

Religiosity, Spirituality, and Happiness in Thailand from the Perspective of Buddhism

Lylla Winzer¹, Bhubate Samutachak¹ and Rossarin Soottipong Gray^{1*}

Abstract

Studies on the association between religiosity, spirituality, and happiness in the Buddhist context remain scarce despite the great number of followers of this religion around the world. Theravada Buddhism, as the dominant Buddhist sect in Thailand, has a strong influence on Thai people's attitudes, thoughts, and way of life. The purpose of this study was to explore the link between religiosity and spirituality and level of happiness among the Thais. Data were pooled from national surveys on social and cultural issues in 2008 and 2011. The samples were 25,950 and 23,671 Thai people aged 15 years or older. The results revealed frequency of religious and spiritual practices was significantly associated with greater level of happiness, even after controlling for study year, demographic factors (age, sex, and marital status), and socioeconomic factors (education and occupation). Respondents who abided by the five precepts of Buddhism and meditated on Buddhist holy days reported higher levels of happiness. Those who regularly expressed gratitude, gave an opportunity to others before oneself, and made donations were more likely to consider themselves happy compared with those who never or rarely engaged in these Buddhist-inspired practices. These findings support the idea that religiosity and spirituality play a relevant role in the level of happiness among Thai people.

Keywords:

Buddhism; happiness; religiosity; spirituality

Introduction

The link between religiosity, spirituality and happiness has been extensively studied. However, most of these studies have been conducted in western countries among Christian, and, to a lesser extent, on Jewish and Muslim samples (Koenig, 2012). It is well known that religions are greatly diverse at a philosophical and practical level and they may conceptualize happiness in fundamentally different ways (Joshnloo, 2014). Even in the same religion, different sects or branches may follow different beliefs and practices. This means determining the influence of religiosity and spirituality on human well-being can be challenging because neglecting the diversity of how religiosity and spirituality manifest across religions can lead to deceptive generalizations of the most commonly studied religions over the less studied ones.

In this context, based on data of two large nationally representative samples obtained from the National Statistic Office in Thailand in 2008 and 2011, this study investigates the association between religiosity and spirituality with happiness in the understudied context of Thailand's Theravada Buddhism.

¹ Institute for Population and Social Research, Mahidol University, Thailand

* Rossarin Soottipong Gray, corresponding author. Email: rossarin.gra@mahidol.ac.th

Happiness in Thailand

Happiness has become a policy goal in many countries (Frey & Gallus, 2013). Rather than focusing only on economic indicators (e.g., GDP), many countries, such as Bhutan (Ura et al., 2012) and Thailand, consider happiness an alternative indicator of human development. For example, Thailand measures happiness using a "Green and Happiness Index", which is now being used alongside GDP to measure the country's progress (Office of the National Economic and Social Development Board, 2009). This index consists of six different domains (i.e., physical and mental well-being, family, community strength, economic strength and equity, environment and ecological balance, and democratic society with good governance) and has been designed to capture objective indicators of well-being. For this reason, it neglects people's subjective perception of their own lives, failing to fully reflect their quality of life.

The concept of subjective well-being or happiness is usually based on self-assessment where people indicate how satisfied they are with their lives as a whole (Kalmijn & Veenhoven, 2005). The use of subjective measurements for assessing happiness is common in developed countries, but there have been relatively fewer studies in developing countries (Cummin et al., 2003). In Thailand, a recent report using a nationally representative sample investigated factors associated with Thai people's life satisfaction and happiness. The results showed that economic (e.g., higher income), work (e.g., higher stability, lower pressure), personal attitude (e.g., higher liveliness), social factors (e.g., higher frequency of community participation, higher confidence in the social system), and demographic factors (e.g., being married, of a younger age, and having higher educational level) were positively associated with happiness (Decharut, 2012). The report, however, did not investigate the role of religiosity and spirituality on the level of happiness among the Thai population.

Interestingly, a study there suggested that life satisfaction and religion have strong correlation. In this study, religion and spirituality were combined in the same life satisfaction domain, and respondents were asked: "How satisfied are you with your religion or spirituality?" This subjective measurement gained the highest mean scores across all life satisfaction domains (Yiengprugsawan et al., 2010). These results point to the importance of better understanding the role of religiosity and spirituality in happiness in Thailand.

Definition of religiosity and spirituality and their association with happiness

Religion is an organized system of shared doctrine among a group of people, and it contains rituals and ceremonies that may be practiced in private or public settings, with the purpose of coming close to the transcendent (Koenig et al., 2012). Religiosity refers to how religiously committed a person is (McAndrew & Voas, 2011). Spirituality may arise from religious values but it is not necessarily firmly based on a religious doctrine (Koenig et al., 2012). It is a more subjective and personal-oriented experience in the search for meaning in life and a relation with the transcendent (Ross, 2006) and may intersect with secular humanistic values, including compassion, generosity, and gratitude (Zwingmann, Klein, & Büssing, 2011).

Due to the difficulty in differentiating empirically both terms, religiosity and spirituality are very often used interchangeably. In fact, regardless of the theoretical difference between both terms, numerous studies have demonstrated the close association between them and happiness. Literature review showed both religiosity and spirituality were positively linked to happiness or well-being (Koenig et al., 2012). Out of 326 quantitative studies the author had analyzed, 256 (79%) showed a positive association between religiosity and spirituality with happiness or well-being, and less than 1% (3 studies) found a significant negative relationship.

Additionally, the review also discovered a relationship between religiosity and spirituality with better-coping strategies, altruism, gratefulness, kindness, and compassion.

Previous empirical studies in Thailand have also pointed to the association between religiosity and spirituality with happiness. Specifically, adhering to all five religious precepts by Buddhists, the act of helping others, and making donations were found to be positively associated with happiness (Gray, Tantipiwatanaskul, & Suwannoppakao, 2010). A second study showed that one of the best predictors of a lower or higher level of happiness in a Thai sample was related to the feeling of relative poverty. In other words, people who felt less poor compared to their neighbors reported higher levels of happiness (Gray, Kramanon, & Thapsuwan, 2008). According to the authors, this significant association might have to do with the Buddhist notion of self-sufficiency or “contentment,” which teaches that one should be content with what one has. A third study found that Buddhist teachings helped caregivers of older adults to cope better with their stress levels (Gray et al., 2016). Another study showed that the commitment to Buddhist institutionalized practices (e.g., giving a donation, praying, and meditating) and the endorsement of Buddhist values in their behavior (e.g., altruism, generosity, and forgiveness) were positively linked to happiness and health in a representative sample of Thai Buddhists (Winzer & Gray, 2018).

Despite the scholarly focus on the relationship between religiosity and spirituality with happiness in Thailand, information on this is still limited. Since most studies were conducted in the West (for a review, see Koenig, 2012), there has been a call for more studies on the link between religion and spirituality with happiness elsewhere (The International Wellbeing Group, 2006; Yiengprugsawan et al., 2010; Wills, 2009). For this purpose, it is relevant to describe the Buddhist context in Thailand.

Theravada Buddhism: Religiosity and Spirituality in Thailand

According to Pew Research Center (2012), there are about 488 million Buddhists worldwide, representing 7.1% of the world population in 2010. More than 98% of Buddhists reside in Asia-Pacific. In Thailand, 94% of its people define themselves as Buddhists (National Statistical Office, 2010). There are, however, three major branches of Buddhism in the modern world (Pew Research Center, 2012): *Mahayana Buddhism* in East Asian countries (e.g., China, Japan, South Korean and Vietnam), *Theravada Buddhism* in South and Southeast Asian countries (e.g., Sri Lanka, Thailand, Myanmar, Laos, and Cambodia) and *Vajrayana* (mainly in Tibet and Bhutan).

The archeological evidence suggests that Theravada Buddhism was founded before 5 B.C. in the area that is now Thailand (Prince Damrong Rajanubhab, 1973). Buddhism in Thailand has two dominant characteristics: Pragmatic Buddhism and Popular Buddhism. Pragmatic Buddhism is a normative and idealistic way of practicing Theravada Buddhism. It encourages Buddhists to focus on intellectual reasoning and scriptural teaching of Buddha (*Tripitaka*: Buddhist scriptures), and to stay away from supra-natural features and its related ceremonies. Pragmatic Buddhism does not focus heavily on karma (actions and fruit of actions) of the past and next life, but rather karma in the intellectual connections between cause and effect (Ghose, 2007). As it is said in the scripture, ‘...plant a mango seed and there grow a mango tree’, Pragmatic Buddhism disregards supra-natural cause-and-effect such as the effect of karma committed in the past-life on one’s being in this life. Some scholars refer to this branch as ‘Intellectual Buddhism’ or ‘Normative Buddhism’ (Sirikanchana, 2014). The movement towards Pragmatic Buddhism was initiated by Reverend Buddhadasa Bhiku, whose teachings attempt to highlight the core from non-core of the Buddhist concepts and practices with a call to focus on the core. This branch of Buddhism also calls for improvement of society through socially

responsible activities, such as environmental conservation, poverty eradication, community and livelihood improvement. Pragmatic Buddhism is seen as ideal and requires highly intellectual minds and self-discipline.

Popular Buddhism or Folk Buddhism is the result of Theravada adaptation through the long history of its existence in Thailand. It absorbs the practice of animism that has existed long before the arrival of Theravada (e.g., this can be seen in the tradition of keeping spirit shrine in Thai houses). It also reflects many characteristics of Mahayana Buddhism (e.g., worshiping Bodhisattva), and even of Hinduism (e.g., praying to Hindu gods). In fact, Popular Buddhism is a combination of various Eastern beliefs in Thailand, but having Buddha's scripture as its focus.

In Pragmatic as well as in Popular Buddhism, the most basic level of religious practices is to keep *sila* (the five precepts of Buddhism towards virtuous behaviors), practice *dana* (giving), and *bhavana* (meditative development) (Payutto, 2007). These three actions are meant to achieve *kusala* (meritorious actions). The practice of *sila* prohibits stealing, sexual misconduct, false speech, consumption of alcohol and other intoxicating drugs, and killing or harming living beings. *Dana* is achieved through generosity and giving a donation to temples, monks, and those in trouble. The meaning and practice of *dana* also includes to put others before oneself. According to the Dictionary of Buddhism (Payutto, 2016), *Bhavana* is the practice of cleansing the mind through meditation which tranquilizes and clears the mind leading ultimately, to *paññā* (wisdom). This term also refers to the act of development, training, or cultivating in different aspects of human life – e.g. physical, moral, mental and intellectual (spiritual). Among Pragmatic or Popular Thai Buddhists, these actions determine their decency. This paper will examine whether the practice of Theravada Buddhism contributes to happiness among the Thais.

The present study

Even though Thailand has adopted a national policy of promoting happiness, and Thai people's behaviors and attitudes are strongly shaped by their Buddhist beliefs and teachings, there are only a few studies (Winzer & Gray, 2018) that address directly the role of religiosity and spirituality on happiness in Thailand. The present study aims to fill this gap by investigating whether religiosity and spirituality are linked to the level of happiness among Thais.

Methodology

Source of data

Data for this study were obtained from the Social and Cultural Situation and Mental Health Survey carried out by the National Statistical Office in 2008 and 2011 with two nationally representative samples. Respondents were selected through a two-stage stratified sampling design. In the first stage, blocks in municipal areas and villages in rural areas in all provinces were sampled while in the second stage, private households were selected. In each selected household, all individuals aged 15 years or older were interviewed face-to-face. The questions were identical in both surveys. The samples included 25,950 Thai people in 2008 and 23,671 in 2011.

Measures

Happiness. A single item was used to assess happiness and read as follows: "Presently, what is your level of happiness?" The response scores ranged from 0 to 10, where 0 meant "extremely unhappy" and 10 "extremely happy." The advantages of using a single global question in assessing happiness can be found in Abdel-Khalek (2006) and George (2010).

Religiosity and spirituality. Participants were asked about the frequency in which they practiced meditation and observed all five precepts of Buddhism (i.e., abstaining from killing, stealing, sexual misconduct, false speech, and taking intoxicants) in the previous year. The questions were "During the last year, how often did you practice meditation?" and "During the last year, how often did you refrain from going against all the five precepts?" The options given were every day, almost every day, holy days, important religious days, important non-religious days (e.g., Thai New Year and birthdays), rarely, or never. Respondents were also asked how often they returned a debt of gratitude, gave an opportunity to others before oneself, and made donations in the previous year. The choices were never, rarely, sometimes, and always.

Demographic and socioeconomic background. Participants were asked to provide information on age, sex, marital status, education, and occupation.

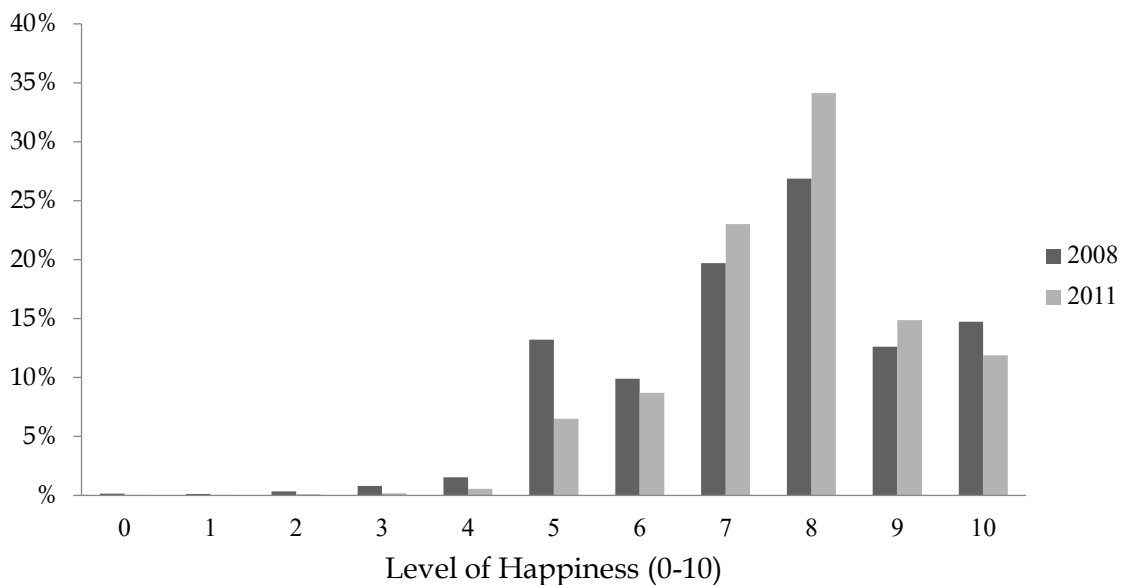
Analytical strategy

The cross-sectional data was analyzed and dummy variable of the year was created to be a control variable to observe the difference in happiness between 2008 and 2011. Binary logistic regression was used to explore factors affecting happiness. The dependent variable was the level of happiness (0-10). It was categorized into two groups: 0-6 referred to less happy (= 0) while 7-10 referred to happier (= 1). There were two statistical models: Model 1 represented the simple regression model in which happiness was regressed only on religiosity and spirituality, and Model 2 examined whether the effect of religiosity and spirituality on happiness changed after controlling for variables representing demographic and socioeconomic characteristics, and year of study.

Results

The distribution of level of happiness was similar in both years, with a slight increase in 2011, especially between the levels 7 to 9 (Figure 1). In both samples, more than 70% of the respondents reported a level of happiness greater than or equal to seven. Regarding demographic and socioeconomic characteristics, both samples had a higher proportion of respondents aged between 25 and 59, currently married, with a primary level of education and engaged in agricultural activities (Table 1). There was no information on income.

Figure 1: Percent of respondents according to their level of happiness in 2008 (N= 25,950) and 2011 (N= 23,671).



Note: On the average, the percent of respondents who were less happy (0-6) decreased from 26.1 in 2008 to 16.1 in 2011. During the same period, the percent of respondents who were happier (7-10) increased from 73.9 to 83.9.

Table 1: Descriptive summary of demographic and socioeconomic characteristics and region of residence of the sample in the years 2008 and 2011.

Variables	Year		Total
	2008 (N=25,950)	2011 (N=23,671)	
Demography	%	%	%
15-24	12.2	10.0	11.1
25-59	70.0	69.5	69.8
60+	17.8	20.6	19.1
Female	60.1	61.7	60.9
Never married	16.7	16.2	16.5
Currently married	69.1	67.4	68.3
Widowed/divorced/separated	14.2	16.4	15.2
No education/lower than primary	21.4	25.1	23.2
Primary	41.0	35.8	38.5
Secondary	28.8	29.7	29.3
Tertiary and higher	8.8	9.3	9.0
Not working	25.8	25.5	25.7
Government official	6.1	5.6	5.9
Private employee	16.0	14.5	15.3
Self-employed	18.6	18.6	18.6
Agriculturist	28.9	30.4	29.6
Laborer	4.6	5.3	4.9

Regarding religiosity and spirituality, in 2008 and 2011, most respondents reported they rarely or never observed the five precepts of Buddhism (76% and 70%, respectively) or practiced meditation (86% and 83%). However, most participants reported that they always or sometimes repaid a debt of gratitude (91% and 92%), gave an opportunity to others before oneself (81% and 82%), or made donations (79% and 83% respectively). Table 2 contains more details.

Table 2: Descriptive summary of the level of happiness, religiosity, and spirituality in the years 2008 and 2011.

Variables	Year	
	2008	2011
	(N= 25,950) %	(N= 23,671) %
Happiness		
less happy (0-6)	26.1	16.1
happier (7-10)	73.9	83.9
Religiosity and spirituality		
Undertaking the Five Precepts		
Always	11.7	14.6
Holy days/important days	12.4	15.0
Rarely/none	75.8	70.4
Practice of meditation		
Always	6.0	7.2
Holy days/important days	7.7	9.9
Rarely/none	86.3	82.9
Repaying a debt of gratitude		
Always	68.9	68.7
Sometimes	22.5	23.3
Rarely/none	8.5	7.9
Giving an opportunity to others before oneself		
Always	37.5	36.8
Sometimes	43.2	44.7
Rarely/none	19.3	18.4
Donation of money, materials or food to those in trouble		
Always	16.5	17.8
Sometimes	61.7	65.1
Rarely/none	21.9	17.0

In order to test if there was a significant change in the level of happiness among the Thai Population between 2008 and 2011, a logistic regression considering the samples of both years together ($N = 49,621$) was conducted. In the first model, the direct effect of religious and spiritual practices on happiness without controls was tested. In the second model, the influence of religious and spiritual practices on happiness controlling for demographic factors (age, sex, and marital status), socioeconomic factors (education and occupation), and year of study was tested.

The first model (Table 3) shows that respondents who practiced meditation on holy days, always repaid a debt of gratitude, at least sometimes gave opportunities to others before themselves and made donations reported higher levels of happiness than those who never or

rarely engaged in these practices. The second model (Table 4) shows that the level of happiness increased significantly from 2008 to 2011. This regression analysis also reveals religious and spiritual practices were significantly associated with happiness even after controlling for study year, demographic and socioeconomic factors. Respondents who never or rarely engaged in Buddhist practices reported lower levels of happiness. Specifically, those who always observed the five Buddhist precepts, repaid a debt of gratitude, gave an opportunity to others before themselves, and made donations were more likely to consider themselves as happy compared with those who never or rarely engaged in these practices. Most of the religious and spiritual variables were significantly associated with happiness at a 95% level of confidence. The non-significant variables were always practicing meditation and repaying a debt of gratitude sometimes.

Table 3: Adjusted odds ratios (OR) for religiosity and spirituality from binary logistic regression predicting happiness (without control variables).

Variables	Adjusted OR	95% C.I. for EXP(B)	
		Lower	Upper
Undertaking the five precepts (vs. rarely/none)			
Always	1.041	.969	1.118
Holy days and important days	.968	.901	1.040
Practicing meditation (vs. rarely/none)			
Always	.896	.815	.985
Holy days and important days	1.010*	.926	1.102
Repaying a debt of gratitude (vs. rarely/none)			
Always	1.617***	1.495	1.750
Sometimes	1.060	.977	1.151
Giving an opportunity to others before oneself (vs. rarely/none)			
Always	1.214***	1.136	1.296
Sometimes	1.180***	1.112	1.253
Donating (vs. rarely/none)			
Always	2.019***	1.869	2.180
Sometimes	1.472***	1.396	1.552

Note. * $p < .05$; *** $p < .001$

Table 4: Adjusted odds ratios (OR) for religiosity and spirituality from binary logistic regression predicting happiness controlling for study year, demographic and socioeconomic factors.

Variables	Adjusted OR	95% C.I. for EXP(B)	
		Lower	Upper
Year 2011 (vs. year 2008)	1.898***	1.813	1.988
Age (vs. age 15-24)			
Age 25-59	.696***	.632	.766
Age 60 and over	.535***	.479	.596
Male (vs. female)	.988	.942	1.037
Marital status (vs. widowed/divorced/separated)			
Never married	1.678***	1.531	1.840
Currently married	1.735***	1.632	1.844

Variables	Adjusted OR	95% C.I. for EXP(B)	
		Lower	Upper
Education (vs. none/lower than primary)			
Primary	1.037	.982	1.096
Secondary	1.545***	1.441	1.658
Tertiary and higher	2.306***	2.045	2.600
Occupation (vs. not working)			
Government official	1.412***	1.228	1.622
Private employee	1.112**	1.027	1.204
Self-employed	1.247***	1.158	1.342
Agriculturist	1.108**	1.038	1.183
Laborer	.797**	.719	.885
Undertaking the five precepts (vs. rarely/none)			
Always	1.135**	1.053	1.222
Holy days and important days	1.079*	1.002	1.161
Practicing meditation (vs. rarely/none)			
Always	1.034	.936	1.141
Holy days and important days	1.146**	1.048	1.253
Repaying a debt of gratitude (vs. rarely/none)			
Always	1.356***	1.250	1.472
Sometimes	.936	.860	1.020
Giving an opportunity to others before oneself (vs. rarely/none)			
Always	1.200***	1.122	1.284
Sometimes	1.146**	1.078	1.218
Donating (vs. rarely/none)			
Always	1.857***	1.715	2.012
Sometimes	1.360***	1.287	1.437

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

The second model also reveals that particular demographic and socioeconomic characteristics were related to happiness. For example, respondents aged between 15 and 24 years old reported a higher level of happiness compared with those above the age of 25. Never being married or being currently married status were also linked to a higher degree of happiness. However, those who reported having a low level of education and being unemployed were less likely to be happy. Different occupations showed a different level of happiness. For example, government officials showed the highest and laborers the lowest level of happiness compared with other occupations. No significant sex difference was found.

Discussion

The present study aimed to investigate the relationship between religiosity and spirituality and the level of happiness in two representative samples in 2008 and 2011. The findings indicate the adherence to Buddhist precepts, meditation, and commitment to humanistic values endorsed by Buddhism were associated with greater level of happiness. The results are in line with previous studies (Gray et al., 2010; Winzer & Gray, 2018) and with findings from the review conducted by Koenig and colleagues (2012), in which the link between religiosity and spirituality and happiness was found to be positively correlated in almost 80% of the studies, regardless of the religion studied.

The results also suggest that different religious and spiritual practices are related to different levels of happiness. Unexpectedly, the frequency of meditation was significantly linked to happiness only when practiced during holy days or important days. The significant highest odds ratios among respondents who practiced meditation on only holy days and important religious days may have to do with better quality or more focus on meditation compared with those who reported daily practice. On the other hand, people who always practice meditation might be those who face hardship in life, have strong desire to overcome those hardships, are still struggling in the process, and, therefore, may show lower level of happiness. Further research should better investigate this apparent contradiction.

In addition, donating was more strongly related to happiness than undertaking the five precepts and practicing meditation. The greater frequency of donation may have to do with the convenience of this action. That is, donation, as well as giving an opportunity to others before oneself and repaying a debt of gratitude, are more convenient to perform than adhering to the five Buddhist precepts, which consists of restraining oneself from committing bad deeds and being lured into sinful desires. Likewise, meditation requires time and practice to accomplish even at the beginning level. Future research should qualitatively investigate why some religious and spiritual practices (e.g., giving donations) are strongly related to happiness than the others (e.g., practicing meditation).

Results of the present study also confirm findings of previous studies by showing that particular demographic factors, such as being married and higher educational level, are linked to greater levels of happiness (Decharut, 2012; Frey, 2008). Considering occupation, the link between happiness and income in less developed countries (Layard, 2005) was also confirmed by our results. Laborers, which possibly represented the group with the lowest income in our samples, also showed the lowest level of happiness. Laborers were less happy even when compared with people who were not working. This is probably because the last group also included people who did not want to work or who were well-to-do. On the other hand, taking into account age, the results do not reflect the U-shaped relationship between happiness and age proposed by previous studies (Frey & Stutzer, 2002). In fact, this has been questioned by many authors who showed that the relationship happiness by age seems to be more complex than a U-shaped pattern and is greatly reliant on which variables are used as controls in the analysis (Hellevik, 2017; Laaksonen, 2018).

It is important to point out some limitations of the present study. Since the study was based on self-reported measures, there is always the risk of memory distortions and social desirability bias, in particular when describing the frequency of religious and spiritual practices. In addition, the use of pooled cross-sectional time-series data represents an average of national characteristics per unit of time and, therefore, it does not allow for analysis of inter- and intra-individual changes over the years.

Despite these limitations, this study seems to be one among very few (Winzer & Gray, 2018) that demonstrates the relationship of religiosity and spirituality with happiness among representative samples of the Thai population, offering evidence relevant to Theravada Buddhism in Thailand's context. The fact that the results are based on two nationally representative samples provides greater confidence on the generalizability of the conclusions. As for policy implications, findings suggest religiosity and spirituality components should also be part of the "Green and Happiness Index", the instrument used for assessing well-being in Thailand.

Acknowledgements

This research was funded by the Thai Health Promotion Foundation. We would like to thank Dr. Prawate Tantipiwatanaskul, the manager of Mental Project for his support.

References

- Abdel-Khalek, A. M. (2006). Happiness, health and religiosity: Significant relations. *Mental Health, Religion and Culture*, 9, 85-97.
- Cummins, R. A., Eckersley, R., Pallant, J., Van Vugt, J. & Misajon, R. (2003). Developing a national index of subjective wellbeing. The Australian Unity Wellbeing Index. *Social Indicators Research*, 64, 159-190.
- Decharut, S., Priya, U., Wangkarn, S., Rungrojchanakit, D. & Kaewhan, R. (2012). *Thailand's life satisfaction and happiness*. Thailand National Progress Index Program, Healthy Public Policy Foundation. Retrieved September 7, 2015 from <http://www.npithailand.com/sites/default/files/Thailand%20Life%20Satisfaction%20and%20Happiness.pdf>.
- Frey, B. S. (2008). *Happiness: A revolution in economics*. Cambridge, Mass: MIT Press.
- Frey, B. S. & Gallus, J. (2013). Subjective well-being and policy. *Topoi*, 32(2), 207-212.
- Frey, B. S. & Stutzer, A. (2002). *Happiness and economics*. Princeton: Princeton University Press.
- George, L. K. (2010). Still happy after all these years: Research frontiers on subjective well-being in later life. *Journal of Gerontology: Social Sciences*, 65B(3), 331-339.
- Ghose, L. (2007). Karma and the possibility of purification: An ethical and psychological analysis of the doctrine of Karma in Buddhism. *Journal of Religious Ethics*, 35, 2, 259-289.
- Gray, R. S., Kramanon, R. & Thapsuwan, S. (2008). The determinants of happiness among Thai people: Some evidence from Chai Nat and Kanchanaburi. *Thammasat Economic Journal*, 26(2), 72-87.
- Gray, R., Tantipiwatanaskul, P. & Suwannoppakao, R. (2010). Happiness among Thai people: Living a virtuous life, spirituality and self-esteem. *Journal of Mental Health of Thailand*, 18, 71 - 85.
- Gray, R. S., Hahn, L., Thapsuwan, S. & Thongcharoenchupong, N. (2016). Strength and stress: Positive and negative impacts on caregivers for older adults in Thailand. *Australasian Journal on Ageing*, 35(2), E7-E12. doi:10.1111/ajag.12266
- Hellevik, O. (2017). The U-shaped age-happiness relationship: real or methodological artifact? *Quality & Quantity*, 51(1), 177-197.
- Joshanloo, M. (2014). Eastern conceptualizations of happiness: Fundamental differences with western views. *Journal of Happiness Studies*, 15, 475-493.
- Kalmijn, W. & Veenhoven, R. (2005). Measuring inequality of happiness in nations: In search for proper statistics. *Journal of Happiness Studies*, 6(4), 357-396.
- Koenig, H., King, D. & Carson, V. B. (2012). *Handbook of religion and health*. New York, NY: Oxford University Press.
- Laaksonen, S. (2018). A research note: Happiness by age is more complex than U-shaped. *Journal of Happiness Studies*, 1-12.
- Layard, R. (2005). *Happiness: Lessons from a new science*. New York: The Penguin Press.
- McAndrew, S. & Voas, D. (2011). Measuring religiosity using surveys. *Survey Question Bank: Topic Overview*, 4, 1-15.
- National Statistical Office. (2010). *The 2010 population and housing census (Whole Kingdom): Executive summary*. Retrieved September 7, 2015 from <http://popcensus.nso.go.th/file/popcensus-10-01-56-E.pdf>.
- Office of the National Economic and Social Development Board. (2009). *Green and happiness in Thai society: The first year of the 10th National Economic and Social Development Plan*. Bangkok: Office of the National Economic and Social Development Board.
- Payutto, Bhikkhu P.A. (2007). *Vision of the Dhamma: A collection of Buddhist writings in English*. Wat Nyanavesakavan, Nakhon Pathom, Thailand.

- Payutto, P. A. (2016). *Dictionary of Buddhism Phra Brahmaganabhorn*. Retrieved October 15, 2018 from http://www.watnyanaves.net/uploads/File/books/pdf/dictionary_of_buddhism_pra-muan-dhaama.pdf.
- Pew Research Center (2012). *The global religion landscape: A report on the size and distribution of the world's major religious groups as of 2010*, December, Washington, D.C.
- Ross, L. (2006). Spiritual care in nursing: an overview of the research to date. *Journal of Clinical Nursing*, 15(7), 852-862.
- Prince Damrong Rajanubhab (1973). *Monuments of the Buddha in Siam*, trans. Sulak Sivaraksa and A.B. Griswold (Bangkok: The Siam Society). pp.1-2.
- Sirikanchana, P. (2014). *Buddhism in Thailand: Unity in Diversity*. (Thai language) Thammasat Publishing.
- The International Wellbeing Group. (2006). *Personal wellbeing index-adult* (Manual 4th ed.) Melbourne: Australia.
- Ura, K., Alkire, S., Zangmo, T. & Wangdi, K. (2012). *A short guide to gross national happiness index*. Thimphu: The Centre for Bhutan Studies. Retrieved September 7, 2015 from <http://www.grossnationalhappiness.com/wp-content/uploads/2012/04/Short-GNH-Index-edited.pdf>.
- Wills, E. (2009). Spirituality and subjective well-being: Evidences for a new domain in the personal well-being index. *Journal of Happiness Studies*, 10, 49-69.
- Winzer, L. & Gray, R. S. (2018). The role of Buddhist practices in happiness and health in Thailand: A Structural Equation Model. *Journal of Happiness Studies*. doi: <https://doi.org/10.1007/s10902-017-9953-z>
- Yiengprugsawan, V., Seubsman, S., Khamman, S., Lim, L. L.-Y., Sleight, A. C. & the Thai Cohort Study Team (2010). Personal wellbeing index in a national cohort of 87,134 Thai adults. *Social Indicators Research*, 98, 201-215.
- Zwingmann, C., Klein, C. & Büssing, A. (2011). Measuring religiosity/spirituality: Theoretical differentiations and categorization of instruments. *Religions*, 2(3), 345-357.