



How Do the Nurses Cope with Job Stress? A Study with Grounded Theory Approach

Rasool Eslami Akbar¹, Nasrin Elahi^{2*}, Eesa Mohammadi³, Masoud Fallahi Khoshknab⁴

¹Department of Nursing, Jahrom University of Medical Sciences, Jahrom, Iran

²Nursing Care Research Center in Chronic Disease, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

³Department of Nursing, Medical Sciences Faculty, Tarbiat Modares University, Tehran, Iran

⁴Department of Nursing, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

ARTICLE INFO

Article Type:

Original Article

Article History:

Received: 25 Sep. 2016

Accepted: 17 Jan. 2017

ePublished: 1 Sep. 2017

Keywords:

Stress, psychological

Nurses

Grounded theory

ABSTRACT

Introduction: Due to the adverse effects of job stress on health of nurses and the importance of coping process of nurses in management of job stress, the present study was carried out with the aim of exploring the experiences of the nurses in order to reveal the original coping process of the nurses in the case of encountering occupational stress.

Methods: This qualitative study was conducted with grounded theory approach. Research participants were 15 clinical nurses and four directors of nursing. Sampling method of study were purposive and theoretical sampling. Data collection done with unstructured interviews and field notes and continued until data saturation. Data analysis was performed using the Strauss and Corbin 1998 constant comparative method.

Results: The results of the analysis led to four axial concepts: “feeling stress at nursing work”, “situational coping”, “and the effect of personal and environmental factors in coping with job stress” and “Grey outcome of coping”. The core variable in the nurse’s process of coping with job stress was “comprehensive effort to calm stressed condition”.

Conclusion: Explaining the basic and original psychosocial process of nurses to cope with job stress, revealed context-based nature of the coping processes that nurses adopt, which that can help in taking appropriate measures to lighten up the grey consequences of coping of nurses.

Please cite this paper as: Eslami Akbar R, Elahi N, Mohammadi E, Fallahi Khoshknab M. How do the nurses cope with job stress? A study with grounded theory approach. J Caring Sci 2017; 6 (3): 199-211. doi:10.15171/jcs.2017.020.

Introduction

Although there is stress in all jobs, in careers, which deal with human health, the importance of this issue becomes more sensitive and critical.¹ There is enough evidence in health-care professions, suggesting nursing is a stressful job² so that, according to the US Occupational Safety and Health Institute, nursing profession is ranked 27th among 130 studied professions regarding work-related mental health problems and nurses are under pressure and stress of their profession more than other medical professionals.³ In fact, as a demanding job requiring high skill, constant alertness, strong team collaboration and the

provision of 24-hour care, nursing creates a lot of job stress in nurses who are constantly faced with many physical and psychological stressors at work.⁴

For example, in a study conducted in India, 87.4% of nurses reported occupational stress⁵ and in another study conducted in Saudi Arabia, the prevalence of occupational stress in nurses was reported 45.5%.⁶ As for similar studies in Iran, 57.4% of nurses were found to be suffering from average to high occupational stress.⁷ Additionally, various job situations have been reported to be imposing had high degree of job stress on 57.4% of the nurses,⁸ so that nursing has been known as a difficult profession in Iran since 2009.⁹

*Corresponding Author: Nasrin Elahi (PhD), email: elahi-n@ajums.ac.ir. This study was approved and funded by the deputy of research of Ahvaz Jundishapur University of Medical Sciences (Project number: 61357-15794).



© 2017 The Author(s). This work is published by Journal of Caring Sciences as an open access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by-nc/4.0/>). Non-commercial uses of the work are permitted, provided the original work is properly cited.

Some of the major stressors which have been identified in the community of nurses include tension factors such as high work pressure and a high demand in the workplace,^{1,2,10} having to work on the night shift, facing threats and violence at workplace, having to adapt to new therapies and high expectations of patients and their relatives,⁴ having to stay on duty on holidays,² facing life-threatening and acute emergencies and patients with unstable situation, having to work with the opposite sex and low equipment and facilities, having occasional conflicts with doctors beside inadequate teamwork, little support of managers for the nurses and lack of reward and incentives,^{1,10} the ambiguity of nursing responsibilities,^{10,11} unacceptability of jobs in the community, etc.² The variety of issues mentioned above are just some of the job-related stressors in the nursing profession.

In a systematic review which has been conducted on the consequences and complications of work-related stress in nursing, it is noted that occupational stress can have a significant negative impact on the individuality of nurses compromising their abilities to accomplish the tasks assigned, and to be alert and focused, thus leading to weakness in decision-making, apathy, lower motivation and higher anxiety in nurses.¹²

Consequently, hospital environments generate a lot of stress, which not only affects health and job satisfaction of nurses, but also the welfare and health of patients. However, the study and understanding of the process of coping with job stress of nurses is very important and can be somewhat helpful in showing how to deal with this sort of stress and prevent adverse consequences.¹

So far, myriads of theoretical and cognitive models have been suggested in science and many different disciplines to define and predict stress and provide guidance on how to cope with it. However, Lazarus and Folkman, who are known for their famous theories of coping with stress, note that coping is a field-dependent process and that even the traditional models of coping which emphasize the characteristics or styles as sustainable traits

independent of the situations, would now agree that the coping models are different based on stressors and situations.¹³ Skinner et al., conducted extensive studies aiming to create a classification system for coping methods by reviewing over 100 assessment tools, theories and analysis of narrations, open interviews, and observation of behaviors in the field. They concluded that several factors affect the choice of coping strategies and these strategies and methods have been obtained from various fields, stressors, and age groups.¹⁴

Now, given the unique nature of stressful events in the nurses' work environment and social context in which nurse's work, the main question raised is how the process of coping with stress is and what factors and conditions might affect the nurses' coping and the consequences of it.

The present facts show that although various studies have been carried out to deal with the issue of nurses' occupational stress, what absorbs attention as a gap between the knowledge and research is that the conducted studies with a quantitative approach based on independent theory of nursing profession and using general tools of method assessments and coping strategies tend only to use the strategies and methods that nurses in general situations chose and adopt to reduce stress.¹³⁻¹⁸

However, the use of positivist approaches and questionnaire methods of coping assessment have been seriously criticized by various experts recently, including Lazarus. These criticisms essentially touched shortcomings such as presenting inadequate examples of coping methods in the form of checklists and answer keys, which inevitably resulted in problems in interpreting the findings in the studies conducted. That is why Moskovitz said Folkman believe that qualitative narrative approaches are an interesting alternative to approaches based on check lists. Because many things can be achieved by questioning individuals and subsequently providing narratives about the emergence of stressful events in a situation such as what happened, the feelings that

people have experienced, and what they have thought or done.¹⁹

Thus, given the knowledge gap that exists between the nurses' coping process with the job stress and criticisms that have been levelled at coping methods using quantitative methods and achievements obtained in qualitative studies presented by experts and researchers in this field, it seems that a qualitative study, especially that of the Grounded type, possesses higher power to explore deeper into the thoughts and behaviors of nurses in unique stressful situations in hospitals besides elucidating coping processes and genuine, field-dependent, and related strategies of coping used in dealing with job stress. Thus, if the current status of nurses is adequately clarified, it might pave the way for adopting the necessary strategies by, and making the required preparations for nurses and even nursing students as prospective professional nursing staff, so that they could adapt themselves better to the job-related.

Thus, this study was designed and carried out to explore the theoretical explanations of how nurses cope with job stress based on the experiences and everyday interactions of nurses (not the theoretical and formal background knowledge).

Materials and methods

This study was conducted to answer the research question of what the nurses' coping process with the job stress is. To answer this research question, a qualitative research method with Grounded Theory approach was considered appropriate. Grounded theory is a method for the study of social structures. In this method, more emphasis goes to underlying theoretical studies in psychological and social stages, which specifies a process or a special event.²⁰ The main objective of the grounded theory is to generate an organic production theory of data. The existing theories can be developed or modified through grounded theory.²¹ The basic assumption of this research method is that not all concepts related to the considered phenomena have

been identified, at least in this population or location, or if identified, the relationship between them has not been fully developed or conceptually understood.²²

Thus, as the majority of the authorities in the field view coping as a cognitive and behavioral dynamic process, which is the product of social interactions between the individual and the environment, and can be affected by the nature of stressful phenomena, an individual's understanding and interpretations of the phenomenon and the social context in which one is present.

On the other hand, it seems that at least some of the concepts and components of coping such as the strategies and nurses' coping methods in stressful situations have not been fully understood. Qualitative research methods with Grounded theory approach can be useful in understanding the process of coping with job stress and its application.

The fields of collecting of data in this study were hospital environments where nurses are faced with job stress and coping process starts and goes on.

The participants included 15 nurses, 3 head nurses and one supervisor, all holding B.Sc. or higher, who worked as full-time nurses in general hospitals affiliated to Abadan and Jahrom Universities of Medical Sciences and carried out clinical care activities and were willing to participate in the study.

To select the participants, a purposive sampling method with maximum variability (including nurses with diverse work experiences, men and women, working in diverse sectors and on different shifts) and theoretical sampling were used. Finally, with seven purposive sampling and 12 continued theoretical sampling, data saturation was achieved in the study and all categories and extracted concepts were saturated. Continuous comparison of data indicated theoretical saturation and the relationships between concepts for the development of the theory was elucidated.

Data collection was carried out through unstructured interviews and field notes to answer the research questions of what the

nurses' coping process with job stress is like to integrate data collection methods, and remove the shortcomings and weaknesses of each method and hence increase the reliability of the study

After clarifying the objectives of the study to the participants and obtaining their informed consents in connection with the interview, the researcher conducted unstructured interviews especially with the initial participants before theoretical sampling. The number of interviews was 19 and each participant had to be interviewed once. The interviews were carried out in a calm environment and at the right time and place chosen by the participants. The interviews were recorded with prior authorization of the participants. The participants set the duration of each interview, with almost every interview lasting 45 minutes to one hour, while the interviews focused on the experiences of nurses with job stress and the cognitive and behavioral processes of coping associated with it. Some of the questions that were asked of the participants for example, included:

In what situations do you experience work-related stress during the day? What were your feelings and thoughts when facing a stressful experience? What were your thoughts or your actions to reduce stress? What was the consequence of this method of dealing with stress? To analyze the data, constant comparison of Strauss and Corbin version 1998 was used.²³

The reason for using this version was the researchers' familiarity with this version compared to the Corbin and Strauss 2008 version and it also ensured the comparability of results with the few studies that had been done with 98 version.

Strauss and Corbin introduced three stages of open coding, axial coding, and selective coding to analyze data. For open coding, the resulting text of the interview and the notes in the field were reviewed several times. The researcher examined the data line by line and word by word and identified the main concepts in each line or paragraph and assigned a code to each sentence or concept. In

this stage, early categorization of coding was carried out and through continuous comparison, the control of repetitive codes and merge of overlapping codes, the basic concepts behind the data gradually emerged during open coding (76 sub-categories) and were finally formed at the stage of clustering (17 main categories). In axial coding, arranging the levels to sub-categories was carried out according to the characteristics and dimensions, while some levels were separate and others were related. Also, while encoding, based on what Corbin and Strauss expressed, the researchers sought to explore the relationships between categories, trying to discover answers to the questions such as why, where, when, how and with what results.

We put the phenomenon under study in its background and context, namely, how nurses cope with job stress and, in the process, we achieved four main axis of the process of nurses' coping with job stress in the study.

Selective coding is a process in which the findings are combined and re-defined. At this stage, the main variable or fundamental psychosocial, social variables within the data were also specified.²¹ At this point, the classes and the main categories were finally identified after the data and classes were compared and analyzed continuously and the communication among classes was established, the basic framework of the grounded theory in this study was eventually revealed.

Moreover, constant data comparison, review of the reminders, and frequent review of levels as well as writing the main story line to identify core variable of coping process of nurses were used, that were "comprehensive effort to calm a stressed condition".

The permission was obtained from the Ethics Committee of Ahvaz University of Medical Sciences (IR.AJUMS.REC.1394.357) before the implementation of the research and all ethical considerations were taken into consideration in conducting the research and disseminating research findings.

Quoting Guba and Lincoln, Strubert and Carpenter suggested four reliable criteria including reliability, dependence, verifiability,

and transferability to assess the validity, accuracy and integrity of the data in qualitative studies.

To enhance the reliability, in addition to adopting a critical position in the whole process of research, a number of interviews were given and coded by expert instructors. The similarity of the extracted codes was determinant of the authenticity of the results.²⁴

Furthermore, an attempt was made to add the dependency of the study through combining data collection methods (interviews and field notes) and conducting interviews with nurse managers, including head nurses and supervisor were.

The researchers sought to validate the study through conducting unstructured interviews with the participants, maximum use of language of the participants in coding and the use of foreign observers to check the codes and categories, as well as long-term involvement of researchers (about two years) with the study process. In connection with the transferability, the full report also compares the findings with the results of other studies and we tried to provide the possibility for the readers to transfer the results to other contexts outside of the study context or other sectors.

Results

Based on the results of this study, the process of nurses' coping with job stress included four main axis and the sequence consisted of: 1) Feeling stress in nursing work 2) Situational coping 3) Effect of personal and environmental factors in coping with job stress 4) Grey outcome of coping. The following describes each class and quotations related to them (Figure 1).

Due to the stressful nature of the nursing work, facing inappropriate communication in the workplace, stressful work environment, and lack of sufficient competency of self or coworkers in performing some tasks, nurses feel stressed out at their work on a daily basis.

In fact, because of the nature of the work, the nurses continually face with patients who are physically and sometimes mentally in critical

conditions while there is little match between the workload assigned to the nurses and the caring that has to be provided for the patients. Due to the shortage of workforce, the nurses are required to take on the heavy workload and go through huge pressure of job responsibilities besides personal obligations.

On the other hand, the provision of complete, quality, and safe health services, including nursing care necessarily requires sufficient qualifications of the individual members of the nursing team and reliable equipment and facilities, the nurses, thus, experience concerns, pressures, fears of incapable coworkers, and equipment failure and shortages. In addition, during the working communication, which occurs between them and the doctors, the nurses often feel somehow stressed out, which is essentially brought about by the inappropriateness of such communication. One of the participant nurses told the researcher about her stress due to the high workload:

"Definitely one of the most stressful experiences that I and the others have is about the time we have been given; the number of patients is so high that we are stressed out to finish up the job in good time and deliver it to the next shift" (P 4).

Another participant told about the stress of the work on the night shift: *"I think night work is the most stressful thing for the nurses. Not because of the work, but the lack of sleep is the worst thing. Biologically night work disturbs the sleep; we coworkers tell each other about our conditions after the night shift, we are like a corpse when we're going home" (P 2).*

A nurse in emergency department told the researcher about the stress of inappropriate interaction of relatives of the patients: *"Unfortunately, the patients' relatives who come along, are all anxious and sometimes they pick up fights with the nurses and nursing staff, and this creates stress and anxiety" (P 3).*

The second axial event or category in the coping of nurses was situational coping. This category represents the dominant behaviors and reactions of nurses after feeling stressed out in nursing work, which was emerging in

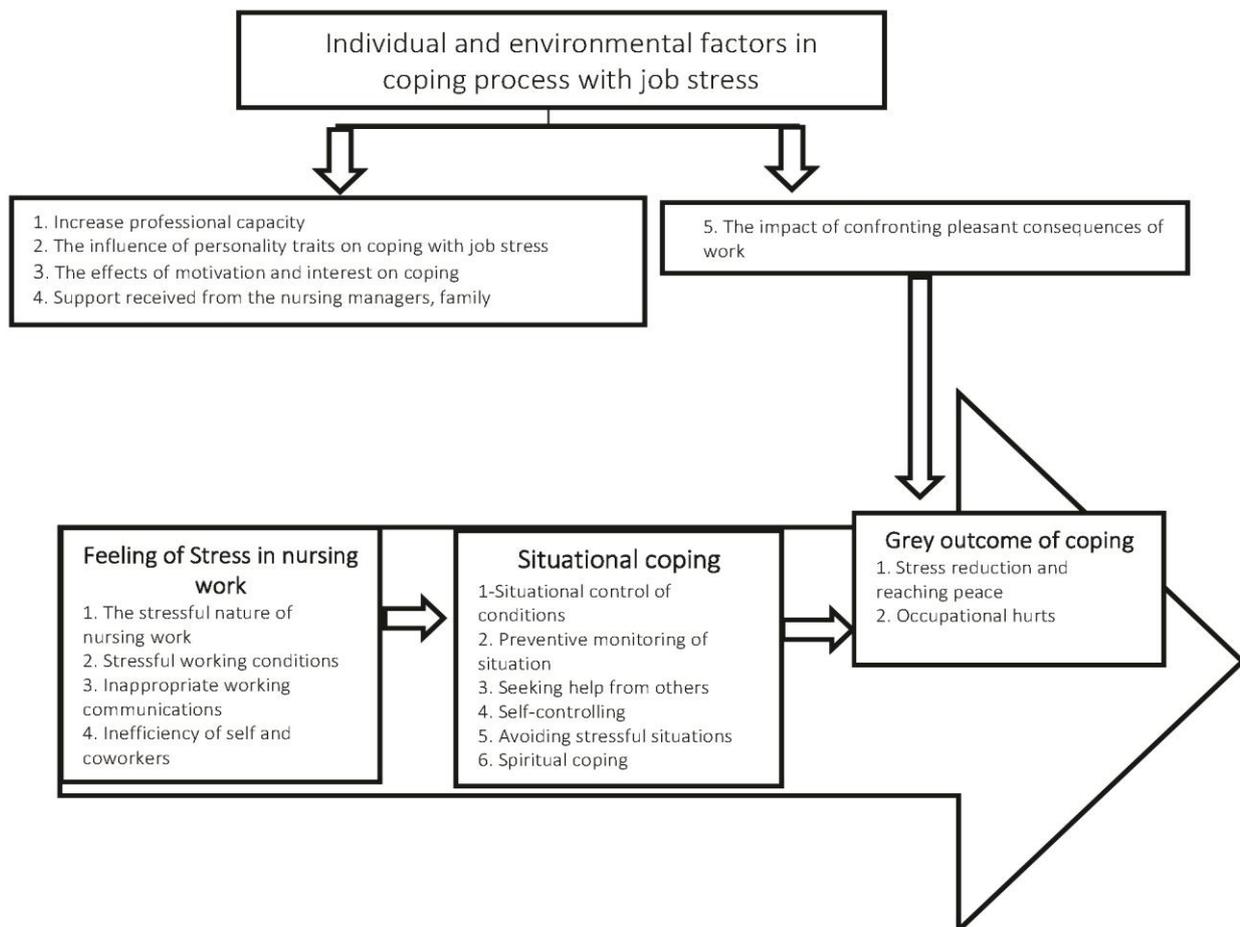


Figure 1. The diagram of the nurses' coping process with job stress

different forms such as "situational control of the conditions", "preventive monitoring of the situation", "seeking help from others", "self-control", "avoidance and evasion of position" and "spiritual coping".

With regard to situational coping, the situational reaction meant that first in the incidence of these reactions and behaviors, the nature and features of position were effective in triggering these reactions. Secondly, it implied that such reactions are manifested actively and are dependent on the decisions and preferences that the nurses adopt to cope with that specific situation. For example, in the situational control of condition strategy, control of conditions was the first priority of the nurses. One of nurses told the researcher: "An intubated patient who is agitated may extubate himself. That is too bad. You have to control the situation until you find an airway for the collapsed

airway or give him oxygen through ambo bag" (P13).

Situational coping of nurses with job stress may, in some cases, serve a preventive function, as well. The nurses use preventive monitoring strategies, and measures such as on the standby, following up on the position and measures related to the patient's conditions and regaining control. Therefore, nurses using these methods try to stop the events and situations that deprived them of their peace. One of the participants expresses her experience in this regard as follows:

"If a patient takes high-risk medications, I have to visit him every hour while it is every 2 hours for an ordinary patient" (P 4).

In some situations, while stressed out of nursing work and having to deal with requests for assistance, the nurses attempt to exploit consciously the reliable and effective social

capacities such as gaining the support of colleagues, or other staff at work to reduce their job stress. Participant no 9 told the researcher, in connection with the request for help from the head nurse for informative support when he felt job stress:

"When I came here for the first time. These ventilators beeped constantly. I read its manual but I did not understand really what to do with it. I was worried that something bad may occur to the patient. In such a situation, I contacted the head nurse and asked him what to do about it"

However, in some situations to deal with feeling of stress and stressful situations, nurses tried to focus on their control rather than seeking help from others. Through this control, which is carried out, using methods such as the use of recreation and exercise, positive thinking, and self-learning and toleration, the nurses tried to increase their mental, psychological, and physical compliance with the situation that causes imbalance in these dimensions so as to feel relaxed. The experience of the participant 7 associated with the self-control, using positive thinking was as follows:

"MI patients sometimes get VT while taking SK and they need shock. You should go quickly to the machine and give them shock. In these situations when I am going to make myself relaxed, I say, do not be afraid! The patient will be OK, wait, everything will be fine. "

Another case of nurses' self-control through the method of tolerance was the one observed by the researcher taking field notes:

I saw a pregnant nurse in the final minutes of the work shift, she was busy, picking up/putting multiple drugs on the trolley .When I asked her what she was doing, she said sadly: "the ward is in disarray, many new patients have been admitted. When I asked her how she was to deal with these pressures, she said "nothing can be done, I just get along with it".

In certain stressful situations, in an attempt to deal with the feeling of stress in nursing work and to keep calm, the nurses seemed to prefer to avoid the stressful situations as much as possible, and sometimes their efforts were tied up with their religious beliefs to reduce

stress and achieve peace, which had roots in the spiritual dimensions. In this regard, participants 15 told the researcher:

"When I head to hospital every day, I pray to God when I am on a nightshift, for example, when I'm done with my job, I take a Quran and read it and it has a very positive effect on reducing my stress "

Thus, as it was shown, the nurses try to reduce their feeling of stress in nursing work or eliminate the stressful situations by using different strategies and different uses of resources and capacities such as self-reliance (for example using situational control strategy and self-control strategy), seeking help from others and even spiritual coping.

Consequently, the central variable or nursing strategy that nurses adopt to deal with their main concern, that is feeling stressed out at nursing work, was "comprehensive effort to calm a stressful condition ".

However, the process of nurses' coping with the job stress was not set in motion in a vacuum and the feeling of stress, as well as situational coping of nurses were affected by certain confounding factors, which included axial category of an individual, and the environmental effects in coping with job stress. Individual factors such as boosting professional capacity, some personality traits, career motivation and extrinsic factors such as experiencing pleasant consequences of working and receiving support from nursing managers and family were the main environmental confounding factors which play significant roles in the process of nurses' coping with job stress.

For example, at the beginning of work, the lack of professional knowledge and insufficient experience to meet job expectations were considered a stressful factor for nurses, after a gradual increase of professional capacity in dimensions such as specialized knowledge and skills, this factor, besides the nurses' coping process, was found to be effective as a confounding factor. It reduced the nurses' stress in different situations. In this regard, participant 10 told the researcher: *"Initially, when I was put in charge of the section, I was really stressed out. Generally, I didn't know*

how to do things but when I got the hang of it and learned the routine, I was less stressed out when I was in charge because I knew most of the work and how to do it".

Personality traits also played a significant role as another confounding factor in nurses' situational coping with stressful situations of the job and even feeling of stress itself. So that some of the participants felt, less stressed out when facing stressful situations or obtained a specific method to cope with stressful situations for having the personality traits such as patience and consult switching, which created better outcomes from the viewpoints of the participants. On the contrary, having personality traits such as being hasty or having low anger threshold led to intensity of feeling stressed out and adopting specific coping methods, which had adverse consequences from the viewpoints of the participants. Participant 11 told the researcher:

"I consult with my colleague about anything I don't know such as high-risk drugs, it does not embarrass me to ask and I feel less stressed out".

Having a job motivation and interest was another factor that played an important role in the nurses' situational coping with job stress so that the two mentioned factors might facilitate coping or nurses' resistance against the stress and stressful situations? In this regard, participant 14 told the researchers:

"If I was not interested in my job and if I had no motivation, it would be impossible for me to be a successful person who could go on or deal with so many issues"

In the process of nurses' coping, facing the pleasant consequences of job also reduces stress and makes them relaxed as an extrinsic confounding factor. For example, participant number. 9 told the researcher:

"If I were sure that I will keep my job, I'd do it well and it may reduce some part of my stress. If I see improvements in my patient as the result of my work, all my stress will be gone".

The evidence also indicated the important issue in which the support received from the nursing authorities particularly nursing managers and supervisors and the nurses' family played significant roles in nurses'

feeling of stress and situational coping of nurses with the job stress. Participant No. 13 told the researcher about her husband's supports:

"My husband almost understands my job. For example when I am on a night shift on Thursday and I reach home on Friday, my husband takes my little girl out for shopping to let me stay home and rest until noon."

Participant number. 2 told the researcher about supports of nursing managers:

"The heads of the department usually cooperate with us. If you have a request in connection with the arrangement of the work plan, however, they cooperate with the staff as much as possible"

About supports received from the nursing managers also participant number. 8, who was a supervisor said:

In critical condition in which nurses are involved, the supervisor tries to make sure that the work is done on time and properly. For example, the doctor sees the patient for a moment and goes out of the room immediately, here the supervisor intervenes and says to the doctor "what are supposed to do?" or if a patient is agitated, the supervisor says to doctor "you must be present at the side of the patient."

The fourth event or axial category in this study was presented as the grey outcome of coping. This category represents the result of prevailing behaviors and reactions of the nurses, as well as the conditions influencing the nurses' coping with job stress and consisted of two categories of stress reduction and reaching peace and occupational hurts.

In connection with occupational hurts, nurses suffered from physical problems such as physical fatigue, energy reduction and psychological problems such as mental fatigue. The experience of the participant Number. 16 about positive results in the process of coping with job stress was as follows:

"I tried to raise my knowledge of the ward as far as I could to solve any problem and to know where the problem is coming from. It reduces my stress. Participant number. 9 also expresses her experience about the other half of coping consequences with job stress:

"You have to be quiet when the doctor shouts and you have to keep silent. What can you do?"

Nevertheless, this silence does not eliminate the stress. I go home with the same problem and stress. It has consequences at home, too. For example, I go to my room and close the door and I do not feel like talking to anyone.

Discussion

As it was noted, nurses are affected by various factors including the nature of the work, stressful working conditions, poor and unsuitable working relationships, and after feeling stressed out, a comprehensive attempt is made to calm the situation in a situational coping format, which emerges in various strategies. Meanwhile, the feeling of stress and coping strategies adopted by nurses is, of course, influenced by intrinsic and extrinsic confounding factors, which play a significant role in the process of coping with job stress. Finally, the process of coping with job stress has grey outcomes.

This means that sometimes stress reduction and psychological relaxation and sometimes getting physical and mental problems, were occupational harms, which were the results of nurses' comprehensive attempts to calm the situation.

Comparison and analysis of the identified process in this study has a lot in common with a few qualitative studies on clinical nurses focusing on job stress and coping on the one hand, which confirms the reliability of the results of the present study, and on the other hand includes some differences. Apart from the differences in methodology and the nature of the present study with some of the studies, it can contain some points, which could probably provide a better insight to the process of nurses' coping with job stress.

For example, in a study conducted by Jannati and et al.,²⁵ with a qualitative approach, using grounded theory aiming to explore the process of nurses' coping with job stress, the stressors of his study were largely similar to those of the present study, which is the main concern of the nurses, namely, the feeling of stress of the nursing work.

On the other hand, in above mentioned study, the nurses seemed to be adopting a

variety of strategies to cope with job stress which were almost identical to the ones observed in the present study (i.e. the self-control strategy, spiritual strategy, and working management strategy).

Jannati's central variable was also determined, as "on the route of coping" which seems to be similar to the central variable of the present study in nature or "comprehensive effort to calm the stressful condition" according to the definition provided by these researchers. However, in the coping process identified by Jannati et al., the perception of the person from the stressors was one of the significant factors in their adopting coping strategies while such an element has not been suggested in the process of the present study.

Nevertheless, this element seems to overlap with the situational coping axis in the determined process of the present study. The nature of the coping outcomes suggested by Jannati et al., (such as the acceptance of the job), seems to imply the long-term consequences of the process of coping with nurses' job stress. In this regard, the outcomes of this study (such as stress reduction) indicate the immediate and recent results in the process of coping have essential differences.

The comparison and analysis of the results of this study with that of Eloker²⁶ which was carried out with a qualitative approach by phenomenological method show that in the study of Eloker, the nurses had also experienced stress associated with the development of services and work load. On the other hand, the experiences of nurses in the study of Eloker showed that factors such as strong emotional ability, cooperation, and support of authorities and families, have positive effects on the skills of nurses' coping with job stress.

In the study of Shirey²⁷ which was conducted on nursing managers, using content analysis, the stress resources are largely based on the classes that feeling stress from the work of nurses had created in the participants despite differences in the study population. In addition, the support from others and completing and achieving the goals which had

been proposed in the study of Shireyas a factor to reduce stress of the study is similar to the supporting category from nursing managers and family, as well as facing the pleasant consequences of work which had been achieved as an effective environmental factor in the process of nurses' coping with job stress. However, in the study of Shirey, the use of different coping strategies by nursing managers participating in the study had been divided into two emotion-focused and problem-focused categories.

Although the comparison and analysis of the process of nurses' coping with the job stress in the present study showed similarities with the famous theory of Lazarus and Folkman, it also included some differences that deserves thoughtful consideration. In the theory of Lazarus and Folkman, the potentially stressful events lead to initial assessments in a person which the person examines and identifies the effects of the stressors on his welfare and comfort.

In the process outlined in this study, such as nature in the main themes, or in other words, the axial classes of nurses' coping with job stress were not at issue²⁸ and only the axial class with stress themes of the nurses' work was proposed. Perhaps one of the reasons for this difference lies in the nature of the subject of the study, which targets the nurses' coping process with the job stress, ignoring the initial assessment element and how the job stress forms in nurses.

On the other hand, in the Lazarus and Folkman's theory a secondary assessment process has been proposed in which the person examines his overall assessment regarding coping resources and the ability to manage threats or challenges and then answers to coping begins when the person accepts the cognitive assessments.²⁸

Although such stages in the present grounded theory have not been pointed out, situational coping according to the description given means that first, the nature and features of encouraging situation of reactions were effective in arousing reactions, secondly, situationality of nurses' coping with job stress

means that these responses emerge actively and are dependent on the decisions and preferences adopted by nurses in a specific situation to cope with and separate the nurses' coping strategies from impulsive reaction.

With this description, the situational coping axis in the present study includes the secondary evaluation element in the theory of Lazarus and Folkman.

However, the interesting thing to note is that in the process explained in this study the nurses used 6 coping strategies three of which were similar to the coping strategies proposed in the theory of Lazarus and Folkman (including self-control, seeking social support, escape-avoidance).²⁸

However, some coping strategies adopted by nurses in this study namely, spiritual coping, situational control of conditions and preventive monitoring of situations were strategies that have not been raised in the theory of Lazarus & Folkman. The more interesting point is that proactive monitoring strategy of situation raised in the present study has essentially a preventive function and in terms of nature is completely different from all other strategies set forth in the theory of Lazarus and Folkman. This issue is probably based on what Delongis and Holtzman²⁹ could have claimed and they acknowledge the role of social context and stressors in determining coping responses of people.

However, in the Lazarus and Folkman's transactional theory, it has been pointed out that some intrinsic and extrinsic factors affect the threat assessment.³⁰ According to the results of this study, the facts indicate that apart from feeling stress, coping strategies adopted by nurses could also be affected by intrinsic and extrinsic factors.

It is worth noting that in this study the source of all efforts, actions and, reactions of nurses in the psychosocial and social process of coping with job stress was "comprehensive effort to calms stressed condition"(either internal or external).

Based on the definition given in the theory of Lazarus and Folkman, the psychosocial and social process of coping is a continuous

cognitive and behavioral effort in which the person aims to reduce stress by managing external and internal demands which are beyond the person's resources.³⁰ However, in the theory of Lazarus and Folkman the resulted efforts of coping can then create feedback to the cognitive assessment stages (primary and secondary assessment) which could deserve consideration in future studies if needed.

Conclusion

Thus, the process of identifying nurses' coping with job stress which is linked with the deep and authentic experiences of nurses in relation to job stress, the hidden and visible factors, strategies and methods of nurses' coping, and also the factors and conditions affecting the coping process of nurses, provide backgrounds and necessary knowledge in order to adopt strategies that reduce or control occupational stress and stressors, strengthen strategies and risk factors that threaten physical and psychological health of nurses. On the other hand, the present study lay the groundwork for more qualitative studies for more and more attention to context-dependent and original coping strategies in nurses considering the unique conditions of nurses and nursing.

However, the present study, despite its unique features, has its limitations. It was performed in two general and governmental hospitals; however, to obtain a more comprehensive data, it is suggested that nurses working in private and specialized hospitals be included in future studies.

Acknowledgments

This study is the result of nursing doctoral thesis supported by Research Deputy of Ahvaz University of Medical Sciences. The authors express their gratitude to all nurses participating in the study.

Ethical issues

None to be declared.

Conflict of interest

The authors declare no conflict of interest in this study.

References

1. Akbarbegloo M, Valizadeh L. Occupational tension and coping strategies in nurses in psychological ward of Tabriz Razi hospital. *Modern Care Journal* 2011; 8 (1): 45-51. (Persian)
2. Gholamnejad H, Nikpeyma N. Occupational stressors in nursing. *Iran Occupational Health Journal* 2009; 6 (1): 22-7. (Persian)
3. Ahangarzadeh Rezaei S, Shams Sh, Saghi Zadeh M. Survey of job stressors and coping strategies on nurses in psychiatric and general centers in Urmia. *Journal of Urmia Nursing and Midwifery Faculty* 2008; 6 (1): 50-67. (Persian)
4. Lambert, VA, Lambert CE. Nurses workplace stressors and coping strategies. *Indian J Palliat Care* 2008; 14 (1): 38-44. doi: [10.4103/0973-1075.41934](https://doi.org/10.4103/0973-1075.41934).
5. Bhatia N, Kishore J, Anand T, Jiloha, R. Occupational stress amongst nurses from two tertiary care hospitals in Delhi. *AMJ* 2001; 3 (11): 731-38. doi: [10.4066/AMJ.2010.289](https://doi.org/10.4066/AMJ.2010.289).
6. Al-Makhaita HM, Sabra AA, Hafez AS. Predictors of work-related stress among nurses working in primary and secondary health care levels in Dammam, Eastern Saudi Arabia. *J Family Community Med* 2014; 21 (2): 79-84. doi: [10.4103/2230-8229.134762](https://doi.org/10.4103/2230-8229.134762).
7. Hosseini Z, Hazavehei MM, Imanzad M, Ghanbarnezhad A, Gharlipour Z. Occupational stress and mental health relationship in nurses. *Journal of Shahid Beheshti School of Nursing & Midwifery* 2013; 23 (82): 55-62. (Persian)
8. Mortaghi ghasemi M, Ghahremani Z, Vahedian azimi A, Ghorbani F. Nurses job stress in therapeutic educational centers in Zanjan. *Journal of Research Development*

- in *Nursing & Midwifery* 2011; 8 (1): 42-51. (Persian)
9. Human resources and support office/department of planning of compensation systems, education and administrative affairs. Law debate collection of enhance the efficiency of the clinical health system workers [Internet]. 2012 [cited 25 Feb 2014]. Available from: http://www.nm.umsu.ac.ir/uploads/Ganoon_Salamat-91_1618.pdf. (Persian)
 10. Rahimi A, Ahmadi F, Akhond M. An investigation of amount and factors affecting nurses' job stress in some hospitals in Tehran. *Hayat* 2004; 10 (3): 13-22. (Persian)
 11. Shahsavari S, Mosallanejad L, Sobhanian S, Tehranineshat B, Faseleh M. Study the physical, spiritual and social stress-related symptoms in nurses and midwiferies working at educational and therapeutic centers affiliated to Jahrom School of Medical Sciences 2003. *Jahrom University Medical Sciences* 2005; 2 (2): 12-20. (Persian)
 12. Jones DL, Tanigawa T, Weiss SM. Stress management and workplace disability in the US, Europe and Japan. *J Occup Health* 2003; 45 (1): 1-7.
 13. Folkman S, Lazarus RS. Coping as a mediator of emotion. *J Pers Soc Psychol* 1988; 54 (3): 466-75.
 14. Skinner EA, Edge K, Altman J, Sherwood H. Searching for the structure of coping: a review and critique of category systems for classifying ways of coping. *Psychol Bull* 2003; 129 (2): 216-69.
 15. Lambert VA, Lambert CE, Itano J, Inouye J, Kim S, Kuniviktikul W, et al. Cross-cultural comparison of workplace stressors, ways of coping and demographic characteristics as predictors of physical and mental health among hospital nurses in Japan, Thailand, South Korea and the USA (Hawaii). *Int J Nurs Stud* 2004; 41 (6): 671-84. doi: [10.1016/j.ijnurstu.2004.02.003](https://doi.org/10.1016/j.ijnurstu.2004.02.003).
 16. Chang EM, Daly J, Hancock KM, Bidewell JW, Johnson A, Lambert VA, et al. The relationships among workplace stressors, coping methods, demographic characteristics and health in Australian nurses. *J Prof Nurs* 2006; 22 (1): 30-8. doi: [10.1016/j.profnurs.2005.12.002](https://doi.org/10.1016/j.profnurs.2005.12.002).
 17. Laal M, Aliramaie N. Nursing and coping with stress. *Int J Collab Res Intern Med Public Health* 2010; 2 (5): 168-81.
 18. Mark G, Smith AP. Occupational stress, job characteristics, coping and the mental health of nurses. *Br J Health Psychol* 2012; 17 (3): 505-21. doi: [10.1111/j.2044-8287.2011.02051.x](https://doi.org/10.1111/j.2044-8287.2011.02051.x).
 19. Folkman S, Moskowitz JT. Coping: pitfalls and promise. *Annu Rev Psychol* 2004; 55 (1): 745-74. doi: [10.1146/annurev.psych.55.090902.141456](https://doi.org/10.1146/annurev.psych.55.090902.141456).
 20. Polit DF, Beck CT. *Essential of nursing research: appraising evidence for nursing practice*. 8th ed. New York: Lippincott Williams & Wilkins; 2006.
 21. Holloway I, Wheeler S. *Qualitative research in nursing and healthcare*. 3rd ed. Southern Gate: Wiley- Blackwell; 2010.
 22. Strauss A, Corbin J. *Basics of qualitative research, techniques and procedures for developing grounded theory*. 3rd ed. California: Sage Pub; 2008.
 23. Strauss A, Corbin J. *Basics of qualitative research: techniques and procedures for developing grounded theory*. 2nd ed. California: Sage Pub; 1998.
 24. Strebert Speziale HJ, Carpenter DR. *Qualitative research in nursing*. 15th ed. Philadelphia: LWW; 2010.
 25. Jannati Y, Mohammadi R, Seyedfatemi N. Iranian clinical nurses' coping strategies for job stress. *J Occup Health* 2011; 53 (2): 123-9.
 26. Eloker S. *The coping skills of registered nurses in the city health clinic in Cape Town* [master's thesis]. South Africa: University of South Africa; 2003.
 27. Shirey MR. *Stress and coping in nursemanagers: a qualitative description*

- [dissertation]. Indian: School of Nursing Indiana University; 2009.
28. Yong Wah G, Sukanlaya S, Tian PO. The revised transactional model (RTM) of occupational stress and coping: an improved process approach. *Australian and New Zealand Journal of Organizational Psychology* 2010; 3: 13-20.
29. DeLongis A, Holtzman S. Coping in context: the role of stress, social support, and personality in coping. *J Pers* 2005; 73 (6): 1633-56. doi:[10.1111/j.1467-6494.2005.00361.x](https://doi.org/10.1111/j.1467-6494.2005.00361.x).
30. Hill RV. *Stress, coping and health: conceptual overview*. 2nd ed. London: Sage Pub; 1995.