

## RESEARCH ARTICLE

# Lived Experiences of TB DOTS Nurse in Davao during the Covid 19 Pandemic: A Phenomenological Study

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## Abstract

**Introduction:** Nurses handling the Tuberculosis Directly Observed Treatment Short Course (TB-DOTS) are crucial in implementing the National Tuberculosis Program (NTP), which faced challenges during COVID-19. Hence, this study aimed to explore and to understand the TB DOTS Nurses' lived experiences on implementing NTP amidst the COVID-19 pandemic.

**Methods:** A descriptive phenomenology research design was used in this study among purposively selected 15 TB DOTS nurses during the pandemic, using in-depth interviews. Descriptive phenomenology was chosen to focus on capturing and describing the nurses' direct experiences. Data were manually transcribed into EXCEL software, coded, clustered, and thematized. Data were also collected from January to April 2023, following IATF Guidelines. Colaizzi's descriptive phenomenology method was employed for analysis, allowing the study to remain true to the participants' own words and perspectives.

**Results:** This study revealed three major themes with associated subthemes anchored from the significant statements extracted from the participants' verbatims. The first theme, "Menace of Uncertainties," echoed nurses' fears of contracting the disease, struggles with implementing the NTP, and balancing patient care with personal well-being. Despite obstacles, nurses formed support systems and remained determined, leading to the emergence of the second theme, "Seeing Light in the Darkness." The third theme, "Establishing a Strong Foundation," outlined nurses' ideas for managing the NTP during a pandemic.

**Conclusion:** The study underscored the significant challenges TB DOTS nurses faced during the pandemic, including fear, uncertainty, and difficulty balancing personal well-being with patient care. Despite these obstacles, nurses demonstrated resilience, adaptability, and a commitment to their work. The findings underscored the importance of support systems, flexibility, and enhanced resources in managing TB cases during crises. These insights had direct implications for nursing practice, education, and research, while having emphasized the need for improved facilities, support mechanisms, and training to better equip nurses for future health emergencies.

**Keywords:** Social Science, National Tuberculosis Program, TB DOTS Nurses, Descriptive Phenomenology, Davao City

## Introduction

Nurses managing the Philippines' National Tuberculosis Program in the Philippines play a crucial role in delivering quality National Tuberculosis Program (NTP) services. During the COVID-19 pandemic, TB DOTS Nurses had been faced with the challenge of ensuring that patients get uninterrupted

treatment and maintain a good quality of TB care (World Health Organization, 2020a). Adding to these nurses' burden are the reassignments of healthcare workers to COVID-19 facilities and the increased number of TB DOTS nurses testing positive for COVID-19 that has elevated their stress levels and

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increased their workload (World Health Organization, 2021; Ferrera et al., 2020). The above-mentioned challenges gave rise to TB cases in the country and had significantly impacted WHO's aim of eradicating TB by 2032.

The continuing disruption of TB care services during the new normal remains to be among the challenges that TB DOTS nurses in the Philippines, particularly in Davao City, have encountered. The pandemic has disrupted the delivery of TB services, as healthcare facilities have been reallocated for COVID-19 response efforts, and some of the patients were hesitant to seek care due to fears of COVID-19 transmission. This has led to delays in diagnosis and treatment, as well as, to nurses' increased workload and stress levels.

## Methodology

### Design

The descriptive phenomenology research design was used in this study to explore and to understand the lived experiences of TB DOTS nurses during the pandemic, focusing on capturing the essence of their experiences without the interpretative layer found in case study research. As Creswell and Poth (2018) explain, phenomenology is ideal for examining how individuals perceive and make sense of their experiences. Colaizzi's descriptive phenomenology was chosen over Husserl's interpretative approach to emphasize a detailed and accurate description of the nurses' experiences, aligning with the goal of capturing their direct perspectives (Holloway & Galvin, 2017). This approach effectively addresses the need to understand the subjective experiences of TB DOTS nurses during a public health crisis.

### Participants

Fifteen (15) TB DOTS nurses were given in-depth one-on-one interviews. The number of participants is determined by how many are required to comprehend all relevant facets of the issue under study fully and stated differently; if more interviews do not result in the discovery of fresh concepts—the so-called data saturation endpoint—the sample size is sufficient (Hennick et al., 2016). The participants' demographic profile revealed a range of ages, with a substantial portion in the middle to late career stages. Majority of the participants were female. Most of them were married, and they were predominantly affiliated with government healthcare agencies.

### Sampling Method

The study focused on DOH recognized TB DOTS Centers in Davao City. Participants were selected using a purposive sampling approach, which is a non-probability method also

known as judgmental, subjective, or selective sampling (Saunders et al., 2012). This method was chosen to ensure that the sample included individuals directly involved in the implementation of the NTP during the pandemic. By selecting participants from these centers, the study aimed to gain a comprehensive understanding of their lived experiences in a specific and relevant context. This approach may introduce potential biases or reflexivity, as the researchers' choices in participant selection could influence the study's outcomes.

### Inclusion and Exclusion Criteria

The study included TB DOTS nurses with at least six months of experience in the NTP who were actively involved in implementing the program during the pandemic, regardless of age, sex, ethnicity, or religious affiliation. Data were collected using a semi-structured interview guide and an established interview protocol. Exclusion criteria were nurses with less than six months of NTP experience, those not actively involved in the program during the pandemic, and individuals who did not consent to participate in the study.

### Data Collection Procedure

The data-gathering procedure began with the researcher obtaining an approved letter for the study, signed by the relevant authorities and secured following ethical approval from the research committee. The semi-structured interview guide, which included questions validated by three research professionals, was used to collect information. Before the interviews, participants provided informed consent and received a brief orientation about the study. Health protocols were observed throughout the process. The interviews were conducted face-to-face and lasted between 30 minutes to 1 hour each. Two interviewers were involved, and one note-taker was present. The interviews were recorded with participants' consent, and the audio recordings were transcribed and verified for data reliability. Pre-testing was conducted to refine the questions and improve the data collection process, ensuring the clarity and relevance of the questions. After each interview, participants received a letter expressing gratitude for their time and cooperation.

### Data Analysis

To ensure the trustworthiness of the findings, the study employed Colaizzi's Seven Steps Descriptive-Phenomenology Method for data analysis. The process began with familiarization, where researchers read through the interview transcripts multiple times to deeply understand the data and to immerse themselves in the participants' experiences. Next, significant statements were identified and extracted, focusing on those that directly related to the phenomenon being studied. Researchers then formulated

meanings from these significant statements, capturing the essence of the participants' lived experiences in their own words. The formulated meanings were clustered into themes, grouping related aspects together to represent the core elements of the data. Each theme was then described in detail to elucidate the participants' experiences comprehensively. To enhance credibility, three researchers independently conducted the analysis, which allowed for cross-verification and consensus on the themes and subthemes identified. Reflexivity was maintained throughout by acknowledging and reflecting on the researchers' potential biases and their influence on the data collection and analysis processes.

### Ethical Consideration

Ethical Clearance was secured from the Davao Doctors College's Ethics Review Committee in September 14, 2023 with the Reference No. ERC\_DDC\_F\_20230914-0001. Regarding risks and benefits, the questionnaire touches upon participants' personal experiences which can help the researchers initiate needed interventions. If participants opt to withdraw from the research, all of the information they supplied will be excluded from the data collection.

In gathering, retaining, and processing personal data, researchers followed the criteria of transparency, legitimate

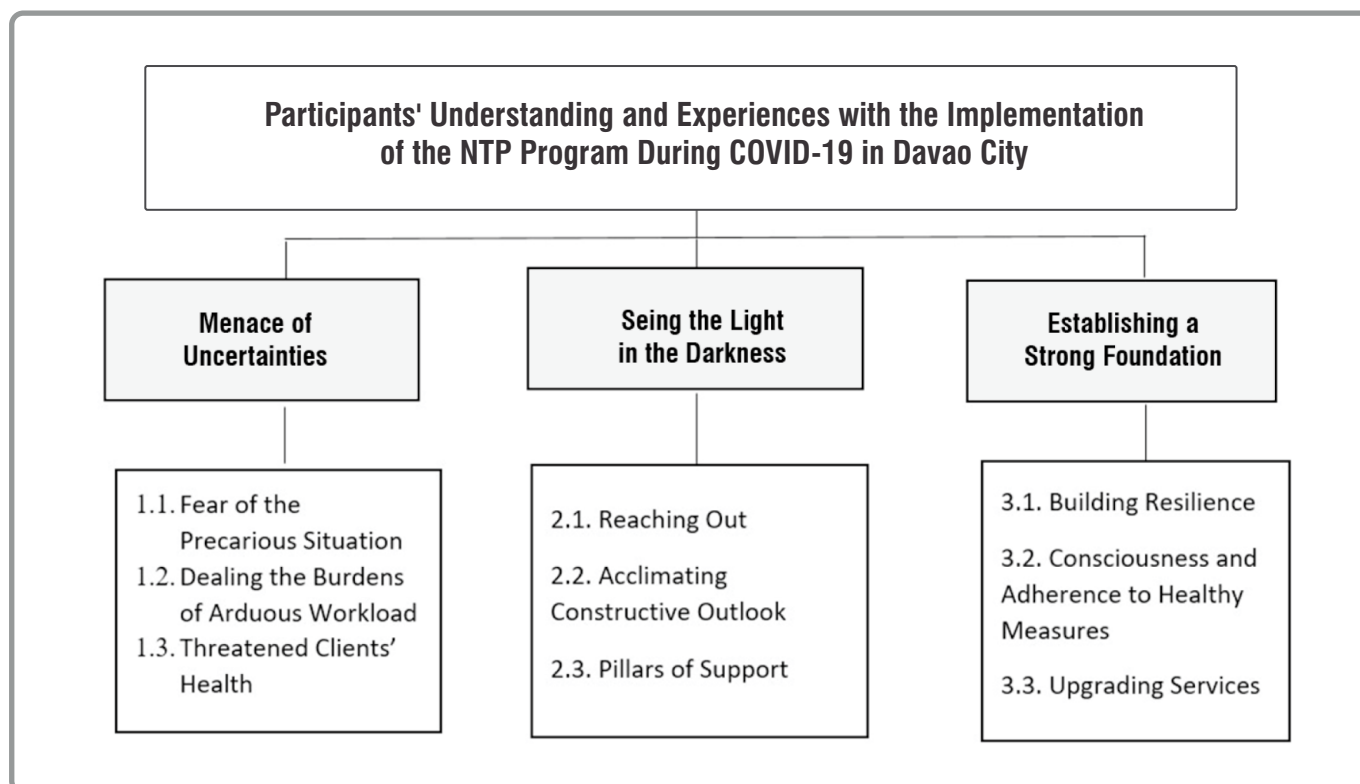
purpose, and proportionality as per the Data Privacy Act of 2012. In terms of privacy and confidentiality, the participants will be given the freedom to stay anonymous. The data that will be gathered in this study will be kept confidential. If, in the future, this research study is published, any information indicated in the material will not reveal the respondent's identity in any way.

## Results

Three hundred ninety-five significant statements were extracted after reviewing and familiarizing the participants' transcriptions. Out of 395, 96 were considered significant, resulting in three emergent themes with nine cluster themes, reflected in **Figure 1**.

The participant narratives reflect their adaptive strategies and resilience in implementing the program amid challenges, illustrating their ability to maintain satisfactory outcomes despite uncertainties, workload burdens, and health concerns. Their experiences also underscore the importance of outreach efforts, positive outlooks, support networks, resilience-building, adherence to health measures, and service enhancement in navigating adversity and fostering recovery.

**Figure 1.** Emergent Themes and subthemes



### Theme 1: Menace of Uncertainties

This represents the worries, anxieties, and challenges of the individuals. Most participants were nervous and concerned about how to deliver tuberculosis services when the pandemic first broke out. Their mental and physical well-being were severely strained from managing the additional labor caused by the global outbreak, and the anxiety of taking care of TB patients since COVID and TB have identical symptoms and signs, which increases the susceptibility to the virus. This captures their feelings of apprehension and mistrust amid potentially dangerous circumstances.

**Subtheme 1.1: Fear of the Precarious Situation.** Participants feared contracting COVID-19 as they implemented the NTP, expressing anxiety, confusion, and concern about associated risks, particularly while treating TB patients with shared symptoms. This compounded mental distress, negative emotions, and challenges, heightening worries for frontline NTP implementers, especially TB DOTS Nurses facing significant emotional hardships during the pandemic's peak.

*"I am afraid since COVID-19 is a new disease. Therefore, I am confused and anxious about how we can deal and render TB services given that situation." (Participant 9, Transcript 9, Lines 33-34)*

*"It was tough to implement the program during that time. I am also afraid of this new virus, given I catered TB cases, that has similar symptoms to Covid." (Participant 12, Transcript 12, Lines 45-47)*

**Subtheme 1.2: Dealing the Burdens of Arduous Workload.** Participants faced challenges in their duties due to pandemic-related changes while implementing the tuberculosis program. Concerns arose over the impact of COVID-19, as many needed more experience. The use of protective gear and extra duties led to exhaustion. Schedule and setup changes were made, including individual scheduling. Unexpected changes, lockdowns, and community reluctance disrupted the program.

*"The current situation affected me because aside from the NTP implementer, I also have other responsibilities to do. It is cumbersome for me." (Participant 4, Transcript 4, Lines 51-53)*

*"I need to double time because it is not just NTP that I implement; there are also other programs to manage. Added to this are the new protocols to follow". (Participant 6, Transcript 6, Lines 65-68)*

**Subtheme 1.3: Threatened Clients' Health.** The pandemic's impact on patient treatment is evident, with fears of contracting COVID-19 leading to patients delaying or avoiding

consultations, potentially worsening their conditions. Some participants expressed concern that individuals with tuberculosis, even confirmed cases, might avoid seeking medical care to avoid being mislabeled as COVID cases. Misinformation and rumors further hindered treatment initiation, exacerbating the health situation.

*"I am apprehensive about the poor seeking behavior of NTP patients at that time. It was blatantly clear that the patients at our TB DOTS Center at the time chose not to seek medical care because they were concerned about being labeled as COVID cases." (Participant 8, Transcript 8, Lines 28-29)*

*"Considering the Covid situation, a lot of our enrolled patients were tagged as defaulters; it is because of the stigma and fear that if they seek medical attention for their TB illness, they will be tagged as Covid. With that, as a TB nurse, it was alarming for me, considering the big chance of an increased number of MDR cases." (Participant 14, Transcript 14, Lines 38-41)*

### Theme 2: Seeing Light in Darkness

The theme highlights participants' resilience and determination in overcoming challenges during the pandemic, demonstrating their commitment to providing effective services. Despite the changing work environment, they adeptly adapted, with support from colleagues playing a vital role in navigating difficulties. Divided into three distinct themes, these underscores essential elements for adapting the TB program amidst the ongoing COVID threat.

**Subtheme 2.1: Reaching Out.** The theme exemplifies the participants' resolve to implement strategies for delivering TB programs to the target clientele, all while navigating the ongoing threat posed by COVID-19.

*"Despite the restriction due to Covid. I have found a way to retain my patient in order for them not to default from the program." (Participant 14, Transcript 13, Line 76)*

*"Because of our low case detection rates, what we did was to intensify our case finding to ensure more individuals with suspected TB will receive immediate treatment." (Participant 2, Transcript 5, Lines 93-94)*

**Subtheme 2.2: Acclimating Constructive Outlook.** This theme elucidates individuals' coping strategies to navigate the challenges brought by the COVID-19 pandemic. It underscores the importance of effective delegation, time management, acceptance, and adaptation in addressing the evolving circumstances encountered in their roles as implementers. These insights highlight the resilience and

adaptability essential for healthcare workers to respond effectively to adversity and ensure the continuity of essential services during unprecedented times.

*"Covid made my job challenging, but you had to adjust to the new circumstances. I did that, in part, by effectively delegating tasks and managing my time." (Participant 1, Transcript 1, Lines 130-132)*

*"Although it is hard, it will be easy for you once you can accept and adapt the situation you are in as well the unfortunate thing that happened as an implementer." (Participant 2, Transcript 2, Lines 138-140)*

**Subtheme 2.3: Pillars of Support.** The theme arises from participants' positive encounters as TB implementers amid the pandemic, highlighting the crucial support from colleagues and superiors. Initially fearful of implementing TB programs during COVID-19, participants found reassurance and manageability through colleagues' and superiors' backing. Across fifteen interviews, the frequent mention of "colleagues" underscores their vital role. Department of Health adaptation strategies, combined with peer and superior support, help alleviate concerns expressed by participants.

*"Our motivation came from our Medical Coordinator. She has been a strong team leader. She established procedures and rules that enabled us to adjust as necessary." (Participant 2, Transcript 2, Lines 185-186)*

*"Our superior assisted in a variety of ways, including by helping us carry out the programs as effectively as feasible." (Participant 3, Transcript 3, Lines 141-142)*

### **Theme 3: Establishing a Strong Foundation**

This theme discovers participants' perceptions in navigating the TB program during the pandemic, offering valuable advice for enhancing adaptation despite challenges. Participants reflect on the significance of their struggles and fears, recalling factors and support systems that aided their adaptation. They emphasize the importance of prioritizing health to resist diseases and suggest enhancing health programs with advanced services and facilities. This represents a pivotal moment in their journey where they contemplate lessons learned and contemplate sharing them with colleagues and society.

**Subtheme 3.1: Building Resilience.** Resilience, flexibility, and optimism were vital for NTP implementation amidst the COVID-19 pandemic. Despite fears of the unknown, participants emphasized the importance of adaptability and positivity, enabling continued service delivery, particularly in national tuberculosis programs during COVID-19.

*"I faced the challenges in implementing the TB program despite the Covid-19 threat by being resilient. I guess that was the main factor that I able to continue my duty as the TB DOTS nurse in our Wellness Center" (Participant 7, Transcript 7, Lines 178-179)*

*"For me, it is a must to be optimistic and remain positive and hopeful during that period, for you to be able to help the community, especially in rendering TB services to our NTP patients." (Participant 4, Transcript 4, Lines 76-77)*

**Subtheme 3.2: Consciousness and Adherence to Healthy Measures.** The study findings reveal a shift in participants' perspectives, viewing the pandemic as a wake-up call for prioritizing health. While the initial stages were marked by fear, anxiety, and uncertainty, participants now highlight the positive outcomes stemming from adversity, fostering improved health-seeking behaviors among nurses and patients. There is a heightened emphasis on health consciousness and adherence to protocols as crucial defenses against diseases. The first lesson all participants learned was the importance of adhering to the health officials' protocols.

*"The Covid has brought us a beneficial thing; it has made people and healthcare professionals more cautious about our health." (Participant 3, Transcript 3, Lines 78-79)*

*"After the high restrictions brought by the pandemic, we now have plenty of cases; maybe the reason for the census is that individuals are becoming more concerned about their health. Moreover, as a TB DOTS nurse, I am pleased to see such a positive impact on our program." (Participant 2, Transcript 3, Lines 128-131)*

**Subtheme 3.3: Upgrading Services.** This phase reflects a transition where participants have primarily adapted to the new normal of implementing the national tuberculosis program amidst the pandemic. It encompasses their suggestions for enhancing TB DOTS services and facilities in response to the ongoing situation. Governments should prioritize essential services to ensure sustainable care and strategically allocate limited resources for maximum public benefit.

*"I think the facilities should be improved in order to become conducive for treatment, infection control, and learning for the patients." (Participant 3, Transcript 3, Lines 212-213)*

*"The health center should have adequate supplies and updated equipment to provide more extensive services." (Participant 4, Transcript 5, Line 220)*

## Discussion

**The first emerging theme, “Menace of Uncertainties”**, highlights the profound challenges faced by TB DOTS nurses in Davao City during the pandemic. This theme reflects the specific concerns and obstacles encountered by nurses working in a region with a high TB burden and significant healthcare demands. In Davao City, where the TB DOTS program is crucial due to the large number of accredited facilities and a substantial population, the onset of the COVID-19 pandemic introduced additional layers of complexity. Nurses were confronted with heightened fears and uncertainties about providing TB care while managing the risks associated with COVID-19. The similarity in symptoms between TB and COVID-19 compounded their stress, increasing the risk of cross-infection and further straining already limited resources (Alene, Wangdi, & Clement, 2020; Mertens et al., 2020).

The concept of uncertainty, as described by Fernandez-Araque et al. (2020), is particularly relevant in the context of Davao City's healthcare environment. The lack of clear information and the evolving nature of the pandemic created a challenging situation for TB care providers. Heightened anxiety among nurses, driven by both the fear of COVID-19 and the demands of managing TB cases, aligns with findings from Choelo et al. (2020) and Mertens et al. (2020), who noted that lack of information and unpredictable circumstances exacerbate stress.

In Davao City, where healthcare facilities were already stretched thin, the additional burden of the pandemic led to significant disruptions in TB care. This study reflects Alene, Wangdi, and Clement's (2020) observations about insufficient human resources and compromised TB service delivery. The increased psychological and operational stress on healthcare workers in this place is consistent with Razu et al. (2021) and Shahnavazi et al. (2022), who reported similar challenges in other regions. The decline in TB case detection during the pandemic, as noted by Hashem et al. (2022) and Ozdemir et al. (2022), was particularly acute in Davao City, where the pandemic's impact on early diagnosis and TB testing was pronounced. This underscores the need for improved support systems, better resource allocation, and targeted training to enhance TB care amidst future health crises, ensuring that the healthcare system in Davao City is better prepared to handle such challenges effectively.

Furthermore, TB DOTS nurses in the said city faced significant challenges during the COVID-19 pandemic, reflecting global struggles in delivering healthcare services under immense pressure. As highlighted by the **second emerging theme, “Seeing Light in Darkness”**, participants demonstrated resilience and adaptability in maintaining effective TB services, despite the evolving work environment. This resilience was

supported by strong networks among colleagues, enabling them to confront obstacles with a collaborative spirit. Their experience aligns with the 2018 NTP Manual of Procedure, which emphasizes a patient-centered approach in managing tuberculosis, and the Global Fund (2022), which adapted TB programs to overcome barriers by bringing services closer to patients' homes. Similarly, in Davao, TB nurses went to great lengths to meet patient needs while balancing their pandemic-related duties.

Throughout history, nurses have been at the forefront of providing comprehensive care, and the pandemic has magnified their critical role in healthcare delivery. Despite the pandemic's impact on their ability to perform their tasks, nurses in Davao remained committed to supporting TB patients (Jennings, 2017). This adaptive response mirrors findings from other settings, where optimism among healthcare workers has been shown to improve work engagement during COVID-19 (Zhang et al., 2020). Support systems, both from colleagues and management, were crucial in lightening the load on healthcare professionals. In Davao, this solidarity helped reduce stress and maintain morale, reflecting global trends where supportive management mitigated employee concerns during the pandemic (Skogsberg, 2022; Muoio, 2021).

By contextualizing the challenges faced by TB DOTS nurses in the said city and linking them to broader literature, it becomes evident that despite the pandemic's overwhelming impact, healthcare workers' dedication and adaptive coping mechanisms were essential in ensuring continued care delivery (Fernandez-Araque et al., 2020; Choelo et al., 2020; Mertens et al., 2020). The local context of Davao, with its specific TB challenges, mirrors these global findings, underscoring the universality of the nurses' struggle and their collective resilience in navigating such crises.

During the COVID-19 pandemic, TB DOTS nurses in Davao City also faced significant challenges in managing tuberculosis care, reflecting global struggles in healthcare delivery. The **last emergent theme, “Establishing a Strong Foundation”**, captures how participants reflected on their experiences, emphasizing the importance of maintaining health, improving healthcare programs, and enhancing facilities to ensure effective services. In Davao, like other regions, nurses stressed the value of sharing lessons learned to foster resilience and strengthen the healthcare system. Their experience highlights the global recognition of resilience as key to improving patient outcomes and preventing work-related stress and anxiety (Baskin & Bartlett, 2021; Bozdağ & Ergün, 2021).

The health belief model supports the idea that individuals who perceive a high risk of contracting a disease are more likely to adopt preventive health measures, a concept especially

relevant to healthcare workers (Fikriana et al., 2021). Participants noted the necessity of adequate personal protective equipment and strict adherence to preventive health regulations, aligning with World Health Organization (2020a) recommendations to prioritize essential TB services during the pandemic to mitigate adverse patient outcomes.

Nurses in Davao City also voiced the need for improvements in the NTP, suggesting that these concerns be brought to the attention of the Department of Health and Local Government Units to ensure service continuity amid the ongoing COVID-19 threat. Similar to global experiences, healthcare facilities in Davao were under significant pressure, making it crucial to maintain access to TB treatments and prevent worsening outcomes (Chapman et al., 2021).

Although telemedicine became more prominent during the pandemic, Directly Observed Treatment Short-course (DOTS) was still seen as the most effective telehealth intervention for managing pulmonary tuberculosis, focusing on patient discovery and cure (Salahuddin et al., 2024). Despite the obstacles, nurses in Davao remained committed to providing quality TB care and supporting the public health response, exemplifying their dedication to both the local community and the broader healthcare effort (Banaag et al., 2020).

### Implication

The study has implications for research, practice, and education in nursing. Gaining insight into TB DOTS nurses' experiences, viewpoints, and coping methods in the face of COVID-19-related obstacles to NTP implementation is crucial for understanding their viewpoints and creating future-proof plans. The results show that participants faced uncertainty and stress during the epidemic's peak when using NTP. Many voiced worries about meeting demands on their physical, emotional, and psychological well-being and achieving sufficient results. Conclusively, the pandemic caused disruptions to tuberculosis services, leading to poor case identification and possible success rates since patients were reluctant to seek treatment out of fear of being linked to COVID-19 infection.

### Strengths and Limitations

The study's strengths include its rigorous methodology, the utilization of Colaizzi's 7-Step Descriptive-Phenomenological Method, the validation of interview content, and the assurance of confidentiality. The in-depth exploration through face-to-face individual interviews facilitated rich qualitative data collection, leading to comprehensive data analysis and identifying three significant themes and associated subthemes. However, limitations include the potential impact

of limited sample size and single setting on generalizability and inherent subjectivity in qualitative data interpretation. Time and resource constraints affected the depth and scope of the study, potentially limiting the thoroughness of exploration into participants' experiences.

### Conclusion

The study sheds light on the significant challenges faced by TB DOTS nurses during the pandemic, including pervasive fear and uncertainty, as well as, the difficulties of managing their own well-being while providing patient care. Despite these hurdles, nurses demonstrated remarkable resilience and adaptability, remaining committed to their roles in the face of adversity. The study's findings underscore the critical need for comprehensive support systems, greater flexibility, and improved resources to better manage TB cases during public health emergencies. These findings have far-reaching implications for nursing practice, education, and research. They highlight the urgent need for enhanced facilities and support structures together with targeted training programs to equip nurses with the skills and resources necessary to navigate future health crises effectively.

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### Ethical Approval

The study secured an ethical approval from the Davao Doctors College Ethics Review Committee on April 14, 2023. In adherence to ethical principles, informed consent was obtained from all participants involved in the study, ensuring their voluntary participation and understanding of the research objectives. Confidentiality measures were meticulously implemented to safeguard the privacy and anonymity of participants' data throughout the study process.

### Conflicts of Interest

No conflicting relationship exists for any author.

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### Author contributions

GAA and MBMK conceptualized the project, initial designing of the methodology, and drafted the initial manuscript. MBMK reviewed the initial manuscript. MBMK and ADN conducted thorough literature searches. GAA facilitated data collection. GAA, ADN and MBK performed data analysis using the Colaizzi's Method and provided critical revisions and input. All authors approved the final manuscript for submission and accept accountability for all aspects of the research.

### Confirmation

This is to confirm that all the participants had agreed to be a part of the study. Informed consent was duly signed by the participants prior to the data gathering procedure.