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Full Length Research Paper

Predictors of burnout among community health personnel of primary care units in the Northern region of Thailand

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The objectives of this research study were to study the predictors of burnout relationships between factors that contribute to burnout among health personnel in different Primary Care Units in the lower northern region of Thailand. The population consisted of 490 community health personnel. The questionnaire developed for this study was based on the Maslach Burnout Inventory. The data analysis was done for percentage, mean, standard deviation, Pearson Product Moment Correlation Coefficient and stepwise multiple regression analysis. The results showed that: workload, policy, income, equity, relationship with executives, the days of work overtime per month, relationship with colleagues, relationship with consumer were significant predictors which were accounted for the variance of burnout at 47.8% (F = 19.137, P < 0.001)

Key words: Burnout, health personnel, primary care unit.

INTRODUCTION

Burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do "people work" of some kind (Maslach, 1982) and it is a process that begins with excessive and prolonged levels of job stress. The stress produces strain in the worker (feelings of tension, irritability and fatigue). The process is completed when the worker defensively copes with the job and becomes apathetic, cynical or rigid (Cherniss, 1980) Burnout is experienced by professionals who provide services and help to the public usually consist of those who deal with a great number of people all the time and sometime for a longer period of time. Such practices might lead to recurrence of physical and mental stress which can give rise to emotional depression, boredom, troubles in interpersonal relationships, and dissatisfaction with their daily responsibilities Maslach (2003). According to Sanguan (1999), burnout is detrimental to a single person, a group pf people, an organization, and society where one works or lives.Job stress is a great problem in developed countries of the world; it is increased due to additional reasons associated with economic crisis in the society. Health services and health workers are in particularly difficult conditions. Health workers are exposed to greater job stress, great sense of very high job responsibility and frequent overtime work (Nedic et al., 2002) The health professionals at risk include physicians, nurses, social workers, dentists, care providers in oncology and AIDS-patient care personnel, emergency service staff members, mental health workers, and speech and language pathologists, among others. Early identification of this emotional slippage is needed to prevent the depersonalization of the provider-patient relationship. Burnout is a health care professional's occupational disease which must be recognized early and treated (Felton, 1998). To work as a public health officer and be successful, one has to be tolerable, patient, merciful and morally/ethically conscious. In Thailand, the career status of public health workers has been overlooked since there is no legislation to clarify the status of public health profession. The legality of their practice has

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always beena controversial issue raised by persons involved in someissues such as remuneration which is seen as relatively lower than other relevant professionals. Stress has been defined as an event which puts demands upon the organism and sets in motion a non-specific bodily response which leads to a variety of temporary or permanent physiological, psychological and structural changes (Onder et al., 2000). The various diseases arising out of stress are coronary heart disease, gastric ulcer, psychosexual disease, anxiety neurosis, etc. which can be controlled to a considerable extent through effective coping strategies (Winzelberg et al., 1999). Generally, public health officers face the stress from work, internal working environment, and external environment which gives rise to burnout which results in lowering the quality of their performance and the whole quality of public health profession in our country. So that, the researcher has been interested in exploring burnout and its causes suffered by public health officers in order to identify problems and guidelines for prevention of burnout and resolutions for reduction of burnout and also to provide information to those who are involved in this matter.

MATERIALS AND METHODS

Population and sample group selection

This descriptive and exploratory research was conducted among public health officers and community health personnel working in Phitsanulok, Phichit, Tak, Kamphaeng Phet, Phetchabun, Uttaradit Nakhonsawan and Sukhothai provinces; the lower northern region of Thailand. A total of 490 public health officers were selected by the multistage sampling method. The researcher selected three from nine provinces and selected one public health officer from every primary care unit in the three provinces: Phitsanulok, Sukhothai, and Phichit using convenience sampling method.

Instruments used for the study

1.) The instruments used for data collection were developed based on the measurement tool for burnout which was designed by Kitti (1998) and modified under the guidelines of survey form of burnout developed by using the Maslach Burnout Inventory (Maslach et al., 1996). The tools were separated into three parts as follows:

Part 1: Questionnaire on the status of public health officers which contained five checklists.
Part 2: Rating scale of measurement for working factors such as relationship with executives, relationship with colleagues, relationship with consumer, safety of work, policy, Income, Workload, Work stress, equity which were classified into five levels from 1 - 5.
Part 3: Rating scale of measurement for burnout which was classified into seven levels from 0 - 6. The measurement form for burnout was a tool for measurement of symptoms of burnout according to three elements. It contained 22 headings regarding emotional depression, defect in interpersonal relationship and attitude towards the outcome of operation. The score of burnout was classified into different levels. The researcher applied the criteria for classification of levels of burnout by Duke and Patricia (1995).

Data analysis

1.) Relationships between factors of personnel, the working condition and the burnout of the community health personnel by Pearson Product Moment Correlation Coefficient.
2.) Determine the added predictive validity of the burnout of the community health personnel by stepwise multiple regression analysis.

RESULTS

It was found that there were more females (67.8%) than males (32.2%) working as public health officers in different primary care units in the lower northern region of Thailand. Most of the public health officers had an age range of 31 to 40 years (42.7%) and followed by less than 30 years (32.4%). Most were married (57.9%). Most were Monthly income between 15,001 - 30,000 Bath per month (52.1%). Regarding work experience, most of the respondents had 11 - 20 years of work experience (54.1%) followed by less than 10 years (34.1%). The average of the patients treated a daily was 35.86 (S.D. = 12.53). The average of workload per week was 55.54 (S.D. = 11.64). The average of work overtime per month was 12 (S.D. = 3.75) (Table 1).

Regarding Correlation Matrix, the study showed that a positive relationship existed between the number of Patients treated a daily, Work overtime per month (days), relationship with executives, relationship with colleagues, relationship with consumer, safety of work, policy, Income, Workload, Work stress, equity and Burnout. A Pearson correlation coefficient between these variables revealed a significant positive relationship (r =.355, 167, 216, 258, 297, 367, 544, 273, 545, 447, 431 and $P < 0.01$) (Table 2).

And for the summary of the stepwise multiple regression for variables predicting burnout, the study showed that workload (W), policy (P), income (I), equity (E), relationship with executives (Re), the days of work overtime per month (Wm) and relationship with consumer (Rc) contributed significantly to R^2 and increased R^2 from .297 to .478 (Table 3). Therefore, the following regression model was established:

$$Y = 41.490 + .853\ W + 2.263\ P + -1.385\ I + 1.772\ E + -.572\ Re + .469\ Wm$$

DISCUSSION

The results of predictors of burnout among community health personnel of primary care units in the northern region of Thailand show that workload, policy, income, equity, relationship with executives, the days of work overtime per month, relationship with colleagues,

Table 1. General information.

General information	Number (n= 490)	Percent
Gender		
Male	158	32.2
Female	332	67.8
Age (years)		
< 31	159	32.4
31 - 40	209	42.7
41 - 50	98	20.0
> 50	24	4.9
Min = 19, Max = 59 , Mean = 38.54, S.D. = 1.64		
Status		
Single	190	38.8
Married	284	57.9
Divorced	16	3.3
Monthly income (Baht)		
< 15,000	187	38.1
15,001-30,000	255	52.1
> 30,001	48	9.80
Min = 7,250 , Max = 33,540 , Mean = 19,800.54, S.D. = 9001.584		
Work experience (years)		
1-10	167	34.1
11-20	265	54.1
>20	58	11.8
Min = 1, Max = 39 , Mean = 19.04, S.D. = 10.64		
Patients treated daily (persons)		
< 31	106	21.7
31- 60	244	49.8
61- 90	96	19.6
>90	44	8.9
Min = 20, Max = 50 , Mean = 35.86, S.D. = 12.53		
Workload per week (hours)		
< 41	49	10.0
41- 60	278	56.7
61- 80	90	18.4
> 80	73	14.9
Min = 40, Max = 82 , Mean = 55.54, S.D. = 11.64		
Work overtime per month (days)		
< 11	190	38.8
11- 20	282	57.5
> 20	18	3.7
Min = 7, Max = 30 , Mean = 12, S.D. = 3.75		

Table 2. Zero order correlation matrix for all variables in research question (N=490).

	x1	**x**2	**x**3	**x**4	**x**5	**x**6	**x**7	**x**8	**x**9	**x**10	**x11**	**x**12	**x**13	**x**14	**x**15	**x**16
x1	1	.924**	.985**	-.459**	-.416**	-.441**	.133*	.238**	-.150**	-0.072	-.222**	-.193**	-.119*	-0.024	.121*	-0.075
x2		1	.914**	-.362**	-.347**	-.350**	.112*	.155**	-0.088	0.006	-0.066	-.137**	0.039	-0.004	.122*	0.006
x3			1	-.445**	-.402**	-.437**	.155**	.221**	-.150**	0.071	-.238**	-.208**	-.134*	-0.064	.136**	-0.086
x4				1	.357**	0.05	-0.003	.144**	.306**	.208**	.402**	.172**	.525**	.354**	.131*	.355**
x5					1	.312**	-.173**	-.170**	0.002	-0.045	0.02	-0.011	0.059	-0.043	-0.089	0.079
x6						1	-0.005	-0.071	.208**	.203**	.137**	.108*	.131*	.130*	-0.013	.167**
x7							1	.766**	.510**	.219**	.336**	.321**	.377**	.415**	.692**	.216**
x8								1	.560**	.119*	.287**	.255**	.361**	.472**	.583**	.258**
x9									1	.356**	.620**	.532**	.587**	.628**	.469**	.297**
x10										1	.492**	.509**	.623**	.549**	.376**	.367**
x11											1	.645**	.740**	.692**	.418**	.544**
x12												1	.696**	.564**	.384**	.273**
x13													1	.755**	.472**	.545**
x14														1	.452**	.447**
x15															1	.431**)
x16																1

Note. X1 = age, X2= monthly in come, X3= work experience, X4= patients treated a daily (persons), X5= workload per week (hours), X6= work overtime per month (days), X7= relationship with executives, X8= relationship with colleagues, X9= relationship with consumer, X10= safety of work, X11= policy, X12=income, X13= workload, X14=work stress, X15= equity.

Table 3. Summary for stepwise multiple regression for variables predicting burnout among community health personnel of primary care units in the lower Northern region of Thailand.

Variable	**B**	**SE B**	**β**
Workload	.853	.142	.388**
Policy	2.263	.318	.443**
Income	-1.385	.282	-.275**
Equity	1.772	.288	.345**
Relationship with executives	-.572	.143	-.269**
The days of work overtime per month	.469	.125	.151**
Relationship with consumer	-.921	.237	-.231**
Relationship with colleagues	.467	.147	.206**

Note. $R^2 = 0.478$ for Step 8 **P < 0.01.

relationship with consumer were significant predictors which were accounted for the variance of burnout. The result of this research is in conformity with the study of a sense of responsibility in health personnel as a cause of work-related stress (Nedic et al., 2002) which has showed that, applying the scoring system it has been established that health workers are exposed to greater job stress, great sense of very high job responsibility and frequent overtime work ($p < 0.001$) and high sense of responsibility in health workers is a course of job stress. Comparing the effect of burnout with some demographic variables such as gender, it was found out that male and female public health officers are differently affected with regard to the three elements of burnout. In other words, gender has significant influence upon those three elements of burnout. The result of this research is in conformity with the study of Baylor College of Medicine (2003), which has shown that women experience more

stress than their male counterparts especially if they have children at home. They tend to have internal stress when encountering external stressors. And it might be due to the fact that female public health officers have roles, duties, and responsibilities related to their positions and operations, hence are more likely to experience different levels of burnout than do male public health officers. However, too much stress adversely affects our health and well-being, job performance and behavior. Employment outside the home has not relieved women of responsibilities of childcare and housework. The number of mothers who work outside the home has increased steadily. Since working women have to perform the dual roles-domestic and occupational, it becomes necessary for them to know how to handle women to their best abilities. The stress of combining full-time employment with homemaking is not easy and balancing these two roles may be more difficult for some employed women than for others.

LIMITATIONS AND RECOMMENDATION

Due to time and financial constraints, this research study focused only on the lower northern region of Thailand. In view of the findings, the researcher recommends the following:

1.) The top public health executives or other policy-makers should seriously consider and implement measures for supporting the work of public health officers and help them to decrease their burnout levels.
2.) A building capacity program should be established for public health officers to enable them to deal with problems efficiently.
3.) Further researchers should be done nationwide to explore the extent to which other health professionals affected by burnout, and to design specific interventions in dealing with this problem.

Conclusion

This research study revealed that health professionals serving in the lower northern region of Thailand, face a high level burnout related different factors such as heavy workload, overtime work, the number of patients, colleagues, executives and so forth. By decreasing such factors contributing to burnout would considerably increase the well being of those employees, and eventually increase productivity.

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