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Japanese Nursing Faculty's Frames of Reference During the COVID-19 Pandemic

OYAMADA KYOKO
St. Luke's College of Nursing

AOKI MIKA
St. Luke's College of Nursing

WATANABE NAHO
St. Luke's College of Nursing

HAYASHIDA SEIKO
St. Luke's College of Nursing

Abstract

Nursing faculty's frames of reference are likely to have a significant impact on their education methods. Thus, this study aimed to describe Japanese nursing faculty's perceptions of their own frames of reference during the COVID-19 pandemic based on Mezirow's transformative learning theory, as well as how these frames of reference and faculty's teaching-related behaviors were transformed. A qualitative descriptive research design was adopted, and semi-structured interviews were conducted with 12 nursing faculty from February to March 2021. The results indicated that nursing faculty's frames of reference seem to be influenced by their own childhood learning, learning about teaching methods, and colleagues' perspectives and practices. No transformative learning experiences were described because the faculty lacked adequate time and space for dialogue. We believe their transformation was still in progress.

Keywords: COVID-19, nursing education, qualitative research, transformative learning

Introduction

In 2020, a new type of coronavirus (subsequently named COVID-19) emerged and spread rapidly; the World Health Organization declared a pandemic on March 11, 2020. The pandemic forced many educational institutions to entirely transform their educational systems and measures. In accordance with transformative learning (TL) theory, this study is based on the view that these pandemic-related changes were an excellent opportunity for nursing faculty members to further develop themselves as adult learners. We aimed to examine their TL experiences and how their approaches toward education changed as a result.

Although no lockdown was imposed in Japan, people were asked to avoid non-essential outings and traveling across prefectural borders in areas where a state of emergency or quasi-state of emergency had been declared. As a result, about 90% of higher educational institutions postponed the start of classes for the new school year in April 2020. By July, although all schools had started classes, around 60% combined face-to-face classes with distance learning and approximately 20% used only distance learning (Ministry of Education, Culture, Sports, Science and Technology, 2020). In basic nursing education, approximately 80% of schools and colleges changed from on-site to on-campus training, and approximately 50% changed to online training (Japan Association of Nursing Programs in Universities, 2021). This was a critical situation for educational institutions. Nonetheless, it also provided a good opportunity for teachers to move away from existing frameworks and methods, and to reexamine what should be taught and what abilities students should acquire.

Mezirow (2000), an adult educator and developer of TL theory, used the term "frames of reference" (FOR) to describe the personal frameworks that people use to experience the world and make judgments and decisions. He described adult development as a process of critically reflecting on one's own FOR and acquiring new perspectives, enabling more appropriate decision-making. He described this process as an example of TL. The trigger for TL is a "disorienting dilemma" (Mezirow, 2000, p. 22). When encountering such a dilemma, the "things" and "events" that have been taken for granted lose their self-evident nature; the experience of confusion and conflict leads to a reexamination of one's own values and FOR. This promotes the acquisition of new perspectives and transformed behaviors; thus, TL is initiated by such an experience.

In nursing education, various studies have been conducted to describe TL among nurses and students (Bernard, 2019; Morris & Faulk, 2007; Revell et al., 2022; Ruth-Sahd et al., 2010). Morris and Faulk (2007) reported that nurses who returned to school to obtain a bachelor's degree experienced TL and their professional behavior changed. Cooley and De Gagne (2016) studied novice nursing faculty and found that TL occurred when they had a strong relationship with others and completed teaching-learning activities. However, these studies did not describe how the nursing faculty's FOR changed during TL.

The COVID-19 pandemic greatly restricted face-to-face teaching and on-site training, which Japanese nursing faculty working in bachelor's degree programs (nursing faculty hereafter) had taken for granted; this forced them to introduce distance learning. Numerous surveys by various associations, as well as teaching activities by educational institutions, have reported on the impact of the COVID-19 pandemic on educational activities and students (Carolan et al., 2020; Emory, et al., 2021; Michel et al., 2021; National Council of State Boards of Nursing, 2021; Revell et al., 2022). We propose that these changes to education methods during COVID-19 can be considered a disorienting dilemma that may have triggered TL. However, although the experiences of nursing faculty have been reported in terms of learning issues related to information and communications technology usage and the burden of student support and class restructuring (Sacco & Kelly, 2021), no studies have described their experiences from the perspective of TL; thus, the nature and transformation of their FOR during COVID-19 remain unclear.

Significance of the Study

To fill the abovementioned research gap, this study aimed to describe Japanese nursing faculty's perceptions of their own FOR (based on Mezirow's TL perspective), and how they were transformed during the COVID-19 pandemic, as well as how this altered their teaching behaviors. These FOR have a significant impact on the design and implementation of courses and classes, and we believe that investigating them will facilitate an exploration of new educational strategies and cultures. In addition, the findings will add examples of TL during the COVID-19 pandemic which will contribute to research on the process of TL.

Methods

Research Design

This study adopted a qualitative descriptive research design (Sandelowski, 2000) to describe Japanese nursing faculty's experiences with TL during the COVID-19 pandemic.

Participants and Recruitment

The study's participants consisted of 12 nursing faculty with at least five years of teaching experience. The sample size was decided based on the requirements of theoretical sampling and feasibility during the survey period. Nursing faculties were recruited via purposive sampling; respondents were selected considering different fields, teaching experiences, and positions. The location and establisher of the universities were also considered given that the impact of COVID-19 could vary depending on the region and institutional characteristics. Their basic information including years of experience, positions, and areas of specialization are included in Table 1.

Table 1

Sociodemographic Characteristics of the Participants

ID	Type of University	Position	Specialization	Years of teaching experience
A	National	Associate Professor	Women's Health Nursing	27
B	Private	Professor	Child Health Nursing	18
C	Private	Lecturer	Nursing Education	8
D	Private	Lecturer	Fundamentals of Nursing	8
E	Private	Professor	Fundamentals of Nursing	23
F	Private	Associate Professor	Adult Nursing	9
G	National	Assistant Professor	Women's Health Nursing	14
H	Private	Lecturer	Fundamentals of Nursing	11
I	Private	Associate Professor	Child Health Nursing	11
J	Private	Lecturer	Child Health Nursing	7
K	Private	Associate Professor	Psychiatric Nursing	13
L	Private	Associate Professor	Fundamentals of Nursing	20

Data Collection

Semi-structured interviews were conducted one-on-one by four researchers using a videoconferencing system; they lasted between 34 and 60 min (mean: 55 min). An interview guide was developed by the research team; participants were asked about their teaching experiences during the COVID-19 pandemic, for example, what they had taken for granted, what they realized was unconventional, and what they would retain in future educational policy based on their experiences during the pandemic. Audio data were transcribed verbatim; video data were discarded immediately after the interview. Data were collected between February and March 2021, which is the end of school year in Japan.

Data Analysis

Data were analyzed based on a qualitative descriptive research methodology (Sandelowski, 2000). All researchers first analyzed the same two cases and agreed on the perspective of analysis, procedures, and abstraction level of the categories. After that, the primary analysis of each interview was conducted by the interviewer, who carefully examined the context, extracted key sentences where education-related FOR were expressed, and coded them according to the following perspectives: "theme of the narrative," "FOR expressed," "what influenced the expression of the narrative," and "changes in the FOR and behavior." In the secondary analysis, different members examined the extracted sentences and tested the validity of the coding. When opinions differed, they revisited the raw data and discussed until consensus was reached. Categorization was discussed and integrated by all members. The categories were reviewed by returning to the raw data as necessary so that they could be named accurately with respect to the cases.

Ethical Considerations

This study was conducted with the approval from St Luke's International University's Research Ethics Review Committee (Approval No. 20-A088). First, the study's purpose and methods were explained to the research candidates via e-mail. Then, if they expressed a willingness to participate, we explained the research plan again verbally and in writing, either online or in person, and signed consent forms were obtained. We explained that participation was voluntary, that they did not have to answer questions if they did not want to, that they could withdraw their consent at any time, and that they would not suffer any penalties because of withdrawal. The researchers explained that data would remain anonymous; any materials containing personal information would be stored in a password-secured cloud at the first researcher's university and all research data would be stored for five years and erased completely afterwards. We also explained that the obtained results would be presented at conferences and in papers.

Results

During the analysis, 149 discourses were analyzed, and FORs consisting of five categories and 21 subcategories were extracted (Table 2). They are presented below alongside raw data. We also extracted four categories relating to the factors that triggered the expression of participants' FORs and three categories that depict how their FORs and behavior changed; these seven categories are discussed in the last two sections below, respectively.

Table 2
Personal Frames of Reference Recognized by Nursing Faculty

Categories	Subcategories
Learning frame of reference	Experience is essential for student learning
	Careful reflection through dialogue promotes learning
	Interaction between faculty and students is essential for teaching activities
	Students are not proactive about learning
	Education-related ethical issues and education quality need to be balanced
Lesson design frame of reference	Teaching activities must suit student needs and readiness
	Education must foster student autonomy
	I must take care of students and set the stage so that things go smoothly
	It's important not to cram too much information into a lesson
	It's necessary to cover what the instructor wants to teach and the information needed for the national examination
	It's possible to achieve goals through innovative education methods
	The same lessons cannot be held in person and online
	Lessons should be held in person
Educational goals frame of reference	It's necessary to acquire critical thinking and clinical reasoning skills
	It's important that education leads to behavioral transformation and practice
Practicum frame of reference	Some things can only be learned through on-site clinical practicums, so students should spend as much time as possible in the field
	On-site clinical practicums expand on the nursing process for patients under one's care
	In-person learning is necessary for nursing skills
Faculty frame of reference	Nursing faculty must learn and change
	Reviews of teaching activities should be done within the scope of one's own field
	It's important to share information and perspectives on education among faculty

In the following, categories are denoted in bold and subcategories in italic font. Factors (e.g., events and experiences) that prompted the expression of each FOR are indicated by ≪ ≫. Raw data are indented, and speaker IDs and verbatim transcript extraction lines are shown in parentheses.

Education-Related FOR and Factors Promoting Their Expression

The five education-related FOR expressed by nursing faculty were: **learning FOR**, **lesson design FOR**, **educational goals FOR, practicum FOR,** and **faculty FOR**. The 21 subcategories are discussed below according to each category.

Learning FOR

Learning FOR consists of five subcategories: *experience is essential for student learning, careful reflection through dialogue promotes learning, interaction between faculty and students is essential for teaching activities, students are not proactive about learning*, and *education-related ethical issues and education quality need to be balanced*.

Experience is essential for student learning was a FOR highlighted by the experience of «changing educational methods due to distance learning» and «modifying educational plans due to the cancellation of or changes to on-site training».

> For example, in the practice of excretion care, I think there is an opportunity to teach about the sense of shame, right? But, since the explanations are limited to "A toilet bowl is this big and you have to apply it [to a patient] like this" through the screen, it is difficult to convey how you would feel if you were the patient being subjected to it. (E261)

This FOR was expressed through reaffirmation of the fact that students had previously been taught concepts through simulated experiences and trial-and-error in the field; such learning could not be conveyed by explanations alone. Furthermore, another participant expressed a belief based on the study of instructional design theory:

> I know that what students have neither experienced nor practiced does not lead to learning. (F84)

The FOR *careful reflection through dialogue promotes learning* had been reaffirmed through efforts to link limited practical experiences to learning and through situations in which faculty were strongly aware of their original FOR. This occurred during experiences of «revising the education plan due to the cancellation or modification of on-site clinical practicums» and «modifying the education method due to distance learning».

> Whether it's practicums or skills labs, we always reflect on what the students actually practiced, rather than focusing on what they couldn't do. I emphasized why they were able to do it and how they can do even better, and tried to draw that out of the students. (F283)

Interaction between faculty and students is essential for teaching activities was recognized in the experiences of «being unable to see student reactions» and «modifying education methods due to distance learning».

> Since you're talking to a screen, you can't even tell if there's someone sitting behind it; there's no "I'll rephrase this since it seems like no one understands" or "that side's looking sleepy, so I'll try calling on them" like there would be in a classroom—there's no response. … I really feel like, 'wow, there were interactions happening in the classroom after all.' (B477)

The FOR *students are not proactive about learning* was brought to the forefront by the discovery that students *are* proactive about learning, made through the experience of «modifying education methods due to distance learning».

> I asked [students] to write in the chat at the end of class, … and was surprised to find that everyone wanted to ask questions that way. I felt like they had so much to ask when their privacy was protected. (A70)

The FOR *education-related ethical issues and education quality need to be balanced* was provoked by «revising the education plan due to the cancellation or modification of on-site clinical practicums». Two categories of ethical quandary were discussed: conflict between infection control and education quality, and maintaining equality in the quality of learning among students.

> It was extremely unique and different from the past because I had to make a decision in which there was a conflict between the education-related ethical dilemma of whether it was okay to go [to conduct on-site education] even though there was a risk of infecting patients, and also education quality. (C231)
>
> There was the fact that I could not ensure equal learning if, by chance, [students] were able to go to one facility, but not another. (J245)

Lesson Design FOR

Lesson design FOR comprised the eight most common subcategories: *teaching activities must suit student needs and readiness, education must foster student autonomy, I must take care of students and set the stage so that things go smoothly, it's important not to cram too much information*

into a lesson, it's necessary to cover what the instructor wants to teach and the information needed for the national examination, it's possible to achieve goals through innovative education methods, the same lessons cannot be held in person and online, and *lessons should be held in person*.

First, the FOR *lessons should be held in person* was recognized and then abandoned by all faculty. Then, as they explored ways to hold remote lessons and received information about online classes from their universities, they gained a new FOR *the same lessons cannot be held in person and online* and implemented a variety of innovations.

> I considered it a given that I could have in-person classes and discussions with my students, and it took quite a bit of trial and error to learn how to hold lessons without disrupting learning when that was completely severed by the coronavirus pandemic. (F442)

Various FOR presented themselves through the unconventional lesson designs that were attempted during this period of trial and error. In several cases, the contents of these FOR were contradictory. For example, participants noticed that they believed *education must foster student autonomy* while simultaneously acting on the idea that *I must take care of students and set the stage so that things go smoothly*.

> I realized now that I was kind of preparing lessons like they were high school students. I felt like I was saying things like "take initiative" and "college students try to learn things on their own," while preparing my lectures so that I would provide them with everything. (B370)

Similarly, nursing faculty believed *it's important not to cram too much information into a lesson*, while also feeling that *it's necessary to cover what the instructor wants to teach and the information needed for the national examination*.

> When I said, "they don't do this in clinical practice anymore," [interviewee's supervisor] said it's not a problem. They told me what's important is whether it appears on the national examination, so even if it isn't practiced anymore, we must teach it if it's on the exam, and I thought "oh, so that's how it is." (D396)

While facing such dilemmas, the experience of adapting to the COVID-19 pandemic strengthened participants' beliefs that *teaching activities must suit student needs and readiness*, and that *it's possible to achieve goals through innovative education methods*.

> For example, in the third year of university, the students are at the stage of going into practical training, so I ask questions in a manner that encourages them to think as much as possible. … I try to use different types of questions depending on the readiness of the students and their learning progress. (J122)

> I also felt that a strict 90-minute online lesson would probably be impossible. … I narrowed down what I wanted to teach to one or two things. Specifically, I would give them an assignment, and in about 30 minutes I would tell them what I wanted them to learn that day. Then I told them they could use their textbook or go to the library, or search online, to figure out the information necessary to submit the assignment on their own. (G22)

Educational Goals FOR

Educational goals FOR comprised two subcategories: *it's necessary to acquire critical thinking and clinical reasoning skills* and *it's important that education leads to behavioral transformation and practice*. These were FORs held previously that were strengthened by experiencing the restrictions of the COVID-19 pandemic.

> I think there has always been a lot of education focused on learning techniques, but when it comes to nursing techniques, there are certain ways of doing things once you get out in the field, … so why are those techniques necessary? … Then, because of this coronavirus pandemic, I focused on fostering thinking instead, … holding alternative practicums online, and evolving my lessons. (F99)

> I would like [students] to personally experience medical techniques for everyday care by any means necessary, even if I must make time for it, but conversely, in a situation like this,

> things related to assisting medical care like “this is an injection” or “this is an IV” in particular can be cut out …. If they are not used in practicums, [students] don’t need to personally experience them, just watch them and understand. (E611)

Practicum FOR

Three subcategories were extracted for **practicum FOR**: *some things can only be learned through on-site clinical practicums, so students should spend as much time as possible in the field, on-site clinical practicums expand on the nursing process for patients under one’s care,* and *in-person learning is necessary for nursing skills*. Participants discussed reconsidering these FOR while experiencing on-campus and distance practicums during the COVID-19 pandemic.

> Previously, if clinicals were for two weeks, [students] went to clinicals every day for two weeks, and I felt that the program was too jam-packed. … I came to see that there were things that could be done on-campus and things that had to be done on-site. So, going forward, I think we must reflect carefully on what things [students] should go on-site for if they can. (J445)
>
> This year’s method is completely inconsistent with the practicum goals of an ordinary year. … So for things like collecting information on one’s own, … it was fine if [students] actually did it, or if they watched someone do it. It was just changed a little bit to thinking about what they saw. I feel that that’s sufficient to satisfy the goal. (D277)
>
> Even now, I feel that it’s best to have practical testing for medical care tasks. … Ultimately, it’s impossible to teach deeper concepts like bedside manner and intuition online; without in-person, individualized instruction, it’s pointless (rest omitted). (H321)

Faculty FOR

Three subcategories were extracted for **faculty FOR**: *nursing faculty must learn and change, reviews of teaching activities should be done within the scope of one’s own field,* and *it’s important to share information and perspectives on education among faculty*. The first was derived from comments related to faculty members’ various methods of coping with «an environment where learning new methods are unavoidable», such as distance learning and creating videos. Participants discussed reconsidering the latter two FOR—particularly *reviews of teaching activities should be done within the scope of one’s own field*—which had been highlighted by circumstances in which «intra- and interdisciplinary exchange of information» and sharing FOR were unavoidable.

> I always thought that if I wasn’t good at something … it was natural for me to overcome it, but I realized that there’s also the stance that if one can’t do something, there’s no point in trying. (I302)
>
> I started to do more research on which professor is an expert in a given subject, and adopting strategic changes like going to a professor who’s an expert in a given field early on so that things proceed smoothly. … I also found that good ideas come from dialogue, so I started to really get a feel for how I had to act to help the nursing department as a whole function well, not just my own area. (J582)

Conditions that Led to The Presentation of FOR

The conditions that led to the presentation of the FOR discussed thus far are summarized in the following four categories: «modifying education methods due to distance learning», «experiences of being unable to see student reactions during lessons», «revising plans due to the cancellation of on-site clinical practicums», and «noticing value differences among faculty». The various FOR that have been discussed thus far were brought to the forefront through discussion with others and thinking about factors such as what education means, what one considers non-negotiable, and what elements are indispensable for goal achievement, while simultaneously considering distance learning and alternative strategies due to the cancellation of on-site clinical practicums. Further, holding remote classes in which they could not see student reactions made participants aware of the various skills and values they had been using and the fact that interactions with students form the foundation of lessons.

Experiences Related to FOR and Behavior Transformation

Most experiences discussed in this study pertained to reaffirming existing FOR that were highly valued, discovering the gap between those FOR and one's own behavior in a new environment, and discoveries related to student reactions and new teaching methods. These are summarized in the categories: «personally experiencing the importance of lesson design that does not cram in too much information and in which students can learn independently», «recognizing the importance of exchanging information and sharing values among intra- and interdisciplinary faculty for high quality education», and «recognizing that practicums can be performed, even if they are not on-site».

Discussion

In this section, we will discuss the factors that influenced the formation of the FOR extracted in the present study, as well as how the experiences of nursing faculty can be interpreted from a TL perspective.

Factors that Influenced the Formation of Nursing Faculty's Existing FOR

Most FOR discussed in this study had been deliberately acquired through the learning theory and educational methods faculty had already studied. For example, we speculate that *experience is essential for student learning* and *careful reflection through dialogue promotes learning* are based on Dewey's (1938) discussion of empiricism. Similarly, the FOR *interaction between faculty and students is essential for teaching activities* has been widely regarded as vital in effective learning (Billings & Halstead, 2016, pp. 35–36). Further, concerning **lesson design FOR**, *teaching activities must suit student needs and readiness*, *education must foster student autonomy*, *it's possible to achieve goals through innovative education methods*, and *it's important not to cram too much information into a lesson*, among others, are fundamentals of lesson design (Billings & Halstead, 2016, pp. 160–161). These FORs have likely been impacted by the full-time faculty training courses that are mandated by the Ministry of Health, Labour and Welfare, the required faculty development learning programs provided by colleges, and the recent expansion of interest in education technology, including instructional design theory (Reigeluth et al., 2016)

Meanwhile, *students are not proactive about learning*, *I must take care of students and set the stage so that things go smoothly*, and *it's necessary to cover what the instructor wants to teach and the information needed for the national examination* are not based on theory, but are believed to come from past experiences in the classroom and internalization of the values of senior nursing faculty. Similarly, the FOR *some things can only be learned through on-site clinical practicums*, *so students should spend as much time as possible in the field* and *on-site clinical practicums expand on the nursing process for patients under one's care* seem to have long been shared by nursing faculty. For example, Gaberson and Oermann (2010) claimed that "Most nursing faculty members worry far much about how many hours students spend in the clinical setting and too little about the quality of the learning" (p. 13).

These FOR inherited from predecessors likely have their basis in the pedagogical perspective that faculty themselves had experienced in elementary and junior high school, based on the view that "education is teachers instructing children who have no knowledge" (Knowles, 1988). Further, "Preparing future faculty programs" are not implemented enough for nurse faculties (Han et al., 2022; Oprescu et al., 2017), and it can be concluded that few nursing faculty members will have acquired the knowledge, skills, and attitude necessary to scrutinize the education methods that their senior colleagues have acquired before they begin to work in the field. Thus, it may be that the values passed on by senior faculty are internalized, and new faculty unknowingly begin to view the amount of content taught and the amount of time spent in the field as important matters. In fact, Yamada (2011) reported that faculty who participated in continuing education experienced "becoming free of what defines them," that is, "the educational methods that senior faculty members had created, and the organizational climate in which those are passed on as 'the right way'" (p. 94).

Although this value system emphasizing the amount of content taught and the amount of time in the field has been changing as education has shifted from educator-centered, content-based

teaching to learner-centered, competency-based teaching (Billings & Halstead, 2016, pp. 158–160), it appears to remain firmly rooted among nursing faculty. One reason this educator-centered, content-based outlook persists may be related to the unique features of the medical profession. In medical education, there exists a "hidden curriculum" (Hafferty & Franks, 1994) that conveys paternalistic culture that medical professionals provide professional services to non-professionals (patients), and this also impacts the relationship between faculty and students (Lamiani et al., 2011). Moreover, the framework created by the national examination criteria may restrict the ability of students and faculty to self-determine learning content. As a result, the teacher-centered pedagogical perspective is likely to be perpetuated by both nursing faculty and students.

Experiences of Nursing Faculty from a TL Perspective

One objective of this study was to describe transformations of faculty's FOR triggered by the COVID-19 pandemic. However, most experiences discussed so far confirmed the appropriateness of existing FOR or pushed faculty to perceive FOR they had previously been unaware of. Moreover, although the FORs *students are not proactive about learning*, *I must take care of students and set the stage so that things go smoothly*, and *it's necessary to cover what the instructor wants to teach and the information needed for the national examination* were reconsidered, the results of that reconsideration were not discussed in the interviews.

There are two potential reasons for this. First, the interview guide did not include a question asking about the results of reconsideration, and thus discussions of such experiences may not have been elicited. Second, it may have been difficult for the faculty to verbalize these experiences because they were still in the midst of the TL process.

According to Mezirow (2000), TL in adults spans the following ten phases: (1) a disorienting dilemma; (2) self-examination with feelings of fear, anger, guilt, or shame; (3) a critical assessment of assumptions; (4) recognition that one's discontent and the process of transformation are shared; (5) exploration of options for new roles, relationships, and actions; (6) planning a course of action; (7) acquiring knowledge and skills for implementing one's plans; (8) provisional trying of new roles; (9) building competence and self-confidence in new roles and relationships; and (10) a reintegration into one's life on the basis of conditions dictated by one's new perspective (p. 22). Among these, the most difficult phase is the so-called critical reflection phase, in which one critically evaluates the assumptions and beliefs that form the foundation for one's FOR by experiencing a dilemma (1) and performing self-examination (2). Dialogue in a safe environment is important for this critical reflection to occur (Taylor, 2009).

Showing the importance of dialogue, the present study's interviews revealed that the **faculty FOR**, that is, *nursing faculty must learn and change*, *reviews of teaching activities should be done within the scope of one's own field*, and *it's important to share information and perspectives on education among faculty*, were verbalized through experiences of exchanging opinions with other faculty members. Many of these dialogues likely centered on trying to develop new education policies and gain IT literacy. In fact, the FOR *reviews of teaching activities should be done within the scope of one's own field* was renounced and replaced by *it's important to share information and perspectives on education among faculty*.

At the same time, it is necessary to establish psychologically safe and intentional space and time for dialogue to occur. This was a difficult year to ensure such time and space in educational settings, which were extremely busy coping with societal changes, and it is thus speculated that participants were still in the midst of transformation at the time of data collection and had not yet reconsidered their FOR enough to be aware of them. Vipler et al. (2022) reported a similar result; medical residents' reflections relating to the COVID-19 pandemic were not deep enough to alter their FOR.

In future, the impacts of the experiences described in the present study can be confirmed by observing educational activities carried out based on these new perceptions. It would also be possible to identify how the FOR verbalized in this study have changed, as well as the kinds of practices they bring about.

Conclusions

We conducted semi-structured interviews with 12 nursing faculty members with the aim of describing their self-perceived FOR during the COVID-19 pandemic, experience-derived transformations in these FOR, and associated transformations in education-related behaviors. This resulted in the extraction of five categories—**learning FOR**, **lesson design FOR**, **educational goals FOR**, **practicum FOR**, and **faculty FOR**—and 21 subcategories. Most FOR were recognized and reconsidered, but TL experiences were not discussed. This may be because faculty lacked the time and space needed to reconsider their beliefs; thus, transformation was still in progress. Therefore, we believe that it is necessary to follow participants' perceptions and behaviors to see if their TL continues. In terms of limitations, our study did not reach theoretical saturation due to time limitations, so the data may not fully grasp the diversity of FOR among nursing faculty.

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