







## ORIGINAL ARTICLE

# Primary care nurses during the coronavirus disaster and their struggle: Qualitative research

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## Abstract

**Background:** Coronavirus disease 2019 (COVID-19) has substantially affected the health and lives of medical professionals. However, the experiences of nurses engaged in primary care remain unclear. We explored how nurses working in primary care were psychologically and socially affected by the COVID-19 disaster and how they overcame the difficulties experienced.

**Methods:** We conducted a qualitative study of seven Japanese nurses working in primary care. Data collection was performed before, during, and after a workshop based on the Tojisha-Kenkyu (user-led research) framework to explore how the COVID-19 disaster affected the nurses and how they coped. Data were analyzed using inductive thematic analysis.

**Results:** Three themes emerged from the analysis: effects of the COVID-19 disaster on nurses, nurses' newly found strength during the pandemic, and their changes and achievements through the Tojisha-Kenkyu framework. The first theme comprised four subthemes: fear of the unknown; difficulty in adaptation; dysfunction in patient care; and defilement and oppression. The second theme involved feeling in control and professionalism. The third theme, which was based on participants' discovery of "same and different" fellowships, showed work reconstruction and self-understanding, which alleviated their difficulties.

**Conclusions:** The effect of the pandemic on nurses working in primary care ranges from work-related frustration to daily life issues. The Tojisha-Kenkyu method can help nurses to alleviate difficulties. Further research should be conducted to elucidate the constant burden on primary care professionals and establish appropriate occupational and daily life support during pandemics.

## KEYWORDS

COVID-19, family medicine, occupational stress, primary care nursing, qualitative research

[Correction added on 14 July 2022 after first online publication: The blinded citations throughout the article were corrected]

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## 1 | INTRODUCTION

Coronavirus disease 2019 (COVID-19) has had a substantial psychological effect on medical professionals. Previous studies have found higher rates of serious psychiatric disorders among medical professionals working in intensive care units (ICU) and hospital wards that provide direct care to patients with COVID-19. These data indicate that being a nurse is a risk factor for psychological problems during the COVID-19 pandemic,<sup>1-4</sup> and that nurses may need considerable support.

The effect of COVID-19 is not limited to medical professionals in ICUs and hospital wards.<sup>5</sup> Nurses working in primary care play a leading role in ensuring universal health access and the well-being of people in the community.<sup>6</sup> The COVID-19 pandemic has imposed various additional tasks on nurses. These include COVID-19 screening and testing,<sup>7</sup> hospital and home-visit care for COVID-19 patients,<sup>8,9</sup> and maintenance of the capacity of existing primary care.<sup>10</sup> Although nurses require support for performing these tasks,<sup>11,12</sup> most report barriers in accessing such support.<sup>7</sup> Therefore, a deeper understanding is needed of nurses' experiences during the pandemic and of ways to provide them with effective support.

In Japan, the multilayered and complex effects of COVID-19 have been termed "the coronavirus disaster" (*Corona-ka*).<sup>13</sup> To ensure medical accuracy, the term "the COVID-19 disaster" is used in this paper to describe how health professionals have been affected in various ways by the pandemic, beyond the direct risk of infection. Appropriate support is essential to alleviate the psychological distress of medical professionals<sup>14</sup> in the context of the pandemic.<sup>15</sup> It has been reported that nurses working in primary care were faced with various stresses of COVID-19 and they managed to cope with these stresses.<sup>16-19</sup> To provide effective and sufficient support, the multifaceted effects of the COVID-19 disaster, from workplace and community and family, and the process by which they have struggled with these difficulties should be described more from various perspectives.<sup>20</sup>

This study aimed to investigate two research questions: (i) How were nurses engaged in primary care psychologically and socially

affected by the COVID-19 disaster? (ii) How did these nurses overcome these difficulties and cope with the COVID-19 disaster?

## 2 | METHODS

### 2.1 | Research design

Qualitative approach was selected to explore the various aspects of nurses' experiences and difficulties, including issues not explored by previous studies, and to clarify the process of overcoming difficulties. The hospital where the first author JM worked as a primary care physician accepted our request to perform this research. In this study, participants were asked to (i) reflect on their work and life situations in collaboration with researchers in the workshop described below, (ii) express and share their lived experience, (iii) and empower themselves to change themselves and their environment. Data were collected before, during, and after the workshop.

### 2.2 | Setting and participants

This study was conducted at a small hospital (the number of beds <100) in a suburban area with a population of approximately 500,000 people in Japan. The hospital outpatient department for family medicine mainly delivers primary care to community people. This study was confined to this department. File S1 shows the details of the setting.

Participants were the seven full-time nurses assigned to the department at the study hospital. One of the seven nurses had a management role. All participants were women. In addition to their general outpatient duties, they were required to respond to patients presenting with fever in the outpatient fever clinic or emergency room. All participants lived near the hospital and had preschool- or elementary school-aged children. Demographic data for participants are shown in Table 1. All participants who wished to receive COVID-19 vaccinations were vaccinated in May 2021 or later. All participants gave written consent to participate in this study.

Participants	Age (years)	Years of experience <sup>a</sup>	Position
A	41	19	Head nurse in the department
B	40	15	
C	34	13	
D	58	40	Manager role
E	38	18	
F	37	15	
G	43	20	

TABLE 1 Participants' demographics

<sup>a</sup>Years actually worked as a nurse, excluding maternity leave, childcare leave, and other periods of absence.

## 2.3 | Tojisha-Kenkyu

To encourage participants' reflection and innovative action, we conducted the workshop according to the framework of "Tojisha-Kenkyu," which is user-led research. Participants attended workshop sessions in which they talked about their experiences and explored more deeply how they planned to cope with their difficulties. Tojisha-Kenkyu is a technique for studying oneself through communication with others who have had similar experiences.<sup>21,22</sup> "Tojisha" means interested first-person and can include people with disabilities, patients, service users, or people experiencing difficulties.<sup>23</sup> "Kenkyu" means research. Tojisha-Kenkyu comprises five steps: (i) establishing distance from one's own problems and maintaining a metacognitive position; (ii) putting one's problems into words or expressing them to share them with peers; (iii) describing the patterns of one's problems and generating hypotheses about the underlying mechanistic and teleological structures with the help of peers; (iv) elaborating methods to address problems and helping oneself to explore them experimentally in everyday life; and (v) testing and updating the hypotheses based on the results of such experiments.<sup>21</sup> This method originated at a social welfare facility in Japan and is now used widely as a self-help technique and intellectual exploration method by various populations experiencing difficulties or marginalization.<sup>22,23</sup> We used the Tojisha-Kenkyu framework for two reasons: (i) the framework permitted a focus on the vulnerability of nurses during the COVID-19 disaster and (ii) the framework encouraged participants and researchers to reflect on themselves and take action, and therefore activated the process of the research.

Tojisha-Kenkyu was originally developed as a self-help technique to help people with relatively serious psychiatric disorders frankly address their problems. We believe that the ease of access to Tojisha-Kenkyu must be maintained in the future, and that it is not ethically desirable to refine the technique for use as a purely

scientific method. Therefore, we performed our research using traditional qualitative methods but referenced the Tojisha-Kenkyu framework in conducting the workshop.

## 2.4 | Workshop

The workshop comprised three sessions. Nurses could only participate in workshop sessions during their working hours because of home commitments; therefore, the sessions were conducted in nurses' free time during working hours. This meant that each session was short (approximately 30 min). Table 2 describes the design of the workshop. The seven participants were divided into two groups according to their work shifts. We anticipated that this division would ensure that any absent nurses were inconspicuous. Throughout the workshop, participants were asked to scrutinize and share their patterns of difficulties, discuss ways to help themselves, and design and conduct a specific experimental plan to alleviate their difficulties. The first author acted as a facilitator for each session.

The first author and facilitator of the workshop JM was a physician who worked with the participating nurses. This may have created an authority gradient between the nurses and the facilitator. In addition, sessions were held during working hours. This may have affected nurses' voluntary decisions about research participation and their narratives during the sessions. To avoid these undesirable effects, the researcher repeatedly explained to the nurses that (i) research participation was completely voluntary and (ii) anything they said during the research would remain confidential. Nurses stated that they were not anxious about the authority gradient because (i) they all had experience of teaching JM / he had been a resident and (ii) JM was younger than all the participating nurses. The participants were also asked to avoid criticizing other nurses and to keep what other nurses said

TABLE 2 Design of the Tojisha-Kenkyu workshop

	Preparation (instructions that participants were asked to follow)	Session
First session (late March 2021)	"Write down specific episodes of hardship or trouble in and out of the workplace during the COVID-19 disaster. List as many as possible. Include the time and place where the episode occurred, as well as your feelings and emotions at the time."	Sharing participants' experiences; participants were asked to explore the patterns of their thoughts, behaviors, emotions, and sensations that were repeating
Second session (early April 2021)	"Write down your recurring patterns of thoughts, behaviors, feelings, and sensations that were common to the episodes of difficulty or trouble. List the factors that caused you difficulty or trouble, dividing them into 'personal factors' that are inside you and 'social factors' that are outside of you."	Sharing participants' opinions, discussing ways to help themselves, and designing a concrete experiment plan that they could try the following day
Third session (early May 2021)	"Describe the design of your experiment and what happened as a result of carrying out the experiment."	Sharing and discussing results of participants' experiments

totally confidential. They were explained that they could withdraw from the research at any time. File S2 describes the researcher's reflectivity.

## 2.5 | Data collection

We collected participants' notes in preparation for each session, the contents of discussions during the session, and their written impressions after the workshop. The discussions were recorded, and the audio data were transcribed verbatim.

## 2.6 | Data analyses

Data-driven thematic analysis was selected. The framework of this analysis was outlined by Braun and Clarke,<sup>24</sup> and the aim was to identify themes without preconception. This comprised six phases: familiarization with the data; generation of initial codes; searching for themes; reviewing themes; designing and naming themes; and production of the report. First, JM generated initial codes using an inductive approach. JM and TM repeatedly discussed and reviewed the codes and then designed and named the themes. The results were checked and revised by ME, MI, and SH. The final report was prepared after checking by all participants. The principles of the Consolidated Criteria for Reporting Qualitative Studies (COREQ) were followed.<sup>25</sup>

## 3 | RESULTS

Three themes emerged from the analysis: effects of the COVID-19 disaster on nurses, nurses' newly found strength during the pandemic, and their changes and achievements through the Tojisha-Kenkyu experimental framework. Each theme comprised several subthemes. Figure 1 shows the relationships between identified themes and subthemes. Participant quotes are included in this section to illustrate each theme/subtheme (the letters identifying each participant correspond to those in Table 1).

### 3.1 | Effects of the COVID-19 disaster

#### 3.1.1 | Fear of the unknown

In the early stage, when the first COVID-19 cases occurred in the country, the participants feared this unknown virus. They were concerned about the lack of information available about the virus and confused about how to manage patients with fever in that context. Participants experienced increased anxiety from having to deal with something they did not understand.

I was strongly concerned that SARS-CoV-2-infected patients might get mixed up in the outpatients and I might get infected. [...] We (the nurses) did not know what we should do for patients suspected of having COVID-19. We were very frustrated. (E).

#### 3.1.2 | Difficulty in adaptation

As the number of patients with COVID-19 increased, participants were assigned to care for patients with suspected COVID-19. The participants found it difficult to adapt to their new duties because (i) they thought that the hospital had forced them to provide face-to-face patient care without adequate preventive measures and (ii) they felt it was unfair that other staff did not handle fever patients.

We were dealing with a disease that could kill people, but the hospital thought it was rather easy and tried to make us do it under a haphazard policy. It was easy for the hospital to tell us what to do, but hard for us to do it. (B).

Managers who also worked in the outpatient clinic knew about the anxiety and frustration experienced by staff. They wanted to protect their staff and felt conflicted because they were obliged to force the staff to carry out this work.

I really wanted to protect all staff, and I did not want to make them work with fever patients if they did not want to. (A: head nurse).

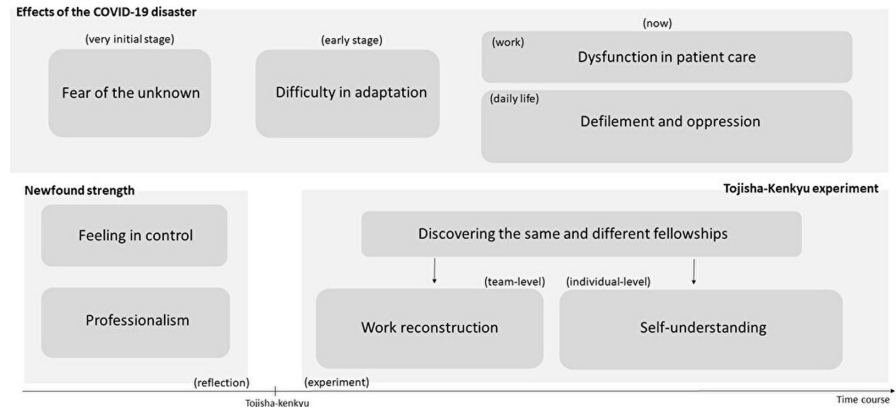
#### 3.1.3 | Dysfunction in patient care

As the SARS-CoV-2 pandemic spread, the participants could not always provide patient care, which they had previously taken for granted. The participants felt that it seemed as if they were refusing to see sick patients, despite their instructions.

The patient called me and said she wanted to see someone at the hospital now. [...] The patient accused me of trying to refuse to see her just because she had been to the next prefecture. Her reaction confused me. I've had many similar experiences. It's not that we do not want to see the patients. (F).

As the number of COVID-19 patients in the community increased, participants sometimes expressed anger and disdain for febrile patients or patients with COVID-19, thinking that their inappropriate behavior had contributed to the outcome. They felt embarrassed about having these critical thoughts.

**FIGURE 1** Relationships among the themes



I'm surely in a position to advocate for patients, but I could not help but criticize COVID-19 patients if they seemed to be showing careless thoughts and actions. These two conflicting emotions exhaust me. (E).

### 3.1.4 | Defilement and oppression

Participants were negatively affected by COVID-19 in their daily lives in their roles as family members, mothers, and community members. First, some nurses expressed anger and sadness that their partners perceived them as unclean and likely to bring the virus into the home. In addition, participants wanted to protect their children from too many changes in their daily lives owing to the COVID-19 disaster. They were also concerned that their children might be treated inappropriately because they were the children of nurses.

I worry about my children's friends being told something like "A patient visiting your friend's mother's hospital was infected with SARS-CoV-2, so you shouldn't play with them." (D).

Second, participants refrained from participating in their community. They took precautionary measures, thinking ahead about the possibility that friends and community members may be reluctant to interact with them and their families.

Since I work at a hospital and have a lot of contact with fever patients, I wondered whether my non-medical friends might not want to meet up with me. So I hesitate to ask them to see me. (C).

Finally, participants felt that they were being abandoned by society because of their experience of various difficulties in both their work and daily lives.

All the medical workers in every hospital are anxious and wondering what they should do now. Yet, I feel that the security provided by the prefectural and national governments to the medical workers is limited. I would like people to have more information about how difficult it is to work in healthcare facilities. (F).

## 3.2 | Newfound strength

By becoming aware of their own patterns of difficulty, participating nurses reflected on how they had confronted the COVID-19 disaster and were able to report their strengths.

### 3.2.1 | Feeling in control

As participants accumulated learning and experience, they began to feel that they were in control of their tasks and roles. They gained confidence in infection-control measures through repeated compliance with these measures. They turned previously unusual tasks related to COVID-19 into ordinary work.

The method of dealing with fever patients has become a pattern. I can now clearly see what I need to do next. Therefore, I feel much less anxious than I did at the beginning. (G).

### 3.2.2 | Professionalism

The participants reported they gradually gained a sense of pride in and responsibility for their duties in caring for febrile patients.

I still have the feeling that I might get infected or die. However, I believe that by treating patients with

these feelings, I can do my job responsibly. I am proud of the fact that our job is to face life and death. (F).

hand or give myself some time off so that I did not waste my emotions. (E).

### 3.3 | Tojisha-Kenkyu experiments

#### 3.3.1 | Discovering the same and different fellowships

The participants had not previously had an opportunity to talk to their colleagues about the effects of the COVID-19 disaster. Through the narratives generated in the workshop, they came to see their colleagues as “not the same but not different”; that is, they discovered factors that they had in common with their colleagues and factors that were unique to each nurse. These findings created multilayered empathy and learning and became a driving force for various changes. This fellowship was further strengthened by the facilitation of communication.

I am grateful to be able to hear other staff's thoughts and concerns, and to share our feelings. I realized that everyone else is also going through similar anxiety and struggling in their work, and that they sometimes use different approaches. I feel like I'm not alone. (B).

#### 3.3.2 | Work reconstruction

At the team level, the participants became able to cover each other's workloads through understanding each other's thoughts and feelings. In particular, managers became more willing to rely on their staff by disclosing their difficulties and communicating with the staff. They began to see staff members as equal partners rather than subordinates to be protected.

I could see that staff members were certainly anxious in their own way, but they were still doing their best. I had thought that I had to do everything I could on my own, but now that I know that every staff member is willing to help, I feel much better. I can now trust that if I cannot do something, someone else will do it for me. (A).

#### 3.3.3 | Self-understanding

At the individual level, participants gained a better understanding of themselves. They reflected on the patterns and realities of their difficulties both inside and outside the workplace, which helped them to understand and alleviate these difficulties.

When I realized that I was becoming more and more negative about my children, I stopped myself thinking about things. I tried to concentrate on the task at

The participants also reported that their performance of various clinical tasks they had previously found difficult improved by referring to their colleagues' ideas and methods. They reported that they were able to dismiss their growing anxiety and stress through their Tojisha-Kenkyu experiments.

I discovered that some nurses found a previsit interview on the phone stressful and others did not. Listening to one nurse's opinion, I realized that I did not have to worry too much about it. This helped me to reduce my stress a lot. (D).

## 4 | DISCUSSION

This study clarified the experiences of nurses working in primary care and described how they overcame difficulties. Some of the effects of the COVID-19 disaster and strategies for overcoming difficulties identified in this study were similar to those reported among health-care professionals in COVID-19-designated hospitals, although others differed. Previous studies show that among staff in designated wards, the causes of anxiety in the very early stage of the pandemic were high-intensity work and concern for patients and family members,<sup>7,26</sup> whereas causes of anxiety among our participants were not knowing what to do and anticipatory concerns. The possible causes of these anticipatory concerns include (i) most patients with COVID-19 in primary care settings presenting with common and mild symptoms, such as fever and cough,<sup>27</sup> (ii) drastic changes in primary care practice, from chronic care to pandemic management, creating chaotic situations,<sup>28</sup> and (iii) lack in preparation and strong fear of infection.<sup>29</sup> In addition, staff in designated wards identified many sources of social support and used self-management strategies to cope with the situation,<sup>30</sup> whereas our participants felt that they were not well supported. This suggests that social recognition of the difficulties that nurses face is lacking and current support remains inadequate.<sup>31</sup>

Our participants experienced anxiety and difficulties not only in the workplace, but also in the home and community. First, health-care workers who are mothers have a higher risk of unfair treatment and discrimination in healthcare settings during the COVID-19 pandemic,<sup>32</sup> especially regarding childcare.<sup>33</sup> Although participants did not complain of such inappropriate treatment, they reported various conflicts arising from community and family life. These stressors and frustrations may be because as mothers, they took on mentally overwhelming tasks such as keeping all family members calm and safe.<sup>34</sup> Second, Japanese cultural perceptions such as *Kegare* (a “polluted and evil” condition or thing that should be kept separate; this originated in the concept of punishment in *Shinto*, the Japanese indigenous religion, but is often inappropriately associated with infectious diseases)<sup>35</sup> and overconcern about *Seken* (social appearance or appearance in the eyes of others)<sup>36</sup> may have negatively affected their daily lives.<sup>37</sup>



Our participants reported that the workshop was effective in identifying and addressing their own difficulties and facilitating communication with each other. Reflection on the emotional effect of healthcare work provides a valuable opportunity for professionals to mitigate psychological pressure, even if they are busy with their duties.<sup>38</sup> Peer-to-peer support has been reported to be helpful for medical staff during the COVID-19 pandemic.<sup>39</sup> The communication and sharing of similar experiences facilitated by Tojisha-Kenkyu may therefore have contributed to participants' resilience.

This research had some limitations. First, this study was conducted at a single institution and involved a small number of participants. This may limit the external validity of the findings. Second, participants were busy with their duties both inside and outside the workplace, and had limited time to participate in this study. To minimize time barriers, all data collection was conducted in the workplace and during participants' duty hours. However, participants may have been distracted by their work before and after the sessions and therefore not motivated to make extra comments. Third, this study referenced the Tojisha-Kenkyu framework, and one researcher who was close to the participants facilitated the workshop, collected the data and played an active role in the data analysis. The results may therefore have been influenced by that researcher's interpretations and thoughts. In addition, participants may have given priority to statements that they perceived as desirable to the researcher, who was also their colleague. However, this involvement of *Tojisha* may have contributed to thicker descriptions and deeper comprehension of participants' experiences.

Primary care professionals, including nurses, have played various roles in the COVID-19 disaster.<sup>40</sup> This study helps to clarify how the COVID-19 disaster has affected nurses and how to best support nurses who have experienced difficulties. Such support is important to maintain a stable healthcare system. Further studies are needed to reveal the effects of the pandemic on other primary care professionals, including medical clerks, social workers, pharmacists, and nursing home staff. In addition, to clarify the effectiveness of Tojisha-Kenkyu, quantitative research with a larger population is warranted.

## 5 | CONCLUSION

This study demonstrated that nurses engaged in primary care may experience multifaceted effects of the COVID-19 pandemic. The Tojisha-Kenkyu framework may allow nurses to rely on "same and different" fellowships and alleviate their difficulties. Further research should be conducted to monitor the constant burden on nurses in primary care and to determine appropriate methods of occupational and daily life support during pandemics.

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## CONFLICT OF INTEREST

The author has stated explicitly that there are no conflicts of interest in connection with this article.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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