Bangkok, seven districts from middle Bangkok, and four districts from outer Bangkok. The districts in each area were randomly selected. The research assistants visited the residential areas in the selected districts of Bangkok, and subsequently visited targeted participants at their homes.

Data Analysis

Two levels of quantitative analysis were conducted: preliminary and main. For preliminary analysis, basic descriptive statistics and correlations were employed. Reliability of SISRI-24, M-GUDS-S, and CFS were evaluated through the internal consistency of items. Pearson correlation analysis was conducted to identify the correlation of SI with universal-diverse orientation and cognitive flexibility. One-way ANOVA was conducted to identify whether there were differences between groups in SI as a function of the selected demographic variables. If one-way ANOVA identified that there were differences between groups in SI, post hoc analysis was performed using the Scheffe's test to identify the significant differences between groups. For main analysis, multiple regression analysis was conducted to assess the strength of relationship between the dependent variable (SI) and the multiple independent variables (selected demographic variables, other theoretically-related constructs, and religious practices).

Results

Preliminary Analysis

For the preliminary analysis on demographic factors, one-way ANOVA revealed no significant effect of gender on SI, $F(1,198) = 2.09, p = .150$. There was a significant effect of age on SI, $F(3,196) = 2.71, p = .046$. However, post hoc comparisons using the Scheffe's test indicated no significant difference between groups. There was a significant effect of SES on SI, $F(2,197) = 5.36, p = .005$. Post hoc comparisons using the Scheffe's test indicated that the mean score of the upper SES ($M = 56.04, SD = 16.74$) was significantly different from that of the lower SES ($M = 46.43, SD = 17.19$). However, the mean score of the middle SES ($M = 51.73, SD = 15.34$) did not significantly differ from that of the upper SES and the lower SES.

(See Table 1 on the next page)

Table 1: Means and Standard Deviations on SISRI-24 for Total Sample and Demographic Subgroups

	SISRI-24 Total Score		
	<i>n</i>	Mean	S.D.
Total	200	51.87	16.72
Gender			
Male	94	53.68	16.31
Female	106	50.26	16.99
Age			
20-29 years	47	48.66	15.51
30-39 years	49	50.29	18.23
40-49 years	48	50.54	15.38
50 years and above	56	57.09	16.66
SES			
Lower	54	46.43	17.19
Middle	73	51.73	15.34
Upper	73	56.04	16.74

In terms of religious practices, One-way ANOVA showed that there was a significant effect of spreading Dhamma of Buddha on SI, $F(2,197) = 6.88, p = .001$. Post hoc comparisons using the Scheffe's test indicated that the mean score for participants who never spread Dhamma of Buddha ($M = 42.86, SD = 18.89$) was significantly different from the mean score of those who spread Dhamma of Buddha sometimes ($M = 53.57, SD = 16.28$) and those who spread Dhamma of Buddha regularly ($M = 55.40, SD = 11.03$). One-way ANOVA revealed no significant effects of the other six religious practices comprising "listening or discussing Dhamma with monks or Buddhist teachers", $F(2,197) = 1.07, p = .346$, "attending meditation courses", $F(1,198) = 3.29, p = .071$, "praying", $F(2,197) = .99, p = .372$, "giving food to monks", $F(3,196) = 1.24, p = .290$, "maintaining the Five Precepts", $F(2,197) = .41, p = .664$, and "meditating", $F(2,197) = 1.47, p = .233$.

(See Table 2 on the next page)

Pearson product moment correlations were obtained to explore relationships between variables in this study. In terms of demographic subgroups, SISRI-24 total score correlated with age, $r(198) = .20, p < .01$, and socioeconomic status (SES), $r(198) = .23, p < .01$. In terms of other theoretically related constructs, SISRI-24 total score correlated with UDO score, $r(198) = .15, p < .05$, but not with CFS score, $r(198) = .00, p > .05$. In terms of religious practices, SISRI-24 total score correlated with 'spreading Dhamma of Buddha', $r(198) = .23, p < .01$. Although these correlations are significant, they are relatively weak in strength. None of the variables has correlation higher than .25. In summary, there was a positive correlation between spiritual intelligence and the following variables: age, socioeconomic status, universal diversity orientation, and spreading Dhamma of Buddha.

Table 2: Means and Standard Deviations on SISRI-24 for Total Sample and Religious Practices Subgroups

	SISRI-24 Total Score		
	<i>n</i>	Mean	S.D.
Total	200	51.87	16.72
Spreading Dhamma of Buddha			
Never	36	42.86	18.89
Sometimes	139	53.57	16.28
Regularly	25	55.40	11.03
Listening or discussing Dhamma with monks or Buddhists teachers			
Never	21	47.67	17.15
Sometimes	153	51.95	17.12
Regularly	26	54.81	13.56
Attending meditation courses			
Yes	117	53.67	16.07
No	83	49.34	17.38
Praying			
Never	9	44.56	11.84
Sometimes	142	51.91	17.22
Regularly	49	53.10	15.90
Giving food to monks			
Never	2	35.50	6.36
Only on Buddhist holy day	24	48.42	19.88
When have chances	136	52.06	16.21
Regularly	38	54.24	16.44
Maintaining the Five Precepts			
Never	25	49.20	16.42
Sometimes	139	52.45	16.90
Regularly	36	51.47	16.50
Meditating			
Never	70	49.13	15.24
Sometimes	117	53.26	17.63
Regularly	13	54.08	15.09

Main Analysis

Regression analysis employing the forward selection procedure for entry of the predictor variables in predicting spiritual intelligence (SI) was used. The independent variables consisted of the following set of predictors: demographic (gender, age, socioeconomic status), theoretically related constructs (UDO and CFS), and religious practices (spreading Dhamma of Buddha, listening and discussing Dhamma, attending meditation courses, praying, giving food to monks, maintaining the Five Precepts, and meditating).

The results of regression analysis indicated that, of the twelve variables used, four variables were significant predictors of spiritual intelligence. They were:

socioeconomic status ($\beta = .18, p < .01$), spreading Dhamma of Buddha ($\beta = .19, p < .01$), age ($\beta = .15, p < .05$), and UDO ($\beta = .14, p < .05$). The results of the regression indicated the four predictors explained 13.2% of the variance ($R^2 = .13, F(1,195) = 4.13, p < .05$).

The results showed that SES, spread Dhamma of Buddha, age and UDO score had significant positive regression weights. This indicated that people in higher SES were expected to have higher SI. People who spread Dhamma of Buddha more frequently were expected to have higher SI. People who are older were expected to have higher SI, and people who have higher UDO score were expected to have higher SI.

Table 3: Summary of Regression Analysis Employing The Forward Selection Procedure for Entry of The Predictor Variables in Predicting SI

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>R</i>	R^2	Adj. R^2	<i>F</i> (df1, df2)
Model 1								
SES	4.78	1.46	0.23	3.28***	0.23	0.05	0.05	10.73 (1,198)
Model 2								
SES	4.57	1.43	0.22	3.20**				
Spread Dhamma of Buddha	6.53	2.06	0.21	3.17**	0.31	0.10	0.09	10.07 (1,197)
Model 3								
SES	4.06	1.44	0.19	2.81**				
Spread Dhamma of Buddha	5.99	2.06	0.20	2.90**				
Age	0.19	0.10	0.13	1.91	0.34	0.11	0.10	3.66 (1,196)
Model 4								
SES	3.81	1.44	0.18	2.65**				
Spread Dhamma of Buddha	5.71	2.05	0.19	2.79**				
Age	0.21	0.10	0.15	2.15*				
UDO	0.28	0.14	0.14	2.03*	0.36	0.13	0.11	4.13 (1,195)

Note: N = 200. UDO = Universe-Diverse Orientation (MGUDS-S; Fuertes et al., 2000)

* $p < .05$. ** $p < .01$. *** $p < .001$

Hypotheses Testing

The findings supported hypothesis 1 (H1) that universal-diverse orientation would significantly contribute to the variance in SI. The findings also supported hypothesis 3 (H3) that religious practices would significantly contribute to the variance in SI. The religious practice that significantly contributed to the variance in SI was 'spreading Dhamma of Buddha'.

The other predictors, including cognitive flexibility (CF) and other religious practices were excluded from the model. These findings were consistent with Pearson correlation in the preliminary analysis. To test hypothesis 3 (H3), regression analysis was used to examine the effects of CF towards SI. It was found that CF does not significantly predict SI, $\beta = -.003, t(198) = -.04, p > .05$. Therefore, hypothesis 3 was not supported.

Summary

Among the twelve independent variables, the following four were found to be predictors of spiritual intelligence: socioeconomic status, the religious practice of spreading Dhamma of Buddha, age, and universal-diverse orientation. Socioeconomic status was the best predictor of SI ($\beta = .18, p < .01$), followed by the religious practice of spreading Dhamma of Buddha ($\beta = .19, p < .01$), age ($\beta = .15, p < .05$), and universal-diverse orientation score ($\beta = .14, p < .05$). Together, all four variables accounted for 13.2% of the variance.

Discussion

Results of data analysis revealed that there was no significant relationship between gender and spiritual intelligence (SI) and that there were no significant differences between the SI of male and female respondents. This finding is consistent with that of a previous study by King (2008a) in which the same instrument (SISRI-24) was employed to measure SI. Based on this finding, it may not be assumed that one gender has higher or lower SI than the other. The results of regression analysis indicated that age is a significant predictor of spiritual intelligence. This finding echoes those of previous studies (Amram, 2007, King, 2008a). Older people seem to have higher SI than younger people. Given that SI implied a capacity for a deep understanding of existential questions (Vaughan, 2000); it fitted with Erikson's stages of psychosocial development. According to Erikson, those in late adulthood would reflect back on their life to answer existential questions such as, "Did I live a meaningful life?" This type of reflection on life is likely to happen when people get older and have already acquired considerable life experience, which a younger adult most likely might not possess.

It is interesting to discover that people of higher SES have higher SI than those of lower SES. In this study, SES was identified by monthly household income. While there has not been any previous attempt to examine the relationship between SES and SI per se, there were earlier studies that explored the relationship between income and other forms of intelligence. For example, Zargorsky (2007) found that IQ score is positively correlated with income. Many forms of intelligence, including SI, are related to adaptive problem solving (Emmons, 2000a; Gardner, 1993; Zohar & Marshall, 2000). It could, thus, be hypothesized that people with higher SI are able to solve various types of problems, including monetary problems. If people with higher intelligence could solve problems in their work environment, it is likely that they would be in a higher position in the organization which could mean higher income. Based on this hypothesis, people can have higher income because they have higher intelligence. On a different note, intelligence may also depend on one's environment. Those of higher SES are more likely to have better education and, thus, more opportunities for higher learning. As a result, they acquire additional skills more than those of lower SES. Also, being in higher levels of SES could mean that they already possess resources that satisfy their basic needs (e.g., food, clothes, shelter, medicine, etc.). It could be hypothesized that people in higher levels of SES whose lower order needs have been satisfied, can focus more on higher need states and have more opportunities to develop higher states of consciousness which lead to higher SI.

Universal-diverse orientation (UDO) was found to be another predictor of SI. The finding suggests that individuals who respect humanity, regardless of race, creed, or belief systems, are persons with high SI who accept the differences among people because they understand that each person or being is not separate. As UDO and SI are theoretically-related, one can conclude that the finding supports the concurrent validity of SI.

The current results revealed that no significant relationship exists between SI and cognitive flexibility (CF) – the awareness that, in any given situation, there are options and alternatives available and that the person is willing to adapt (Martin & Rubin, 1995). The lack of relationship may have resulted from an incompatibility between the instruments employed to measure CF and SI. Another factor could be the appropriateness of using the CFS within the Thai cultural context. Due to its nature, the items in the CFS highlight flexible and proactive decision making. Thai culture is collectivist in the sense that decision making as a group or by majority is encouraged. It is possible that a person can have different ideas and solutions (cognitive flexibility), but he/she may not act upon it if it contradicts the group decision. Furthermore, Thai culture is also a hierarchical culture. The opinions of elders or those in senior positions are respected. Therefore, while a person might have creative solutions he/she might not act upon it if it contradicts the opinions of elders. With the CFS, people with high cognitive flexibility might still receive low scores if they are unable to take action due to social restrictions. In this case, CFS might not be the most appropriate tool to measure cognitive flexibility within the Thai context.

Among the seven Buddhist religious practices included in this study, only ‘spreading Dhamma of Buddha’ was found to be significantly related to SI. Spreading Dhamma of Buddha’ was the only religious practice included in this study that is related to promoting the religion to others. Other religious practices (such as praying or meditating) were more personal in nature.

In order to promote one’s religious beliefs (e.g., spreading Dhamma of Buddha), it could be assumed that people with that intention have substantial knowledge and understanding of Buddha’s teachings, and that they are willing to promote and even defend those teachings. It can be said that those people are advocates of their religion. This is consistent with the findings of Vaughan (2002) who stated that commitment to chosen spiritual practices could help facilitate the development of SI. This might explain why those who spread Dhamma of Buddha have higher SI.

No significant influence on SI was ascribed to the other religious practices (which seem to be more personal or private in nature, compared to spreading Dhamma of Buddha). Nevertheless, it might be too early to conclude that other religious practices have no impact on SI. Results of data analysis showed that those who performed certain religious practices (or performed more frequently) tended to have higher SI. Although the differences were not deemed significant in the current study, there is a need to further explore this aspect, perhaps using a larger sample or a more advanced research design.

Despite the statistical significance in the relationships between SI and the identified predictor factors, it is important to note that this study did not provide clear cause-and-effect results. Another limitation of this study is the fact that the instrument used to measure SI (SISRI-24) is relatively new. It has limited empirical support,

especially within various cultural contexts. Another limitation of this study was the relatively modest sample size ($n = 200$). Although it was more than the minimum sample size required for multiple regression analysis, it might be too small for subgroup analysis (e.g., those who never meditate, meditate sometimes, and meditate regularly). Therefore, some relationships which were found to be insignificant might be the result of a small sample size rather than an actual insignificant relationship. Despite these limitations, this study is anticipated to serve as an important knowledge resource and database on account of its being the first empirical study to investigate the factors that influence SI among Theravada Buddhists in the country.

As the ultimate goal of spiritual intelligence (SI) is to help a person reach his/her full potential, factors that are deemed significantly related to SI can serve as bases for preliminary guidelines for SI development. From this study, it can be gleaned that fostering the practice of accepting and respecting differences among people (based on the UDO concept), and the religious practice of spreading Dhamma of Buddha (for Theravada Buddhists) have the capacity to increase SI. There are several implications from this study which can be viewed from different levels.

On an individual level, the result of this study can serve as a preliminary guideline on how a person can improve his/her SI. People with high SI explore the meaning of questions such as “Who am I”, “Why am I here?” or “What really matters?” By being able to answer these questions, people with higher SI would be able to have a clearer view of the world and are able to make the “right” choices for themselves. Furthermore, having a high level of SI would help an individual improve his or her problem solving skills as well as support personal development.

From a mental health and counseling perspective, SI can be incorporated into various types of counseling. For example, it can be infused into grief counseling where counselors aim to help the client cope with grief and mourning for the loss of a loved one or during major life-changing events. SI development can also be applied in some domains of organizational psychology such as executive coaching. According to Amram (2009), SI is significantly correlated with leadership effectiveness. Executives with high SI tend to have high leadership effectiveness. Therefore, SI can be promoted as one criterion for development of executives in the organization.

People at all stages of life can benefit from the development of SI. High school or college is the period in which “the foundation for future education, major life roles, relationships, and working toward long-term productive goals are established” (Hosseini, Elias, Krauss, & Aishah, 2010, p. 179). With development of SI, adolescents will have knowledge about who they are and their meaning and place in the world. When a person graduates and enters the workforce, one of the greatest challenges is how to choose the right career. People who are spiritually mature can answer not only the question of “who am I” or “why am I here”, but are also able to link the meaning of their existence to the service they want to give to the world. This can translate into a fulfilling career. The assessment of SI can be incorporated into career counseling to help a person understand himself/herself better. This might lead him/her to a more fulfilling career. Developmentally, most adults plan to get married or have long term committed relationships and start families. This developmental stage possesses its own challenges within the area of marriage and family counseling.

The common issue in the relationship is conflict. With SI, they are likely to find solutions to the conflict that would benefit every party in the relationship.

Another benefit of SI is that it helps a person to distinguish reality from illusion. From a social point of view, the main illusion nowadays is the concept of materialism. Majority of people believe that “more is good” or “the bigger, the better”. By promoting SI to the society and community, society can learn that happiness can be gained from moderation, not excess. This fits very well with King Bhumibol’s philosophy of “sufficient economy”. The philosophy has three pillars; moderation, reasonableness, and risk management. SI can be promoted as the path that is consistent with the King’s philosophy which is widely accepted in Thailand.

Therefore, apart from contributing to the literature about SI, this study has various implications. The promotion and development of SI can yield benefits at various levels: personal level, mental health level, and society/community level.

Future researchers in this area of study may expand the target population to include a wider geographical area comprising of other regions of Thailand. They could include Thai populations of other religions other than Theravada Buddhists (e.g., Christian, Muslim, etc.). The study could also be conducted with other samples such as those who practice religion on a regular basis (i.e., monks, priests, etc.). ‘Cause-and-effect’ or experimental studies (e.g., pretest-posttest control group design) could prove to be a more reliable method of identifying factors that can cause higher SI, leading to more concrete methods of improving SI among people. Research on SI using a different instrument other than SISRI-24 could be conducted to validate whether the predictors identified in this study are still valid when a different measure is used. Finally, the four predictors of spiritual intelligence identified in this study marginally explain SI. One is left with the question, “What other variables impact spiritual intelligence?” Or alternatively, “What other variables can reliably predict spiritual intelligence better than the four predictors identified in this study?” These questions could be addressed in future studies in this area.

References

- Amram, Y. (2007). *The seven dimensions of spiritual intelligence: An ecumenical, grounded theory*. Paper presented at the 115th Annual Conference of the American Psychological Association, San Francisco, CA.
- Berkel, A., Armstrong, T. D., & Cokley, K. O. (2004). Similarities and differences between religiosity and spirituality in African American college students: A preliminary investigation. *Counseling and Values*, 49(1), 2-14.
- Bryant, A. N. (2007). Gender differences in spiritual development during the college years. *Sex Roles*, 56(11-12), 835-846.
- Emmons, R. A. (2000a). Spirituality and intelligence: Motivation, cognition, and the psychology of ultimate concern. *International Journal for the Psychology of Religion*, 10, 3-26.
- Emmons, R. A. (2000). Spirituality and intelligence: Problems and prospects. *International Journal for the Psychology of Religion*, 10, 57-64.
- Fuertes, J. N., Miville, M. L., Mohr, J. J., Sedlacek, W. E., & Gretchen, D. (2000). Factor structure and short form of the Miville-Guzman universality-diversity scale. *Measurement and Evaluation in Counseling and Development*, 33, 157-169.

- Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.
- Gardner, H. (2000). A case against spiritual intelligence. *International Journal for the Psychology of Religion*, 10, 27-34.
- Goleman, D. (1995). *Emotional intelligence*. New York, NY: Bantam Books.
- Halama, P., & Strizenec, M. (2004). Spiritual, existential, or both? Theoretical considerations on the nature of higher intelligences. *Studia Psychologica*, 43, 239-253.
- Hosseini, M., Elias, H., Krauss, S., & Aishah, S. (2010). A review study on spiritual intelligence and adolescence: Factors that may contribute to individual differences in spiritual intelligence and related theories. *International Journal of Psychological Studies*, 2(2), 179-188.
- Ittivarakorn, R. (2009). *The relationship between spiritual quotient, joy at work, and turnover intention: A case study of a private company in Bangkok* (Unpublished master's independent research), Thammasat University, Bangkok.
- King, D. (2008). *Personal meaning production as a component of spiritual intelligence*. Paper submitted for presentation at the 5th Biennial International Conference on Personal Meaning, Toronto, Ontario.
- King, D. (2008b). *Rethinking claims of spiritual intelligence: A definition, model, and measure* (Unpublished master's thesis), Trent University, Ontario.
- King, D., & DeCicco, T. L. (2009). A viable model and self-report measure of spiritual intelligence. *International Journal of Transpersonal Studies*, 28, 68-85.
- Kumbannaruk, T. (2011, September 21). *6Qs Chanachiwit kityang atchariya* [6Qs winning in life, think like a genius]. Graduate School, Khon Kaen University. Retrieved from <http://intranet.gs.kku.ac.th/km/download/File/gsq42.pdf>
- Mahoney, A., Pargament, K. I., Jewell, T., Swank, A. B., Scott, E., Emery, E., & Rye, M. (1999). Marriage and the spiritual realm: The roles of proximal and distal religious constructs in marital functioning. *Journal of Family Psychology*, 13, 321-338.
- Martin, M. M., & Anderson, C. M. (1998). The Cognitive Flexibility Scale: Three validity studies. *Communication Reports*, 11(1), 1-9.
- Martin, M. M., & Rubin, R. B. (1995). A new measure of cognitive flexibility. *Psychological Reports*, 76, 623-626.
- Mayer, J. D. (2000). Spiritual intelligence or spiritual consciousness? *International Journal for the Psychology of Religion*, 10, 47-56.
- Miville, M. L., Carlozzi, A. F., Gushue, G. V., Schara, S. L., & Ueda, M. (2006). Mental health counselor qualities for a diverse clientele: Linking empathy, universal-diverse orientation, and emotional intelligence. *Journal of Mental Health Counseling*, 23(2), 151-165.
- Miville, M. L., Gelso, C. J., Pannu, R., Liu, W., Touradji, P., Halloway, P., et al. (1999). Appreciating similarities and valuing differences: The Miville-Guzman Universality-Diversity Scale. *Journal of Counseling Psychology*, 46, 291-307.
- Moberg, D. O. (2002). Assessing and measuring spirituality: Confronting dilemmas of universal and particular evaluative criteria. *Journal of Adult Development*, 9(1), 47-60.

- Nasel, D. D. (2004). *Spiritual orientation in relation to spiritual intelligence: A consideration of traditional Christianity and new age/individualistic spirituality* (Unpublished doctoral dissertation), University of South Australia, Adelaide.
- Neisser, U., Boodoo, G., Bouchard, Jr. T. J., Boykin, A. W., Brody, N., Ceci, S. J., & Urbina, S. (1996). Intelligence: Knowns and unknowns. *The American Psychological Association, Inc.*, 51(2), 77-101.
- Pengpinit, T. (2006, November 13). *Kwamchaladtangjitwinyarn* [Spiritual intelligence]. Matichon, p. 10.
- Pinprayong, T. (2006). *The study of the roles played by the laity in supporting Buddhism: A case study of the roles played by the laity who are employees in the transmissions system business, the Electricity Generating Authority of Thailand* (Unpublished doctoral dissertation), Mahachulalongkornrajavidyalaya University, Bangkok.
- Plotnik, R. (2002). *Introduction to psychology*, California: Wadsworth-Thompson Learning.
- Ree, M. J., & Earles, J. A. (1992). Intelligence is the best predictor of job performance. *Current Directions in Psychological Science*, 1(3), 86-89.
- Saad, Z. M., Hatta, Z. A., & Mohamad, N. (2010). The impact of spiritual intelligence on the health of the elderly in Malaysia. *Asian Social Work and Policy Review*, 4, 84-97.
- Salovey, P., & Mayer, J. D. (1989). Emotional intelligence. *Imagination, Cognition, and Personality*, 9(3), 185-211.
- Shabani, J., Hassan, S.A., Ahmad, A., & Baba, M. (2010). Age as moderated influence on the link of spiritual and emotional intelligence with mental health in high school students. *Journal of American Science*, 6(11), 394-400.
- Silverman, W., Mizejeski, C., Ryan, R., Zigman, W., Krinsky-McHale, S., & Urv, T. (2010). Stanford-Binet and WAIS IQ differences and their implications for adults with intellectual disability (a.k.a. mental retardation). *Intelligence*, 38(2), 242-248.
- Suphawittayapinan, A. (2009). *Relationship between spiritual quotient, happiness, and organizational citizenship behavior: A case study of a private hospital in Nakornpathom province* (Unpublished master's independent research), Thammasat University, Bangkok.
- Tangjai, P. (2009). *Jittavittayakarnsuksa – Wiwat soo SQ jitwinyarn* [Educational psychology – Evolve to SQ], Matichon.
- Vaughan, F. (2002). What is spiritual intelligence? *Journal of Humanistic Psychology*, 42, 16-33.
- Weiten, W., & Lloyd, M. A. (2006). *Psychology applied to modern life: Adjustment in the 21st century* (8th Ed.). Belmont, CA: Thomson Wadsworth.
- Wilson, K., & Gilmore, L. (2012). Assessing intellectual functioning in young adolescents: How do the WISC-IV and SB5 compare? *Australian Journal of Guidance and Counselling*, 22, 1-14.
- Wolman, R. N. (2001). *Thinking with your soul: Spiritual intelligence and why it matters*. New York: Harmony Books.
- Zagorsky, J. (2007). Do you have to be smart to be rich? The impact of IQ on wealth, income, and financial distress. *Intelligence*, 35, 489-501.

- Zinnbauer, B. J., Pargament, K. I., Cole, B., Rye, M. S., Butter, E. M., Belavich, T. G., & Kadar, J. L. (1997). Religion and spirituality: Unfuzzifying the fuzzy. *Journal for the Scientific Study of Religion*, 549-564.
- Zohar, D., & Marshall, I. (2000). *SQ: Connecting with our spiritual intelligence*. New York, NY: Bloomsbury.