

Health, Well-being, and Social Indicators Among Monks, Prisoners, and Other Adult Members of an Open University Cohort in Thailand

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The Thai Cohort Study Team

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Abstract This study has brought together two seemingly socially extreme population subgroups to compare their health and social well-being. These groups had in common restricted living arrangements and aspirational enrollment. As well, they are part of the population-based Thai Cohort Study (TCS) of 87,134 adult Open University students residing throughout the country. Analysis was restricted to men aged 20–39 years resulting in 711 monks, 195 prisoners and 29,713 other cohort members. For physical health, we have found certain conditions such as tuberculosis or malaria much more common among prisoners, while goiter and liver diseases were more common among monks. This could be due to prison living arrangements for the former and region of residence for the latter. For other social outcomes, lower trust, higher economic stress and lower personal well-being was noted for prisoners compared to other groups. Findings here with regard to spirituality and religion are encouraging with almost no difference reported between prisoners and other cohort members implying that trust-building and other social intervention for prisoners could be activated through prevalent religious beliefs and practices and with continuing support from Thai prison authorities.

Keywords Spirituality · Religion · Health · Well-being · Monks · Prisoners · Thailand

Introduction

Sukhothai Thammathirat Open University (STOU) is a Thai long-distance educational establishment which offers opportunities to all those who wish to study at the university

The Thai Cohort Study Team members list is given in Appendix.

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level including full-time workers, housewives, monks, ethnic hill tribes, and detainees (Brahmawong 1993; STOU 2008). We have begun a large study of a cohort of STOU students as part of the Thai Health-Risk Transition research project (Sleigh et al. 2008).

In the report presented here, we compare health states and social outcomes of monks and prisoners, two interesting institutionalized subgroups represented among the cohort members. Monks and prisoners are important groups because of their influence on social harmony and community development. It is important to understand some of the social and health challenges faced by monks and prisoners. These challenges are likely to differ from the general population and such differences and their implications are the focus of our report.

In Thailand, Buddhist monks and temples are scattered throughout the country especially in rural areas with ratio of approximately one temple and four monks for every two villages. In many areas, Buddhist monks are able to expand their social development and leadership roles by providing basic education and community support (Hathirat 1983). Several Thai Buddhist monks of high public esteem, including Phra Maha Wudhijaya Vajiramedhi and Abbot Sophonphatthananusit, obtained degrees from STOU. At the opposite end of the social spectrum, for almost three decades, STOU has provided an opportunity for university education for detainees (STOU. 2008). Thus far, more than 1,200 prisoners have received bachelor degrees from STOU in various academic fields in around 80 prisons and correction centers in Thailand (Latif et al. 2009; Sungkatavat 2009).

Methods

Data

The Thai Health-Risk Transition Study includes an ongoing population-based Thai Cohort Study (TCS) of 87,134 adult Open University students residing all over the country. The cohort is made up of distance-learning students who were enrolled at Sukhothai Thammathirat Open University (STOU) in 2005. The 20-page baseline questionnaire distributed in that year covered a wide range of topics including family background, demographic, socioeconomic, and geographic information, dietary intake, risk behaviors, injuries, health status, and use of health services. The cohort members represent the Thai population well in terms of sex ratio, median age, religion, regional distribution, occupation, and median income (Sleigh et al. 2008). Data scanning and editing were conducted using Thai Scandevet software. Further data editing of the baseline study was completed using SQL and SPSS software and for analysis we used SPSS and Stata. Individuals with missing data for analyses presented here were excluded so totals vary a little according to the information available.

Measures and Definitions

There were a total of 854 monks, 269 prisoners, and another 86,011 cohort members who were neither monks nor prisoners. We first briefly summarize demographic, socioeconomic, and geographic characteristics of the whole cohort. Then, to facilitate comparisons of monks and prisoners to other cohort members, the analyzed study group was restricted to men aged 20–39 years, resulting in 711 monks, 195 prisoners, and 29,713 other cohort members. Geographical residence was reported as rural or urban at age 12 and at present, and by current region. Health outcomes analyzed include ever being diagnosed by a doctor

of having tuberculosis, asthma, malaria, dengue fever, goiter, liver disease, kidney disease, or high cholesterol. Self-assessed overall health was measured using the first question of the standard Short Form 8 Medical Outcomes instrument (Idler and Benyamini 1997; Riddle et al. 2001). The question was “Overall, how would you rate your health during the past 4 weeks?”; those reporting ‘poor’ or ‘very poor’ on a six-point scale, we categorized as having ‘poor overall health’.

Four social outcomes were measured. The first is *social trust*—‘you can’t be too careful dealing with people’. The second is *economic stress* ‘often short of money during the past 12 months’ (for things really needed). The third is *personal well-being* that was measured as the mean score out of 10 for ten domains such as ‘standard of living’, ‘achievement in life’, ‘health’, ‘personal relationships’, ‘feeling safe’, ‘feeling part of community’, ‘future security’, ‘surrounding neighbors’, ‘religion and spirituality’ and ‘life as a whole’ (Cummins et al. 2003). The fourth social outcome is *spirituality and religion* measured as a score out of 10 for each of three questions on ‘the importance of religion when facing problems’, ‘the importance of spiritual practices’, and ‘the importance of karma’.

Ethical Issues

Ethics approval was obtained from Sukhothai Thammathirat Open University Research and Development Institute (protocol 0522/10) and the Australian National University Human Research Ethics Committee (protocol 2004344). Informed written consent was obtained from all participants.

Results

Table 1 presents demographic, socioeconomic, and geographic characteristics of the whole cohort which includes 854 monks, 269 prisoners, and the other 86,011 cohort members. All monks and 92.2% of prisoners were men. Among other cohort members, there were slightly more women than men (55.4% vs. 44.6%). Most cohort members were aged between 20–39 years and less than 5% were aged older than 50 years of age. Monks were more likely to live in rural areas (57.7%) compared to prisoners or other cohort members (44.2% vs. 47.8%). When asked about their residence at age 12 years, 82.2% of monks, 71.4% of prisoners, and 74.9% of other cohort members reported residing in rural areas. Monks were also more likely to reside in the Northeastern region (32.6%) compared to prisoners (10.8%).

After restricting analysis to only men aged 20–39 years, the characteristics of the study population are presented in Table 2. Monks in the cohort were mainly 20–29 years of age (61.2%) and residing in rural areas (58.9%). Prisoners and others were found to be almost equally distributed between 20 to 29- and 30- to 39-year age groups and in rural and urban areas for present living location. There is a notable gradient in the frequency of rural residence at age 12 among these three groups (83.5% for monks, 78.1% for other cohort members, and 71.8% for prisoners).

Study areas of enrollments also differ among the three groups (Table 2). Studying law was most commonly reported among prisoners (33.9%) and other cohort members (28.5%) but these two groups also differed substantially for studying management sciences (28.2% vs. 23.4%, respectively) and agriculture and cooperatives (17.9% vs. 8.0%, respectively). Political science was also most reported among monks (32.5%) compared to 11.3% for prisoners and 21.0% among others. Monks were most likely to enroll in the education

Table 1 Demographic and geographic characteristics of monks, prisoners, and other members of the Sukhothai Thammathirat Open University Thai Cohort Study (%)

	Monks (<i>n</i> = 854)	Prisoners (<i>n</i> = 269)	Others (<i>n</i> = 86,011)
Sex			
Male	100	92.2	44.6
Females	0	7.8	55.4
Age (years)			
15–19	3.3	0	2.9
20–29	50.9	36.8	50.8
30–39	32.3	43.1	31.3
40–49	9.7	16.4	12.6
50+	3.8	3.7	2.5
Residence ^a			
Rural (at age 12)	82.2	71.4	74.9
Urban (at age 12)	14.6	24.9	24.1
Rural (at present)	57.7	44.2	47.8
Urban (at present)	40.8	51.7	51.5
Current regions			
Bangkok	15.0	9.7	17.1
Central	23.2	43.5	30.4
North	21.3	19.3	18.0
Northeast	32.6	10.8	20.6
South	7.3	16.7	13.0

^a Not all respondents reported on their residential areas so percentages do not total 100

faculty (8.4%) compared to other groups (1.0% for prisoners and 3.2% among other cohort members).

Table 3 presents comparisons of health and social outcomes among monks, prisoners, and other cohort members. Selected infectious conditions were much more frequent among prisoners including tuberculosis (6.2% compared to 0.4% for monks and 1.0% among other cohort members) and malaria (7.2% compared to 3.5% for monks and 3.5% among other cohort members). Monks reported substantially higher prevalence of goiter and liver diseases than other groups. High cholesterol was reported three times more often among other cohort members than monks or prisoners. Self-assessed health was reported ‘poor’ or ‘very poor’ by 6.2% of prisoners compared to 4.4% for monks and 3.9% for other cohort members.

It is notable that prisoners were much more likely to report low trust (48.7% compared to 27% reported by monks and 37.5% among other cohort members). High economic stress was also remarkably high among prisoners (43.1% compared to 27.1% reported by monks and 31.1% among others). In line with other social outcomes, the personal well-being scores for ‘standard of living’ (4.4/10), ‘achievement in life’ (4.3/10), and ‘surrounding neighbors’ (4.4/10) were rated lowest among prisoners. Monks generally had better personal well-being scores compared to other cohort members and were remarkably high for ‘spirituality and religion’ (9.4/10).

Another social outcome reported in Table 3 was the importance of religion, spirituality practices, and karma. Monks scored highest compared to other groups for all three questions. When prisoners are compared with other cohort members, very slight differences in

Table 2 Selected characteristics of study population^a and their areas of study (%)

Characteristics	Monks (<i>n</i> = 711)	Prisoners (<i>n</i> = 195)	Others (<i>n</i> = 29,713)
Age (years)			
20–29	61.2	46.7	55.0
30–39	38.8	53.3	45.0
Areas of residence			
Rural (at age 12)	83.5	71.8	78.1
Urban (at age 12)	13.8	25.1	20.9
Rural (at present)	58.9	47.1	50.8
Urban (at present)	41.1	52.9	49.2
Current regions			
Bangkok	14.4	8.2	14.2
Central	22.9	41.0	22.7
North	21.0	20.5	19.2
Northeast	33.9	10.8	23.8
South	7.2	19.5	12.9
Areas of enrollment			
Educational studies	8.4	1.0	3.2
Agriculture and cooperatives	5.1	17.9	8.0
Management sciences	18.3	28.2	23.4
Law	22.1	33.9	28.5
Political sciences	32.5	11.3	21.0
Others	13.6	7.7	15.9

^a Analysis was restricted to men aged 20–39 years to enable comparisons between monks, prisoners, and other Thai cohort members without confounding by age and sex

mean scores were found across the three questions (7.1% vs. 7.4%; 5.1% vs. 4.9%; and 6.8% vs. 7.1%).

Discussion

This study reports on comparisons of health and social outcomes among monks, prisoners, and other members of a cohort of Open University adults in Thailand. These are very unique population subgroups enrolled in long-distance learning who participated in the Thai Health-Risk Transition study in 2005. Restricted analyses for men aged 20–39 years (711 monks, 195 prisoners, and 29,713 other cohort members) were reported on here. Monks were more likely to be younger, to have lower incomes, and to reside in rural Northeastern parts of Thailand. Prisoners were slightly older and the majority came from rural areas although they are currently residing in detention facilities in provincial urban areas. However, it was notable that prisoners were substantially less likely to have lived in rural areas as children when compared to monks or other cohort members. Monks were notably more likely to enroll in political science (which includes local administration) and educational studies, while prisoners were more likely to be enrolled in law, management sciences, and agriculture.

We have found certain conditions such as tuberculosis or malaria much more common among prisoners, while goiter and liver diseases were more common among monks. This could be due to prison living arrangements for the former and region of residence for the latter. Physical health reported here also supports other existing studies. In another study,

Table 3 Health and social outcomes compared for monks, prisoners, and other members of the Sukhothai Thammathirat Open University Thai Cohort Study

Health and social outcomes	Monks (<i>n</i> = 711)	Prisoners (<i>n</i> = 195)	Others (<i>n</i> = 29,713)
Health outcomes^a (%)			
Tuberculosis	0.4	6.2	1.0
Asthma	5.1	5.1	3.6
Malaria	3.5	7.2	3.5
Dengue fever	8.6	7.7	8.0
Goiter	2.5	1.5	1.5
Liver disease	5.3	3.1	4.9
Kidney disease	2.9	2.1	2.2
High cholesterol	2.5	2.6	7.4
Poor self-assessed health	4.4	6.2	3.9
Social outcomes			
Low trust (%) 'you can not be too careful (dealing with people)'	27.0	48.7	37.5
High economic stress (%) 'often short of money in the past 12 months'	27.1	43.1	31.1
Personal wellbeing domains^b (mean score out of 10)			
Standard of living	7.0	4.4	6.4
Achievement in life	6.7	4.3	6.4
Health	7.3	6.7	7.4
Personal relationships	7.4	6.8	7.1
Feeling safe	7.8	6.1	7.0
Feeling part of community	7.5	5.4	6.5
Future security	6.6	4.9	6.8
Surrounding neighbors	7.7	4.4	7.0
Religion or spirituality	9.4	6.7	7.6
Life as a whole	7.6	5.7	7.3
Spirituality and religion (mean score out of 10)			
Importance of religion when facing problems	9.4	7.1	7.4
Importance of spiritual practices	6.9	5.0	4.9
Importance of karma	9.3	6.8	7.1

^a Health outcomes were based on the reports of ever being diagnosed by a doctor for any of the specific conditions listed here or on a report of 'poor' or 'very poor' self-assessed overall health (see Methods)

^b Personal well-being measured using a standard index developed by the International Wellbeing Group (Cummins et al. 2003)

goiter and digestive diseases were concentrated among the lower-income groups due to low iodine intake in the poor Northeastern region as well as some dietary habits of eating raw food common in the region (Sriamporn et al. 2005; Yiengprugsawan et al. 2009). Another Thai study conducted in the South reported knee osteoarthritis is common among elderly monks (Tangtrakulwanich et al. 2006).

In addition, other studies have found that conditions of detention from overcrowding may exacerbate health decline and these include infectious disease transmission and deteriorated mental health (Allen and Rich 2007; MacDonald 2008; Rutherford and Duggan 2009). Providing health care is challenging in a prison which is designed for correction and rehabilitation, but this does not have to conflict with the aims of providing

basic physical and mental health care (Arnold 2009; Lines 2008; Watson et al. 2004). The physical health problems noted among prisoners in our study are all amenable to prevention and treatment.

The relationship between religion, health, and well-being has been the focus of a number of empirical studies over the last 20 years. A positive finding here was the minimal differences in spirituality and religion reported among prisoners and other cohort members, especially the importance of religion when facing problems and the importance of karma. The results here were in line with a US study which indicates that people who identify as religious tend to report better health and happiness, regardless of religious activities or financial status (Green and Elliott 2009). However, it is worth noting the apparent modifying role of culture between religiosity and psychological well-being as evidenced in a cross-cultural survey of undergraduate university students in five countries where religiosity correlates positively with psychological well-being in Bosnia and the USA but the correlation is negative for Serbia and not significant in Slovenia and Japan (Lavric and Flere 2008).

Generally, religious belief is seen to be health promoting and to help alleviate physical, mental, or spiritual illnesses (Nelson 2009). In Thailand, a recent study also derived from the Thai Cohort Study used in this report found that spirituality and religion were important for overall personal well-being and life satisfaction as a whole (Yiengprugsawan et al. 2010). A large study of 1,200 Buddhists who engaged in practices such as meditation found they were psychologically mindful and tended to have good health (Wiist et al. 2010). Another study in Thailand has noted ‘suffering’ defined in Buddha’s four noble truths appears on the surface similar to psychological stress and has found that meditation can help in coping with a variety of stressors (Tyson and Pongruengphant 2007).

Those convicted to prolonged incarceration or even those sentenced to death often seek religious support for comfort and meaning when faced with such extreme stress. And for those behind bars, religious belief and practice promotes tolerance and helps them find inner peace. Thus, in Thailand, spiritual leaders regardless of their religious affiliation are allowed to visit jail inmates every few weeks and on religious days are permitted to conduct ceremonies and rituals to help prisoners cope with their confinement (Department of Correction 2010). The majority of Thais are Buddhist but there are also small numbers of Christians and Muslims. Common religious activities in prisons include chanting, meditating, and praying according to various traditions.

Evidence that highlights the potential healing and empowering role of religion arises from rehabilitation programs in Thailand. For example at Saphan temple in Bangkok, Abbot Sophon Pattanusit noted that after 2 months living in the temple: “about 30 percent of the addicts go back to drugs, compared to about 30 percent who show some improvement and get stronger. The other 30 percent seem to be cured completely” (Ehrlich 2010). More evidence of the utility of religion for prisoner reform is revealed by Christmas concerts involving as many as 300 prisoners from 5 prisons. The Department of Correction and Thai Christian Prison Ministry have noted positive outcomes with “...changes in some prisoners’ behaviour [with] music as healing therapy for them” (Kowitzanij 2004). This helps prisoners live with one another and have a good prospect of integrating back into society. The Thai prison system is very aware of the power of religion to rehabilitate prisoners and maintains a large religion division within the national treatment program available to all 200 prisons and 218,000 prisoners throughout the kingdom.

We have found here that for social outcomes, prisoners were found to be economically deprived and had a lower sense of safety and community belonging. This will not be surprising considering their circumstances but it is a state of mind that could be addressed by

trust-building programs within the prisons that would help them to integrate back into society after being released. It is noteworthy that areas of STOU enrollment were quite different for monks and prisoners; yet for both groups their choices seem to have been good ones given their situations. It is also noteworthy that the personal well-being indicators for prisoners were much lower than for monks or other cohort members. It is possible that prison programs could use social outcomes such as those we measured in order to monitor the needs for and impact of social welfare programs within the prison system. Findings here regarding spirituality and religion indicators are striking as there is almost no disparity reported between prisoners and other cohort members. Thus, prisoners can be reached through spiritual programs at least as much as other members of the study cohort.

This study has brought together two seemingly very extreme population subgroups to compare their health and social well-being. These groups had in common restricted living arrangements and aspirational distance-learning university enrollment. STOU is not only giving prisoners and monks opportunities to learn but is also assisting with their productive contributions to society. Positive future prospects were found in quotes from graduating prisoners, monks, and other cohort members in the STOU graduation yearbook. Examples of graduate quotes include the following: “changing crisis to opportunity, it is not too late to start again after the detention to contribute to society”, “[I] will use what I learnt in the future when [I am] free”, “mistake in the past is a good lesson for the future”, “perseverance will help achieving our goal”, “education is a basis in life”, and “[we are] on the way to realizing our dreams”. Designed as longitudinal prospective research on health and its determinants, this project has already followed cohort members for 4 years and the study continues. Results arising will be helpful in providing insights into the health and well-being transitions of these monks and prisoners in the years to come.

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Conflict of Interest None declared. This manuscript has not been submitted elsewhere.

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Appendix

The Thai Cohort Study Team

Thailand: Jaruwan Chokhanapitak, Chaiyun Churewong, Suttanit Hounthasarn, Suwane Khamman, Daoruang Pandee, Suttinan Pangsap, Tippawan Prapamontol, Janya Puengson, Sam-ang Seubsman, Yodyiam Sangrattanakul, Boonchai Somboonsook, Nintita Sripai-boonkij, Pathumvadee Somsamai, Duangkae Vilainerun, Wanee Wimonwattanaphan. Australia: Chris Bain, Emily Banks, Cathy Banwell, Bruce Caldwell, Gordon Carmichael, Tarie Dellora, Jane Dixon, Sharon Friel, David Harley, Matthew Kelly, Tord Kjellstrom, Lynette Lim, Anthony McMichael, Tanya Mark, Adrian Sleigh, Lyndall Strazdins, Va-soontara Yiengprugsawan.

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