The Mental-Health Status and Mental Disorders of Residents Living in Urban and Industrial Areas in Thailand and South Korea

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Abstract

Background: *Regarding the economic and social development of South Korea, it has caused rapid and tremendous change, including development of large-scale industry, expansion of cities, and demographic changes, especially the migration of the working-age population from rural to urban and industrial areas. The lifestyle of the Korean people has changed from a rural style to an urban lifestyle, resulting in the necessity to adapt quickly to the new society, and this may have unavoidably led to mental disorders (MDs) and suicide. It was found that the suicide rate in South Korea was the highest among the countries that are members of the Organization for Economic Cooperation and Development. In Thailand, the economic and social development was planned at the same time as in South Korea. However, the suicide rate of Thais was lower than the suicide rate of South Koreans, and the trend of the suicide rate of Thais has also been rather constant. It is hoped that the lesson learned from South Korea can be useful for Thailand regarding its preparedness to develop its urban and industrial areas. Therefore, the comparative analyses of the literature, reviews of existing policy, and overviews of previous research were used to generate a synthesis of the existing knowledge of mental health status (MHS) and mental disorder-related issues in Thailand and South Korea.*

Objective: *The objective of this preliminary study was to compare the similarities and differences of the MHS and MDs of residents living in the urban and industrial areas of Thailand and South Korea.*

Result: *It was found that the key factors affecting the MHS and MDs of the people in Thailand and South Korea were education, family income, length of stay in urban and industrial areas, and the causes of stress derived from the physical, psychological, and socio-cultural environment.*

Discussion and Conclusion: *1) Education played an important role in the understanding of communities. Education was a tool for encouraging people both in Thailand and South Korea to have better mental health and to adjust their living with wellness and happiness; 2) Family in-*

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come was also seen an important factor affecting the MHS of people. Although today South Korea has been able to recover its economy rapidly, MDs, especially the suicide rate in South Korea, have continued to increase when compared with Thailand; 3) Length of stay in urban and industrial areas was considered as a change in housing areas and social activities, and it represented a change of life for Thais and South Koreans, especially change from rural to industrial areas; and 4) Regarding the causes of stress derived from the physical, psychological, and socio-cultural environment, an issue frequently found in urban and industrial areas of both countries was the toxicity of the environment, which has caused adverse effects on physical and psychological stress. In addition to social determinants, urbanization and industrialization have changed their people's life styles, i.e., technology consumption, alcohol use, etc. This socio-cultural environment has been prone to forming psychosis and neurosis easily, finally impacting MHS and MDs.

Keywords: Mental health and mental disorders, Urban and industrial areas, Thailand, South Korea

Introduction

The World Health Organization (WHO) defines mental health (MH) as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community." This means that mental health status (MHS) is a term used to describe either the level of cognitive or psychological well-being or the absence of mindfulness or a mental disorder (MD). MD places a heavy burden on individuals, families, and communities nationwide and worldwide. In 2003, the world overall had 450 patients with mental illness, or 12% of total illnesses, and this is predicted to increase to 15% by the year 2020. Additionally, it was found that 90 percent of suicides worldwide are the result of MD or depression (WHO, 1997).

In fiscal year 2009 in Thailand, there were 1,440,393 mental health patients spread throughout the country in each provincial public health office (Department of Mental Health, 2009). They were classified as shown in table 1, including 367,541 patients with psychosis, 335,190 patients with anxiety disorder, 165,785 patients with depression, and so forth. There were 28,012 persons that attempted suicide, and 3,634 of those committed suicide, as shown in Table 1.

Table 1 Number of patients with mental disorders in Thailand, fiscal year 2009

Unit: person

Item	Psychosis	Anxiety Disorders	Depression	Mental Retardation	Epilepsy	Drug Addiction	Others Mental Health	Attempted Suicide or Suicide		Pa-tients	Total
								Success	Not Success	Autism	
Through the country	367,541	335,190	165,785	30,754	122,773	113,346	274,581	3,634	24,388	24,388	1,440,393

Source: Department of Mental Health, Planning Division, Ministry of Public Health (2009).
[Online] Available: http://www.plan.dmh.go.th/FormRptDmh/dl.asp?id=131

In addition to the factors leading to suicide, in other words the factors affecting mental disorders, especially severe depression, it was found that the economic factor is a main one. In the last decade in 1998/1999, Thailand and South Korea faced the Asian economic crisis called the “Tom Yum Kung Disease” because the root cause of this crisis was from Thailand’s economy recession. It was shown that the suicide rate in South Korea had a “ripple effect” while facing the crisis, and even though the economy recovered, the trend of suicide still increased, with the suicide rate of males was higher than females (Figure 1). Although Thailand was a source of this crisis and the suicide rate also increased there in 1999, this rate decreased later the following year. It can be said that during the same period, South Korean’s suicide rate was higher than that in Thailand. Over three decades, South Korean’s suicide rate has still increased rapidly and has more than doubled, whereas the suicide rate in Thailand has increased gradually, as shown in Table 2.

Table 2 Suicide Rate in Thailand and South Korea

Unit: Number of people per population of 100,000

A.D.	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008
B.E.	2528	2533	2538	2543	2544	2545	2546	2547	2548	2549	2550	2551
South Korea	9.1	7.4	11.8	13.6	N/A	N/A	N/A	24.7	26.1	21.9	24.8	24.3
Thailand	N/A	6.7	7.7	8.4	7.8	5.8	7.3	N/A	N/A	N/A	N/A	5.8

Source: World Health Organization. (2003). Suicide rates. Suicide Rates (per 100,000) by country, year, and gender. [Online] Available: http://www.who.int/mental_health/prevention/suicide/suiciderates/en/print.html
World Health Organization: WHO. (2008). Mental Health. [Online] Available: http://www.who.int/mental_health/en

Note: N/A = not available

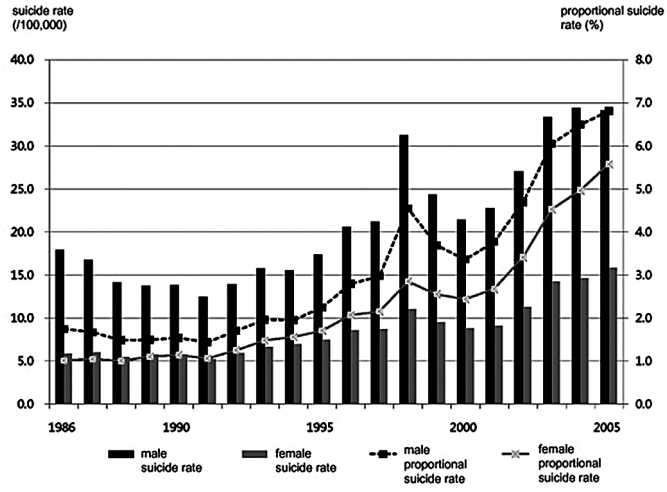

Figure 1 Suicide rate and proportion of suicide rate of South Korean males and females during 1986-2005

Source: Kwon, JW., Chun, H., & Cho, SI. (2009). A closer look at the increase in suicide rates in South Korea from 1986–2005. BMC Public Health. [Online] Available: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2667417/figure/F2

The WHO (2003, 2008) has pointed out that in 2005 the suicide rate in South Korea was the highest among the countries that are members of the Organization for Economic Cooperation and Development (OECD), and the suicide rate increased from 9.1 per 100,000 per year in 1985 to 26.1 in 2005, as shown in Table 2 and Figure 1. The suicide rate was ranked fourth as the cause of death in South Korea, with an average suicide of 33 cases per day with a total of 246,000 dead. The suicide rate in South Korea was 21.9, 24.8, and 24.3 per 100,000 per year in 2006, 2007, and 2008 respectively (Hwang, 2010; The Korea Times, 2009; The Washington Post, 2010).

Compared with Thailand, South Korea has been very successful in the development of its country by increasing the national income per capita to 16,400 U.S. dollars per person per year in 2005 or increasing the income from the 1970s by approximately 60 times (Kwon, Chun, & Cho, 2009). Regarding the economic and social development of South Korea, which has been planned continually for several decades, it has caused rapid and tremendous change, including development of large-scale industry, expansion of cities, and demographic changes, especially the migration of the working-age population from rural to urban and industrial areas. As a result of that, Korean people have been aggregated in the urban and industrial areas. Within a short period of time, the society of South Korea has moved from an agricultural society to an industrial society. Further, the lifestyle of the

Korean people has changed from a rural style to an urban lifestyle, resulting in the necessity to adapt quickly to the new society, and this may have unavoidably led to mental disorders of the people in South Korea.

In the same way, the economic and social development in Thailand was planned at the same time as in South Korea. Mental-health prevention policies have also been important issues in Thailand because mental disorders cause other problems and are a burden on individuals, families, communities, and on the nation. According to Thai characteristics (to not be hurried or rushed), therefore, it was found that the suicide rate of Thai people was low and lower than the suicide rate of South Koreans. The trend of the suicide rate of Thais has also been rather constant. From 1981 to 2001, it was shown that the suicide rate in Thailand fluctuated between 7 and 8 per 100,000 persons per year. In 2007, the Department of Mental Health of Thailand reported that the average suicide rate was 5.77 per 100,000 persons, or approximately 3,612 successful suicides per year. Additionally, 12 persons committed suicide each day, with an average of 1 person every 2 hours (Sittipornanunt, 2007).

The lesson learned from South Korea can be very useful for Thailand regarding its preparedness to develop its urban and industrial areas. Kang-Eui (2009), for example, has pointed out that most South Korean people today have turned toward materialism and need high achievement. The family structure there has also changed—from an extended family to a nuclear family. In the era of industrial development, many social support systems have become deteriorated and this is a key factor in the increase of mental disorders and suicide. It was also found that after South Korea had developed and prospered in terms of economy, the country ignored its cultural and value systems, including traditional Korean culture (Kang-Eui, 2009). The World Psychiatric Association (2011) has found that during the past decade, from 1998 to 2007, although South Korea has seen great economic growth, the social-economic status of Koreans in South Korea is different today, and this can be related to mental health problems, especially the suicide rate of people among the low-income group. This is congruent with a research study by Lorant and others (2011), which found that the difference of people's social economic status in most countries is related to mental health problems and suicide rate.

In Thailand, it was also found that overall, the mental health of Thai people in the industrial areas is not good, and that the mental health status of people can be differently classified according to educational levels and industrial types. It was also found that the mental health status of individuals is related to physical and psychological factors (Ruchiwit, 1989).

Current Situation and Future Trends

The question of which factors influence the mental health status of residents living in the urban and industrial areas in Thailand and South Korea still exists. Based on the literature review, the conceptual framework of this study was drawn, as shown in Figure 2, and is described as follows:

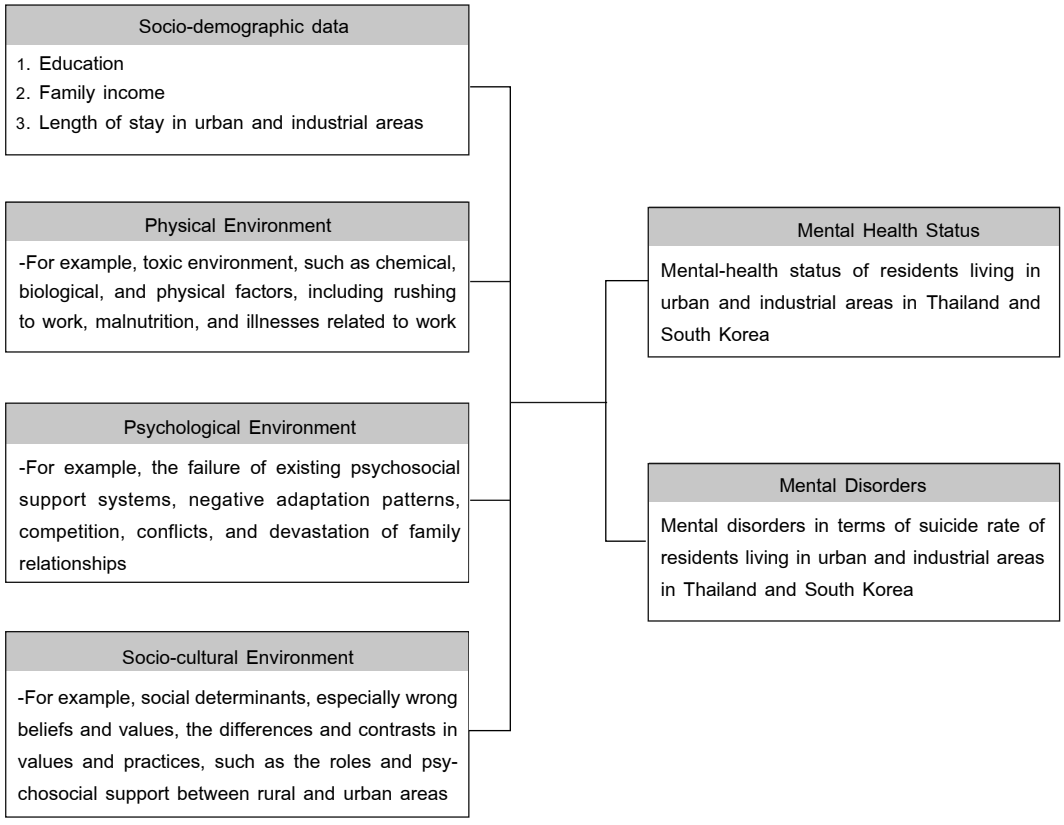

Figure 2 Study Framework of "The Mental-Health Status and Mental Disorders of Residents Living in Urban and Industrial Areas in Thailand and South Korea"

Education

Previous study has shown that education prepares people to understand the nature of the industrial changes that make life different from that of the existing community (Ruchiwit, 1989). As education helps to develop a positive attitude toward change, it assists residents in adapting their behaviors for life in the community enthusiastically and in developing human quality in terms of morals and ethics (Uniphand, 1983). Sangsingkaew (1979) has pointed out that the mental health status of people has deteriorated due to ignorance and lack of awareness, and that education plays a vital role in developing a better life. Education, therefore, is a key factor in promoting mental health and in preventing mental disorders.

Family Income

Family income can affect the mental health of family members because adequate income is a basic need of people to survive for their well-being in accordance with Maslow's hierarchy of needs (Maslow, 1999). It was found that families with a good income could

satisfy their daily living needs easily (Jan-Em, 1998; Puntinamai & Suthisakorn, 1999; Eysenck, 1994; World Congress of Families II, 1999). This is related to previous studies of Udomthanmanupab (1999) and Nilchaikovit and others (1996), who found that the determinants associated with mental health status and mental health problems are level of income and debt. When comparing Thai people's economic status with that of South Korean people, especially the industrial provinces having similar industrial types, such as Pathumthani and Suwon, it was found that the economic flow of South Korea and the economic status of Korean people were at a high level, using GDP per capita (Table 3) as a measure. However, when comparing the suicide rates between Thailand and South Korea in 2008, South Korean's suicide rate was 24.3 per 100,000 per year, whereas in Thailand the suicide rate was 5.8 per 100,000 per year (WHO, 2003). In contrast, the suicide rate of South Koreans has increased in comparison with that of Thais even though the GDP per capita of South Korea is higher. The report of the World Psychiatric Association (2011) has indicated that during 1998–2007 the difference in Korean people's economic status was related to mental disorders; especially, the suicide rate of people with low incomes was at a high level. This is congruent with a previous study which found that differences in the social and economic status of people in most countries are related to mental health status and people's suicidal rate (Lorant & others, 2011).

Table 3 Gross Domestic Product per Capita in Urban and Industrial Areas of Thailand and South Korea

Country	Urban and Industrial Areas	GDP per Capita in dollars
Thailand	Pathumthani	10,449
	Samutprakan	15,145
South Korea	Suwon	24,802
	Ulsan	67,506

Source: The Thai Websites. (2011). GDP per capita and population data for the provinces of Thailand. [Online] Available: http://www.thaiwebsites.com/provinces-GDP.asp
The Wikipedia Free Encyclopedia. (2010). List of South Korean regions by GDP. [Online]. Available: http://en.wikipedia.org/wiki/Economy_of_South_Korea, and http://en.wikipedia.org/wiki/List_of_South _Korean_ regions_by_GDP#References

Length of Stay in Urban and Industrial Areas

Changes in residential areas and in social activities can be considered changes in lifestyles, especially the change from agriculture to industry. When living in these new areas, they face many problems because migration not only represents a change in area but also a change to a new social environment. It is consequently necessary for these individuals to adjust themselves to their new societies and this requires time and experience. Previous studies have shown that adjustment in order to find a balance in the new community causes stress, and a stress assessment for residents living in the urban and industrial areas reflects the mental health status and mental health problems of those persons (Jaisin, 1985; Ruchiwit, 1989; Sangsingkaew, 1979; Holmes & Rahe, 1967).

Physical Environment

Environmental issues in urban and industrial areas impact human health, and one of the environmental problems often found in these areas is a toxic environment (Ruchiwit, 1989). This has adverse effects on physical health and causes psychological stress, which in turn finally affects mental health. The elements in the physical environment that can cause stress are chemical, biological, and physical factors, including rushing to work, malnutrition, not having the next meal on time, illnesses related to work and so forth. Previous studies (Nilchaikovit, 1996; Ruchiwit, 1989; Samutsit, 1998) showed that the residents living in the urban and industrial areas had to adapt to these environments, and this led to stress and sometimes mental disorders.

Psychological Environment

Due to the fast changes in industrial development and the expansion of urban areas, community structures and the mental health of people have been affected tremendously (Ruchiwit, 1989). This has also caused the failure of existing psychosocial support systems. This means that individuals, families, and communities have less capacity to bear the burdens of suffering, illnesses, disabilities, and so on. As a result, mental problems come to the surface more easily, including alcoholism or drug addiction, and criminal activity. This notion is congruent with a study of Kiewkingkaew (2002), which found that the security of residents can be threatened by those mental problems. It can be said that the psychological environment causes mental deterioration, including negative adaptation patterns, competition, frustration, conflicts, and devastation of family relationships.

Socio-cultural Environment

Socio-cultural changes occur in parallel with economic development, industrialization, and urbanization. In addition, social determinants, especially “wrong” values, “wrong” beliefs and “wrong” attitudes lead to the occurrence of psychosis and neurosis (Jan-Em, 1984, 1998; Udomthammanupab, 1999). For example, the change in the social environment causes people to face many problems when there are differences and contrasts in values and practices, such as the roles and psychosocial support between rural and urban areas, small towns and big cities, and the livelihoods that stem from agriculture and industry. In such situations, people tend to behave differently and this leads to conflicts, frustration, anxiety,

and so forth, finally resulting in mental disorders. This means that livelihoods and cultures can cause many social problems that affect the mental health of residents in those societies differently.

Purpose

The objective of this preliminary study was to compare the similarities and differences of the MHS and MD of residents living in the urban and industrial areas of Thailand and South Korea.

Methods

The comparative analyses of the literature, reviews of existing policy, and overviews of previous research were used to generate a synthesis of the existing knowledge of mental health status and mental disorder-related issues in Thailand and South Korea. Therefore, the methods used in this article were as follows: 1) Collect data from articles, texts, and related research and from the agencies or institutions involved, including the determinants of mental health status and mental disorders, and the suicide rate of the people in Thailand and South Korea; and 2) Exchange information with experts in the areas of behavioral science and mental health between Thailand and South Korea concerning the determinants of the mental illness rate and suicide rate of residents living in urban and industrial areas.

Discussion

Patients with mental disorders can be found in every country, and in 2003, one-fourth of the world's population, or around 450 million patients, had mental disorders (The World Health Report, 2001; U.S. Department of Health and Human Services, 2000). Moreover, the number of patients with mental disorders is increasing day by day, and the trend of the number of the patients with mental disorders is expected to increase—from 12% of total patients in 2003 to 15% by 2020. WHO has reported that 90% of suicides worldwide are the result of mental disorder or depression (Strother, 2009). In Thailand, from the National Economic and Social Development Plan No. 5 to the current plan, the development of people's quality of life has been included in order to promote the population's health, both physically and mentally. This has accelerated the development of people's mental quality through mental health plan focused on prevention, treatment, and mental health promotion. In order to achieve these goals in the long term—good health for all—the scope of mental health policy has gradually improved by focusing on mental health prevention and promotion, including well-organized networks covering the entire population in both urban and rural areas.

Regarding the above factors related to mental health status and mental disorders of the people in Thailand and South Korea, these can be discussed as follows: *1) Education* played an important role in the understanding of the communities. This helped them to develop a positive attitude toward change, especially in highly-competitive environments such as urban and industrial areas. Education could help people adjust themselves and behave appropriately in those communities. This is congruent with Sangsingkaew (1979)

stated that mental health was able to deteriorate depending on such concepts as ignorance or unawareness, and it was one of the key factors that impacted the mental health status of residents living in those communities. Education, therefore, was a tool for encouraging people both in Thailand and South Korea to have better mental health and to adjust their living with wellness and happiness. Previous studies by Jaisin and others (1985) found that regarding the mental health status of residents living in urban areas, there were differences between the mean score of stress according to educational levels. The residents with lower levels of education and those not formally educated at all experienced the highest amount of stress. *2) Family income* was also an important factor affecting the mental health status of people (Nilchaikovit & others, 1996; Udomthunmanipab, 2009; Jan-Em, 2008; Puntinamai & Eysenck, 1994; World Congress of Families II, 1999). In the last decade, both Thailand and South Korea have faced the Asian economic crisis or "Tom Yum Kung Disease." Although today South Korea has been able to recover its economy rapidly, mental disorders, especially the suicide rate in South Korea, have continued to increase when compared with Thailand. A report from World Psychiatric Association (2011) found that during 1988–2007, even though South Korea experienced generous economic growth, the relationship between the economic status of South Korean people and mental disorders, especially the suicide rate among people with low incomes, was high. *3) Length of stay in urban and industrial areas* was considered as a change in housing areas and social activities, and it represented a change of life for Thais and South Koreans, especially change from rural to industrial areas. The Division of Occupational Health found that workers' adjustment to work as well as to their personal life took time and that if they could not adjust to the new environment, problems would occur (Samutsit, 1998). Holmes and Rahe have stated that passing stressful events in life during a one-year period was an indicator of the capability to adapt to the existing daily life of that person (Haber, 1982; Holmes & Rahe, 1967). *4) Regarding the causes of stress derived from the physical, psychological, and socio-cultural environment,* and due to economic and industrial development as well as the expansion of the urban community, those tremendous changes had a great impact on the community structure and psychological well-being of those communities. As a result, problems have occurred more easily. An issue frequently found in urban and industrial areas of both countries was the toxicity of the environment, which has caused adverse effects on physical and psychological stress. In addition to social determinants, urbanization and industrialization have changed their people's life styles, i.e., technology consumption, alcohol use, etc (Kang-Eui, 2009; The World Psychiatric Association, 2011). This socio-cultural environment has been prone to forming psychosis and neurosis easily, finally impacting MHS and MDs.

Conclusion

Although the contexts of the economy, society, and culture between Thailand and South Korea are different, it cannot be denied

that the National Economic and Social Development Plan of Thailand has begun gradually to create integrated development, focused more on human-centered development similar to that of South Korea. It can be seen that South Korea has developed its country by using a central plan under the National Economic and Social Development Plan. However, the results are somewhat different: South Korea has succeeded in the industrial developmental of the country in a short period, and one of the main foundations of this is its focus on human resource development—rigorously and continuously—from the beginning until today. On the other hand, Thailand has only recently and gradually turned to integrated development that is more human-centered.

This preliminary study has led to questions concerning which determinants, such as educational level, family income, and so forth, are associated with the mental health status or mental disorders of residents living in the urban and industrial areas of Thailand and South Korea, and among those determinants, which ones can reasonably predict mental health status and mental disorders. Therefore, this study provides useful lessons for Thai policy makers and stakeholders involved in setting directions for mental health policy implementation in the future.

Policy Implications

This comparative study is an attempt to benchmark the issues related to mental health status and mental disorders of people residing in the urban and industrial areas of Thailand and South Korea in order to deal with the gaps in the differences revealed in this study. The results may lead to proposed models for policy and strategic plans regarding mental health promotion and the prevention of the mental disorders of residents in the urban and industrial areas of Thailand and South Korea in the future. Further, this study will be useful for defining the direction of the mental health policy implications of both countries in the future, including systematically-published knowledge for the public as follows:

1) Information and knowledge sources about mental health promotion and prevention of mental disorders for residents living in urban and industrial areas in terms of comparative study between Thailand and South Korea

2) Exchange of lessoned learns from experts both at national and international levels

Recommendations

1. There are various factors affecting the mental health status and mental disorders of residents living in urban and industrial areas. This study synthesized the existing knowledge of mental health status and mental disorder-related issues in Thailand and South Korea from a comparative analysis of the literature, along with an overview of previous research—only selected factors were explored. Therefore, more empirical study of the factors affecting the mental health and mental disorders of the people of those two countries, and more large-scale research, need to be done in the future.

2. Further comparative study is recommended in order to determine which factors could predict the mental health status and mental disorders of Thais and South Koreans

in order to focus on strategies and directions that could improve their mental health and reduce their mental disorders and suicide rates.

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