

EMOTIONAL JOB DEMAND, WORK-FAMILY CONFLICT
AND EMOTIONAL EXHAUSTION:
A STUDY OF A PUBLIC HOSPITAL IN CHINA

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Abstract

The aim of the present study is to investigate the level of emotional exhaustion in medical staff of a public hospital in China and also to examine the relationship among emotional job demand, work-family conflict and emotional exhaustion. Data were collected through self-report questionnaires (N=280), targeting groups of medical staff in the hospital. The findings indicate that there is a high level of emotional exhaustion in medical staff respondents in this study. The result also shows that work-family conflict mediates the relationship between emotional job demand and emotional exhaustion. Management implications of the findings, limitations, and suggestions for future research are discussed.

Keywords: Emotional job demand; work-family conflict; emotional exhaustion; doctor, nurse; China.

JEL: J53; M100

摘要

本研究的目的是调查某中国公立医院医务人员的情绪衰竭程度，并研究工作情绪需求，工作家庭冲突和情绪衰竭之间的关系。针对医院的医务人员组，通过制定调查问卷（N = 280）收集数据。调查结果表明，医务人员的情绪衰竭程度较高。结果还表明，工作家庭冲突在工作情绪需求与情绪衰竭之间的关系起中介作用。本文还讨论了调查结果的管理启示、研究局限以及对未来研究的建议。

关键词：工作情绪需求；工作家庭冲突；情绪衰竭；医生，护士；中国。

JEL 分类号： J53; M100

Resumo

O objetivo do presente estudo é investigar o nível de exaustão emocional na equipe médica de um hospital público na China e também examinar a relação entre demanda emocional de trabalho, conflito trabalho-família e exaustão emocional. Os dados foram coletados através de questionários de auto-relato (N = 280), visando grupos de pessoal médico no hospital. Os resultados indicam que há um alto nível de exaustão emocional em entrevistados da equipe médica neste estudo. O resultado também mostra que o conflito trabalho-família medeia a relação entre a demanda emocional de trabalho e o esgotamento emocional. Implicações de gestão dos resultados, limitações e sugestões para futuras pesquisas são discutidas.

Keywords: demanda laboral emocional; conflito trabalho-família; Exaustão emocional; médico, enfermeiro; China.

JEL: J53; M100

Table of Contents

Acknowledgements	II
致谢	III
Abstract	IV
摘要	V
Resumo	VI
Table of Contents	VII
List of Tables	VIII
List of Figures	IX
List of Abbreviations.....	X
1 Introduction.....	1
1.1 Background.....	1
1.2 Research Questions.....	3
1.3 Structure.....	3
2 Literature Review	4
2.1 Emotional Job Demands	4
2.2 Work-Family Conflict	5
2.3 Emotional Exhaustion.....	6
2.4 Summary	8
3 Research Method	10
3.1 Sampling and Procedure	10
3.2 Measures	10
3.3 Method.....	11
3.4 Factor Analysis.....	11
4 Results	14
4.1Participants.....	14
4.2 Analysis of variance test	16
4.3 T-test.....	20
4.4 Correlation analysis	21
4.5 Hypothesis Testing.....	23
5 Discussion and Conclusions.....	26
5.1 Discussion.....	26
5.2 Conclusion	29
5.3 Limitation and Further Studies	32
References.....	33
Appendix: Questionnaire	38

List of Tables

Table 1. Emotional Job Demand - Total Variance Explained	12
Table 2. Total Variance Explained	12
Table 3. Total Variance Explained	13
Table 4. Demographic characteristics of participants.....	15
Table 5. ANOVA Results of Key Variables by ages.....	16
Table 6. Multiple Comparisons of the key variable on different age	17
Table 7. T-Test Result of Key Variables	20
Table 8. Correlations.....	22
Table 9. Regression Analysis - Hypothesis 1	23
Table 10. Regression Analysis - Hypothesis 2	23
Table 11. Regression Analysis - Hypothesis 3	24
Table 12. Regression Analysis - Hypothesis 4	24

List of Figures

Figure 1. Proposed mediation model	9
Figure 2. Emotional Job Demand and emotional exhaustion Model with Work-Family Conflict as a mediator.	25

List of Abbreviations

EJD	Emotional Job Demand
EE	Emotional Exhaustion
WFC	Work - family Conflict
COR	Conservation of Resource Theory

1 Introduction

1.1 Background

Chinese society has high expectations for the role of doctors in the country. It not only requires medical staff to undergo strict professional training, but also requires doctors to have compassion, treat patients with hospitality and dedication. In recent years, Chinese doctors have faced problems of mental stress, work-family conflict, and emotional exhaustion. Emotional exhaustion, also known as work exhaustion or occupational exhaustion, was first used in a series of symptoms after long-term drug abuse. In 1974, American psychologists Freudenberger(1974) first proposed the term "burnout", which was used to describe the state of physical and emotional exhaustion of individuals in the assisting industry in the face of job requirements. He argued that it mainly describes the long-term facing of medical emotions and interpersonal stress personnel from a clinical perspective. In 2001, a survey conducted in the United States, Canada, Germany, the United Kingdom, and Scotland to study the health emotional exhaustion of medical staff. It was found that the job in the hospital was very serious, and nurses in four countries were not satisfied with the current work (Lv, 2010).

China's situation is not optimistic. Li research on occupational burnout of medical staff showed that among the 218 medical staff surveyed, 42.1% had emotional exhaustion, 22.7% had negative stagnation, and 48.6% had burnout (Li, 2003). Wang (2011) also surveyed more than 800 doctors in eight hospitals and found that more than 60% of doctors felt.

According to Thompson (2005), there are a myriad of reasons this current situation with China's failing healthcare, the many medical professionals' lack of proper resources in their working conditions, and as a result, poor patient care outcomes. Ultimately these poor patient outcomes are a direct consequence of the professionals'

working lives being overwhelmed by large amounts of job-related stress (Cheng, 2011). When the stress increase, it become burnout, then influence medical staff's life (Liu, 2017) When someone is stressed, without the proper resources they need for their job duties, and under enormous pressure to perform at high levels, such individuals will be less likely to conduct the responsibilities of their specific medical position (Wharton, 1993).

This leads to another issue—work family conflict. Work-family conflict is also an important factor affecting emotional exhaustion, for example, China's ageing population, continues to grow in size and complexity. For young people, they may face one more issue – a second child as Chinese government abandoned the one-child policy, allowing for a second child. Therefore, Chinese clinicians face increasing family responsibilities. However, because of the heavy work load, it is difficult for doctors to take care of both work and family. They are busy with treating patients and rarely spend time with their families (Premeaux & Adkins, 2007).Furthermore, this particular lack of the right amount of human resources, due in part to the constant emotional drain on medical staff, has created a sizeable amount of a self-perpetuating system (Chiu, 2011). In other words, the current number of patients in China will put very heavy burden on medical staff. According to DiRenzo, Greenhaus, and Weer (2011), working time is one of the important factors that affect the work and family of medical staff. Working hours increase, burdens increase, and conflicts deepen, thus finally resulting in family–work conflict (FWC). Researchers(Karasek, 1979, 1998; Karasek & Theorell, 1990) argue that high quantitative job demands (i.e., high workload, time pressure) and little control (i.e., poor autonomy) will result in psychological and physical strain. Hochschild (Hochschild, 1983) and others have proposed that emotion job demand can be stressful to their work and may result in emotional exhaustion.

However, all the previous ones mentioned above did not make a clear investigation on the relationship between the three (emotional job demand, work-family conflict,

emotional exhaustion) among the Chinese healthcare setting, especially if the work-family conflict as a medium would affect the other two factors. Thus, we need to better understand the relationship of work-family conflict and emotional job demand and maybe whether emotional job demand and work-family conflict have collective effects on emotional exhaustion on Chinese doctors and nurses.

1.2 Research Questions

In this study, therefore, we want to get a better understanding on emotional job demand and its relationship between work-family conflict and emotional exhaustion of the medical staff in one of public Chinese hospital. By doing this research, we hope that we can find out a good way to manage and improve the medical staff 's well-being in the public hospital in China who are facing emotional exhaustion and work-family conflict in their work to provide a high quality public service. Thus, this study attempts to answer the following two questions: 1) how is the level of emotional job demand, emotional exhaustion and work-family conflict among the medical staff in this hospital? 2) What is the relationship among the three variables? In particularly whether the work-family conflict is the mediator between emotional job demand and emotional exhaustion?

1.3 Structure

Following this chapter, we will first review the existent literatures regarding emotional job demand, work-family conflict, emotional exhaustion to develop the theoretical framework of the present study. In the third chapter, we will explain the research methods used in the study, in particularly, sampling procedure, and analysis strategy. Finally, we will present the results of our research, discuss the management implications, limitations of the study and suggestions for future research.

2 Literature Review

2.1 Emotional Job Demands

Emotional job demands refer to a worker's need for their work. There is an important connection between this need and emotion, including salary, security, positive or negative (Brotheridge et al, 2002). Emotion is the direct behaviour of the body toward or away from something. In essence, emotions include positive emotions (happy, relaxed, etc.) and negative emotions (depression, anxiety, nervousness, etc.). Demerouti (2001) officially proposed a job demand model (job demands—resources model, JD---R model) and verified the universality of the model in various occupations. He pointed out that each of the factors that have a specific impact on job burnout can be classified into two categories: job demands and work resources. Job demands are stressors that require workers to respond long-term in the work environment. Job demands relate to the physical, social, and organizational aspects of ongoing physical and psychological efforts at work, related to specific physical and psychological contributions (Demerouti & Baker, 2001). As a duty to save the wounded and ill, the doctor plays an important role as a server in society. Zapf (2002) argued that emotional labour or emotion work is an important aspect of employee with client interactions. Here, patients, children, customers, passengers, or guests are considered as “client”. Job demand require them to express appropriate emotions to their client. They need to control their emotions in a good state, but not every health care provider is in a good mood every day. Abraham (1998) suggested that when doctor and nurses meet some difficult customer, they are forced to smile and also pretend to be happy to help people. In other words, this will have a negative impact on themselves. Especially, emotion work has been defined as the psychological processes, as part of one’s job (Grandey, 2000).

Job demands are related to emotional exhaustion (Bakker, Demerati, de Boer & Schaufeli 2003; Bakker, Demerouti, & Schaufeli, 2005) and predict emotional exhaustion over time (Hakanen, Schaufeli, & Ahola, 2008). Arnold (2003) and B.Bakker (2003) have conducted a study of four different home care industry organisations that examined the relationship between job demands, work resources and emotional exhaustion. The result shows that work requirements are highly correlated with emotional exhaustion and burnout. Based on this result, it is concluded that job demands may eventually lead to emotional exhaustion. According to Prosser (1999), A medical staff diminish the enthusiasm to work, decreases job satisfaction, and doctors finally become emotional exhaustion.

Previous research assumed that emotional demand was the frequency or quantity of interactions with clients/customers that caused role overload and emotional exhaustion (Cordes & Dougherty, 1993; Maslach, 1978). Toward surface acting, employee may hide their true feeling of their work. For example, when doctor and nurses meet some difficult customer, they are forced to smile and also pretend to be happy to help people. (Abraham, 1998; Brotheridge, 1999; Erickson & Wharton, 1997; Pugliesi, 1999; Pugliesi & Shook, 1997)

2.2 Work-Family Conflict

Work–family conflict refers to situations where the demands and responsibilities from work and family roles are mutually incompatible in some respect (Greenhaus & Beutell, 1985). Greenhaus and Beutell (1985) defined work-home conflict as “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible, such that participation in one role makes it difficult to participate in the other” This definition implies a bidirectional dimension in that work can interfere with home (work-home interference; WHI) and home can interfere with work (home-work interference, HWI(Frone, 2003). Kahn, Wolfe, Quinn, Snoek, and

Rosenthal (1964) defined that work-family conflict is a type of interrole conflict in which role stress from the work and family domains are mutually incompatible to some degree. Marcia Russell (1992) found that work-family conflict is a critical intervening pathway, reflects the goodness of fit between work and family life. Ronald and Esther (2001) suggested that WFC and FWC were associated with higher levels of psychological emotional exhaustion through testing 686 hospital-based nurses.

Work-family conflict was conceptualised by Hämmig et al., (2009) as the conflict between work and family requirements including conflict between work and other role obligations and expectations in individual life. Additionally, working family conflict is also a dimension to assess role pressure. Employees would feel more stress of WFC if they are required to cope with workload more than they can manage at certain period, it will reflect to negative emotions, fatigue, tension and other mental health symptoms (Lingard & Francis 2006). There is also strong theoretical evidence for job demands related to WFC.

2.3 Emotional Exhaustion

The term ‘burnout’ was introduced by Freudenberger (1974) to describe a picture of exhaustion of mental care professionals at the work place. He defined it as “to fail, wear out, or become exhausted by making excessive demands on energy, strength or resources. Burnout was initially defined as a form of exhaustion, specifically within careers around human services, who were “burning out” were described as lacking empathy and creating negative relationships with their patients or clients (Maslach,1976). The number of work hours, pressure, emotional demands of the job, an overload of work requirement, lack of feedback from supervisors and social support, and lack of job control, can lead to employees’ burnout (Alarcon, 2011). Burnout consists of three dimensions mental state, that is, emotional exhaustion,

cynicism, and reduced sense of accomplishment. This study focuses on emotional exhaustion.

It has been suggested that WFC should be positively associated with emotional exhaustion, job tension, job role conflict, and job role ambiguity (Bedeian et al., 1988; Frone et al., 1992; Maslach & Jackson, 1981). Previous research also indicates that WFC is strongly related to job emotional exhaustion (O'Driscoll et al., 1992; Frone et al., 1992; Judge et al., 1994; Maslach & Jackson, 1981). Doctors always spend most of their time on their work including a lot of stress, lack of time spending with their families, will eventually become emotional exhaustion or feel tired of their daily work.

Work and family can be seen as two major important things in people's life and many prior studies have been done by researchers all over the world studying the relationship between work and family for many years. Greenhaus (1985) has ever used role theory defined WFC as an inter-conflict which happens when the role demand from one domain (family/work) interferes with the role from another domain (family/work). Halbesleben (2009) suggested that most of the working employees such as doctors with family responsibilities always go through the strain-based work-family conflict.

The present study uses the Conservation of Resources (COR) theory developed by Hobfoll (1988, 1989, 2001) to examine how emotional job demand and work-family conflict contribute to explaining variance in job emotional exhaustion. The core idea of the COR theory is that individuals with more resources are less vulnerable to face resource loss and more capable of accessing resources. The basic tenet of COR theory is that individuals strive to acquire, maintain, and protect things that they value (known as resources), and stress occurs when these resources are lost, threatened with loss, or when individuals fail to replenish these resources after significant investments. Resources include objects (e.g. a house, a car), conditions (e.g. a good marriage),

personal characteristics (e.g. a sense of optimism), and energies (e.g.time). We can understand that there is a relation among these three variable, resources related theory can support them and reduce the bad emotions. However, when it lost, it might lead to work-family conflict, as well as emotional exhaustion.

In utilizing this model for the present study, we focused on three pathways through which emotional job demand unfolds its influence on emotional exhaustion (Fig. 1).

Path A is a direct association between emotional job demand and emotional exhaustion. Past studies have consistently provided support for the positive association between the two (e.g. Bono & Vey, 2005; Grandey, 2003; Karim, 2009).

Path B is a direct relationship between emotional job demand and work-family conflict. The third pathway, Path C shows that work-family conflict related to emotional exhaustion. Path B&C indicates a mediator role of work-family conflict on the relationship between emotional job demand and emotional exhaustion. While past studies have shown that work-family conflict might mediate the emotional dissonance - emotional exhaustion relationship in medical staff of China, the findings are mixed (e.g. Xie, Zeng, & Shi, 2007; Karim, 2009). The mixed results might be due to the samples used, where they were not taken from proper service-related organizations and there was no control for family responsibilities.

2.4 Summary

As with any profession, the medical field has a vast array of different challenges involved with its many workers. Due to the trio of primary factors, emotional job stress, family-work conflicts, and work-related emotional exhaustion, many Chinese medical professionals are currently suffering from undue stress that has caused a variety of negative outcomes. These negative outcomes have severe consequences not only for the medical profession in this nation but also for the many patients under care. This situation is obviously not tenable, sustainable, and should be changed in order to

provide better medical care for the Chinese people who require it. In addition, finding possible solutions to this problem, including developing better educational support and resources for more nurses and doctors, could potentially help the man medical professional who suffer from emotional drain due to work stress.

2.4.1 Research Hypotheses

Hypothesis 1: *Emotional job demand is positively related with emotional exhaustion.*

Hypothesis 2: *Emotional job demand is positively related with work-family conflict.*

Hypothesis 3: *Work-family conflict is positively related with emotional exhaustion.*

Hypothesis 4: *Work-family conflict will mediate the relationship between emotional job demand and emotional exhaustion.*

2.4.2 Research Model

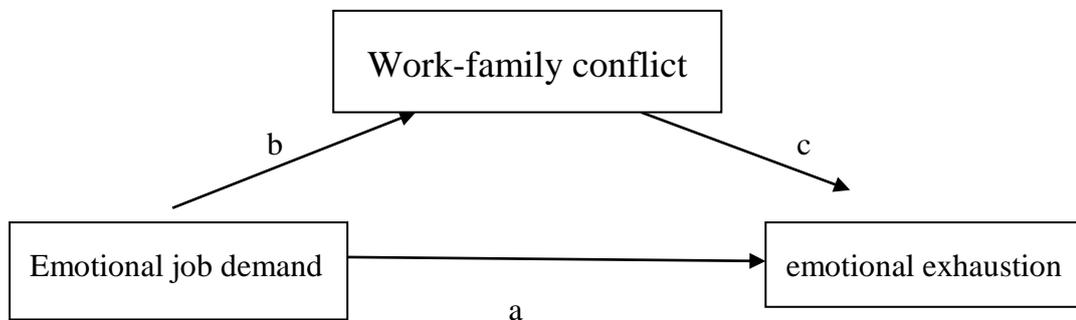


Figure 1. Proposed mediation model

Figure 1. Graphical depictions of the three pathways. (a) Direct effect of emotional job demand on emotional exhaustion (Hypothesis 1). (b) Direct effect of emotional job demand on work-family conflict (Hypothesis 2). (c) Direct effect of work-family conflict on emotional exhaustion. (Hypothesis 3). Work-family conflict mediates the emotional job demand – work family conflict relationship (Hypothesis 4).

3 Research Method

3.1 Sampling and Procedure

This study was conducted with doctors and nurses from a tertiary first-class hospital in Guangdong Province, southern of China. At present, there are 1903 employees, including 231 senior titles, 6 doctors and post-doctors. The hospital has 1200 beds, and an annual hospitalisation of 30,000. At present, the number of outpatients is nearly 2.783 million, the number of discharged patients exceeds 64,300, the number of operations is 38,900, the business income is 928 million yuan; the third and fourth grades are 35.58%; the C and D complex and critically ill patients are 61.17%. It has been rated as “the best quality medical unit in Zhongshan City” for many years.

Approved by the hospital's ethics committee, we randomly selected 150 doctors and 150 nurses in this hospital as our sample. The investigators contacted the doctors and nurses who were drawn to conduct a one-on-one questionnaire survey. In the end, we recovered 280 valid questionnaires, including 85 male and 195 female, with a total response rate of 80.0% (280/350).

3.2 Measures

In the questionnaires, participants responded to scales assessing emotional job demand, work-family conflict and emotional exhaustion. All details of measures used in the medical staffs' questionnaire can be found in Appendix.

Emotional job demand: Emotional job demand was measured- the scale developed by van Gelderen et al. (2007). This part of questionnaire takes into account some of the objects they may encounter in their work. A sample item would be “Condescending

suspects/civilians”. Respondents are asked to rate their recurrence with each item on 6-point scale from 1(“none”) to 6 (“ always”).

Work-Family Conflict: The Work-Family Conflict Scale (WAFCS) developed by Netemeyer, Boles and Mcmurrian (1996) consists of WFC (Work-Family Conflict) and FWC (Family-Work Conflict). This study used WFC scale, including 5 items. Respondents are asked to rate their level of agreement with each item on a 6-point scale form 1(very strongly disagree) to 6 (very strongly agree). A sample item is “The demands of my work interfere with my home and family life”.

Emotional exhaustion: Emotional exhaustion was measured by the subscale of Maslach Burnout Inventory (MBI) to fit the Chinese context (Maslach, Jackson, and Leiter, 1996). The emotional exhaustion scale consisting of 6 items, was designed to assess the emotional exhaustion. A sample item is “I feel emotionally drained from my work”. The scale used a six-point response format (1 = ‘never’ to 6 = ‘always’).

3.3 Method

The database and statistical analysis was performed with SPSS 21.0. The test level (α) was 0.05, and the positive rate of the different groups was compared using the Pearson Chi-Square Test. The t-test and one-way ANOVA analysis were used to compare variance between different groups. Lastly, regression analyses were conducted to test the four hypotheses proposed in this study.

3.4 Factor Analysis

3.4.1 Emotional Job Demand

The initial exploration shows a clean one-factor solution which is both valid (KMO = .887, Bartlett's $X^2(6) = 992.440$, $p < .001$), parsimonious and meaningful. The construct includes seven statements such as "During my work, I contact with mentally disordered person". The Cronbach's alpha was .888.

Table 1. Emotional Job Demand - Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.211	60.162	60.162	4.211	60.162	60.162
2	.769	10.986	71.148			
3	.614	8.767	79.916			
4	.459	6.560	86.475			
5	.394	5.622	92.097			
6	.293	4.191	96.288			
7	.260	3.712	100.000			

Extraction Method: Principal Component Analysis.

3.4.2. Work-Family Conflict

An initial exploration shows a final one-factor solution which is both valid (KMO = .857, Bartlett's $X^2(10) = 1176.681$, $p < .001$), and meaningful. The construct therefore includes five statements such as "The demands of my work interfere with my home and family life". The Cronbach's alpha was .931.

Table 2. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.923	78.463	78.463	3.923	78.463	78.463
2	.435	8.702	87.165			
3	.313	6.254	93.419			
4	.187	3.736	97.155			
5	.142	2.845	100.000			

Extraction Method: Principal Component Analysis.

3.4.3 Emotional exhaustion

An initial exploration shows a mixed solution and after removing the 6th item on the basis of facial validity and reliability, a final one-factor solution was found which is both valid (KMO = .910, Bartlett's $X^2(10) = 1340.381$, $p < .001$), parsimonious and meaningful. The construct includes five statement like "I feel emotionally drained from my work". The Cronbach's alpha was 0.934.

Table 3. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.513	75.218	75.218	4.513	75.218	75.218
2	.454	7.559	82.777			
3	.369	6.154	88.930			
4	.269	4.479	93.409			
5	.224	3.731	97.140			
6	.172	2.860	100.000			

Extraction Method: Principal Component Analysis.

Next, the results of correlation analysis and ANOVA analysis on the key variables are reported and summarized.

4 Results

4.1 Participants

Participants were employees of Xiaolan People's Hospital, Zhongshan City, Guangdong Province. Demographic information of the participants included information about gender, age, marital status, education level, tenure and job position, which is presented in the Table 1. The age distributions of the participants were predominated by employees who are 18-29 years old (47.1%), then followed by employees whose age are between 30-39 years old (39.3%), 40-49 years old (11.4%) and 50 years old and above (2.1%). The sample consists of predominantly females (69.6 %). The composition of the job position was predominantly senior nurse (38.2%) whereas nurse and nurse-in-charge were 33.6% and 12.5% respectively. The tenure of the participants is described as follows: about 33.9 % of them have been working for 6-10 years and 37.9% have been working for 1-5 years. The staff who have bachelor degree or above were 60.4%. Married participants were 30.7%.

Table 4. Demographic characteristics of participants

Measure	N=280	%
Gender		
Female	195	69.6
Male	85	30.4
Age		
18-19	132	47.1
30-39	110	39.3
40-49	32	11.4
≥ 50	6	2.1
Marital Status		
Single	190	67.0
Married	86	30.7
Others (divorcee)	4	1.4
Highest Educational Level		
College degree or below	70	25
Bachelor degree or above	169	60.4
Master degree	36	12.9
Doctor degree	5	1.8
Job Category		
Doctor	86	30.7
Nurse	175	62.5
Head of clinical department	10	3.6
Job Position		
Nurse	94	33.6
Senior nurse	107	38.2
Nurse-in-charge	32	12.5
Chief nurse	44	15.7
Professional Tenure		
1-5 years	106	37.9
6-10 years	95	33.9
11-15 years	38	13.6
16-20 years	22	7.9
>20 years	19	6.8

4.2 Analysis of variance test

4.2.1 Table 5 is the summary of the difference of the key variables on different age by using analysis of variance (ANOVA).

Table 5. ANOVA Results of Key Variables by ages

	Emotional job demand	Work-family conflict	Emotional exhaustion
18-29 year-old	2.69 (.97)	3.45 (1.16)	2.85 (.95) ^{ab}
30-39 year-old	3.18 (.97)	4.13 (1.09)	3.36 (1.18) ^b
40-49 year-old	2.98 (1.05)	3.74 (1.19)	3.05 (1.12) ^a
≥50 year-old	2.89 (.54)	3.63 (.97)	3.33 (1.14)
F	5.027***	7.163***	4.629***

Mean values are reported with standard deviations in parentheses.

Means with the different superscript letter (a or b) are significantly different at the 0.05 level by post hoc LSD test.

Means with two letter (ab) are significantly different at the 0.05 level by post hoc LSD test.

* $p \leq .05$, ** $p \leq .01$, *** $p < .001$

4.2.2 Table 6 is the summary of multiple comparisons of the key variable on different age by using analysis of variance (ANOVA).

Table 6. Multiple Comparisons of the key variable on different age

Dependent Variable	(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
eJD		30-39	-.48518*	.12565	.000	-.7326	-.2378
	18-29	40-49	-.29372	.19131	.126	-.6703	.0829
		>50	-.19823	.40527	.625	-.9961	.5996
		18-29	.48518*	.12565	.000	.2378	.7326
	30-39	40-49	.19147	.19520	.328	-.1928	.5758
		>50	.28695	.40713	.482	-.5145	1.0884
		18-29	.29372	.19131	.126	-.0829	.6703
	40-49	30-39	-.19147	.19520	.328	-.5758	.1928
		>50	.09549	.43193	.825	-.7548	.9458
		18-29	.19823	.40527	.625	-.5996	.9961
		>50	-.28695	.40713	.482	-1.0884	.5145
		40-49	-.09549	.43193	.825	-.9458	.7548
		30-39	-.67788*	.14650	.000	-.9663	-.3895
	WFC		30-39				
18-29		40-49	-.29072	.22361	.195	-.7309	.1495
		>50	-.18030	.47370	.704	-1.1128	.7522
		18-29	.67788*	.14650	.000	.3895	.9663
30-39		40-49	.38716	.22793	.091	-.0615	.8359
		>50	.49758	.47575	.297	-.4390	1.4341

		18-29	.29072	.22361	.195	-.1495	.7309
	40-49	30-39	-.38716	.22793	.091	-.8359	.0615
		>50	.11042	.50486	.827	-.8834	1.1043
		18-29	.18030	.47370	.704	-.7522	1.1128
	>50	30-39	-.49758	.47575	.297	-1.4341	.4390
		40-49	-.11042	.50486	.827	-1.1043	.8834
			-.50667*	.13776	.000	-.7779	-.2355
		30-39					
	18-29						
		40-49	-.19848	.21026	.346	-.6124	.2154
		>50	-.48182	.44542	.280	-1.3587	.3950
		18-29	.50667*	.13776	.000	.2355	.7779
	30-39	40-49	.30818	.21432	.152	-.1137	.7301
		>50	.02485	.44736	.956	-.8558	.9055
		18-29	.19848	.21026	.346	-.2154	.6124
	40-49	30-39	-.30818	.21432	.152	-.7301	.1137
		>50	-.28333	.47472	.551	-1.2179	.6512
		18-29	.48182	.44542	.280	-.3950	1.3587
	>50	30-39	-.02485	.44736	.956	-.9055	.8558
		40-49	.28333	.47472	.551	-.6512	1.2179

*. The mean difference is significant at the 0.05 level.

Table 5 and table 6 show that there is significant difference on the level of emotional job demand regarding different age group between 18-29 and 30-39, as well as that on work-family conflict and emotional exhaustion. 18-29 years old in the sample reported the lowest value (Mean = 2.69, S.D.= .97) about emotional job demand while the 30-39

the highest (Mean = 3.18, S.D.=.97) with 40-49 years old in the middle (Mean = 2.98, S.D.=1.05). However, significance differences only exist 18-29 year old and 30-39 year old, while there is no significant difference between the other groups.

In addition, there is significant difference on the level of work-family conflict regarding different age group between 18-29 years old and 30-39 years old. 18-29 years old respondents in the sample reported the lowest value (Mean = 3.45, S.D.= 1.16) about work-family conflict while the 30-39 years old the highest (Mean = 4.13, S.D.=1.09) with 40-49 in the middle (Mean = 3.74, S.D.=1.19). However, significance differences only exist 18-29 year old and 30-39 year old, while there is no significant difference between the other groups.

Lastly, there is significant difference on the level of emotional exhaustion regarding different age group between 18-29 years old and 30-39 years old. 18-29 years old respondents in the sample reported the lowest value (Mean = 2.85, S.D.= .95) about emotional exhaustion while the 30-39 years old the highest (Mean = 3.36, S.D.=1.18) with 40-49 in the middle (Mean = 3.05, S.D.=1.12). However, significance differences only exist 18-29 year old and 30-39 year old, while there is no significant difference between the other groups. Significance differences exist among the four groups of 18-29 and 30-39, as well as 40-49, ≥ 50 years old.

4.3 T-test

Table 7 summarized the results of T-test

Table 7. T-Test Result of Key Variables

Variables	EJD	EE	WFC
	Mean (SD)	Mean (SD)	Mean (SD)
Marital status			
Unmarried (n=86)	2.67 (0.99)	2.76(0.98)	3.33 (1.13)
Married (n=190)	3.10 (0.91)	3.07 (1.08)	3.92 (1.14)
F	.531	1.23	.221
Sig.	.001	.023	.000
Tenure			
1-5 years (n=106)	2.62 (0.86)	2.63 (0.76)	3.39 (1.12)
6-10 years (n=95)	3.08 (0.99)	3.14 (1.21)	3.86 (1.16)
F	1.47	1.14	.100
Sig.	.001	.000	.003

Note: EJD = Emotional Job Demand; EE= Emotional Exhaustion; WFC = Work-family

Conflict

Sig. = Sig (2-tail)

From Table 7, it can be seen that married staff (Mean=3.10, SD=0.91) in the sample reported a higher emotional job demand than unmarried staff (Mean=2.67, SD=0.99). And a married staff (Mean=3.92, SD=1.14) in the sample reported a higher

work-family conflict than unmarried staff (Mean=3.33, SD=1.13). In addition, there is a significant difference in the level of burnout regarding medical staffs' tenure 1-5 years (Mean=2.62, SD=0.86) and 6-10 years (Mean=3.08, SD=0.99). Also, there is a significance difference of the level of emotional exhaustion regarding medical staffs' 1-5 years (Mean=2.63, SD=0.76) and 6-10 years (Mean=3.14, SD=1.14). Lastly, there is a significance of the level of work family conflict regarding the number of 1-5 tenure (Mean =3.39, SD=1.12) and 6-10 tenure (Mean=3.86, SD=1.16). Medical staff who have longer tenure showed a higher work-family than shorter tenure.

4.4 Correlation analysis

Table 8 reports correlations between the key variables. These findings provide primary supports for the proposed research model.

The results showed that emotional job demand, emotional exhaustion and work-family conflict were mutual significantly correlated with each other.

In addition, among demographic factors, marital status are positively associated with emotional job demand and work-family conflict. The number of tenure is positively associated with emotional job demand and work-family conflict. Besides, the results indicated that marital status and gender and tenure have positive association with work-family conflict. The highest tenure is positively associated with emotional job demand.

Table 8. Correlations

	Mean	S. D.	1	2	3	4	5	6	7	8	9
gender	1.70	0.46									
age	1.69	0.76	-,233**								
maritalstatus	1.71	0.49	-,174**	,527**							
function	2.40	0.99	,501**	-0.11	-0.03						
tenure	2.12	1.20	-,163**	,859**	,497**	-0.03					
title	2.10	1.04	-,263**	,778**	,506**	-,193**	,820**				
edu	1.91	0.67	-,342**	,351**	,276**	-,508**	,260**	,447**			
eJD	2.92	0.99	-0.02	,151*	,192**	0.07	,223**	,202**	-0.05		
WFC	3.76	1.17	-0.05	,154**	,248**	-0.09	,184**	,190**	0.11	,172**	
EE	3.08	1.09	0.02	,142*	0.11	0.01	,183**	,202**	0.05	,243**	,639**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

eJD=Emotional Job Demand

WFC=Work Family Conflict

EE = Emotional Exhaustion

4.5 Hypothesis Testing

In order to test hypothesis 1 “*Emotional job demand is positively related to emotional exhaustion.*”, a simple linear regression was conducted to test the relationship between these two variables.

Table 9. Regression Analysis - Hypothesis 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.306	.197		11.718	.000
	eJD	.266	.064	.243	4.170	.000

a. Dependent Variable: Burnout

As indicated in the Table 9, emotional job demand is significantly related with emotional exhaustion with an adjusted explained variance of 19.43% ($\beta=.243$, $p<.001$).

Therefore, hypothesis 1 is fully supported.

For hypothesis 2 “*Emotional job demand is positively related to work-family conflict.*”, we conduct a similar regression analysis as above.

Table 10. Regression Analysis - Hypothesis 2

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.164	.215		14.694	.000
	eJD	.203	.070	.172	2.906	.004

a. Dependent Variable: WFC

As indicated in Table 10, emotional job demand is significantly related to work-family conflict with an adjusted explained variance of 11.29% ($\beta=.172$, $p<.001$).

Therefore, hypothesis 2 is fully supported.

For hypothesis 3 “*work-family conflict is positively related to emotional exhaustion*”, the dependent variable, emotional exhaustion was regressed on work-family conflict and generated the following results.

Table 11. Regression Analysis - Hypothesis 3

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.856	.169		5.082	.000
	WFC	.593	.043	.639	4.371	.000

a. Dependent Variable: Burnout

As indicated in Table 11, work-family conflict is significantly related with emotional exhaustion with an adjusted explained variance of 43.71% ($\beta=.639$, $p<.001$).

Therefore, hypothesis 3 is fully supported.

The above results clearly demonstrate that these three relationships as preconditions for mediation analyses are fulfilled. We tested the last hypothesis (4) “*Work-family conflict will mediate the relationship between emotional job demand and emotional exhaustion.*” and emotional exhaustion was regressed on emotional job demand and work-family conflict.

Table 12. Regression Analysis - Hypothesis 4

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.500	.205		2.434	.016
	WFC	.571	.043	.615	13.316	.000
	eJD	.150	.051	.137	2.966	.003

a. Dependent Variable: Emotional exhaustion

As indicated in Table 12, the model which includes both emotional job demand and work-family conflict explained variance of 70.34% of the variance in emotional exhaustion. Of the two variables, work-family conflict makes the largest unique contribution ($\beta=.615$, $p<.001$), although emotional job demand also made a statistically significant contribution ($\beta=.137$, $p<.001$). As can be seen in Figure 2, the direct effect decreased from .243 to .137. In addition, the Sobel-test indicated that work-family conflict ($z=6.82$, $p < .01$) was a significant mediator of the influence of emotional job demand on emotional exhaustion. Taken together, work-family conflict appears to partially mediate the relationship between emotional job demand and emotional exhaustion among the respondents surveyed in this study. Therefore, our hypothesis that “*work-family conflict partially mediating the relationship between emotional job demand and emotional exhaustion*” is supported.

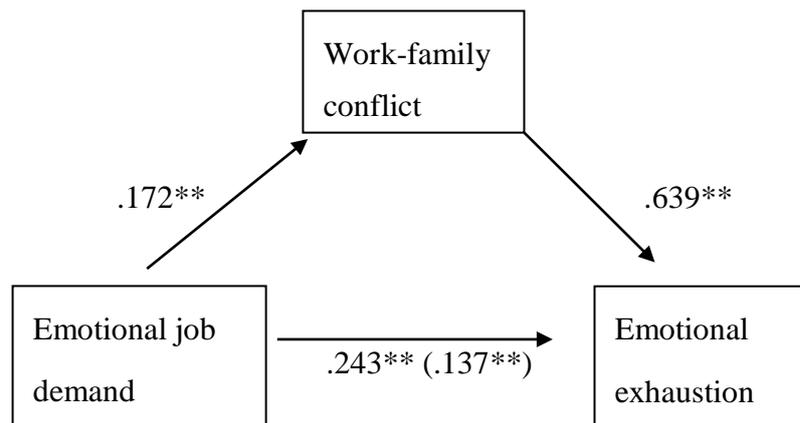


Figure 2. Emotional Job Demand and emotional exhaustion Model with Work-Family Conflict as a mediator.

Notes: All numbers represent standardized beta coefficients (numbers in brackets are direct effects without including mediator); ** $p < 0.001$

5 Discussion and Conclusions

5.1 Discussion

The purpose of this study was to understand the level of emotional job demand, work-family conflict and emotional exhaustion of Xiaolan People's hospital - a top three level hospital in Guangdong Province, southern of China and also to test a model for emotional job demand, work-family conflict and emotional exhaustion. The findings advance the dialogue and theory building surrounding the subject. In addition, we also summarized a lot of suggestions to the management staff of the hospital through the analysis of the data.

First, this study finds that most of the current medical staff in China who have the problems of emotional job demand, work-family conflict and emotional exhaustion. Second, this study shows that work-family conflict partially mediates on the relationship between emotional job demand and emotional exhaustion.

This research reveals that 6-10 years tenure respondents suffer a high level of emotional exhaustion (mean=3.14, S.D. = 1.21) and work-family conflict (mean=3.86, S.D. =1.16), compare with that on 1-5 years tenure (mean=2.63, S.D=0.76, mean=3.14, S.D=1.12). We can infer that clinicians a long tenure in hospital suffer work family conflict more. This conflict is defined as “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (Greenhaus & Beutell, 1985). That means WFC exists when responsibilities in one domain (work or family) limit an individual from meeting the obligations in the other (family or work).

We also find that there is significant difference on the level of emotional job demand regarding different age group between 18-29 and 30-39, as well as that on work-family conflict and emotional exhaustion. The group of 18-29 years old in the sample reported the lowest value (Mean = 2.69, S.D.= .97) on emotional job demand while the group of 30-39 years the highest (Mean = 3.18, S.D.=.97) with 40-49 years old in the middle

(Mean = 2.98, S.D.=1.05).

5.1.1 Emotional job demand and emotional exhaustion

According to the first part (emotional demand and pressure) of our questionnaire, some questions like “ I have to face with verbally aggressive patients” or “ Cannot be my true self” or “to behave some false emotion”.

Hypothesis1: Is emotional job demand positively related with emotional exhaustion?

This hypothesis is supported in this study. Before we talk about emotional job demand, we have to link it to “emotional dissonance” which can help us understand it more clearly. Chang (2009) argued that emotional dissonance is a very special and unique work stressor common in human-service industry. It generated from an emotional demand that requires employees to express unfeelt emotions at work (Lewig & Dollard, 2003), resulting in a mismatch between genuine and emotion. Previous study also found out that to perform a service job adequately or better to their patients, some doctor or nurse may be required to present particular types of emotion that differ from their true feelings. Like to pretend they were happy but in fact they are unhappy of their household affairs. Faced with these emotional demands, employees must react through the “management of feeling to create a publicly observable facial and bodily display” (Hochschild, 1983). We also analyze the 7 items in the emotional demand part. In the first part of our questionnaire, some of the topics in the emotional job demand include some health care workers who will encounter some patient “psychiatric”, “infectious diseases” and “drunk or drug users”. Heuven (2003) argues that emotional job demands are related to emotional exhaustion through their influence on emotional dissonance (Mean=2.46 with a scale of 5). Emotional exhaustion has been defined as a specific kind of occupational stress reaction among human service professionals, resulting from demanding and emotionally charged interactions with recipients (Maslach, 1982; Maslach & Schaufeli, 1993). Job emotional exhaustion means people will create a long-term psychological reaction which can't effectively cope with the

constant pressure of work. Research findings >90% of doctors feel tired, sleep disorders or decreased vitality in China (Song, 2011). More confirms that there is a great relationship between emotional exhaustion and emotional demand. On the other hand, in this study, we found that in this hospital, the married medical staff were higher level to experience job emotional exhaustion compared with that of unmarried staff.

5.1.2 Emotional job demand and work-family conflict

Hypothesis 2 *“Emotional job demand is positively related with work-family conflict.”*. Work-family conflict is experienced when demands from one role domain interfere with participation or performance of the other role (Greenhaus & Beutell, 1985). In this study, the results suggest that emotional job demand is significantly related with work-family conflict with an adjusted explained variance of 11.29% ($\beta=.172$, $p<.001$). Therefore, hypothesis 2 is fully supported. In support of this relationship, previous research have found out that emotional demand will influence job satisfaction, and also positively influence with work-family conflict. (Grandey & Cordeino, & Crouter, 2005)

5.1.3 Work family conflict and emotional exhaustion

Hypothesis 3 : *Is work-family conflict positively related with emotional exhaustion?*
The third hypothesis of this study is that work-family conflict is positively associated with emotional exhaustion. This hypothesis is supported in this study. This result implies that the medical staff of this hospital with high work-family conflict may have high job emotional exhaustion. This finding is supported by earlier researches on the relationship between work-family conflict and emotional exhaustion (Bridger et al., 2008; Lizano & Barak, 2012). For instance, Work-family conflict has been found related to emotional exhaustion (Netemeyer et al., 1996). Doctors and nurses face many patients in the hospital every day. Based on the shifting system, there will be some contradictions with family life. There is no way to fulfill their family's

responsibilities normally, resulting in tired and tired feelings about work. And some family travel plans will change for career reasons.

However, there are very few studies that have tested for the mediator role of work–family conflict in the emotional job demand–emotional exhaustion relationship.

5.1.4

Does work-family conflict mediate the relationship between emotional job demand and emotional exhaustion?

This finding supports the hypothesis that work-family conflict mediates the relationship between emotional job demand and emotional exhaustion in Xiaolan’s people hospital of China. The results showed that one pathway by which emotional job demand influences emotional exhaustion is via work-family conflict, with partial mediation observed for emotional exhaustion. That is, these mediated pathways imply that for medical staff of this hospital in this study, emotional job demand exacerbates work-family conflict, which leads to emotional exhaustion. Thus, the emotional job demand in the workplace will spill over from work to family, increasing work-family conflict which further results in emotional exhaustion. Therefore, as suggested by Maslach (1982) and Montgomery et al. (2006), people working in emotional and demanding environments may need to release themselves before moving home into their personal life.

5.2 Conclusion

5.2.1 Managerial implications

This study is based on the analyses of the relationship between the three variables and finds that as long as the conflicts in the work-family conflict are adjusted, the

emotional job demand of the health care workers and the problem of emotional exhaustion will be improved. This study reveals that medical staff respondents suffer high emotional exhaustion which are associated with work-family conflict and emotional job demand. These results provide evidence for the claim that medical staff of China suffer higher emotional exhaustion in than other occupations like teachers and governmental agents. (e.g. Sun & Wang, 2009; Liu & Zhou, 2010).

According to the analysis of our data, one of the results shown by this hospital is that the relationship between age and emotional exhaustion is an inverted U-shaped relationship, and the medical staff in the middle age group have the highest degree of emotional exhaustion. Work-family conflict is experienced when demands from one role domain interfere with participation or performance of the other role. (Greenhaus&Beutell,1985). Medical staff who are young and less tenure are less responsible for work and less family burdens, compare with older staff. While older people in the middle ages are burdened with greater work responsibilities and family responsibilities.

In this paper, we use the COR theory (that we talked about before) to support the role of an intermediary in the work of two other variables (Emotional job demand & Emotional exhaustion). In applying this model to the workplace (eg, hospital), emotional job demand threatens an individual's resources, and over time, prolonged exposure to such demand would result in strain, such as emotional dissonance. Hofstede & Bond (1988) argued that Asian cultures are 'collective and familial'. Married people have Married people need to take care of too many things. Apart from work, they may face the care of their parents and take care of their children's lives. Our results also show that such people will have more emotional needs. The basic tenet of COR theory is that individuals strive to acquire, maintain, and protect things that they value (known as resources), and stress occurs when these resources are lost, threatened with loss, or when individuals fail to replenish these resources after significant investments.

So we put forward a series of suggestions as follows:

1. To make a more humane and efficient shift system. According to different family situation, try to arrange working hours for married employees and employees with children as much as possible during the day, while others at night.

2. It can be set up an employee child care area in the hospital, which can reduce the psychological burden of employees with children, in this way, they can focus more their work without worrying about their children.

3. Regularly arrange psychological counselors to provide counseling to employees, as well as arrange some relaxed speeches to help staff learning about hospital culture.

4. Strengthen the construction of medical social groups, play their right to speak in the formulation of laws and resolve disputes, and protect the various rights of doctors. Let doctors feel their social values and lasting incentives to reduce emotional exhaustion. Additional changes according to the literature reviewed for this research could be quite difficult to accomplish due to the financial component involved. For instance, many experts in the field of medicine feel that in order to fix the problem of emotional job stress, the family conflicts, and emotional exhaustion public hospitals must properly compensate their nurses and doctors better. Paying them better, having more medical resources available, and improving working conditions can go a long way in developing such a potential solution for this issue. In addition, provision of more training resources on-site could also help reduce emotional stress loads for the current staff members at the hospital. This will increase their personal knowledge and confidence in their own abilities, thus reducing work-related stress, and also increase the overall platforms for improved patient outcomes.

Finally, one possible changed needed that is aligned with improving working conditions at local Chinese public hospitals could be to implemented positive policies at the ground level in order to increase employee retention rates, thus developing ways

to reduce work burnout and emotional drain on the medical staff in place (Yun, Jie, and Jiang,1999). These policies might take several forms, including developing nursing training programs, creating positive working cultures to reduce emotional burnout, and enhancing the entire nursing perspective in employees' eyes. Accomplishing these policy directives might very well reduce emotional drain on nurses and doctors enough to establish a more sustainable human resource element within Chinese public hospitals.

5.3 Limitation and Further Studies

There are several limitations in this research. First of all, we collected the data of medical staff just from a public hospital from southern China, and this hospital is tertiary first-class hospital. Therefore, the representativeness of the research sample is limited. In addition, the sample is mainly composed of medical staff with academic degrees below doctor degree. Therefore, further research should consider the collection of more medical staff with doctor degrees or master degree.

This study also did not try to compare the combination of the Northern and the Southern of China. These three variables can try to expand the scope to compare.

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Appendix: Questionnaire

This questionnaire is an academic study of college teachers. There is no right or wrong answers and all data will be kept secret strictly. In the next few pages, you will find several different kinds of issues. Specific instructions will be given at the beginning of each section. Please answer each item as honestly and frankly as possible. The entire questionnaire should not exceed 15 minutes to be completed. Thank you for your support and kindly help!

I. Instructions for completing this survey

The survey consists of four sections. There will be one instruction at the beginning of each section. Follow the instructions to choose the answer.

A. EMOTIONAL DEMAND						
Introduction: What kind of people do you often contact with in your current job?	Never	Nearly never	Once in a while	Sometimes	Often	Always
1.Proud people	1	2	3	4	5	6
2.Mentally disordered person	1	2	3	4	5	6
3.Unhygienic or infectious disease person	1	2	3	4	5	6
4.Rude person (language)	1	2	3	4	5	6
5.Physically threatened staff person	1	2	3	4	5	6
6.Smashing person	1	2	3	4	5	6
7.Drunk or drug addict person	1	2	3	4	5	6

B. EMOTIONAL EXHAUSTION						
Introduction: Choose an answer that best describe yourself	Never	Very few	Once in a while	Several times a month	Several times a week	Almost everyday
1.I feel emotionally drained from my work.	1	2	3	4	5	6
2.I feel exhausted when I get off work.	1	2	3	4	5	6
3.I feel fatigued when I get up in the morning and have to face another day on the job.	1	2	3	4	5	6
4.Working with people all day is really a strain for me.	1	2	3	4	5	6
5.Work makes me feel like I'm going to collapse.	1	2	3	4	5	6
6.I have become less and less interested in my work since I started this job.	1	2	3	4	5	6

C.WORK-FAMILY CONFLICT						
Introduction: Choose an answer that best describe yourself	Strongly disagree	Disagree	Some-what disagree	Some-what agree	Agree	Strongly agree
1.The demand of my work interfere with my home and family life.	1	2	3	4	5	6
2.The amount of time my job takes up make it difficult to fulfill family responsibilities.	1	2	3	4	5	6
3.Things I want to do at home do not get done because of the demands my job puts on me.	1	2	3	4	5	6
4.My job produces strain that makes it difficult to fulfill family duties.	1	2	3	4	5	6
5.Due to work-related duties,I have to make changes to my plans for family activities.	1	2	3	4	5	6

II. Respondent's information

1. Gender : Male Female
2. Age : 18-29 years old
 30-39 years old
 40-49 years old
 ≥ 50 years old
3. Marital status : Single
 Married
 Others (divorce, etc)
4. Job Category : Doctor
 Head of clinical department
 Nurse
5. Professional Tenure : 1-5 years
 6-10 years
 11-15 years
 16-20 years
 >20 years
6. Job Position : Nurse
 Senior nurse
 Nurse-in-charge
 Chief nurse
7. Highest Educational Level : College degree or below
 Bachelor degree or above
 Master degree
 Doctor degree