Mental challenges of nurses in the face of unlearning situations in hospitals: A qualitative study

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Abstract

Background: The unlearning process is complex and sometimes painful in nature. This process usually occurs in social interactions and is very dependent on social contexts and the work environment.

Objective: To explore the concerns and mental challenges in facing unlearning situations in nurses.

Methods: This qualitative study using content analysis was conducted in 2013-2015. Participants were 25 people, and research environment was hospitals in Mashhad and Gonabad. The method of data collection was unstructured interview, and sampling was continued until data saturation. First, the recorded interviews were transcribed and reviewed several times. Then open codes were extracted and after reviewing several times, were classified into subcategories based on semantic similarity. Finally, the similar subcategories were put into the main categories semantically.

Results: Data analysis led to the emergence of 1,180 initial codes and 8 categories and 3 themes. Our themes were discouraging/encouraging situation, double-edged sword colleagues, and organizational policies paradox, that the central theme of progressive and suppressor organizational climate paradox were derived from them.

Conclusion: Exposure to unlearning situations is a complex process of which its adoption and implementation is difficult and challenging. This suggests that supporting nurses and attention to their mental concerns and providing favorable learning conditions is required.

Keywords: Unlearning, Mental challenges, Nurse, Content analysis

1. Introduction

The need for continuing education of health service providers, especially nursing personnel who have direct and long-term contact with patients, and the need for updating information of nursing personnel and improving nursing care is an undeniable fact (1). Lifelong learning causes the survival of standard performance and promotes patients' sense of wellbeing. To this end, numerous studies are conducted in the field of learning, practices and varieties and which method is more effective, and in what position (2). However, the fact is that to learn new things, earlier, inefficient, learned or conflicting ones with new knowledge, should be removed to be taken place by better and more effective learning. The concept of unlearning points to this issue (3). People should forget old habits and learn new and better methods to get things done. Some researchers also dispute the defect in removal of or unlearning of old thoughts as one of the important reasons that enables people to understand that change is difficult despite obvious environmental improvements (4). Hedberg believes that people will learn effectively if they first unlearn past outdated attitudes and knowledge. But because it entails the exclusion of ideas and attitudes that have been long approved over years in the organization, getting rid of them is very unpleasant. Unlearning is as important as

acquiring new knowledge because lack of ability to unlearn has been proposed as one of the most significant weaknesses of individuals and organizations (5). Despite increasing attention to learning concepts, the idea of individual and organizational unlearning requires more attention and consideration (6) T Zang and Zahra said that knowledge and information in the field of unlearning is very limited and should be developed. Individual level unlearning processes are among the issues that have been ignored, and research analysis that has been done about it is insufficient (7). To allow for innovation in individuals and organizations, managers should be aware of obstacles and challenges of unlearning and know the importance of removing old procedures (8). Despite the importance of unlearning in people's learning, and paying attention to it, few studies have been done in this regard. In Iran, the studies in this regard have been reviewing and analyzing the results of other papers such as the study by Adli (9). He introduced the word "unlearning" and knew it as strategy for better learning. In addition, Raste Moghaddam and Abbaspour (10), based on the analysis of existing models relating to unlearning, suggested an organizational unlearning model. Haji Azizi et al. (11), Hosseini, Jalali, and Khosravani (12) and Moshabbaki and Rabiee (13), in relation to organizational forgetting, have carried out studies. Some studies conducted abroad in this field were reviewed and based on prior knowledge, have analyzed and proposed a model in this respect. With regard to the importance of learning in improving quality of care, we know considerably about learning and its nature, how it happens, and various forms of learning and procedures within organizations, and also have continuing education; however, unlearning is the missing link. Regarding processes and challenges of unlearning, there is very little information. Unlearning is often overlooked and neglected. While learning without unlearning is very difficult and indeed, almost impossible. Given that no study has been done in this field in the nursing area, and because environmental and working conditions of nurses in Iran are different, challenges and concerns of unlearning are also different. Therefore, due to lack of study on unlearning in Mashhad and Gonabad and few studies in Iran and other countries, and primarily for review, a study in this area was necessary. This study aimed to identify and explain mental challenges of nurses facing unlearning situations in hospitals.

2. Material and Methods

2.1. Research setting and participants

The study lasted from April 2013 through December 2015. According to the aim of the study, the qualitative approaches that sought to understand human emotions and human meanings behind every-day experiences of their lives were used and since the aim was achieving a deeper understanding of the factors affecting the unlearning process, the qualitative content analysis was used (14). In fact, this study is a qualitative content analysis that, by classification of qualitative data, tried to understand their meaning. Participants in the study were two groups: the main participants included nurses who had at least six months of clinical experience and experience with change in the implementation of care and willingness to participate in research and express their own experience, and other participants including head nurses, educational supervisors, nursing teachers, medical staff and residents, chief nursing, and specialists in education. In this study, 25 participants attended, including 11 males and 14 females, aged between 27 to 54 years old and who had 4 to 29 years of work experience in various sectors. Among these, 19 participants were core and 6 participants were non-core, and 4 follow-up interviews were conducted. The location of interviews was selected with the majority of participants' opinions in hospital or faculty of nursing and midwifery.

2.2. Sampling

Sampling was done purposefully. Sampling was continued until data saturation when a new code was not obtained in the last four interviews. Included were 26 formal and unstructured face to face interviews done with open-ended questions and three informal, unplanned, and accidental questions (a total of 29 interviews) which were conducted with the participants.

2.3. Interviews and data analysis

The main method of data collection in this study was unstructured deep interviews with open-ended questions conducted face to face. The time for formal interviews was 40 to 135 minutes and for informal interviews 15 to 45 minutes. Maintaining openness despite what was happening, non-censored data through default and the researcher mentality, lack of biasness in listening and observation, and also discovering participants' interest and how to deal with the problem or its solution were commitments of the researcher. In this regard, the interviews were started with open-ended questions and generally, to enter the interview with recalling the experiences and memories of workshops and updating information, were then entered into the unlearning discussion and how people perform. The main question that was asked of the nurses was "When you encounter a new caring technique in clinical situations, how do you implement it? Can you tell us about your first experience in this case?" During the interviews, participants were asked to continue the discussion with their experiences and memories about care work. In addition,

to conduct interviews according to participants' answers, additional questions such as, "What problems do you encounter in its implementation? Do you know another example in this regard? When it happened, what did you think?" were asked. As the study progressed, the interviews were conducted on the basis of created questions and the researcher asked his questions based on emerged categories. The data were analyzed by using qualitative content analysis and conventional approaches. This approach is mainly used inductively in qualitative research projects that aim to describe a phenomenon and existing theories or research studies about that phenomenon (15, 16). Thus, after each interview, the interviews were immediately transcribed including non-verbal communication such as crying, tears, smiling, sighing, silent pauses, etc. Text of interviews were reviewed several times and unrelated expressions to study in each interview were removed. Then, data were broken into semantic units (codes) in the form of sentences and paragraphs associated with the original meaning. Semantic units were reviewed several times, and appropriate codes were written for each semantic unit, then, based on conceptual and semantic similarity, they were classified and were compressed as small as possible. Declining trend in loss of data there was in all analysis units and the sub and main categories. Then, the codes were sent to main categories which were general and conceptual. Finally, the themes were abstracted. It should be noted that in addition to analysis, necessary changes in the content and class name which indicates its content were done. The analysis was repeated regularly by adding each interview, and the classes were modified.

2.4. Ethics of research
Ethical approval of research was obtained by the Ethics Committee of Mashhad University of Medical Sciences. Written informed consent to participate was provided, and following a brief and clear explanation about the study, the consent forms were completed and signed by participants. In order to record the participants' statements permission was given by them and they were assured that their statements would be kept confidential and will not be given to anyone except the researcher.

2.5. Credibility of findings
In addition, for credibility of findings, manuscripts, interviews, and units of analysis along with initial codes were extracted and given to participants, their supplementary comments were collected, necessary changes were done, and proposed points were considered. Also, two professors in the field of qualitative research supervised all stages of the research process. Sampling with maximum variance meaning interview with different individuals (from age, gender, employment status, employment history, work location, and position points of view) increased verification, approval, and transferability of data. Allocating enough time to study, and open communication and empathy with participants also increased the validity of data.

3. Results
Analysis of interview data and field notes led to the emergence of 1,180 initial codes, 8 classes, and 3 themes. Our themes include: Discouraging/Encouraging situation, double-edged sword of colleagues, and organizational policies paradox.

3.1. Theme 1: Discouraging/Encouraging Situation
The theme was extracted from two categories of knowledge based stand and organizational lazy atmosphere. These two categories suggest that organizational atmosphere has a key role in individual unlearning and the process of abandoning old inefficient approaches and methods. The results of the findings analysis showed that knowledge based stand which expresses unlearning organization includes subcategories such as culture building of change, organization research atmosphere, educational atmosphere, job insecurity, consent of director and organization, law dead-end, and applicability of new knowledge. According to findings from interviews with participants, preparation and culture are very effective on the unlearning process and facilitating it on nurses. This preparation includes starting with easy, step by step, and pleasant changes. A participant in this regard stated: "They replaced this new method by the old-fashioned method gradually and step by step. We really did not handle a lot of stress. That's why we tried to match them." Organization research atmosphere caused familiarity of personnel with the exact details of the new protocol after doing research about it, and even the staff tried to do research in the field of differences of the new and old methods and also to compare the effect of them. So conditions to do the research work are very effective on unlearning of people and desiring to remove the old outdated knowledge. A burns nurse stated in the same field: "When the new methods of wound dressing were taught to us, we did it on patients by help of our doctor. For example, we wound dressed a patient's hand by the previous method and for the other hand we did it by the new method then we compared the effects and this was very effective." The meaning of organization educational atmosphere based on participants' experiences is the impact of students and teachers on the willingness to update the

personnel, the existence of Internet in the ward and access to reputable sites of the world, holding numerous workshops, and group discussion. In this regard, a participant stated: "When teachers and students come to the ward and begin to discuss, our subconscious is pulled toward them and becomes curious to try the new approaches." Job instability is another factor in the knowledge based atmosphere. Job instability, conditionality, and employment uncertainty caused in people the fear being fired and rejection by managers, and to keep pace with changes in the organization and not to resist the situations and new methods and to accept them more willingly. They participated in workshops and implementation of new approaches voluntarily, and had unsparing efforts to adapt themselves with the environment and unlearn old methods. One of the nurses who was not employed full time said in this regard: "I'm included in provision three, I'm always afraid in case they fire me or put me in another place. That's why I try to do my best and accept whatever they tell me." The applicability of new knowledge is also one of the concepts obtained in this study. The availability of facilities to implement the new method, not being time consuming, and cost saving of the new method had led staff to implement the new method more easily and abandon the old one. One of the CCU nurses in this regard stated: "Well they taught us a new way of hand washing and provided all the things we need. We tried to perform it." Satisfaction of manager and organization and fair and equitable evaluation also leads to successful unlearning. Encouragement strengthens the sense of well-being, causes feeling of effectiveness, and helps implementers of new methods to continue their performance. In this regard, a participant stated: "Last year, some came to control provincial infection, although I thought that it was useless, I did my best. When I saw they had sent an incentive letter to me, a provincial incentive, I told myself, my work is really important. I was more encouraged." Sometimes entangling people in legal limbo is a way to combat the old ideas. According to experiences of participants in this research, sometimes, lack of a rigorous system is the lack of implementation of a new method. The use of coercion and force can be useful in these cases. Monitoring and continuous tracking, precise control of performance in the first run, and rigorous and careful monitoring of implementation accelerate unlearning. In this regard, a participant stated: "There was a little force. If I did not do the CPR method, they would tell that I did not do it. Because I had to, I did it." Organizational lazy atmosphere includes the following subcategories: medical domination, unpleasant changes, job stability, dissatisfaction with manager and organization, bitter punishment, administrative bottlenecks, inadequate monitoring and tracking. Intellectual and legal dominance of medical staff is a major challenge in unlearning situations of nurses. Enforcing the old method of implementation despite being wrong and outdated due to superior orders, lack of independence and freedom in the implementation of new care were the experiences of participants in this study which led to the establishment of traditional method. In this regard, a burns nurse stated: "They taught us a new way of wound dressing while our doctors ordered the old ones and we had to do it." The meaning of unpleasant changes according to participants' experiences are difficult, sudden, and unexpected changes. A nurse in this regard said: "They came suddenly and said from now on you should do it. All the nurses reacted and said nobody would do it." Ensuring a future career creates a barrier to unlearning the old methods. Difficult acceptance of unlearning prior knowledge in some official colleagues indicates this case. An educational supervisor in this regard stated: "We had two colleagues who trained together, one was highly experienced and official and the other one was just passing his training course. The latter accepted it easily and started the new method, but the former experienced one, tortured us to accept it. In this regard, an experienced nurse stated: "It is the end of my career and I want to be retired. I don't go to the classes. Why should I go? For what? Let them to do what they want." Dissatisfaction with manager and organization, unfair evaluation, disregarding the dignity of nursing, and lack of attention to experience are other challenges that people face in the clinical environment. According to analysis of the results obtained from the participants' experiences, lack of equity in evaluating causes reluctance in people, feeling of worthlessness, frustration and violation of an individual's right, leading to refusal or indifference to the implementation of the new approach. Welfare asymmetries and inequalities between the medical and nursing population is also one of the causes of dissatisfaction with organization. Dissatisfaction with organization causes refusal to attend training workshops and refusal to implement the new approach. Desire to leave the system and retire, indifference to knowledge change and reluctance to update information are the consequences of this situation. A participant in this regard said: "I myself saw that my colleague did nothing and just bluffed it, but his score was higher than mine, who will do anything for patients." Bitter punishment is one of the other challenging situations leading to frustration of personnel and subsequent obstinacy with the manager and organization. Another participant in this regard stated: "They once told me they had reduced three hours of my off time and I told myself I will not do it again and did not do it. Administrative bottlenecks are obstacles for unlearning and despite staff preparation and passing training workshops, are a barrier to implement new practices. Lack of time, congestion of tasks, lack of resources to implement new practices, expensive new practices, and duty apportion system are a barrier to abandon old methods and delay unlearning. In this regard, a head nurse said: "For example the hand washing in the new way is a real change, it should be done, but we cannot really do it correctly. At least we cannot do it in this condition. Because of lack of time, it cannot be done

with so many patients and duties." Insufficient monitoring is also disruptive for unlearning. Negligence of officials discourages personnel, prevents getting used to a new approach and internalizing it in individuals, and disrupts the unlearning process. A participant in this regard stated: "We went to the workshop and learned something new, but then we were forgotten. Nobody monitored whether we did the new method or not."

3.2. Theme 2: Double-edged Sword of Colleagues
The theme was extracted from four categories. The categories include falling into the trap of inhibitor colleagues and trained colleagues: facilitator of unlearning, whirlpool of lack of coordination among counterparts, the problem of lack of unity between superior and personnel. According to the experiences of participants in this study, the presence of inhibitor colleagues, intellectual impact, and tempting when implementing the new method causes the unlearning process of outdated knowledge to be postponed. In this regard, a nurse stated: "You know, the code was announced suddenly and I was going to massage using the new method, my colleague said, what are you doing? Instead of intubation you are massaging? Let's go and intubate him. When she told me that, I suddenly felt that she was right, what am I doing? I did wrong, that's too bad. I blamed myself for a moment." Existence of trained and experienced colleagues reduces stress in individuals, observes their faults during implementation, and reminds them. The presence of a strong and cohesive team and attending the same and trained groups, affect people and reinforce unlearning. Another participant stated: "I did wrong there too, but my colleague helped me and didn't leave me alone. It stuck in my mind. I never repeated that mistake. Inconsistency of matched colleagues in applying new knowledge causes inner turmoil and conflict, and eventually regresses the process of implementing new practices. Another participant in this regard stated: "The problem was that the code was announced and colleagues came. Some did not know and it was chaos. Everyone did whatever they wanted. An untrained superior also creates a very challenging situation for nursing staff during unlearning process. Lack of professional independence of nurses and doctor's orders, despite repeated enforcement of old practices by the physician is a serious obstacle for unlearning. Confusion crisis of the superior's decision-making and insisting on repeating the mistake made by the superior, has a negative impact on personnel and removes them from the unlearning process. In this regard, a nurse in a CPR unit said: "The worst thing was that our assistants ordered the same previous protocol. It dropped our performance."

3.3. Theme 3: Organizational Policies Paradox
The theme refers to the policies and organization policies and includes two subcategories of non-learning policy and unlearning policy. Non-learning policy refers to policies that are difficult, and prevents unlearning in people, and includes transient previous policy, inconsistency of education policy in staff, and lack of coordination between the units. In this regard, one of the surgical nurses stated: "Suddenly, after changing the president they told us that there is no clinical governance. It means the cost and the staff who were part of clinical governance, they were all useless." Another nurse said: "When I reminded my colleagues of the new method of Ceftriaxone injection they protested about why some did the previous method in a ward and nobody told them anything." Unlearning policy includes unity in educational policies of care personnel, coordination among wards, and successful previous policies. An emergency nurse in this regard stated: "Workshops were held for all of us. We all were trained. Even our doctors attended." One of the nurses in internal ward said in this regard: "New CPR instructions came and were announced everywhere and we had to run the same new method." Continuous analysis of interviews with nursing staff indicated that the central theme of conflict of progressive and repressive organization atmosphere as the main theme of the study indicates characteristics of an event that shows that nurses in unlearning situations deal with three important challenges, so that positive reaction to unlearning is provided to a knowledge based organization stand, trained colleagues, and unlearning policies.

4. Discussion
The results showed the most important mental challenges of nurses facing unlearning situations in hospital are discouraging/encouraging situation, double-edged sword of colleagues, and organizational policies paradox. A review of studies showed despite in the studies details and dimensions of each themes are mentioned and in fact the overall content of most formed categories of the present study are consistent with results of other studies; however, none of the subjects of discouraging/encouraging situation, double-edged sword of colleagues, organizational policies paradox, and some categories and subcategories such as whirlpool of lack of counterparts coordination, accordance problem of superiors with personnel, policy of unlearning and learning in studies as an independent and background theme were not formed. In addition, this study emphasized unlearning at individual level and factors affecting nurses that in few studies, have been mentioned. It seems our study has concluded more completely compared to other studies in this field. For example, in the study of Navarro, Eldridge, and Martinez (17) the importance of unlearning in knowledge management is examined. They concluded that providing an appropriate

atmosphere for unlearning for employees is very important. This finding was consistent with the discouraging/encouraging situation. However, in this study, two other effective categories on unlearning (double-edged sword of colleagues and organizational policies paradox) were identified that in the study of Navarro were not revealed. The present study emphasized the challenges that nursing staff face in dealing with real unlearning situations and applying new training methods in clinical situations. Becker's study (18) in Australia showed that organizational support and previous individual and background experience of changes in organization are effective on individual unlearning. This study also showed that the organizational arrangements and organization environment affects individual unlearning. This finding is consistent with the study of Allan et al. in the United Kingdom (19). They concluded in their study that lack of staff's support and not providing favorable conditions during uncertainty leads to prolonged change process in individuals. Coombs et al. in the United Kingdom (20) also confirmed these findings. Raste Moghaddam and Abbaspour, in their study in this regard expressed: "The role of formal and informal organizational support as one of the variables modifying this process is undeniable."

Although in the articles the theme of double-edged sword of colleagues was not mentioned, in many studies the role of collaboration in accelerating the unlearning process was focused. Macri, Tagliaventi, and Bertolotti (21) in a study in Italy, recognized lack of new knowledge sharing and training, unhealthy competitive atmosphere, non-cooperation pattern among colleagues, and low collaboration as factors of failure to change and unlearning process which is consistent with the present study. Armson and Whiteley (22) in Australia, among different factors affecting implementation of new learning, introduced interactive necessity of implementation of new learning and changes as key factors. Also, Pianes (23) in America considered participation in learning as facilitators of unlearning. In addition, the results of study by Akgun, Lynn, and Byrne (24) and Kiefer (25) demonstrated that cooperation and teamwork are important factors in unlearning and training, and new changes are very effective on unlearning. The results showed that dissatisfaction with managers, organizations, and unfair evaluation, leads to people's reluctance and resistance to unlearn. Pianes (23), in its study, acknowledged that lack of motivation is a major obstacle to the start of this phenomenon. Caldwell and Chatman (26) in the United States recognized readiness to change as a key factor to begin the change. The study also found that non-profit staff and the needs not met lead to dissatisfaction with managers and organization and resistance to unlearn. Becker's study (18) showed that positive experiences, emotions, and individual expectations are the most important reasons for unlearning. Yildiz and Fey, in their study, also cited these factors (27). Organizational policies paradox was not reported in any of the studies. If previous educational policies are unsuccessful they will have negative effects on the unlearning process and this issue is obvious in our organization context.

5. Conclusions

Our study showed that there are many challenges for nurses in the face of unlearning situations, and organizations and workplaces are more obvious. Nurses are very impressed with organization to unlearn outdated knowledge, and lack of coordination in educational policies of organization cause unison of staff with each other and with supervisors, and despite the fact that nursing personnel are prepared to unlearn and change, cannot and are not allowed to actually implement new training. In order to facilitate the unlearning process in clinical settings and continuing training of nurses, one must first recognize the challenges of nurses in unlearning situations and strengthen continuing the training of them and make it more effective. Explanation of these factors to policy makers and managers for planning and interventions in connection with facilitating unlearning, will help to devote a part to this important issue in continuing the training of health care workers. Carrying out a supplemental research on explaining the factors facilitating unlearning with qualitative methods based on individuals' experiences, could be an appropriate path for future research on this topic.

Conflict of Interest:
There is no conflict of interest to be declared.

Authors' contributions:
All authors contributed to this project and article equally. All authors read and approved the final manuscript.

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