THE EXPERIENCE OF NURSES IN HANDLING BUSINESS CLASS PATIENT IN COMMERCIAL MEDICAL ESCORT IN INDONESIA

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ABSTRACT

Background: The pre-hospital health care system is currently developing rapidly in Indonesia. The development of pre-hospital services is the transport of patients abroad and/ or between regions. Patient care services, the common name for nurse assistance on board, require speed and accuracy in action to minimize any patient risk.

Purpose: this research can be the basis for researchers to explore nurses’ experiences more deeply towards and the meaning of nurses’ experiences in pre-hospital care businesses classes on commercial aircraft.

Methods: This research was designed with a qualitative approach using phenomenology study. The total number of participants were 15 nurses. Data was collected using in depth interview and analyzed using Colazzi method. This research was conducted from August to the end of November 2019.

Results: This research was conducted to explore the experience of nurses in dealing with business class patients in commercial medical escorts. The results of this study found 6 topics: family culture, effective communication, intervention difficulties, interprofessional collaboration, equipment that must be carried, and the importance of documentation.

Conclusion: Handling patients in class on commercial flights has several difficulties. Patients who must sit next to the nurse. Nurses must be careful when the condition of cardiac arrest, because the position in the business class the patient must remain seated and install safety soap. In addition, the nurse prepares everything before takeoff.

Keywords: Experience, Nurses, Commercial Medical Escort, Pre-hospital.

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INTRODUCTION

The pre-hospital health care system is developing rapidly in Indonesia. The development of pre-hospital services including the transport of patients abroad and/ or between regions. On average, there are 30 patients who need medical transport every month in Indonesia. Under this service, patients get nurse assistance in the one business class plan to accompany them along the trip. Patient care services, the common name for nurse assistance on board, require speed and accuracy in action to minimize any patient risk. Due to this condition, the duration of response becomes an important indicator in pre-hospital patient care services. The problem of nurses performing management on board usually occurred when conducting environmental assessments and this resulting on the results of assessing the clinical status of patients. This problem usually also caused by the aircraft carrying patients to be disrupted because of the lacking of medical equipment.

The sudden condition of the patient and the uncomfortable family on the plane caused the nurses to be agitated in conducting studies and interventions. Nurses’ doubts in carrying out this emergency assessment can prolong the time for administration. In this case, time delays can lead to the increasing of secondary injuries. Due to this reason, pre-hospital personnel should integrally be competent in determining patient outcomes. Nurses who work in emergency services are often be in situations where they are responsible for sick or injured patients. The behaviour of air ambulance nurses is a major psychological effect that affects patient satisfaction. Commitment to provide pre-hospital services based on quality, evidence, ethical considerations and the opportunity to provide a very early treatment for patients from the scene are highly needed. A very limited research was conducted on this topic by the present date. Because of this reason, this research is very important to be conducted to conclude the complexity of the problems that occur at each stage pre-hospital management in aircraft. The result of this research can be the basis for researchers to explore nurses’ experiences more deeply towards and the meaning of nurses’ experiences in pre-hospital care business classes on commercial aircraft.

METHODS

Research Design
This research was designed under qualitative approach with phenomenology. Qualitative methods were chosen because they can explore more deeply the nurse escort experience in caring their patients. The approach used in this study is descriptive or transcendent phenomenology that consists of four stages namely put in brackets, interpretation, description, and analysis.

Sample of The Research
Samples in this qualitative research were called participants. This study applied a deliberate sampling technique where the determination of participants is...
oriented towards the research objectives and chosen according to predetermined inclusion criteria of the participants. Creswell explains that deliberate sampling is a technique of selecting individuals who are rich in information to understand the main phenomena. Data from private company nurses in Indonesia were also used in this study as the basic information source. The total participants in this study were 15 nurses. Selection of participants in this study was conducted according to a criterion of nurses who have accompanied patients in business class with commercial aircraft. All participants already attend training in handling patients and using tools while on an airplane, but more specifically about weather changes, altitude differences and the introduction of aircraft in full use.

Research Workflow
Participants’ data collection was conducted in the office of private nurses’ company in Indonesia. After the data collection process, in-depth interview was conducted one-by-one, in this method, written, spoken or visual messages have been analysed and described by a systematic and purposeful method. This method allows the researcher to explore the issues considered in order to further understand them. In the conventional content analysis, raw data is summarized based on inference and interpretation and placed into sub- and main categories meaning that when the first participant was finished the transcription, all data will be directly analysed. After that, the next participant continues with these same processes. This research was conducted from August to the end of November 2019.

Ethical Considerations
This research has passed the ethics test at the Kepanjen College of Health Sciences Research Ethics Committee No. 002 / S.Ket /KEPK/STIKesKPJ/XII/2019

Data analysis
Colazizzi qualitative content analysis method was used to analyse data. In this method, the researcher is an interpreter who has explored data to find the meaningful units. After finding them, he/she performs coding classification and organizes the data. This process continue until the meaningful categories communicate with each other and the main categories appear. Content analysis can be performed with different degrees of interpretation. In each text, there are handling business class patient in commercial medical escort vary in depth and level of abstraction. Therefore, in this study, it was tried to analyse the latent content as well as manifest contents. In the first step of data analysis, the units of analysis were specified and whole texts of each interview were considered as the unit of analysis. After that, meaning units were identified and they were phrases derived from statements of participants in relation to various aspects of the main concept. Then, coding was carried out, and meaning units were compressed and converted into codes. Codes were summarized and categorized, and categories created. Finally, the categories formed the main categories according to similarities and differences. Interview transcripts were coded independently by the first author for identification of initial themes and then checked by other authors for inter-rater agreement. To ensure the rigor of the data, Member check was performed with fifteen nurses to achieve credibility. Sampling technique with maximum variation was used to increase transferability and conformability, which was provided by rechecking the findings with two other faculty members.

RESULTS
Participants in this study were 15 people and all of them were men. The age of the participants ranged from the youngest, who was 25 years old, and the oldest was 35 years old. The educational status of participants was vocational nurse, bachelor of nurses, and master of nurses (Figure 1).

![Figure 1. Distribution of participant on (a) educational background, (b) employment place, and (c) experiences](image-url)
interprofessional collaboration, equipment, and documentation (Table 2).

Table 2. Overview of the themes and sub-themes

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<thead>
<tr>
<th>Theme</th>
<th>Sub-Theme</th>
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<tr>
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<td>Captains</td>
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<td>Difficulty in Intervening the Patients</td>
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<td>Interprofessional Collaboration</td>
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<td>Equipment that must be carried</td>
<td>Oxygen Concentration Is 2 lpm</td>
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<td>Emergency Medicine</td>
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<td>The Importance of Documentation</td>
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Family Culture
Participants revealed that they conducted an assessment of the clinical condition of patients influenced by a family culture by trust towards nurses. This problem has a sub-cluster in the form of families lacking trust to the actions of nurses, families who believe in the actions of nurses and ancestral beliefs. Some quotes from participants representing this topic include:

“They always ask all the actions that I do” (P4) (P8) (P13)
“They are waiting to be careful in handling” (P1) (P3)
“They always watch and record what I do” (P4) (P5) (P12)
“Other passengers always ask about the patient’s illness”(P9) (P11)
“There are patients who carry amulets, so we as nurses cannot forbid, even though they cause infection”(P1) (P14) (P15)

Effective Communication
The second theme is communication on commercial aircraft. Nurses on commercial aircraft have access to communicate with flight attendants, captains, families, patients and doctors. Some quotes from participants representing this topic include:

“The nurse communicates with the captain and flight attendant if the patient’s condition affects the flight”(P2) (P7) (P15)
“In addition, families must know about the development of patients on the plane by the way we communicate”(P4) (P8) (P11) (P14)
“Every development we discuss with doctors for comprehensive follow-up and reporting”(P1) (P9) (P13)
“Communicating with patients must continue”(P5) (P10)

Difficulty in Intervening the Patients
The third theme is the difficulty in intervening the patients. The difficulty in intervening the patient is the unwanted position of the patient in the aircraft during the condition of landing or taking off and bad weather. Some quotes from participants representing this topic include:

“The position of the patient is sitting upright so when doing a slight tilt, we have difficulty” (P1) (P2) (P10) (P15)

Interprofessional Collaboration
The fourth theme is interprofessional collaboration. Interprofessional collaboration is carried out with the profession of pilots, flight attendants and doctors. Some quotes from participants representing this topic include:

“We must continue to work with pilots and flight attendants on the airplane”(P4) (P9) (P14) (P15).
“Doctors and nurses must collaborate every hour the patient’s condition”(P6) (P7) (P12)
“We ask flight attendants to provide water and pillows, etc. so we have to collaborate with him” (P2) (P3) (P10) (P11) (P12)

Equipment that must be carried
The fifth theme is equipment. Equipment used while on board aircraft must comply with airline regulations. It is permissible to use sharp objects. For the benefit of the patient, maximum oxygen concentration is 2 lpm. Emergency medicine and vital signs check tool were also allowed to be used. Some quotes from participants representing this topic include:

“Nurses may bring sharp objects, but only needles for infusion, scissors must be in the trunk”(P4) (P9) (P14)
“We can only install 2 lpm oxygen, either through an oxygen concentrator or a small oxygen cylinder.” (P8) (P9) (P13)
“Emergency medicine is allowed to be carried, but must show a patient accompanying assignment letter”(P9) (P10)
“Tools such as oximetry can still be used in aircraft”(P1) (P2) (P5) (P11) (P12)

The Importance of Documentation
The sixth theme is documentation. In-flight documentation is very important for accountability and operand when within the intended hospital. Some quotes statements from participants representing this topic include:

“Documentation should not be forgotten because it is the responsibility of medical personnel in treating patients”(P1) (P2) (P3) (P4) (P8) (P11) (P14) (P15)
“Hand over with other medical personnel at the intended hospital requires complete documentation when traveling on the plane”(P5) (P6) (P7) (P8) (P9) (P13)

DISCUSSION
This research was conducted to explore the experience of nurses in dealing with business class patients in commercial medical escorts. Family culture believes in medical actions influenced by past experiences 18, that nurses feel the response from the family when handling on the plane culturally will always ask, threaten, questions from other passengers, as well as trust in objects that further worsen the patient’s condition 19. This is believed by nurses as a problem because nurses must have the full trust of the patient’s family and other passengers to be able to carry out maximum care handling 20. This belief can be good for nurses if they make them cooperative with nurses 21. Families of patients who always demand comprehensive services, make nurses must explore the beliefs of each family 22.

Inside the plane there are various professions 23. Including nurses when accompanying patients. Communication is the key to passenger safety on commercial aircraft 24.
Nurses who have different roles in the aircraft, it is very important to communicate with flight attendant pilots and doctors, so that patients receive maximum service. Nurse communication becomes important for treating patients. Communication of nurses with captains, flight attendants, families, patients and doctors must be done so that services can be optimized. Nurses feel that they have a guarantee of safety only as passengers, not as helpers, during their service. This makes nurses feel worried when they have to take action while on the plane. The meaning of the above quote is that conditions that make it difficult for nurses to intervene in patients need to be really considered because nurses must be able to make decisions quickly and precisely under impossible circumstances.

The planning stage is a process of preparing various nursing interventions needed to prevent, reduce or reduce client problems. In determining the planning stage for nurses required a variety of knowledge and skills including knowledge of client strengths and weaknesses, client values and beliefs, limits on nursing practice, the role of other health workers, ability to solve problems, make decisions. This is in accordance with the results of the study that when making an intervention decision when in business class requires careful consideration, because it disturbs other passengers if we are inexperienced.

A physician usually initiates the medical orders for patient services which are reviewed by the hospital admitting nurse. As part of the admission process the primary nurse interprets the medical orders and prepares nursing orders based on the medical orders but also on the signs and symptoms, diagnoses, and other presenting problems together form the nursing plan of care (POC) which also includes the goals/expected outcomes that require the specific nursing interventions and action types to resolve.

The meaning of the above mentioned expression is that collaboration with other professions on the plane in aviation is very helpful in the process of providing comprehensive services. Comprehensive services need to be supported by adequate equipment, the equipment used on the aircraft must obtain approval from the airline and according to the patient's condition, so it needs to be evaluated before patient transit. Comprehensive services need complete documents. Documentation is inseparable - part of a comprehensive service system for patients. Documentation shows responsibility for incidents and patient care while on flight on airplanes.

CONCLUSION
The study produced six themes to support the experience of nurses handling business class patients in commercial aviation involving fifteen participants and formed 6 of them and 17 sub-themes. All 6 themes mentioned in the sequence are family culture, effective communication, difficulty in patient intervention, collaboration between professionals, equipment that must be carried and finally the importance of documentation. From these six themes, we can conclude that a preliminary assessment of the condition of patients, families and aircraft companies needs to be done to be able to prepare the mental condition of nurses and all equipment needed for patients during conditions in flight. In addition, nurses must be able to collaborate and communicate with other professions on the plane and documentation in caring for aviation is very important and often incomplete.

AUTHOR CONTRIBUTIONS
RSA, AV and FKS designed the study. RSA, RF and WDN analysed the results and prepared the manuscript. RSA and WW organised and collected data. RSA and SBK writing the original manuscript and performed the statistical analysis. All authors read and approved the final manuscript.

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