

Resilience in Medical Doctors within the Areas of the Southern Thailand Insurgency

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ABSTRACT

Objective: This study aimed to examine resilience and its' associated factors among medical doctors who worked at hospitals, either in the restive areas of the southern Thailand insurgency, or non-restive areas of nearby provinces.

Methods: This cross-sectional study was conducted for all medical doctors who worked at the hospitals located in the lower southern part of Thailand from January to April 2018. All of the participants completed the personal information and Thai resilience questionnaires (Thai-RQ) by themselves. The data was analyzed by descriptive statistics, whilst the factors associated with resilience were analyzed using logistic regression analysis.

Results: From 245 medical doctors, most were female (58.0%), single (50.2%) and worked more than 40 hours per week (30.2%). The average resilience scores were at a normal level (62.3 ± 7.8) as well as most of them being (67.3%). The highest section of resilience was coping skills, with the lowest being emotional stability. There were no differences in resilience between those who worked in restive areas, or those who worked in non-restive areas of the southern Thailand insurgency. Perceived sleep/rest quality and family relationships were significantly associated with their resilience.

Conclusion: Most of the medical doctors, who worked at hospitals either in the restive or non-restive areas of the southern Thailand insurgency, were at normal levels of resilience. No difference of resilience was found between these two areas. The factors associated with resilience were perception of sleep/rest quality and family relationships.

Keywords: Resilience; medical doctor; south Thailand insurgency (Siriraj Med J 2019;71: 228-233)

INTRODUCTION

Since 2004, the Thailand's southern insurgency, which is a part of a complicated political conflict, has continually deteriorated, generating violence in the 3 provinces of southern Thailand: Patani, Yala and Narath, in addition to some parts of Songkhla province, which the Thai media has dubbed as the SBP (Southern border Provinces) of Thailand.

From the 1st of January 2004 to the 31st of August 2018; 19,993 violent situations were officially reported with; 6,848 people killed and another 13,443 injured in total.¹ Local people, including medical professionals working in these areas, have to live under these ongoing,

stressful circumstances and embody a substantial escalation in psychological distresses.² They are at risk of many mental illnesses; not only burnout syndrome which is commonly found among health care professionals, but also more severe psychiatric disorders, such as; post-traumatic stress disorder.³

However, Charoenwong and the co-authors² found that most, local people in the restive areas represented as having normal levels of stress. Even a survey among widows whose husbands died due to the violent situations in the SBP, revealed stable stress management, spiritual and physical strength.⁴

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The remarkable question is: 'Exactly how do they live under these continuing stressful conditions?' Especially medical doctors, who normally already work in demanding settings as is the nature of their profession. the researchers focused on the medical doctors 'resilience', as this is the capacity to recover quickly from any difficulties.⁵ Within Thailand's context, resilience and resilience assessment were conceptually based on 3 sources of: "I AM", "I HAVE" and "I CAN". Therefore, the Thai version of resilience quotient was divided into 3 parts: emotional stability, will power and coping skills.⁶ Previous studies of resilience promotion reported that; the extrinsic factors that are associated to the level of resilience were quality of family relationship and governmental/social support.⁷ As well as which intrinsic factors were self- esteem, faith and high cognitive functionality, however; physical illnesses could interfere with resilience, particularly among patients with an abnormal cortisol level, which is also related to stress.⁸

For these reasons, the researchers emphasized both resilience and associating factors among medical doctors, who work in government hospitals in the restive areas of SBP, and the other 4 southern provinces of Thailand for comparison. This was in order for the collection of principal data for promoting mental health among Thai health care professionals, and to develop psychological support systems for public health organizations in Thailand.

MATERIALS AND METHODS

This study was a cross-sectional survey; designed to determine the level of resilience and its' associated factors among medical doctor, working at secondary and tertiary-care hospitals in the restive areas of Narathiwat, Patani, Yala, and 4 the non-restive provinces of Songkhla, Satun, Trang and Phatthalung, from January to April 2018. Additionally, this research also compared resilience between the restive areas of the Thailand's southern insurgency, and the non-restive areas in 4 nearby provinces. After the research proposal was endorsed by the ethic committee of Prince of Songkla University (REC number: 60-262-03-1), the researchers contacted human resource officers at each secondary and tertiary hospitals in both the restive and non-restive areas of the Thailand's southern insurgency. Upon contact, we asked for permission from the directors of each hospital for help in the administration all of the sealed envelopes of the self-administered questionnaires: Thai resilience questionnaires (Thai-RQ)⁹, to all medical doctors, who were employed at that time. Consensus to participate in the study had to be individually agreed upon.

Whilst the estimated size of our target population is at least 320 medical doctors¹⁰, according to region 12, from the Ministry of Public health records, there are 1,592 physicians on duty.¹¹ Then, the data were performed using the R software package, and were analyzed by using descriptive statistics. The primary results were presented as: frequency, percentage, average and standard deviation. Therefore, associated factors of resilience were analyzed by using logistic regression.

RESULTS

Of the 245 medical doctors, who participated in this study (19.3% responded from a total of 1270 questionnaires); 55.9% of them worked in restive areas of the SBP. Participants were mostly females (58.0%) Buddhist (80.0%), healthy (74.7%) and single (50.2%). The mean age $\pm$ SD was 35.9 $\pm$ 9.5 years old, with the mean $\pm$ SD amount of working hours per week being 63.0 $\pm$ 26.4. Around half of the participants reported that they perceived adequate rest and sleep, but more of them perceived this to be inadequate (48.6% and 49.0% respectively). Most of them revealed that the most important reason in the choice of their workplace location was so as to be near their homes, and families (55.1%). They also assessed their own family relationships as being good or excellence (48.6% and 40.0% respectively). However, 86.9 % of them reported that they perceived considerable stress from their work. (Table 1)

Regarding levels of resilience (Table 2), no significant difference was found between medical doctors who worked in either the restive or non-restive areas of Thailand's southern insurgency. Only 15.7% of the medical doctors in restive areas, and 14.7% of those who worked in non-restive ones, had less levels of resilience than that of a normal population. Whilst the domain showed, the highest prevalence of normal to above average levels of resilience, was coping skills (91.7% in restive areas, and 88.2% in non-restive areas). The domain of emotional stability represented the lowest prevalence; as 14.8% in restive areas and 15.4% in non-restive area, were reported as lower levels of resilience than normal people. (Table 3)

On the subject of associated factors to resilience (Table 4), perception of sleeping/rest quality (p-value=0.067) and family relationships (p-value<0.001) were found to be statistically significantly associated to the levels of resilience among medical doctors, working in both the restive and non-restive areas of Thailand's southern insurgency. According to Table 5, both groups of medical doctors, who perceived adequate rest/sleep, showed 2.5 greater levels of resilience than those who perceived this

TABLE 1. Demographic characteristics (n=245).

Demographic characteristics	Number (%)
Gender	
Male	103 (42.0)
Female	142 (58.0)
Age (year)	
Mean±S.D.(min-max)	35.9±9.5 (24-60)
Hometown	
3 southern border provinces	89 (36.3)
Other southern provinces	124 (50.6)
Others provinces	31 (12.7)
Missing valued	1 (0.4)
Religion	
Buddhism	196 (80.0)
Islam	44 (18.0)
Christianity	2 (0.8)
Others	3 (1.2)
Marital status	
Single	123 (50.2)
Married/couple	115 (46.9)
Divorced /widow	3 (1.2)
Missing value	4 (1.6)
Hospitallocation	
Non-SBP	137 (55.9)
SBP	108 (44.1)
Work hour (per week)	
Mean±S.D. (min-max)	63.0±26.4 (6-120)
≤ 40	74 (30.2)
41-60	62 (25.3)
61-80	36 (14.7)
>80	55 (22.4)
Missing value	18 (7.3)
Perceived quality of resting or sleeping	
Adequate	119 (48.6)
Not adequate	120 (49.0)
Not sure	1 (0.4)
Missing valued	5 (2.0)
Perceived work stress	
No	30 (12.2)
Yes	213 (86.9)
Missing value	2 (0.8)
History of physical illness	
No	183 (74.7)
Yes	59 (24.1)
Missing value	3 (1.2)
Family relationship	
Excellent	98 (40.0)
Good	119 (48.6)
Fair	26 (10.6)
Missing value	2 (0.8)
Initial reasons of working in the hospital	
Near home	135 (55.1)
Reimbursement education fund	39 (15.9)
Follow couple or family	20 (8.2)
Have a chance for study programming	15 (6.1)
Others	33 (13.5)
Missing value	3 (1.2)

Abbreviations: S.D. = standard deviation, GPA = grade point average

TABLE 2. Level of resilience categorized by working area.

Resilience Quotient screening test	Total (%)	Non-restive (%) n=136	Restive (%) n=108	Chi2 P-value
Level of resilience				0.675
Less than normal range (<55)	37 (15.1)	20 (14.7)	17 (15.7)	
Normal range (55-69)	165 (67.3)	90 (66.2)	75 (69.4)	
Higher than Normal range (>69)	42 (17.1)	26 (19.1)	16 (14.8)	
Mean±S.D. (min-max)	62.3±7.8 (40-80)	62.5±7.8 (42-80)	61.9±7.8 (40-78)	

TABLE 3. Three domain of Resilience Quotient by working area (n=244).

Domain of resilience	Total (%)	Non-restive (%) n=137	Restive (%) n=108	Chi2 P-value
Emotional stability				0.721
Less than normal range	37 (15.1)	21 (15.4)	16 (14.8)	
Normal range (27-34)	173 (70.6)	94 (69.1)	79 (73.1)	
Higher than normal range	34 (13.9)	21 (15.4)	13 (12.0)	
Mean±S.D. (min-max)	30.2±4.1 (19-40)	30.3±4.2 (20-40)	30.1±3.9 (19-38)	
Will power				0.501
Less than normal range	27 (11.0)	13 (9.6)	14 (13.0)	
Normal range (14-19)	177 (72.2)	98 (72.1)	79 (73.1)	
Higher than normal range	40 (16.3)	25 (18.4)	15 (13.9)	
Mean±S.D. (min-max)	16.7±2.5 (10-20)	16.8±2.4 (10-20)	16.6±2.5 (10-20)	
Coping skill				0.462
Less than normal range	25 (10.2)	16 (11.8)	9 (8.3)	
Normal range (13-18)	197 (80.4)	106 (77.9)	91 (84.3)	
Higher than normal range	22 (9.0)	14 (10.3)	8 (7.4)	
Mean±S.D. (min-max)	15.4±2.3 (9-20)	15.5±2.3 (9-20)	15.2±2.2 (9-20)	

to be inadequate (95%CI=1.1,5.8). Whereas, those who appraised their family relationship as being excellence, were found to have resiliency levels 6.5 higher than those who did not (95%CI=2.1,19.9).

DISCUSSION

Previous studies of mental health, in the SBP of Thailand, mostly focused on mental difficulties and psychiatric diseases, in valuable populations, such as; patients with substance dependence.¹² However, it is questionable as to why some groups of people can produce positive consequences in specific situations at risk, for example; medical doctors in the areas of Thailand's southern insurgency as well as nearby provinces. Compared with a study among patients with substance-related disorders in the restive areas of SBP, 15.7% of medical doctors who

worked in the same area were found to have lower levels of resilience than that of a normal population. Whereas, 28.3% of these patients reported the same level.¹³ The different results may clarify the phenomenon of different social and occupational functioning. Oppositely, dissimilar physical and mental strength between the two groups of the population may explain the difference on the outcomes of resilience.

However, the authors found that 99.6% of the same group of medical doctors were suffering from burnout syndrome.¹⁴ This survey of resilience, which found 84.4% of the total medical doctors, and 84.2% of those who worked in the restive areas had normal to higher than normal levels of resilience, and this may explain the reason why these medical doctors could work as per usual in situations with surrounding violence, while suffering

TABLE 4. Association between demographic variables and level of resilience.

Demographic characteristics	Level of resilience		Chi2 P-value
	<55 (n=37)	>=55 (n=207)	
Gender			0.161
Male	20 (54.1)	83 (40.1)	
Female	17 (45.9)	124 (59.9)	
Age (year)			0.579
<30	13 (35.1)	58 (28.2)	
30-40	14 (37.8)	96 (46.6)	
41-60	10 (27.0)	52 (25.2)	
Religion			0.679
Buddhism	31 (83.8)	164 (79.2)	
Islam/Christianity	6 (16.2)	43 (20.8)	
Marital status			0.175
Single/ divorced / widow	23 (63.9)	102 (50.0)	
Married/couple	13 (36.1)	102 (50.0)	
Work hours (per week)		0.131	
≤ 40	6 (18.2)	68 (35.1)	
41-60	8 (24.2)	54 (27.8)	
61-80	8 (24.2)	28 (14.4)	
>80	11 (33.3)	44 (22.7)	
Perceived quality of resting or sleeping			0.067
Adequate	12 (34.3)	107 (52.7)	
Not adequate	23 (65.7)	96 (47.3)	
Perceived work stress			0.271 ^a
No	2 (5.7)	28 (13.5)	
Yes	33 (94.3)	179 (86.5)	
History of physical illness			0.977
No	27 (77.1)	155 (75.2)	
Yes	8 (22.9)	51 (24.8)	
Family relationship			<0.001
Excellent	8 (22.9)	90 (43.5)	
Good	17 (48.6)	101 (48.8)	
Fair	10 (28.6)	16 (7.7)	

^a = p-value from Fisher's exact test

Level of resilience <55 = below average

>=55 = average and above average

TABLE 5. Analyzed Factors associated with resilience (n=221).

Factors	Crude OR (95%CI)	Adjusted OR (95%CI)	P LR-test
Perceived quality of resting or sleeping			0.021
Not adequate	1	1	
Adequate	2.9 (1.3, 6.3)	2.5 (1.1, 5.8)	
Family relationship			0.005
Fair	1	1	
Excellent	7.3 (2.4, 22.1)	6.5 (2.1, 19.9)	
Good	3.5 (1.4, 9.1)	3.3 (1.3, 8.8)	

Abbreviations: OR= Odds ratio, LR = Likelihood Ratio

from burnout syndrome. In so saying, a secondary data analysis study for correlation should be undertaken.

Regarding the associated factors of resilience, quality of rest/sleep and family relationships showed to have a significant association. To promote resilience in medical doctors, especially those who work in situations at risk; policy makers should emphasize the working hours, work-load and work-place location, so as to provide for adequate rest/sleep and non-disturbance of such family relationships. Additionally, medical doctors themselves should be aware of their quality of sleep/rest, family relationships along with other resources to face both the mental and physical difficulties from their work.

Strength and limitation

Even though this study was the first study of resilience among Thai medical doctors, especially in the restive areas of southern Thailand's insurgency, the response rate was below 20.0%. However, the sample size determination for finite populations was 320 medical doctors; therefore, 245 participants were 76.5% of calculated sample size, which is adequate for this resilience study.

The design of this study was that of a cross-sectional survey; the results could not summarize the process of medical doctors' adaptation in spite of adversities. Thus, a cohort coupled with long-term, follow-up studies in this group of the population should be conducted. Moreover, the data came from a quantitative designed research, which explains only individual traits of the participants could also be tabled. To understand the paradigm of resilience, we have to study contextual interactions between their inner strengths and contributions within the environment, therefore; a qualitative- designed study is required.

CONCLUSION

Most medical doctors, who worked at secondary and tertiary-care hospitals in both the restive areas of Thailand's southern insurgency as well as the non-restive areas of nearby provinces, were at normal or higher than normal levels of resilience. No difference of resilience was found between the restive and the non-restive areas of the Thailand's southern insurgency. The factors associated to resilience were: perception of sleeping/rest quality and family relationships. Medical doctors who perceived adequate rest/sleep showed a 2.5 greater level of resilience, while those who estimated excellent family relationships were found to have a resiliency level of 6.5 higher.

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