Development of a Conceptual Model of Resilience in New Graduate Nurses

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Abstract: To explore experiences of stress-tolerance among new graduate nurses and to develop a conceptual model of resilience. The formation rules of the conceptual model can be found. It’s necessary to examine resilience positively affecting new nurses at different stages of transition period. Using a grounded theory approach, 12 outstanding new nurses aged 20-26 years whose working time was more than 12 months but less than 24 months were interviewed. Dynamic adjustment process was the core category of the conceptual model of resilience, including three sub-processes, (focus on self-survival, clinical environment, and patient), fifteen major categories and thirty sub-categories. The process consisted of three main phases: ‘Paying Attention to Self-Survival’, ‘Caring for Clinical Situations’, and ‘Caring for Patients’. The feedback of head nurses can make new nurses recognize their strengths and weaknesses, and feel the warmth from the leaders, which is favorable to the improvement of new nurses' working ability. Flexible scheduling likely creates a good working atmosphere and maintains the mental health of new nurses, which can make them learned much skills from the senior nurses, and help them smoothly adapt to the work environment. The personalized instructions and career-planning are crucial to strengthen the resilience of new nurses. External supports mean that the nurses can obtain the supports and help from a partner, family or friends, which become a key factor to affect the resilience of the nurse. Self-management, right values, independent learning, a firm belief and other personal factors are important internal factors for promoting the development of nurses' resilience. This conceptual model can be used to understand connotation of resilience in new graduate nurses, and to facilitate nurses’ role transition. It’s likely to provide reference for nursing managers to formulate relevant strategies, greatly reducing the turnover rate and alleviating the shortage of nurses in global nursing workforce.

Keywords: New Graduate Nurse, Role Transition, Resilience, Qualitative Study, Grounded Theory Approach

1. Introduction

Resilience, also known as toughness or resilience force, refers to the individuals that can smoothly adapt to adverse living-environment and develop some positive ability when facing with certain difficulties or threats [1]. Resilience first focused on the psychological recovery ability of children after trauma [2]. With the development of psychology, psychological resilience has gradually become a hot topic in international psychological research, and been widely used in various fields. Recent years, the study of nurses' resilience has aroused great concern and attention from the scholars, especially the research on the psychological resilience of new nurses [3]. New nurse is being in the transition period from students to clinical nurses [4], which belongs to the key period for the new nurse's career development. It not only affects the mastery of the new nurses’ clinical knowledge and skills, but influences the job satisfaction and future career development plan of the new nurses. Some studies reported a high turnover rate among the new nurses [5-6], and the turnover rate of junior nurses is as high as 68.5% in China [7]. The new nurses often chooses to give up nursing profession, which causes the
The development of resilience of new nurses can be divided into three stages: paying attention to self-survival, caring for clinical situations and caring for patients. Each process has different concepts of resilience, which can be classified into 15 main categories, 30 sub-categories, as shown in Figure 1 and Table 1.
**First stage: Paying Attention to Self-survival**

- **Difficulty in information communication**
  - Linguistic differences: It's difficult to communicate with some patients who speak dialects, especially elderly patients. (N2)
  - Unfavorable working environment: It's difficult to consult to other people when I am in trouble, because everyone around is often busy. (N4)

- **Self-management**
  - Insufficient knowledge: Sometimes I don't know how to answer questions from patients and their family members due to my insufficient professional knowledge. I feel very embarrassed. (N5)
  - Self-control: Learning to control my emotions is the first lesson when I am from a student to a nurse. (N8)
  - Self-protection: Good health makes me work well. I often go swimming one or two times a week. (N12)

- **Right value**
  - Adhere to the nursing profession: I have dreamed of becoming a nurse since I was young. Now I realized it, and I am very happy. (N3)

- **Past Experience**
  - Gratitude: I had a worse illness. A director helped me a lot then. He encouraged me to live bravely and not to give up my studies. Finally, I done it, so I thanked his very much, (N6)
  - Taking care of your relatives: I hope to take care of my mother in the future using my professional knowledge. (N1)

**Second stage: Caring for Clinical Situations**

- **Separation of theory and practice**
  - Teaching knowledge lagging behind the clinic work: The clinical work needs some simple and practical operation methods, but improper operation processes from class will increase working hours and reduce overall work efficiency. (N6)
  - Lack of operational flexibility: Some elderly patients suffer from a variety of diseases, but we only learn some limited nursing knowledge for a single disease. So it is difficult to deal with this problem. (N9)

- **Self-learning**
  - Learning from the past experience: Although it is very sad for us to make mistakes, we can correct our mistakes and learn from them. (N7)
  - Unsuccessful experience is likely to make me succeed in the future. (N11)
  - Summing up and learning the successful experience from others: When we feel others do work well, it’s necessary to sum up and learn from the successful work. (N1)

**Third stage: Caring for Patients**

- **Confusion for career development**
  - Lack of clear career development direction: Nursing work is of repetitive and mechanical. It makes me feel bored. And I often feel confused about my future. (N11)
  - Lack of learning opportunities: There lacks of chances to further study. Some possible learning chances often give the medical personnel. (N8)

- **Understanding the significance of the life**
  - Cherishing the life: Life in hospital is very precious, and I really understand that each person has only one life and must cherish it. (N6)
  - Strength of the life: A weak newborn baby survives many difficulties such as cold, breathing and so on. I really admire the strength of the life. (N4)
  - Selflessness of the life: It needs great courage and compassion for a dying patient to donate his cornea to others. (N9)

- **A firm belief**
  - Strong perseverance: I believe that difficulties and challenges are temporary things. As long as we work hard, everything will become fine. (N4)
  - Strong belief: Whenever I feel frustrated, I will always tell myself that I will succeed if I am loyal to my work just as I am loyal to God. (N5)
  - Feedback from a head nurse
    - Positive feedback: The head nurse's recognition of my work makes me feel the care and concern, which greatly increases my courage to overcome difficulties. (N10)
    - Negative feedback: Although it is very difficult for a person to accept own shortcomings, I still hope to get the objective evaluation and advice of the head nurse. Only in this way can I realize my shortcomings and continue

**Table 1. Three stages, fifteen major categories and thirty sub-categories.**

<table>
<thead>
<tr>
<th>First stage: Paying Attention to Self-survival</th>
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<td>Right value</td>
<td>A firm belief</td>
<td>Sense of professional achievement</td>
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<tr>
<td>Adhere to the nursing profession: I have dreamed of becoming a nurse since I was young. Now I realized it, and I am very happy. (N3)</td>
<td>Strong perseverance: I believe that difficulties and challenges are temporary things. As long as we work hard, everything will become fine. (N4)</td>
<td>Power of a model: Where there exists life danger, where there appear medical staffs. I feel very proud of the behaviors to help people in difficulty. (N2)</td>
</tr>
<tr>
<td>Past Experience</td>
<td>Strong belief</td>
<td>Respect and recognition from the patients: I feel very happy when the patients thank me for my valuable help. (N7)</td>
</tr>
<tr>
<td>Gratitude: I had a worse illness. A director helped me a lot then. He encouraged me to live bravely and not to give up my studies. Finally, I done it, so I thanked his very much, (N6)</td>
<td>Whenever I feel frustrated, I will always tell myself that I will succeed if I am loyal to my work just as I am loyal to God. (N5)</td>
<td>Recognition from the leaders: I won the fourth place in innovation competition. I received the recognition from the leaders, and I am very grateful for giving me a stage</td>
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| Taking care of your relatives: I hope to take care of my mother in the future using my professional knowledge. (N1) | Feedback from a head nurse
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4. Discussion

4.1. Conceptual Model of Resilience of New Nurses

Resilience focused on the development of individual potential and exploration of psychological resources. And when facing with adversity, threats, natural disasters and other life pressure, the individual can successfully adapt to the situation, and achieve a good development. Rushton et al. [11] reported that resilience is an important predictive factor of occupation burnout, and the individuals with high resilience show a lower level of occupation burnout. The resilience can reduce the work pressure, and promote career development of the new nurses. Hart et al. [12] believed that the development of resilience can be used as an effective strategy to reduce the loss of nurses' human resources. Through the analysis of the interview data, the resilience of the new nurse shows a dynamic adjustment process, which can be summed up to three sub-processes of paying attention to self survival, caring for clinical situations and caring for patients (Figure 1). It reflects the process of resisting the pressure, adapting to the environment, and realizing the transformation of the role and the career development. Clearly, the conceptual model of resilience is consistent with the definition of psychological resilience. Blamire [13] reported that the appropriate pressure and difficulties can promote the development of resilience. The interviewees in the study show depression, confusion, and even withdrawal behavior in the transition period. This does not mean that they lack of flexibility, but experience the resilience process. This study suggests that the resilience of the new nurses is not a linear development, and each stage includes the risk and protection factors (Figure 1). That is, the interviewees constantly adjust the measurements to deal with the problems and conflicts in the workplace, further promoting the development of the resilience. Thus, this study further supports Blamire’s opinion, and proves that the resilience is an interaction process of sustainable development between personal attributes and organization, interpersonal relationship and social resources [14]. Besides, the study also found that the concept of resilience of new nurses not only includes behavior to overcome the difficulties, as well as confidence, faith, spiritual encouragement from colleagues etc. Therefore, the resilience development of new nurses is conducive to change their behaviors, and improve the physical and mental health of new nurses, finally increasing the job satisfaction and reducing the turnover rate.

4.2. Three Stages

4.2.1. Paying Attention to Self-Survival

Paying attention to self-survival exist the initial stage of nurse growth, where the new nurses realize that they belong the lowest level members of the department and, only depend on themselves. However, their clinical knowledge and skills cannot meet the needs of the work, while they are afraid of loneliness, making mistakes and receiving criticism. Therefore, they are very concerned about their survival adaptability. At this stage, the new nurses generally believe that poor communication with patients, family members, or other colleagues becomes an important threat to their adaptability. At this point, the internal protective factors play a more important role in increasing the resilience, which includes self-management, right-value and past experience. Self management is divided into self-control and self-protection. Self-control refers to the control of their bad behavior to reduce the negative impact on the nursing work. And self-protection refers to adoption of the good behavior to promote their physical and mental health. External protection factors include flexible scheduling and external supports.

4.2.2. Caring for Clinical Situations

When new nurses are familiar with the clinical working environment and the nursing work system, they will shift their attention to improving their work ability. But at this time, they cannot skillfully distinguish the information from the clinical situation, and deal with the problems only based on the theory knowledge from the book and the stereotyped rules, causing the separation of the theory from the practice. The reflection and summary from the clinical practice is advantageous for promoting the development of the resilience of the new nurses. Besides, the feedback from nurse heads and the encouragement from the colleagues are conducive to stimulating new nurses' confidence and making them adhere to show myself. (N5)

<table>
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<tbody>
<tr>
<td>Flexible scheduling</td>
<td>to make progress. (N9)</td>
<td>to show myself. (N5)</td>
</tr>
<tr>
<td>Cooperation of nursing staffs: When I work with an experienced colleague, I learn a lot from her, and then I feel confident in finishing the work well. (N4)</td>
<td></td>
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</tr>
<tr>
<td>Relationship between ability and the patient’s condition: I feel worried about taking care of the patients with serious illness because of my inadequate professional ability. (N5)</td>
<td></td>
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</tr>
<tr>
<td>External supports: Parent's supports: when I am not happy, my parent will call me and comfort me. (N10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends’ supports: I often get help from my friends by the way of mutual encouragement. (N12)</td>
<td></td>
<td></td>
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<tr>
<td>Help from colleagues: I am very grateful to my colleagues. They didn't dislike me for being a novice. They always help me when I am in trouble. (N3)</td>
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<td>Comfort from colleagues: Sometimes I do not do well in work, and I am often accused by the patients. My colleagues always comfort me and share their similar experiences, which makes me feel the warmth from a big family. (N12)</td>
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Friends’ supports:

Parents’ supports:

External supports

Encouragement from colleagues

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to the nursing work, as seen in Table 1.

4.2.3. Caring for Patients
After more than a year work in clinical practice, the new nurses recognize the nursing difference on the different patients, so that they learn the thinking from other people’s position, and gain a sense of professional accomplishment from the devotion to the nursing work. Meanwhile, the respect and recognition from other people further affirm their value. These protective factors are conducive to the development of resilience of new nurses. However, the development of the resilience of new nurses is facing the risk factor, the confusion of career development, as shown in Table 1.

4.3. Significance of Constructing a Conceptual Model of the Resilience
The leadership style of nursing managers makes an important effect on the resilience of new nurses [15]. The similar findings are found in this study, as follows: 1. the feedback of head nurses can make new nurses recognize their strengths and weaknesses, and feel the warmth from the leaders, which is favorable to the improvement of new nurses' working ability. 2. flexible scheduling likely creates a good working atmosphere and maintains the mental health of new nurses. Most new nurses reflect that when facing strange people and unfamiliar circumstances at the initial work, they are unwilling to give up, but shy to ask for help from others. Flexible scheduling can make them learn much skills from the senior nurses, and help them smoothly adapt to the work environment. 3. the personalized instructions and career-planning are crucial to strengthen the resilience of new nurses. In fact, at the later stage of role transformation, the new nurses have inadequate time to learning, and no clear career-development direction, so they often feel confused about their future.

External supports mean that the nurses can obtain the supports and help from a partner, family or friends, which become a key factor to affect the resilience of the nurse [16]. The study reveals that under the huge pressure of the work, they prefer to relieve pressure or relax themselves through the Internet. Therefore, the leaders should make full use of Internet resources, and establish effective support network system to create a harmonious working-environment.

This study also finds that self-management, right values, independent learning, a firm belief and other personal factors are important internal factors for promoting the development of nurses' resilience. It is consistent with the view from Cope [17]. Positive personality quality is the source to promote the development of the resilience [18]. Therefore, nursing managers should take the individual value and needs of each new nurse into consideration, fully excavate the internal protection factors to stimulate the enthusiasm and self-worth, finally enhancing the sense of professional identity, and improving the resilience of the new nurses.

4.4. Limitations
First, the choice of the participants in this study only comes from the recommendation of the director and head nurses of the department. There probably exist some differences on the understanding of the outstanding new nurses. Then, the size of the samples is small, and the participants come from a similar cultural background and working environment. It suggests that the more objective standard about the outstanding new nurses should be established, and some qualitative longitudinal studies can be carried out to further validate and improve the theoretical framework, which greatly increase the scientific nature of the theory and the guidance of the practice.

5. Conclusion
The resilience of the outstanding new nurses is a dynamic process with the mutual promotion between risk factors and protective factors. The successful transformation of the role does not mean the end of the development of nurses' resilience. The experience from the outstanding new nurses can help more new nurses go through the hardship of the career, and achieve role transformation. Nursing managers should understand the pressure and challenge of the transition period of the new nurses with the combination with the characteristics of the new nurse's growth stages, pay more attention to the improvement of the professional development and support system, and support the positive internal protection factors to enhance the development of the resilience of the new nurses.

Conflict of Interest
The authors declared no conflict of interest.

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