

## **Nursing and Coping With Stress**

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## Nursing and Coping With Stress

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### Abstract

**Introduction:** Stress could be defined simply as the rate of wear and tear on the body systems caused by life. Stress at work is a big problem. Working in the profession of nursing is a demanding and often stressful occupation. Thus, nurses' health could be affected by stress dangerous consequences. Coping strategies are key elements of nurses' stress reactions. Coping strategy as a stabilizing factor may be as important as the stressful event itself.

**Purpose:** To determine how and how much nursing staff cope with the stressful events and to find out the relationships between job coping and health outcomes in the study population.

**Material and Methods:** This cross-sectional study included one hundred nursing staff working in two hospitals (Tohid and Besat) of Sanandaj City (Kurdistan, Iran). They completed the questionnaires containing coping strategies based on the Adolescent Coping Orientation for Problem Experiences (A-COPE), in the year of 2006. We examined the relationships between age, gender, position, tenure state, marriage state, job experience, work shift and place (environment) to application of coping methods. Analysis was done using SPSS 18. Statistical significance was set at  $P \leq 0.05$ .

**Result:** Out of one hundred nurses of all grades included in this study, fifty-seven were female (57%), 60(%) were between 30-39 years old and 50(%) were single. There was no significant difference between junior and senior staff in applying positive methods ( $p=0.666$ ) or negative responses to cope with stress ( $p=0.195$ ).

The majority of nurses 55(%) had job experience of 5-10 years, 40(%) worked in the evening and night shift and 54(%) were in Tohid hospital. Generally in our study, the rate of application positive methods of coping was good 19%, medium 51% and weak 30%. Negative responses to stress were high 49%, medium 29% and low 22%.

There were significant associations between: age, tenure state, work place and job experience with positive coping as follow; ( $p=0.028$ ), ( $P =0.006$ ), ( $p=0.001$ ) and ( $p=0.026$ ), accordingly. In this study, those in the age of 30-39 years, officially

(permanent) employed, working in Tohid hospital and had job experience of 5-9 years more used positive methods of coping. They more applied positive methods of: listening to music, reading, talking with the partner or a colleague and walking to cope with stress.

This study showed significant differences between gender ( $p=0.000$ ) and job experience ( $p=0.035$ ) with negative response to stress. Males and those with low job experience (less than 5 years) were more disputatious and impatient, accordingly.

**Conclusions:** Most of our research community coped with stress positively (70%; good and moderate). Unfortunately 49% of our study population had high level of negative responses. This study showed significant associations between both some personal information, i.e: age, job experience, tenure state and the environment with positive application of coping methods. From this study, We concluded that the way of response to stress in nursing staff depends not only to the personality and one's defensive styles but also the healthcare work environment. There is a necessity to teach positive methods of coping to the nursing community as well as providing a proper environment of work.

**Keywords:** Occupational stress, Coping, Nursing

## Introduction

Stress first coined in the 1930s, has in more recent decades become a commonplace of popular parlance. Stress could be defined simply as the rate of wear and tear on the body systems caused by life<sup>1</sup>. It occurs when a person has difficulty dealing with life situations, problems and goals<sup>2</sup>. Stress has physical, emotional, and cognitive effects. Although everybody has the capacity to adapt to stress, not everyone responds to similar stressors exactly the same<sup>3</sup>.

Nursing involves activities and interpersonal relationships that are often stressful. Caring for clients who are experiencing high levels of anxiety can be stress provoking for nurses<sup>4</sup>. Coping has been viewed as a stabilizing factor that may assist individuals in maintaining psychosocial adaptation during stressful events. Thus, the actual reaction to an environmental event may be as important as the event itself<sup>5</sup>. A stressor can be social, physiological or environmental origin<sup>6</sup>.

Coping responses can be described as positive or negative and as reactive (i.e. reacting to an individual's own thoughts and feelings) or active (dealing with actual stressful situations or events). Active or reactive coping responses can be positive or negative, depending on the situation and the content of the response<sup>7</sup>.

There are many ways to cope with stress. Research on stress indicates that people tend to use a number of different coping approaches rather than just one<sup>8,9</sup>.

Positive coping strategy is learned techniques used by individuals to reduce tension,

stress, and anxiety; for example, deep breathing techniques, and relaxation exercises<sup>10</sup>. These strategies can result in successful adaptation. They can be therapeutic and non therapeutic. Therapeutic coping strategies usually help the person to acquire insight, gain confidence to confront reality, and develop emotional maturity<sup>11</sup>.

The coping process is an important aspect of the person-environment interface. The kinds of coping strategies used in a given situation are a function of individual differences in personality or experience as well as characteristics of the situation<sup>12, 13</sup>.

## **Objective**

We carried out this study to determine how and how much nurses cope with the stressful events (apply positive methods or negative responses) and to find out relationships between job coping and health outcomes in the nurses.

## **Material and method**

A cross-sectional study included all nursing staff working in two medical centers of Sanandaj city (Tohid and Besat hospitals) of Kurdistan-Iran, carried out in year of 2006. The participants represented all grades of 100 registered nursing staff. They were asked to respond to 50 items questionnaires with Likert-scale responses (i.e. "Never", "seldom", "Sometimes", "Often" and "Most of the time"). Demographic variables including gender, age, position, marriage and tenure state, shift and place of work (environment) were included in the analyses. The position variable contributed junior staff (assistant nurses) and senior staff (clinical nurse, nurse manager). The tenure state included Official (permanent) and experimental (causal) employment. The relationships between these variables and application of coping methods were determined.

Coping strategies were drawn from the Adolescent Coping Orientation for Problem Experiences (A-COPE) developed by Patterson & McCubbin in 1986.

Positive coping strategies were: listening to music, shopping books or cassettes or tapes ..., going to shop with friends, watching films on TV or in cinema, reading, writing, singing or composing, dozing, hiking, sporting, tools or table arrangement at work, repairing or reconstruction at home, participating in game groups or going to conferences or concerts..., going to the parks or nature or mountains, sitting lonely in a quiet space, playing with animals, praying or meditation, relaxation exercises, gardening or painting, taking bath, talking with a friend or colleague about the problems, visiting family members or friends, chess or playing with computer games, getting busy with the home or another one works.

Negative coping methods included: disputing, profanity or insulting, shouting, self negative speeches, overdrinking tea or coffee, overdrinking alcohol, smoking, drug

abuse, suicide thoughts, impatience, speed driving, overeating or eating very small, isolation or getting distance from others, looking forward to bad ending, crying a lot, tossing objects, nail chewing. Two items were allotted for other methods (both positive and negative) might be used by participants.

We marked never, seldom and sometimes, often and most of the time as the following degrees: 0, 1 and 2.

We considered achieved degrees of positive coping as weak, moderate and good representing the degrees of 0-21, 22-33, 34-48, accordingly, and degrees of negative coping as low, moderate and high symbolizing 0-18, 19-26 and 27-36, accordingly.

All data were analyzed using SPSS for Windows, Version 18. Pearson's  $\chi^2$  test and chi-square method were used for categorical comparison. A p value < 0.05 considered as the level of significance.

## Results

One-hundred nursing staff included in this study. They were between 20 to 49 years old. Most of the subjects were 30-39 years (60%). Demographic characteristics of participants were explained in table 1.

Table1: Demographic Data of 100 nursing staff

<b>Demographic characteristics</b>	<b>Number (%)</b>
<b>Sex</b>	
Female	57 (%)
Male	43 (%)
<b>Marriage state</b>	
Single	50 (%)
Married	40 (%)
Divorced	10(%)
<b>Age (years)</b>	
Mean(range)	36 (20-49y)
<b>Work shift</b>	
Morning	35 (%)
Evening and Night	40 (%)
Rotating	25 (%)
<b>Job experience</b>	
<1 y*	18 (%)
1-4 ys	5 (%)
5-9 ys	55 (%)
10-14 ys	13 (%)
≥ 15 ys	9 (%)

Nursing Staff	
Senior	83 (%)
Junior	17 (%)
<b>Tenure state</b>	
Experimental (causal)	49(%)
Official (permanent)	51(%)
<b>Total</b>	100 (%)

\*=year

Positive coping with stress in our nursing staff was good (19%), moderate (51%) and weak (30%), as drawn in figure 1.

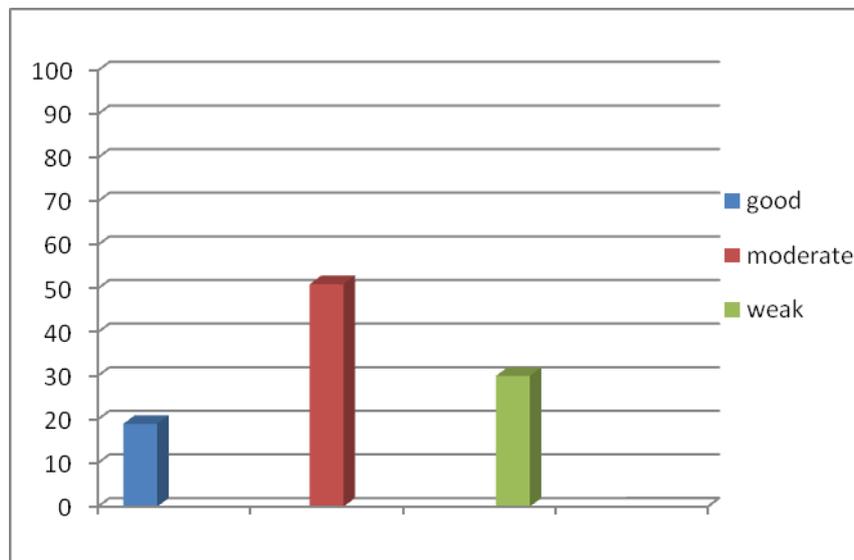


Fig. 1: Positive coping with stress in 100 nursing staff

Negative responses to stress were low (22%), medium (29%) and high (49%), as displayed in figure 2.

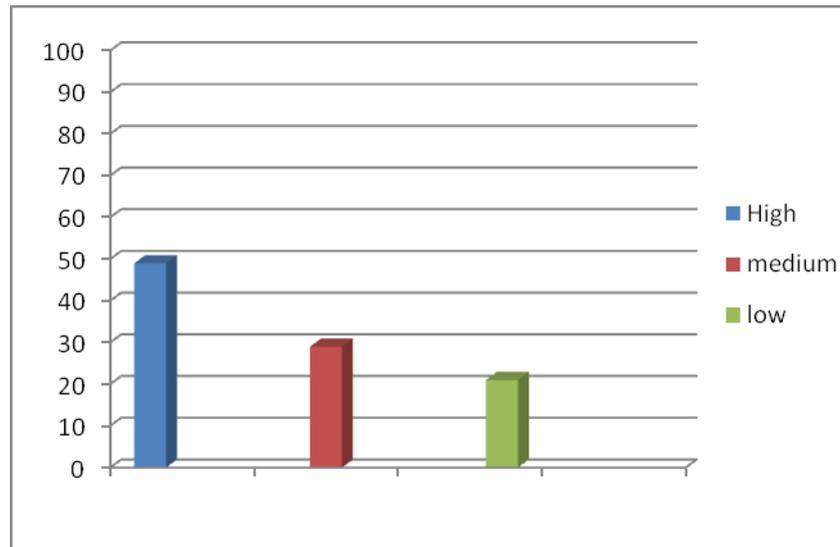


Fig. 2: Negative responses to stress in 100 nursing staff

Participants used several strategies in order to cope with the stressful situations at work. Positive coping for senior staff was: good 17(20.5%), moderate 41(49.4%) and weak 25 (30.1%), and for junior staff was: 2(11.8%), 10(58.8%) and 5(29.4%), accordingly. There was not significant relationship between position and positive coping with stress ( $p=0.67$ ).

Regarding gender; in females positive coping was: good 10(17.5%), moderate 31(54.4%) and weak 16(28.1%), and in males: 9(20.9%), 20(46.5%) and 14(32.6%), accordingly. There was no significant difference ( $p=0.74$ ).

Table 2 shows the relationship between 3 age ranges and positive coping ( $p=0.028$ ), which was significant. Positive coping was more in nurses of 30-39 years old.

Table 2: Age and positive coping with stress in 100 nursing staff

	Stress coping			Total
	good	moderate	weak	
<b>20-29 y*</b>	2 8.3%	11 45.8%	11 45.8%	24 100%
<b>30-39 y</b>	14 23.3%	35 58.3%	11 18.3%	60 100%
<b>40-49 y</b>	3 18.8%	5 31.3%	8 50%	16 100%
<b>Total</b>	19 19%	51 51%	30 30%	100 100%

\*=year

In view of marriage state, attempting positive coping in 50(%) singles was: good 10(20%), moderate 24(48%) and weak 16(32%), in 40(%) married: 8(20%), 24(60%), 8(20%), and 10(10%) in divorced: 1(10%), 3(30%), 6(60%), accordingly. No significant difference was between marriage state and applying positive coping (p=0.167).

Tenure status showed significant difference with positive coping (P =0.006), as shown in table 3. Those officially (permanent) employed more positively coped with stress.

Table 3: Tenure status and positive coping with stress in 100 nursing staff

		Stress coping			Total
		good	moderate	Weak	
Tenure status	Exp*	7 14.3%	20 40.8%	22 44.9%	49 100.0%
	Off**	12 23.5%	31 60.8%	8 15.7%	51 100.0%
Total		19 19.0%	51 51.0%	30 30.0%	100 100.0%

\*= Experimental      \*\*= Official

The relationship between job experience and positive coping with stress was presented in table 4, which was significant (p=0.026).

Table 4: Job experience and positive coping with stress in 100 nursing staff

		Stress coping			Total
		good	moderate	Weak	
Job experience	< 1 year	2 11.1%	5 27.8%	11 61.1%	18 100.0%
	1-4 years	1 20.0%	3 60.0%	1 20.0%	5 100.0%
	5-9 years	13 23.6%	34 61.8%	8 14.5%	55 100.0%
	10-14 years	2 15.4%	5 38.5%	6 46.2%	13 100.0%
	≥15 years	1 11.1%	4 44.4%	4 44.4%	9 100.0%
Total		19 19.0%	51 51.0%	30 30.0%	100 100.0%

Experienced staff with job experience of 5-9 years significantly more practiced positive methods of coping.

In view of the shift working, nurses were working in: morning, evening and night, and rotating shifts. Positive coping in 35(%) participants of the morning shift was: good 9(25.7%), moderate 15(42.9%) and weak 11(31.4%), in 40(%) nurses in the evening and night shift: 7(17.5%), 21(52.5%) and 12(30%), and in 25(%) in rotating shift: 3(12%), 15(60%) and 7(28%), accordingly. There was no significant difference between work shift and positive coping ( $p=0.654$ ).

Table 5 displays the relationship between workplace and positive coping ( $p=0.001$ ), which was significant. Nursing staff in Tohid hospital, more applied positive methods of coping than those in Besat hospital. They were dealing with elective and more stable patients.

Table 5: Location of work and positive coping with stress in 100 nursing staff

		Stress coping			Total
		good	moderate	weak	
Workplace	Besat	2 4.3%	30 65.2%	14 30.4%	46 100.0%
	Tohid	17 31.5%	21 38.9%	16 29.6%	54 100.0%
Total		19 19.0%	51 51.0%	30 30.0%	100 100.0%

Negative coping with stress in senior nurses was: low 19(22.9%), medium 21(25.3%), and high 43(51.8%), and in juniors was: 3(17.6%), 8(47.1%) and 6(35.3%), accordingly. There was no significant difference ( $p=0.195$ ).

Table 6 shows the relationship between gender and negative responses to stress ( $p=0.000$ ), which was significant.

Table 6: Gender and negative coping with stress in 100 nurses

		Negative reactions			Total
		low	medium	high	
Sex	female	14 24.6%	26 45.6%	17 29.8%	57 100.0%
	male	8 18.6%	3 7.0%	32 74.4%	43 100.0%
Total		22 22.0%	29 29.0%	49 49.0%	100 100.0%

Negative coping in 24(%) nurses aged 20-29 was: low 10(41.7%), medium 4(16.7%) and high 10(41.7%), in 60(%) nurses aged 30-39: 9(15%), 21(35%) and 30(50%), and in 16(%) aged 40-49: 3(18.8%), 4(25%) and 9(56.3%), accordingly. In this study there was no significant difference between age and negative coping ( $p=0.085$ ).

Singles had negative coping; low 7(14%), medium 15(30%) and high 28(56%). Married nurses possessed negative responses as; 10(25%), 12(30%), and 18(45%), and divorced persons: 5(50%), medium 2(20%) and high 3(30%), accordingly. There was no significant relationship between marriage state and negative coping ( $p=0.144$ ).

Negative coping in experimentally employed nurses was: low 9(18.4%), medium 12(24.5%) and high 28(57.1%) and in officially employed nurses: 13(25.5%), 17(33.3%) and 21(41.2%), accordingly. There was no significant difference between tenure status and negative coping with stress ( $p=0.279$ ).

Table 7 shows the relationship between job experience and negative coping, which was significant ( $p=0.035$ ).

Table 7: Job experience and negative coping with stress in 100 nursing staff

		Negative reactions			Total
		low	medium	high	
Job experience	< 1 year	1 5.6%	6 33.3%	11 61.1%	18 100.0%
	1-4 years	1 20.0%	1 20.0%	3 60.0%	5 100.0%
	5-9 years	14 25.5%	10 18.2%	31 56.4%	55 100.0%
	10-14 years	3 23.1%	8 61.5%	2 15.4%	13 100.0%
	≥15 years	3 33.3%	4 44.4%	2 22.2%	9 100.0%
Total		22 22.0%	29 29.0%	49 49.0%	100 100.0%

There was no significant difference between shift working and negative coping in our study ( $p=0.156$ ). Negative coping in nurses was as the following; in the morning: low 5(14.3%), medium 10(28.6%) and high 20(57.1%), in evening and night: 11(27.5%), 8(20%) and 21(52.5%) and in rotating shift: 6(24%), 11(44%) and 8(32%), accordingly.

Nurses in Besat hospital possessed negative responses to stress as: low 12(26.1%), medium 9(19.6%) and high 25(54.3%) and in Tohid hospital did: 10(18.5%), 20(37%) and 24(44.4%), accordingly. There was no significance ( $p=0.153$ ).

### **Limitation of study**

In this study the research community was small. We did not assess all parts of work stressors and causal attribution.

### **Discussion**

Stress and crises are inevitable in every one's life<sup>14</sup>. Human beings experience stress early, even before they are born. A certain amount of stress is normal and necessary for survival<sup>15</sup>.

Feelings of stress in humans result from interactions between persons and their environment that are perceived as straining or exceeding their adaptive capacities and threatening their well-being. The element of perception indicates that human stress responses reflect differences in personality as well as differences in physical strength or health<sup>16</sup>.

A person's adaptation to stress – whether positive or negative – is influenced by a number of personal factors. The total person is involved in responding and adapting to stress. The stress is even greater for two groups of nurses: new graduates, who must adjust to an environment different from what they experienced as students, and the nurses who work in settings such as intensive care and emergency care<sup>17</sup>.

This study showed significant relationship between age, workplace, job experience and tenure status with positive coping.

Goldenberg and Waddlle concluded that age of the respondent, number of years of full-time teaching and tenure status were most often significant factors ( $< 0.05$ ) relating to the level of stress Implications. One critical factor is the repertoire of coping skills the person already possesses and can use to adapt to the crisis<sup>18</sup>. The ability to adapt is decreased in the very young, the very old, and those with altered physical or mental health; who do not have the necessary physiologic reserve to cope with physical changes<sup>19</sup>.

In this study, nursing staff of 30 to 39 years old more coped with stress than the younger or older ages, as did the nurses with 5-9 years experience of working than those with less job experience. In this study, type of employment (permanent or causal) was seen to have significant association with proper coping as officially employed nurses more applied positive methods than the experimentally ones, because of the job security they felt as Goldenberg reported<sup>18</sup>. Nurses worry not only about the further of their positions but also about the safety of their patients<sup>20</sup>.

The healthcare work environment as a source of overwork and stress has been implicated in today's nursing shortage<sup>21</sup>. In this study significant difference was between those working in a hospital with the other one, as those working in Besat

hospital less coped with stress regarding they were dealing more with the patients in intensive and emergent stage, as caring trauma patients.

The history of coping strategies studies is presented in contemporary social-cultural background which distinctive feature is high dynamism of social processes<sup>22</sup>.

In our study, 70% of nursing staff coped with stress well and moderately. Unfortunately, 49% of the nursing staff in our study had negative responses to stress.

Shift working, particularly night shifts, traditionally attracts pay enhancements but can have a significant effect on personal and social life. Prolonged shift work, especially night shift work, also has a health risk as it produces symptoms that correspond closely to those of mild or moderate distress<sup>23</sup>. However, neither positive nor negative coping, showed significant difference to work shift, in our study.

Taylor et al write that stress creates emotional distress often with outward symptoms. One person may have tension headache, another becomes irritable and another clenches his or her fists. Many people consume legal or illegal drugs, drink or smoke to excess, or eat compulsively. These behaviors can be modified and adaptive mechanisms strengthened through specific techniques aimed at managing stress<sup>24</sup>. There was significant association between gender and job experience with the negative responses to stress. In our study, males and nursing staff with less than 5 years experience appeared to more apply negative coping.

A combination of problem – focused coping with the more positive emotion- focused dimensions ought to be most effective. The demand for organizational support and personal training in stress management is clear<sup>25</sup>; in a survey 53% of nurses with significant signs of poor psychological health were receiving counseling or other supportive help<sup>26</sup>. In view of the importance of personal factors in influencing the perception of stress, it is important to consider just how individual nurses might be supported.

The way we respond to stress depends on our basic personality styles and our own unique defensive style. In order to identify how personal circumstances exacerbate workplace stress and how they may be used to reduce stress, it is essential that personal/workplace interactions be researched. Individuals must be supported better, but this is hindered by lack of understanding of how sources of stress vary between different practice areas, lack of predictive power of assessment tools, and a lack of understanding of how personal and workplace factors interact<sup>25</sup>.

Support services should be preventative, so that health problems for nurses can be averted. This requires more research into identifying the most effective way of detecting when individuals are experiencing early difficulties, and of improving their stress management techniques so as to prevent the transition to severe distress. Until the prediction of distress becomes possible, organizational initiatives to meet the needs of the majority remain the best starting point, but should not be expected to provide the answer for all nurses.

## Conclusion

Proper application of coping methods in our study population was: good (19%), moderate (51%) and weak (30%). Nursing staff possessed high level of negative responses to stress (49%).

This study showed significant associations between either some personality styles and work environment and ability to cope with stress. Age of respondent, work place, job experience and tenure status had significant relation to stress coping. The way of response to stress depends not only on the personality and one's defensive styles but also on the workplace. It is preposterous to suppose any individual separately from the workplace, and more research is needed to identify how personal circumstances exacerbate workplace stress, and how they may possibly be used to reduce stress. There is a necessity to teach proper methods of coping with stress to the nursing community as well as the necessity for supportive services. In the process of seeking health and coping, the specification of appropriate strategies ought to be developed and enhanced.

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