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The relationship between nurses sociodemographic characteristics and stressor life events

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Abstract

Objective: To determine how nurses who encounter stressful live events adapt themselves, and to examine the relation between their personal characteristics and stressful events.

Methods: The cross-sectional study was conducted between February and April 2007, and comprised all nurses working at the two public-sector hospitals in Manisa, Turkey. Data was collected using a pre-tested questionnaire. Data was analysed using SPSS version 11.0.

Results: Of the total 87 nurses, 33 (37.9%) were in the 28-32 age group; 67 (77.0%) were married; 35 (40.2 %) had a child; 61 (70.1 %) had an income equivalent to their expenses; 44 (50.6 %) had an associate degree; 21(24.22 %) had 10-12 years of experience in the profession; 76(87.4 %) were working as service nurses, and 31 (35.6%) had worked for 1-3 years in this service.

Conclusion: There was a relationship between some of the socio-demographic characteristics of the nurses and stressor life events.

Keywords: Stressor life events, Nursing, Sociodemographic characteristics, Adaptation. (JPMA 64: 802; 2014)

Introduction

People try to fit into life through a process of continuous re-orientation. They accommodate by changing physically, physiologically and behaviourally.[1] Change is a kind of stress that we are obliged to adapt psychologically and physically.[2]

Stresses that have the nature-of-life crises are created by events which give shape to every life by themselves such as serious illness, birth, death of a family member, or the loss of a job.[3,4]

The change coming from the reaction to a stressor is called adaptation. Adaptation is the process of trying to maintain a certain inner and outer equilibrium in the person, and acts to join the concepts in the understanding of the human behaviour. Adaptation involves both psychological and physical wellbeing and can be thought of as an effort to cope. When the person encounters stress, the process of adaptation begins. If adaptation is successful, equilibrium is maintained; if not, the person becomes ill and adaptation to the illness begins.[4-6]

According to the adaptation theory of Holmes and Rahe,[7] changes in lifestyle influence a person's psychological adaptation. People encountering stresses over a long period of time have an increased risk of getting ill. Exposure to stress results in physical problems like headache, back pain, shoulder ache, hypertension, tachycardia, digestive system diseases; psychological problems like getting easily angry, weakness, decidophobia, loss of concentration, and depression, and behavioral symptoms like incessant movement and sexual dysfunctions.[4,8-10]

Studies have shown that life events are concerned with socio-demographic characteristics like age, gender, marital status, occupation and working hours.[4,5,8] One study suggests that one in every six women and one in 12 men has experienced a depressing event at least once. Women are generally expected to carry the load of both business and family life. Working women work a second shift which starts when they reach home, and is related to housework and child care, increasing their load and their stress levels.[11] Various social and cultural factors cause women to behave more emotionally than men.[4] It is thought that nurses, both because they are women and because they have difficult working conditions, are more affected by life events.

One of the missions of nurses is also to protect the mental health of society. Today, the most important factor affecting the mental health of society is stress. Nurses play important roles in determining the causes of stress and in removing them. The stress and adaptation theory helps nurses to understand the apparently happy or strange behaviour of

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people and to determine the aims of nursing practices.[12] The mission of a nurse, according to the adaptation theory, is to decrease the strength of stressors, to increase the ability to adapt to the stressors, and to protect the system from dangerous stressors.[6] The aim of this study was to determine how nurses who encounter stressful life events adapt themselves, and the relation between their personal characteristics and stressful life events.

Subjects and Methods

The cross-sectional study comprised all the nurses of the two public hospitals in Manisa, a city located in the western part of Turkey: Manisa Moris Sinasi Children's Hospital and Manisa Public Hospital, and 169 nurses in the hospitals according to the hospitals' records in Manisa. Data was collected from February to April 2007. The nurses who were present on data collection days represented the study sample. Simple random sampling method was used and the questionnaire was distributed to working in the day shift (8am - 4pm). No subject refused to participate in the study, but off-duty nurses were excluded. Permission from the institutional review committee and informed consent of the subjects were obtained prior to data collection.

The questionnaire, composed of 20 questions, was first created by Holmes and Rahe in 1967, and was later adapted to Turkey by Sorias in 1982, and included a list of 107-question Life Events.[7,13]

The reliability coefficient of the scale was found to be r = 0.93-0.97 in a 1972 study by Mendels and Weinstein and r = 0.83-0.87 in a 1982 study by Sorias.[13,14] The scale has been used in various studies of life events.[15]

The Life Events List (LEL) included life events in the preceding four years, the date of these events, the severity of such events, and the difficulty of adaptation to them. Life events included in the scale were collected under the headings of economic status, health status, education, work, relations with family, close relatives and friends, sex life, loss (economic, health-related, loss of a spouse, etc.) and change of location.

Nurses were asked to score the 107 items on a scale of 0 to 100 in accordance with the ascending order of the negative impact of such events. These scores were added together, and the nurses were evaluated according to the final total score.

In order to assess the probability of illness, the scores were categorised as: 1-150: No important life change; 150-199: Minor life change (33% probability of illness); 200-299: Moderate life change (50% probability of illness); and 300-above: Major life change (80% probability of illness).

SPSS version 11.0 was used for statistical analysis. Measurement averages of the variables, arithmetic averages and standard deviations were worked out. Chi-square and Kruskal Wallis tests were used to compare mean life events groups on the basis of nurses' sociodemographic characteristics. The significance level was set at $p<0.05$.

Results

Of the total 169 nurses working at the two hospitals 87 (51.2%) were included in the study, and their socio-demographic characteristics were noted (Table-1). Overall, 39 (44.8%) nurses had experienced disturbing

Table-1: Sociodemographic characteristics.

Characteristics	n	%
Age		
18-22	6	6.9
23-27	14	16.1
28-32	33	37.9
33-37	21	24.1
38-42	5	5.7
43 and older	8	9.2
Gender		
Female	86	98.9
Male	1	1.1
Marital Status		
Married	67	77
Single	15	17.2
Widow	5	5.7
Number of children		
0	24	27.6
1	35	40.2
2	27	31
3	1	1.1
Income		
Income less than expenditure	21	24.1
Income equivalent to expenditure	61	70.1
Income more than expenditure	5	5.7
Education		
Health High School	37	42,5
Associate Degree	44	50,6
License	6	6,9
Length of time as a nurse		
Less than 1 year	2	2.3
1-3 years	9	10.3
4-6 years	8	9.2
7-9 years	10	11.5
10-12 years	21	24.2

13-15 years	13	14.9
16-18 years	10	11.5
Over the 19 years	14	16.1
Place of Work		
Moris Sinasi International Children's Hospital	51	58.6
State Hospital	36	41.4
Current Clinical Work		
Internal Medicine Clinics	51	58.6
Surgical Clinics	13	14.9
Intensive Care Unit (ICU)	10	11.6
Emergency Service	13	14.9
Working in another clinic?		
Yes	55	63.2
No	32	36.8
If yes, which service? (n=55)		
Emergency Service	11	20
Intensive Care Unit (Neonatal ICU, Coronary ICU, Medical ICU)	5	9.1
Surgical Clinics (Urology, Orthopaedics, Surgery, Paediatric Surgery)	15	27.3
Internal Medicine Clinics (Neurology, Paediatrics, Medical, Chest, Coronary, Haematology)	24	43.6
If yes, for how long? (n=58)		
Less than 1 year	16	27.5
4-6 year	20	34.5
7-9 year	9	15.5
10-12 year	4	6.8
13-15 year	7	12.1
16-18 year	2	3.6
Over the 19 year	-	-
The most important reason for working in the current clinic		
By own volition	50	57.6
Lack of staff members	5	5.7
Casually	27	31
At the request of the hospital administration	5	5.7
Previous employment status other institutions?		
Yes	71	81.6
No	16	18.4
Any health problem, requiring continual use of medication		
Yes	25	28.7
No	62	71.3
If yes, what is the name of the disease? (N=25)		
Respiratory Diseases (Acute Bronchiolitis, Asthma)	3	12
Psychiatric Disorders (Depression, Panic Attack)	5	20
Cardiovascular Diseases (Mitral valve prolapse, Thrombophlebitis, High blood pressure)	5	20
Endocrine Diseases (Hypothyroidism)	2	8
Blood Diseases (Iron Deficiency Anaemia)	1	4
Nervous system diseases (Multiple sclerosis, Migraine, Lumbar Hernia)	7	28
Gastrointestinal disorders (Gastroesophageal reflux, Chronic Hepatitis B)	2	8
Do you have a continuously used medication?		
Yes	24	27.6
No	1	1.1
Are you regularly using prescription drugs?		
Yes	23	26.4
No	2	2.3
Do you have any important health issues in first degree relatives?		
Yes	34	39.1
No	53	60.9
If yes, who? (N=55)		
Husband	6	10.1
Children	5	10
Mother	22	40
Father	14	25.4
Siblings	8	14.5
If yes, what is the name of the disease? (N=45)		
Respiratory Diseases (Asthma, Chronic Obstructive Lung Disease, Tuberculosis, Bronchitis)	12	26.6
Cardiovascular Diseases (Mitral Valve Failure, Heart Failure, High blood pressure)	13	28.8
Endocrine Diseases (Diabetes Mellitus)	11	24.4
Nervous System Diseases (Dementia, Hemiplegia)	2	4.6
Gastrointestinal Disorders (Hypercholesterolaemia)	1	2.2
Cancer	2	4.6
Collagen tissue diseases (Arthralgia)	4	8.8
Number of Life changes happening due to life events		
Disturbing Life Changes		
There were no significant of life changes	37	42.5
Slight life changes	3	3.4
Moderate life changes	8	9.2
Major life changes	39	44.8
Adapting Life Changes		
There were no significant of life changes	33	37.9
Slight life changes	4	4.6
Moderate life changes	13	14.9
Major life changes	37	42.5
Total	87	100

major life changes, and 37(42.5%) had experienced a major life change which had had an effect on adaptation.

A statistically significant relationship was found between age groups, marital status and disturbing life changes ($p<0.031$ and $p<0.037$) and between age groups and life changes causing adaptation ($p<0.044$ and $p<0.001$) (Table-2).

Statistically significant differences were found between the institution where the nurse was working and the adapting life change scores ($p<0.001$) and between the institution where the nurse was working and the

Table-2: The relationship between age groups and marital status, and disturbing life change scores and adapting life change scores (Kruskall Wallis).

Disturbing Life Change Scores	Age Groups	n	%	Mean±SD	Chi-square	p
There was no significant life change	18-22	6	6.9	141.75±6.01		
Slight life change	23-27	14	16.1	169.53±13.73		
Moderate life change	28-32	33	37.9	243.24±28.17	11.97	0.031
Major life change	33-37	21	24.1	309.01±18.55		
	38-42	5	5.7	314.21±4.94		
	43 and ↑	8	9.2	322.24±7.68		
Marital Status						
Married		67	77	470.00±186.14		
Unmarried		15	17.2	130.66±154.02	7	0.037
Widow		5	5.7	364.66±166.66		
Adapting Life Change Scores	**Age Groups**	**n**	**%**	**Mean±SD**	**Chi-square**	**p**
There was no significant life change	18-22	6	6.9	137.31±6.10		
Slight life change	23-27	14	16.1	162.53±13.19		
Moderate life change	28-32	33	37.9	238.24±28.83	11.47	0.044
Major life change	33-37	21	24.1	304.75±18.42		
	38-42	5	5.7	312.44±4.76		
	43 and ↑	8	9.2	321.80±7.75		
Marital Status						
Married		67	77	467.00±191.77		
Unmarried		15	17.2	101.66±93.11	13.8	0.001
Widowed		5	5.7	362.35±129.54		

Table-3: Relationship between the workplace and adapting life change scores, and disturbing life change scores (Chi-square).

Disturbing Life Change Scores	Workplace				Chi-square	p	Toplam	
	Health Ministry Moris Sinasi International Child Hospital		Manisa Goverment Hospital				n	%
	n	%	n	%				
There was no significant life change	11	33.4	22	66.6			33	100.0
Slight life change	3	42.8	4	57.2	25.95	0.001	7	100.0
Moderate life change	4	50	4	50			8	100.0
Major life change	33	84.6	6	15.4			39	100.0
Adapting Life Change Scores	**Workplace**				**Chi-square**	**p**	**Toplam**	
	Health Ministry Moris Sinasi International Child Hospital		Manisa Goverment Hospital				n	%
	n	%	n	%				
There was no significant life change	8	24.2	24	75.8	25.2	0.001	32	100.0
Slight life change	4	80	1	20			5	100.0
Moderate life change	9	69.2	4	30.8			13	100.0
Major life change	30	81.1	7	18.9			37	100.0
							87	**100.0**

disturbing life change scores (p=0.001) (Table-3).

Discussion

Results of the current study showed that 39 (44.8%) nurses with a disturbing life change had had a major life change, and 37 (42.5%) nurses with an adapting life change had had a major life change. In a study on elementary school teachers, it was discovered that the teachers had had a minor life change.[16] The difference between the two studies is thought to be due to the more stressful and busy work environment of the nurses compared to the teachers.

When we looked at the relationship between the socio-

demographic features of the nurses and life events which they had experienced, a statistically significant relationship was found between age groups and disturbing and adapting life changes ($p<0.05$ and $p=0.001$). In earlier studies, a statistically significant relationship was found between age and life events.[17,18] However, another study reported no statistically significant relationship was found between age and life events.[16] The reason behind the finding of a statistically significant difference occurring with age is thought to be due to the weakness of nurses in coping with stress as they get older, and the stress of the job adding to the burden of their private lives.

A statistically significant difference was found between the marital status of the nurses and the life events they had experienced ($p<0.05$). Disturbing and adapting life changes seemed to have been experienced more by married nurses. In some earlier studies, no statistically significant difference was found between marital status and life events.[16,19] In another study, a statistically significant difference was found between the marital status and life events of nurses.[17]

A statistically significant difference was determined between the institutions where the nurses worked and their life events ($p=0.00$). A statistically significant difference was also determined on this account in a couple of earlier studies.[19,20] This difference is thought to originate from the effect of working conditions on the work experiences of the nurses by increasing the number of life events they experience.

Conclusion

The study found a relationship between various socio-demographic characteristics of the nurses and their life events, and it was also understood that the life events which nurses experienced created major life changes and made it difficult for them to adapt.

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