ORIGINAL RESEARCH

Experiences of nurses returning to work after the second/third childbirth and organizational support in Southeastern China: A qualitative exploration

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ABSTRACT

Background: Since China encounters challenges of the aging population, especially a decrease in the working-age population, the Chinese government officially ended the one-child policy and has implemented the second/third child policies. This study aimed to explore nurses' experiences, the supports they received from hospitals, and the supports they expected when returning to work after the second/third childbirth.

Methods: Asynchronous focus groups and one-on-one in-person interviews were held with nurses from three hospitals in Wenzhou city who had returned to work within three months following their second/third childbirth. Data collection and analysis were conducted using Maslow's Hierarchy of Needs as a guiding framework.

Results: Twenty-three nurses were included in this study. Themes emerged around five needs, including physiological, safety, love and belonging, esteem, and self-actualization. Regarding these needs, nurses expressed receiving some support, including support from managers and colleagues and flexible scheduling assignments. However, there was also a lack of other supports, including dedicated time and space for breastfeeding, parental leave, nearby and affordable childcare, unit assignment and working schedules considering individual circumstances, mental health support, and opportunities for professional development.

Conclusions: Our findings highlight the necessity to dedicate resources to support the diverse needs of returning nurse mothers such that they can balance family life and work. While longer-duration studies with larger sample sizes in other regions of China are needed, our findings also suggest future studies on exploring third childbirth experiences, evaluating supportive interventions, and creating a specific theoretical model on the comprehensive needs of nurses returning to work after childbirth.

Key Words: Return to work, Nurse, Second childbirth, Third childbirth, Organizational support, China

1. INTRODUCTION

The Chinese government introduced the one-child policy in 1979, as population control was considered essential to lifting China out of the severe poverty caused by decades of economic depression.[1] After 30 years of the one-child policy, China faced new challenges with the aging population,

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imbalanced sex ratios, and a decrease in the working-age population.[2] At the beginning of the 21st century, the country began to see the pressure of a persistently low birth rate, and, thus, the one-child policy was no longer preferable.[3] In 2015, the Chinese government announced the full implementation of the policy of two children per couple to cope with the aging population, marking the official end of the one-child policy. The two-child policy had little effect on increasing the birth rate, and it was difficult to reverse the aging population trend.[4] To avoid the rapid aging of the population due to the continuous decline in birth rate, China finally implemented the three-child policy in 2021. In China, nursing is a profession dominated by women. As of December 31, 2017, the total number of registered nurses nationwide was 3.804 million, of which 3.72 million (97.8%) were female.[4]

Nurses encounter challenges with balancing work and life, especially childcare, in the world. In developing countries such as Ethiopia, two-thirds of nurses in public hospitals experienced stress related to childcare, shift work, and chronic illness.[5] In some developed countries, the difficult work-childcare balance was one of the main factors preventing nurses from returning to work, and when nurses' children were hospitalized with acute illnesses, nurses struggled to balance their roles as both a parent and a nurse, which led to increased stress and anxiety.[6,7] As a consequence, nurses were more likely to leave their jobs when there were conflicts between work and family.[8] A recent study clarified the experiences of emergency nurses returning to work through qualitative and descriptive research, identifying three main themes from the data: (1) work engagement, (2) breastfeeding, and (3) child care.[9] This study indicated that most nurses returning to work did not meet individualized breastfeeding goals and childcare was a significant source of stress.

Responding to the new social phenomenon of second/third childbirth in China, Chinese scholars have investigated nurses' experiences of returning to work after childbirth. In a qualitative research, VanManen's interpretive phenomenological method was applied to interview and understand the lived experience of 12 nurses returning to work after childbirth in Ningbo city, Zhejiang province.[10] This study identified four major themes, including fear of returning to work, physical challenges, family-work conflict, and maladjustment to environmental changes. Another qualitative study included 14 nurses returning to work after their second birth in Taian City, Shandong province.[11] The study found that stress from childcare issues, work, nurses' unmet needs, and financial stress were the main barriers for nurses to return to work after the second childbirth. A quantitative study included 127 nurses returning to work after second childbirth in 18 hospitals in Beijing, using the Chinese Nurses' Work Stressors Scale.[12] The research concluded that the nature of the work, workload, lack of understanding and support from nursing managers, and work-family conflict were stressors for nurses returning to work after second childbirth. In general, with relatively small sample sizes, these studies have limited generalizability and repeated research is needed in different cities. In addition, these studies investigated postpartum nurses' stress levels and return-to-work experiences but lacked an exploration of social support for postpartum nurses who had their second child.

In our study, the theory of Maslow's Hierarchy of Needs was used to guide thematic analysis.[13] Maslow's Hierarchy of Needs classifies human needs into five ascending categories: physiological, safety, love and belonging, esteem and self-actualization.[13] It is believed that individuals' most basic needs must be met before they become motivated to achieve higher-level needs. This theory has been widely used in nursing sciences to study and promote motivational behaviours, such as to create indicators of a healthy working environment,[14] promote nurse well-being,[15] and guide the design of nursing interventions for patient care.[16] It has also been used by employers to increase productivity and performance among employees. A Romanian study found that satisfying higher level needs such as self-actualization among healthcare employees improved motivation and professional performance.[17] Another study found Maslow's Hierarchy of Needs to be useful in understanding the challenges with integrating technology into training for healthcare employees.[18] Therefore, this theory presents itself as a useful framework when evaluating the needs, expectations, and motivations behind employees in a variety of situations and settings.

Our study explored nurses' experiences returning to work after having their second/third childbirth through one-on-one interviews and focused group discussions. This study explores the support nurses have already received and their expectations from their hospitals. Three research questions were asked, including: among nurses returning to work after second/third childbirth, (1) what are their experiences of return to work? (2) what support have they received from their working organizations? (3) what further support do they expect from their working organizations? The study results will provide evidence-based recommendations to nursing administration on the types of support that could be offered to nurses returning to work after their second/third childbirth to ease their stress and build a stable and effective nursing team.

2. METHODS

2.1 Design

The research ethics approval was obtained from Wenzhou Medical University research ethics review board (approval number 2022-K-85-02). This study involved one asynchronous online focus group, which had 11 participants and lasted for one week,[19,20] and twelve one-on-one in-person interviews.[21,22] The focus group offered perspectives and stimulated interactive discussion among the group; the individual interviews allowed for an understanding of personal experiences and perceptions. The combination of a focus group and individual interviews ensured participants could choose the most convenient and appropriate method for themselves.

2.2 Setting and sample

This study was conducted at Wenzhou Medical University, Wenzhou City, China, and assisted by collaborators at three local hospitals. Wenzhou, located in southeastern Zhejiang Province, is surrounded by mountains, the East China Sea and 436 islands, and has a population of 9,645,000 as of 2021. Wenzhou is famous for its business and developed private economy, and is an important trade city and regional center city on the southeast coast. The three hospitals participated in this study have 2,667 beds and more than 4,000 employees, 1,345 beds with 2,473 employees, and 800 beds and 1,491 employees, respectively. These hospitals provide comprehensive services with various expertise, including oncology, cardiovascular surgery, pediatrics, orthopedics, neurology, neurosurgery, hematology, obstetrics, gynecology, and gastroenterology.

Using purposeful sampling,[23] a research participant recruitment posting was posted in hospitals, and participants who had an interest could call the research staff for eligibility assessment. Nursing administrative collaborators also provided a list of names who might meet inclusion criteria so a researcher would call and invite participation. The list was obtained to streamline the recruitment process, but participation in the study was completely voluntary and participants could withdraw at any time with no consequences. Inclusion criteria were as follows: (a) was a registered nurse in a hospital, (b) had second or third childbirth, and (b) returned to work on or less than three months. Nursing students, nurses on training, nurses on vacation, and nurses on sick leave were excluded. Twenty-three nurses were recruited. This sample size is appropriate for qualitative studies.[24,25] Twenty-three nurses were eligible and invited to participate in the interview, 11 declined, 12 were recruited, and recruitment rate of the interview was 52%. Eighteen nurses were eligible and invited to participate in the focus group, 7 declined, 11 were recruited, and recruitment rate of the focus group was 61%.

2.3 Data collection: Interviews and focus groups

The demographical data were collected by a brief survey after a participant consented to take part in the study. The survey included items of age, number of children they have, working experiences, marital status, education, and income. The telephone interviews and focus groups were conducted by trained researchers (HY, XS). Seven questions were used to guide both the interviews and focus groups. The questions were: (1) What impressed you in the early days after returning to work? (2) Could you please describe your work pressure after returning to work, such as nursing professional and work problems, time allocation and workload problems, working environment and equipment problems, problems in patient care, and management and interpersonal problems? (3) What professional training have you received after returning to work? (4) What psychological training/consultation have you received after returning to work? (5) What are the conflicts between the nurse role and the mother role after returning to work? (6) If you were asked to use a sentence or metaphor to summarize your experience of returning to work, what would it be? (7) What are your suggestions on how to improve the social support for second-child nurses returning to work? Each interview lasted for around 60 minutes and was taped. The focus groups were hosted on a social media platform (WeChat), with which participants were familiar. A researcher created and hosted the focus group, which only included research participants. One question was posted in the group every other day. Exclusive groups were created to allow a secure, confidential and safe environment for research participants.[26,27]

2.4 Data analysis

The data analysis was conducted by trained researchers (HY, PZ, WX, ZZ). The qualitative data analysis is characterized by the simultaneous collection and analysis of interview data, whereby both mutually shape each other.[28] In this study, the complementary approach of data collection and analysis was achieved by having data analysis begin after the first two interviews are completed.[29] Data analysis was guided by Maslow's Hierarchy of Needs.[13] This theory was chosen based on its extensive use in other healthcare professional research, such as studying what motivates and improves performance among healthcare employees,[17] and understanding the needs of healthcare employees when using technology in training.[18] Qualitative content analysis, which offers a comprehensive data summary with the least interpretation, was conducted.[30] Data from the interviews and online focus group were transcribed into word processing documents. Then, the data was analyzed following the typi-

cal approach of content analysis.[31] Firstly, three researchers read each transcript several times to fully understand the contents. Then, each researcher independently performed initial coding by breaking the text into meaningful segments whereby sentences or sections of transcripts with an overarching theme were separated from the rest of the transcript. After that, data rearrangement, mapping and interpretation were conducted to reach a consensus on the themes.[31] This includes determining the frequency of common themes among participants' transcripts, understanding the underlying need that was achieved or suggested by the participant's comment, and based on this, matching the needs' themes to the appropriate need domain of Maslow's Hierarchy of Needs.

3. RESULTS

3.1 Characteristics of participants

Twenty-three nurses (12 in interviews; 11 in the focus group) participated in this study (see Table 1). They worked in a variety of hospital departments, with the majority coming from internal medicine, surgery, and operating room. More than 50% participants were in the 30-35 age group (average age of 34.6 years old), were married, and had more than 10 years of work experience. The majority possessed a bachelor's degree and served in a supervisor nurse role. All but one nurse had 2 children and the monthly income of more than half the nurses was between 5,000 to 10,000 Chinese Yuan. After analyzing the transcripts, the responses were organized into the five themes of Maslow's Hierarchy of Needs and within each domain, the nurses' experiences with regards to each domain were thematically organized, as presented below.

3.1.1 *Physiological needs*

Nurses' experiences

Firstly, the high workload conflicted with pumping breast milk at work. It was difficult for nurses returning to work after maternity leave to have time to pump breast milk. They either had to pump during their lunch breaks or accumulate one hour per day until seven hours was achieved to have one day off (Nurse A, C, L, H, O, P, R, W). One participant stated: "Although there is one hour breastfeeding break, it is impossible to take it when the work is that intense (Nurse A)." Another nurse revealed: "Frankly, it's a good thing that I didn't breastfeed; if I had to breastfeed, there wouldn't be any time to pump during work, and my baby might be forced to be formula-fed. No one asked me about breastfeeding situation at the time of my return to work (Nurse C)." One nurse concluded, "The biggest stress is maintaining breastfeeding while working simultaneously (Nurse P)."

Secondly, life was taken up by children and work. Some participants had to work unscheduled overtime shifts and spend all their free time off work on their children (Nurse A, D, E, K, F, Q, R). One nurse said: "We have unplanned overtime in our department. It is possible to work three or four hours of overtime per shift, three or four times a week (Nurse E)." Another nurse mentioned: "After I go home, I have to help the older children with their homework first. At eight o 'clock, I will take the elder children to exercise. After exercise, I will bathe my two children. Finally, after they all rest, I barely can have time to myself. The next day, I take my older kid to school early in the morning while I have to go to work (Nurse F)." One participant said, "The biggest pressure is to take care of three babies. Sometimes, they have a fever, but I still have to go to work. It is a little overwhelming (Nurse Q)." One nurse concluded, "Going to work makes me feel like a whale floating to the surface and gasping for air. I have to take care of the kids, but work is essential too. I wish that work is as short as possible so that I can come up for a breath and then sink back down to focus on my kids (Nurse R)."

Table 1. Participant characteristics (n = 23)

Variable	Category	n	%
Department	Internal Medicine	5	21.7
	Surgery	4	17.4
	Obstetrics/Gynecology	3	13.0
	Pediatric	2	8.7
	Emergency	3	13.0
	Operating room	4	17.4
	Medical technology	1	4.3
	outpatient service	1	4.3
Age	30 to 35	14	60.9
	＞ 35	9	39.1
Marital status	Married	23	100
Work experience (Years）	＜ 5	0	0
	to 10	7	30.4
	＞ 10	16	69.6
Educational level	Diploma	2	8.7
	Bachelor	20	87.0
	Master's degree	1	4.3
Job title	Nurse	4	17.4
	Supervisor nurse	18	78.3
	Co-chief nurse	1	4.3
Number of children	2 children	22	95.7
	3 children	1	4.3
Monthly income	＜ 5,000	3	13.0
	5,000 to 7,500	9	39.1
	7,500 to 10,000	6	26.1
	＞ 10,000	5	21.7

Thirdly, long commute time. Some nurses were assigned to a hospital far from home when they returned from maternity leave, with a maximum commute of four hours and no proper

transportation (Nurse B, C, D, E, J, R). One nurse said, "I left home in the dark and came home in the dark every day (Nurse B)." Another nurse mentioned, "I get up around 5 o'clock, my family drops me off at the bus stop, and I take the bus to the subway station to get to the hospital. I spend four hours a day travelling to work. On top of that, I had to take care of the kids when I got home from work. I only sleep about four or five hours daily (Nurse D)."

Support received

The policy of no night shift for one year postpartum and flexible breaks for pumping breast milk during shifts has been applied. Most departments could guarantee no night shift for one year after returning to work, except for nurses in special departments (all nurses except Nurse G, H, J, R). One nurse said, "Nurses in other wards work the night shift until they are seven-month pregnant, but we do not have to work the night shift once we are pregnant. We think this policy is excellent (Nurse E)." Some units also offered flexible one-hour breast pumping time (Nurses E, J, L). A nurse mentioned, "The biggest benefit is that there is one hour for us to pump breast milk, so we can bring back the breast milk which allows our babies to be breastfed (Nurse E)."

Support expected

Nurses hoped that the hospital considers individual situations and assigns the hospital campus accordingly. The hospital should assign campuses based on nurses' choices to accommodate commute time (Nurse B, C, R). For example, one nurse said, "I think the hospital should consider the commute time. Spending too much time on the road is a waste of time when it takes three hours to travel as I do. It is more significant to spend this much time at home or work (Nurse B)."

3.1.2 *Safety needs*

Nurses' experiences

Firstly, nurses felt overwhelmed when they first arrived at the new department. Nurses, who go to a new unit, with which they are unfamiliar and feel like an outsider, can develop stress and anxiety. The stress and anxiety could be the body's natural defense against situations and deemed as "unsafe" (Nurse C, J). One participant said, "The event that gave me the deepest impression was the department change. When I first come to this department, there was some discomfort. I met a new group of people. I reintegrated into the group. Then, the new department had different policies, so I feel a little lost (Nurse C)." Another nurse said, "I've been working for ten years, but when I got to the new unit, I felt like I was a nursing student all over again. It is a big learning curve transitioning from one unit to another, and I have to start taking notes from scratch (Nurse J)."

Secondly, nurses worried about the care of their children. Without regular days off, many nurses worry about how well their children are being cared for (Nurse A, B, E, H, O, R). One participant said, "When I worked overtime before, I had no burden, but now I feel I am not a good mother. (Nurse E)." Another nurse said, "I got anxious after my little child gets sick; I worried how am I going to balance my work and take care of my child because the role of a mother is irreplaceable. When my child is sick, even if the grandmother is taking care of them, I still think I know what is best for my kids (Nurse H)." One nurse concluded, "It feels like I am a kite, flying far away from my kid, but always having a string attached to them (Nurse O)."

Support received

The preceptor paid more attention to nurses who returned from maternity leaves. To facilitate nurses returning to work, hospitals usually assign a preceptor to each returning nurse to help with the orientation to the new environment and current health care policies. Preceptors will teach nursing skills and care about the nurses' psychological condition (Nurse J and E). For example, one nurse said, "Although I have already finished my preceptorship and am working independently, whenever my preceptor sees me, she always takes the time to show me new techniques (Nurse J)." Another participant said, "My preceptor cares about whether we have a work-life balance, and she sometimes shares her life experience with us and suggests some books for us to read (Nurse E)."

Support expected

Firstly, hospitals should postpone starting night shifts among returning nurses. Specialty units scheduled nurses who returned from maternity leaves for the night shift early (Nurse F, H, I, J, P, R). One participant said, "The night shift is from 5 p.m. to 8 a.m., which is a long time, and a breastfed child is especially dependent on their mother at night to sleep well (Nurse H)." Another nurse said, "I felt conflicted when I worked the night shift because I could not stay with my child. I feel despondent about leaving them at home [with others] (Nurse I)." Another nurse said, "I hope there is a clear policy to support nurses returning from maternity leaves because some people think if those nurses do not need to do the night shift, then it is not fair for other colleagues. There is a conflict of interest (Nurse P)."

Secondly, parental leaves should be supported. Parental leave is an additional ten days for both parents up to the child's third birthday. However, some departments were too understaffed to allow parental leaves (Nurse F and I). One nurse mentioned, "I do not have time to take my child for vaccinations because the health center is closed after my shifts, and my mother-in-law doesn't know how to do this, so I

have to wait until I get a day off. It would be better for us if the hospital would give priority to parental leaves (Nurse F)." Another nurse said, "It's hard to take any days off in the hospital nowadays because the unit is so short of nurses (Nurse I)."

Thirdly, hospitals should support childcare nearby. Nursed hoped the hospital has affordable childcare facilities for staff (Nurse H and K). One nurse said, "Even though a nanny is available at home with the child, we are still worried. After all, the child cannot speak, so we have no way to know if the nanny is abusing them. If there is a nearby affiliated childcare with the hospital, we can utilize break times to visit the kids, and mothers who choose to breastfeed can feed their children when they are on breaks (Nurse H)." Another nurse said, "Even those hospital-affiliated childcare facilities cost more than RMB 2,000 a month, so there is still financial pressure because we need the childcare service for at least a year, so I hope the hospital can give more support (Nurse K)."

3.1.3 *Love and belonging*

Nurses' experiences

Firstly, the hospital did not provide adequate mental health support. Nurses complained that the hospital did not conduct a physical examination or assess the suitability of the nurses returning to work from maternity leave, as women are more likely to feel stress and fatigue, which are in turn the result of feeling out of place at work or not feeling welcomed back at work by their colleagues (Nurse B, I). One participant mentioned, "After returning to work, the hospital did not assess the mental health needs nor assessed the nurses' personal needs of returning to work (Nurse B)." Another nurse said, "The government or the hospital should assess to see if nurses can return to work. Some of the nurses may have experienced sickness or postpartum depression. If they returned to work, the pressure from work and their mental stress will put them through emotional breakdowns (Nurse I)."

Secondly, nurses felt depressed after returning to work. At home, tensions with their parents and parents-in-law caused a disconnection between the nurses and their family; at work, some colleagues sometimes labelled the nurse mothers as a "nanny" which made them feel unwelcome and devalued at work (Nurse K, R). For example, one nurse said, "I was pumping milk next to my locker, which blocked my colleague's way. My colleague said that the unit should arrange the lockers for moms in the same area. ..... The word 'nanny' does not sound like a nice one for a mom. Some of my colleagues said that because I'm a nanny so I eat a lot. In fact, I just have a good appetite (Nurse R)." Another nurse said, "There are many family conflicts. Both my partner and my parents take care of children in a way different from mine. Sometimes when I come back from work to see such a mess, I feel completely depressed (Nurse K)."

Support received

Firstly, colleagues helped each other. The caring collegial relationship was reflected in small things, such as switching shifts, helping with childcare, and sharing experiences (Nurses A, D, F, G, J, H, K, U). One nurse said, "My older daughter is about the same age as my colleagues' children in the unit, and they would take my child out for a play day (Nurse A)." Another nurse mentioned, "Colleagues will take my report first at shift changes so that I could leave work earlier to catch my bus (Nurse D)." A nurse said, "I am happier after returning to work because I have colleagues to share my happiness and concerns. When I was home on maternity leave, I was depressed since there was no one to share my feelings (Nurse U)." Secondly, clinical leaders were flexible in scheduling.

The charge nurse is flexible in scheduling and will agree to switch shifts if a nurse has a family emergency. When nurses feel stressed, the charge nurse will talk to them and offer advice (Nurse F, H, I, L, J, P, W). One nurse said, "Sometimes when my child is sick, the charge nurse will switch my shift to let me take care of my family first (Nurse H)." Another nurse said, "When I first returned to work, the charge nurse noticed that I was not in the right mood. She was able to gain timely insight into the fact that I was feeling stressed, and then she provided me with support and advice (Nurse L)."

Support expected

Firstly, the hospital should provide mental health support. Nurses suggested that personalized one-on-one communication would be effective in mental health support (Nurses C, I, D, L, R). One participant said, "Especially when one has difficulties in work and family, we hope the hospital provides mental health support. It is hard to communicate this with my family, but it is better to discuss them with a stranger, who gives me a tree hole to hide (Nurse D)." Another participant mentioned, "It makes me feel that the hospital cares for us more if they actively reached out to those who returned from maternity leaves rather than waiting for us to seek support. For example, a phone call to ask if there is anything that the nurse needs (Nurse C)." A nurse concluded, "Mental health support should be started before returning to work because a nurse at home starts to worry about whether they can feel comfortable after returning to work. Moreover, people will need time to adjust (Nurse L)."

Secondly, some accommodations for returning nurses and understanding from colleagues are needed. Nurses hoped that colleagues could be more understanding of those who

return to work after maternity leaves (Nurses A, C, I). One nurse said, "When you come back after childbirth, many things changed quickly, new content, new systems, and if colleagues can lend a helping hand, that will be great (Nurse I)." Another nurse said, "Returning nurses need more understanding from colleagues. For example, there were different voices in the department regarding the one-hour breast milk pumping time, so the unit canceled it (Nurse C)." Another participant said, "I wish the unit would keep our privileges as 'a mom of two babies,' and provide some accommodations. It would be stressful to be treated the same as everyone else on the unit (Nurse I)."

3.1.4 *Esteem*

Nurses' experiences

Personal preferences regarding returning units are not respected. Nurses filled out the application forms for returning to the department, but their preferences were mostly not granted, and this may have caused some of them to feel worthless and undervalued (Nurse A, B, J, and L). One nurse said, "The hospital has put me in at least three departments in the five months since I returned to work to cooperate with the hospital. First, I went to other departments to help, returned to my home unit, then to an outpatient clinic, and now to another department. It is quite a hustle (Nurse A)." Another nurse expressed concern: "After one year of transition here, where do we go next? I would feel less stress returning to my home unit rather than going to a new one (Nurse J)."

Support received

A hospital was sometimes able to respect nurses' unit preferences upon return. Among 23 participants, only two nurses got the units they preferred (Nurse J, O). One nurse said, "There were two departments for me to choose from: the Post-Anesthesia Care Unit (PACU) or the sterile supply room. The PACU pays more, but the sterile supply room offers more time off. Since I have young children and taking more time off is better for me, so I chose the sterile supply room (Nurse J)." Another nurse said, "Letting me go back to work in my home unit is the biggest affirmation from the leadership, which is what I want (Nurse O)."

Support expected

It should be a mutual agreement between the returning nurse and the unit. Some nurses wanted to return to their home units, while others wanted a unit with light workload (Nurse A, L, B). For example, one nurse said, "It would be better to stay in a stable one until the end of breastfeeding and then return to their original position (Nurse A)." Another nurse said, "Before returning to work, it would be more appropriate to have questionnaires to understand nurses' preferences, and this would facilitate a better match for both the unit and the nurse (Nurse L)."

Self-actualization

There is no time and approach for self-improvement. Nurses realized the need to improve themselves but there was no time for them to do that after maternity leave (Nurse F, I, J, L, S). One nurse said, "The most important thing for me to improve is to push myself to continue my education to raise my title. However, it is hectic to study and do research at the same time. I do not have much time and energy to do this. Opportunities like further education are usually given to clinical department staff first, and another thing is that you must have time to commit to full-time studying (Nurse F)." Another nurse said, "After my second child, I was not given any time for continuing education (Nurse F)." A nurse complained, "There is no time for myself, let alone for self-learning (Nurse I)." Nurses did not report any organizational support on self-improvement after their return.

4. DISCUSSION

4.1 Summary of result

Twelve individual interviews and one online focus group were conducted among the nurses who returned to work after the second/third childbirth. Regarding physiological needs, nurses experienced heavy workloads, breastfeeding time conflicts, time imbalances between caring for their children and working, and long commutes. They received no night shifts for one year after childbirth and flexible lactation times but expected the hospital to consider the individual circumstances when allocating hospital assignment locations. Among safety needs, nurses experienced feeling overwhelmed when first arriving in a new department and worrying about the care of their children. They received the preceptor's attention upon returning to work but expected the hospitals to delay the placement of middle and night shifts, grant childcare leave, and provide a nearby childcare centre. Regarding love and belonging needs, nurses experienced their unit not giving enough mental health support and feeling depressed after returning to work. They received mutual help from colleagues and flexible scheduling by managers but expected the hospitals to provide psychological support and to be more inclusive and receptive to those returning to work after childbirth. Among esteem needs, nurses experienced their personal preference regarding returning units not being respected. They sometimes received a consultation before setting their department but expected to return to the department via a two-way selection process between themselves and the hospital. Among self-actualization needs, nurses experienced no time and pathways for self-improvement. They expected support in developing a corresponding career development plan and resources to achieve that plan.

4.2 Physiological needs

Our findings indicated that hospitals did not pay enough attention to the breastfeeding aspect nor facilitate work-life balance among returning nurse mothers. It has also been suggested that the focus of the organizational support should be on nurses' breastfeeding needs, helping nurses plan their pregnancies, combining maternity leave with annual leave so nurses can spend more time with their babies, helping nurses understand breastfeeding and how to continue breastfeeding when they return to work, and be prepared during pregnancy.[32] In the absence of workplace support, it is more difficult for mothers to continue breastfeeding after returning to work.[33] In this regard, mother and baby room facilities should also be established so they do not become a place for others to rest. In addition, nursing managers should prioritize returning nurses and can refer to open scheduling where returning nurses are given priority to pick the shift that suits them.[34] It was suggested that nurses benefit from a guarantee of no night shifts to overcome the burden of mother-child separation, especially since young children do not fully comprehend the notion of "leaving for work".[35] Finally, for nurses with long commute times, managers should assign the returning nurse to a hospital area based on their home address or provide them with direct transportation, such as a shuttle. This may improve performance at work since it has been reported that one minute of 1-way commuting time translated into 0.84 minutes less of sleep.[36]

4.3 Safety needs

Our findings suggested that nurses returning to work lacked job security in terms of adjusting to a new unit and worrying about childcare. Job insecurity is an important factor that undermines employees' psychological health and reduces motivation.[37] The main reason for nurses' discomfort and feeling unsafe in their work environment was unfamiliarity, as most postpartum nurses did not return to their original department and needed to integrate into the new group, which could be significantly different from their pre-birth group. Returning to work after maternity leave is a transitional phase, and women feel guilty about the dual role of mother and employee.[38] Nurses who started the night shift earlier were worried about the condition of their children at night and were easily distracted at work. It is recommended that nursing managers extend the adjustment period for returning nurses, delay night shift hours, and negotiate the implementation of parental leave. To avoid collegial conflicts, managers should provide clear policy support. It is also recommended that hospitals establish daycare centers and breastfeeding rooms attached to hospitals so that nurses have the mindset of balancing work and childcare.[39] It has also been reported that subsidized and close-to-work childcare can prevent nurse absenteeism,[40] reduce work-family conflict, and enhance nurses' well-being.[41]

4.4 Love and Belonging needs

In our study, participants expressed their need for psychological relief and a desire for emotional support from colleagues and unit leaders. Similar findings existed in the current literature. For example, a study in the United States reported that 59.4% of participants, who are returning physician mothers, experienced positive emotional support upon returning to work and 13.4% of them experienced discrimination based on having taken maternity leave.[42] The return to work experience is a process of compromise, and these women want the support and recognition of managers and colleagues who understand the pressures and compromises they face.[43] Current literature suggested that peer support has a direct alleviating effect on depression,[44] and can alleviate workplace anxiety and improve job satisfaction.[45] Thus, the head nurse of the department should encourage a welcoming department atmosphere, implement early humanistic care, talk to nurses more often, and meet nurses' personal needs under reasonable premises, such as offering free yoga classes and guidance on infant feeding to relieve the anxiety of returning nurses. Hospitals can also implement programs targeted towards the maintenance of nurses' mental health, such as on-site counsellors and buddy teams that check in on each other.

4.5 Esteem needs

Our study found that only a few nurses' willingness to return to work was valued and their preference for their returning unit was not respected. This finding is corroborated in other countries such as Italy, where nurses were often overlooked when they asked for positions that would be better suited to them and were instead moved across many different departments when they returned to work.[35] It has also been suggested there exists a direct link between a mother's success in returning to work and the support and affirmation provided by other staff.[46] Two-way selection between the unit and the nurse is desirable to meet the nurse's need to be respected. For example, in the United States, this type of accommodation reduces the burden of the return to work transition and improves work engagement.[9]

4.6 Self-actualization needs

While the findings of our study did not shed much information regarding the self-actualizations domain in terms of supports received, participants indicated that they had no time to study and no avenues for self-improvement. With heavy workloads and a low career development ceiling, many nurses find it difficult to realize their self-worth. Hospitals

should pay attention to nurses' career planning and help nurses recognize their career goals. At the same time, hospitals should provide career exchange platforms, new and challenging job opportunities, and opportunities for continuing education to increase their sense of professional identity. These could take the form of tuition reimbursements, dedicated time off before exams, and research funding for those wishing to pursue research programs. These various strategies enhance self-actualization, facilitate nurse retention and improve job satisfaction. A Japanese study reported that 77.7% of nurses expressed their desire to continue working at their current job because of factors such as human resources evaluation, adequate education and training opportunities in the workplace, and a clear workplace outlook.[47] The global nursing shortage and career identity crisis of nurses have been a persistent problem, and unless nurses have a high level of career identity, all efforts to solve the nursing shortage will be ineffective.[48,49]

4.7 Limitations of the study and future research

Firstly, this study focused on nurses after the second childbirth and had only one sample of nurses with the third childbirth. Future studies might focus on the exploration of the new phenomenon of third childbirth and related women's experiences in China. Secondly, this study focused on the first three months' experiences of return to work and cannot reflect the changes in occupational stress among returning nurses. Thus, future studies can examine their longitudinal change trajectory and related supportive strategies. Thirdly, this study is a qualitative study with limited samples from tertiary hospitals in Wenzhou city, and the generalizability of the findings was very limited. In the future, qualitative studies should be repeated in various cities to explore nurses' experiences in different organizations and communities. In addition, quantitative designs might be needed to explore the feasibility and effectiveness of supportive interventions. Finally, this study demonstrated that the theory of Maslow's Hierarchy of Needs coincided with the purpose of this study and guided the data collection and analysis effectively. While this theory provided a unique perspective to understand human nature in depth, its use might have caused fixing of the data collection and analysis in that we were limited to its constituent five need domains. Additionally, the Hierarchy can sometimes be viewed as a generalization of individual's priority of needs and may not account for other factors or scenarios, such as the influence of culture on needs prioritization or when two or more need domains may be considered equally important to an individual.[50] Therefore, future studies might consider creating a theoretical model based on this theory, but specifically applicable to nurses returning to work after childbirth.

4.8 Implications

The findings of this study have important implications for healthcare organizations in China to support nurses returning to work after childbirth. Nursing managers can use the findings of this study to understand problems that may arise when nurses return to work and to appreciate the challenges faced by working mothers. Before returning to work, nursing managers can communicate with nurses before they return to work to assess their life situation and difficulties. Nursing managers can also flexibly arrange work hours, delay night shift assignments, and implement short working hours in some special departments if possible. Attention can be directed to nurses' breastfeeding needs by ensuring one hour of breastfeeding time per day. Finally, recognizing the values of nurses returning to work and providing them with opportunities for further education can promote a sense of self-actualization.

5. Conclusion

Guided by Maslow's Hierarchy of Needs theory, this study explored the experiences of nurses returning to work after their second/third childbirth, and investigated the gaps between what nurse mothers receive and what they expect to receive upon their return to work. Our findings highlight the need to dedicate resources to support the diverse needs of returning nurse mothers. This study reveals both opportunities and challenges for hospitals and managers to take a proactive approach in offering supports to returning nurse mothers immediately prior to and during their return to work, such that nurse mothers can balance family life and work. Although longer-duration studies with larger sample sizes conducted in other regions of China are needed, our findings also suggest future studies on exploring third childbirth experiences, evaluating supportive interventions, and creating a specific theoretical model on the comprehensive needs of nurses returning to work after childbirth.

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The authors declare that there is no conflict of interest.

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