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RESEARCH ARTICLE (ORIGINAL)

Inter-hospital transport of the critically ill: The experience of nurses from a Cape Verdean Island

Transporte inter-hospitalar da pessoa em situação crítica: Vivências dos enfermeiros de uma ilha de Cabo Verde

Transporte interhospitalario de pacientes en estado crítico: Experiencias del personal de enfermería en una isla de Cabo Verde

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Abstract
Background: Inter-hospital transport of critically ill patients between islands in an island nation is driven by the need for access to more complex health resources. In this context, transport and care delivery conditions are crucial to patient survival.
Objective: To identify the main feelings and difficulties of nurses from a Cape Verdean island regarding the inter-hospital transport of critically ill patients.
Methodology: This qualitative study was conducted using semi-structured interviews with a focus group of nurses.
Results: From the main difficulties identified, the following subcategories emerged - Lack of/difficulties with means of transport; Lack of adequate material resources to assist during transport; Difficulties in ensuring patient comfort and privacy; Problems with inter-hospital referral/communication network; Absence of a physician during transport; and Costs associated with the inability of the nurse to return immediately after delivering the patient. Several negative feelings, such as anguish, fear, and worry, resulted from the difficulties experienced by the nurses.
Conclusion: The nurses' statements provide an initial diagnosis of the situation regarding the resources, planning, and execution of inter-hospital transport of critically ill patients.

Keywords: critical care; transport of patients; patient care; nurses; perceptions

Resumo
Enquadramento: A transferência inter-hospitalar da pessoa em situação crítica entre ilhas de um país insular decorre da necessidade de acesso a recursos de maior complexidade, cujas condições de transporte/assistência são determinantes para a sobrevivência do doente.
Objetivo: Identificar os principais sentimentos e dificuldades vivenciados pelos enfermeiros de uma ilha de Cabo Verde no que concerne ao transporte inter-hospitalar da pessoa em situação crítica.
Metodologia: Estudo qualitativo, por entrevista semiestruturada a um grupo focal de enfermeiros.
Resultados: Das principais dificuldades apontadas emergiram como subcategorias - Carência/dificuldades ao nível dos meios de transporte; Carência de recursos materiais apropriados para assistência durante o transporte; Dificuldades para assegurar o conforto e privacidade do doente; Problemas ao nível da rede referenciação/comunicação inter-hospitalar; Ausência de médico durante o transporte; Problemas relativos ao regresso dos enfermeiros ao hospital de origem. Um leque de sentimentos negativos como a angústia, o medo, as preocupações, entre outros, decorrem das dificuldades vivenciadas.
Conclusão: Os relatos dos enfermeiros possibilitam um primeiro diagnóstico da situação, ao nível dos recursos, planeamento e efetivação do transporte.

Palavras-chave: cuidados críticos; transporte de pacientes; assistência ao paciente; enfermeiros; perceção

Resumen
Marco contextual: El traslado interhospitalario de un paciente en estado crítico entre islas de un país insular se debe a la necesidad de acceder a recursos más complejos, cuyas condiciones de transporte/asistencia son decisivas para la supervivencia del paciente.
Objetivo: Identificar las principales sensaciones y dificultades experimentadas por los enfermeros de una isla de Cabo Verde en relación con el transporte interhospitalario de pacientes en estado crítico.
Metodología: Estudio cualitativo, mediante entrevistas semiestructuradas con un grupo focal de enfermeros.
Resultados: De las principales dificultades surgieron las siguientes subcategorías - Carencia/dificultades de medios de transporte; Carencia de recursos materiales adecuados para la asistencia durante el transporte; Dificultades para garantizar el confort y la intimidad del paciente; Problemas con la red de derivación/comunicación interhospitalaria; Ausencia de médico durante el transporte; Problemas relacionados con el regreso de los enfermeros al hospital de origen. De las dificultades experimentadas se derivan una serie de sentimientos negativos como angustia, miedo, preocupación, entre otros.
Conclusión: Los informes de los enfermeros proporcionan un diagnóstico inicial de la situación, en cuanto a recursos, planificación y ejecución del transporte.

Palabras clave: cuidados críticos; transporte de pacientes; atención al paciente; enfermeros; percepción

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Introduction

The Cape Verde archipelago consists of 10 islands and five main islets of volcanic origin, covering an area of about 4033 km^2. The population disparity between islands characterizes this archipelago. Based on data presented by the National Institute of Statistics of Cape Verde (INECV; 2021) for 2019, the island of São Vicente has the highest population density (371.05 inhabitants/km^2), followed by the island of Santiago (312.45 inhabitants/km^2). According to the same source, two (2) central hospitals (one (1) in the municipality of Praia and another in São Vicente) and four (4) regional hospitals (in the municipalities of Ribeira Grande de Santo Antão, Sal, Santa Catarina, and São Filipe) make up the healthcare network. In 2016 (INECV, 2021), there were 408 physicians (7.68/10000 inhabitants) and 690 nurses (12.99/10000 inhabitants) in the Republic of Cape Verde. Patient transfer is necessary when local resources for diagnosis, treatment, or follow-up are exhausted. In emergencies, patients must be transferred to the nearest central or regional hospital once they are stabilized so as not to endanger their lives during transport (Lima, 2016). According to the 2019 Accounting Report of the Cape Verdean National Institute of Social Security (INPS; 2019), there were 3,574 internal transfers that year, of which 300 (8.4%) were of the highest urgency.

For Ferreira et al. (2019), the inter-hospital transport of critically ill patients represents one of the most delicate moments of nursing care, which can trigger multiple incidents and, therefore, causes concern and difficulty regarding its appropriate execution. These authors also consider that nurses must have a high level of knowledge and confidence to make the right decisions in favor of quality and efficiency of care. The transport of critically ill patients between hospitals must be carried out in safe conditions (for the patient and the nurses). In this sense, Filho et al. (2020) point out that it requires prior planning to minimize risks. This study aims to understand how nurses from an island of Cape Verde experience inter-hospital (inter-island) transport of critically ill patients.

Background

According to the OE – Portuguese Nursing Regulator, a critically ill patient is "a person whose life is threatened by the failure or impending failure of one or more vital functions and whose survival depends on advanced means of monitoring, control, and treatment" (Ordem dos Enfermeiros, 2018, p. 19362). Minimal changes can lead to major complications in critically ill patients and worsen their clinical situation because their bodies cannot adapt or their physiological reserves to cope with sudden changes are reduced or exhausted (null; Pavão, 2021). The transport of patients between hospitals or facilities of the same hospital is due to the need to provide an advanced level of care or perform complementary diagnostic and/or therapeutic tests. However, critically ill patients' transport entails risks (Ordem dos Médicos e Sociedade Portuguesa de Cuidados Intensivos, 2008). There are three types of transport for critically ill patients: primary, secondary, and tertiary (Pavão, 2021). Primary refers to the transport of the patient between the place where the emergency occurs and a medical facility. Secondary refers to the transport between two hospitals (inter-hospital). Tertiary transport is within the hospital itself (intra-hospital). The transport of the critically ill patient from the site of the emergency to a healthcare facility or between healthcare facilities can be done by land, air, or sea. According to the Portuguese Professional Association of Physicians and the Portuguese Society of Intensive Care (Ordem dos Médicos & Sociedade Portuguesa de Cuidados Intensivos, 2008), secondary or inter-hospital transport of critically ill patients consists of three phases: decision, planning, and execution. The decision to transport a critically ill patient is a medical act that must take into account the risks associated with the patient and the transport process. Planning the action is the responsibility of the medical and nursing team and includes aspects such as coordination, communication, patient stabilization, team, equipment, transport, and documentation. In this phase, the destination institution is selected and contacted, and the distance of the route and the estimated time for transport are determined. This phase also includes the inter-hospital transport assessment protocol (risk score), whose result determines the resources needed for follow-up and monitoring, as well as the equipment and vehicle type according to the patient's severity level. Proactive preventive measures should be provided for the moments when the risk of an accident is highest (inoperability of venous access, insufficient oxygen reserve, etc.). The transport team is responsible for the execution of the transport and, unless the patient returns to the institution of origin and travels only to perform complementary examinations or therapeutic measures, its technical and legal responsibility ends when the critically ill patient is successfully transferred to the institution of destination. Before the transport, the team must verify that all optimization measures have been taken, not neglecting the functionality of the equipment and the transport bag, as well as the necessary medical, nursing, and complementary diagnostic examination records (Pavão, 2021).

Rodrigues and Martins (2012) conducted a qualitative study with a phenomenological approach on a sample of eight nurses in the context of patient transport by sea between islands of the Azores archipelago, analyzing the nurses' experiences. The study confirmed the association between effective transport and nurses' feelings of greater responsibility toward patients and their families, including technical (knowledge and experience), human (helping relationship), and ethical (ensuring the critically ill patients' privacy, decision-making, and protection of the health/illness situation, also from third-party interference) aspects. The study observed nurses' negative (unpleasant) feelings about planning and executing patient transport, as well as positive feelings. Rodrigues and Martins also concluded that the difficulties experienced resulted from the lack of training, insufficient space to transport the patient, bad weather conditions, motion sickness, and the noise and vibration of the boat, which interfered with assisting the critically ill patient. In a qualitative study, Delgado (2018) sought to describe the importance of

nurses in the internal evacuation of critically ill patients between two islands in Cape Verde, noting several difficulties, including the lack of material and human resources, the unfavorable conditions of the means of transport, and the failure or lack of communication between the health professionals who send and receive the patients. Fernandes et al. (2022) state that nurses play a key role in inter-hospital transport, so a specific set of skills must be developed to provide the highest level of quality care while reducing risks as much as possible. In a scoping review incorporating published and unpublished documents since 2001, the authors emphasize, with regard to the role of nurses in inter-hospital transport, the need to ensure the safety of critically ill patients through hemodynamic monitoring and to anticipate patient instability. They also underscore that one of the most important roles of nurses in this context is their differentiated management of the pain and well-being of patients.

Research question

How do nurses from an island of Cape Verde experience inter-hospital transport of critically ill patients?

Methodology

A qualitative focus group-based method was chosen to answer this study's research question. According to Silva et al. (2014), focus groups (FG) are an essential methodological tool for data collection, which Vilelas (2020) agrees allows for quick and easy contact with the population under study. This study's sample of eight (8) nurses was obtained through non-probabilistic purposive sampling. A semi-structured interview script was administered at a date and time scheduled according to the convenience of the participants (nurses) in July 2022. An ethics committee had previously been consulted about the study and had given a favorable opinion (opinion no. 110/2022). Participation in the FG required informed consent and permission for audio recording. Participants were also guaranteed the right to withdraw from the study at any time. The FG process was based on the five stages recommended by Silva et al. (2014): planning, preparation, conducting, data analysis, and dissemination of results. In the planning phase, the following inclusion criterion for selecting participants was defined: to be a nurse working in a healthcare institution on one of the islands of Cape Verde, with experience in inter-hospital (inter-island) transport of critically ill patients. The main structuring themes to be addressed with the FG were: the concepts of critically ill patient and inter-hospital transport; the feelings experienced by nurses during inter-hospital (inter-island) transport of critically ill patients; and the main difficulties experienced and the importance of nurses in inter-hospital transport. The interview script was prepared taking into account a series of pre-defined questions aimed at anchoring the discussion around the central theme: nurses' experiences of inter-hospital (inter-island) transport of critically ill patients. The interview script was organized into two parts, the first of which aimed to describe the socio-demographic characteristics of the sample: gender; age; marital status; academic qualifications; length of professional experience; and length of experience in critical care transport. The second part was designed to explore: *i)* the knowledge of the concepts of critically ill patient and inter-hospital transport; *ii)* how inter-hospital (inter-island) transport is carried out; *iii)* the feelings experienced in the process of inter-hospital transport of critically ill patients; *iv)* the main difficulties experienced in inter-hospital (inter-island) transport of critically ill patients; and *v)* the importance of nurses in inter-hospital transport of critically ill patients. A set of additional questions was included to boost the flow of the conversation. It should be noted that the interview script was previously applied to a nurse with the same characteristics as the FG, so this study was able to determine the lack of need to reformulate the script due to difficulties in understanding the questions. The preparation phase included the recruitment of nurses and the logistics required to conduct the interview. An invitation to participate in the study was sent to the nurses via email, with information explaining the objectives of the study, the research method, and the rules of participation. Twelve invitations were sent, and 11 were accepted. However, three of these participants could not attend the FG on the scheduled date and time due to personal/professional reasons. The conducting phase included the interview, which lasted almost two hours and promoted an active discussion. In order to keep the conversation flowing, aspects such as respect, freedom of expression, and encouraging self-disclosure among the participants were promoted. Thus, in this phase, the moderator's interventions were limited to keeping the conversation on track by following the main themes. Also, the moderator refrained from making value judgments while fostering everyone's participation, as noted by Krueger and Casey (2015). The interview was conducted via ZOOM videoconference platform, but only the audio was recorded. In the data analysis phase, the audio recordings were transcribed and supplemented by written notes taken by the moderator during the conducting phase. It should be noted that all audio recordings were destroyed after transcription. The analysis of the transcribed data was based on the phases described by Bloor et al. (2001): indexing, data storage/retrieval, and interpretation. In the final stage of dissemination of the results, a document (project work) was produced in which the identification of the participants was omitted and replaced by coding (N1 to N8), thus ensuring confidentiality and anonymity.

Results

The sample consisted of eight nurses, mostly female, with a mean age of 35.13 years (*SD* = 9.33 years). Seven nurses had a bachelor's degree in nursing. One nurse had a *bacharelato* (three-year degree) and was attending an additional program to obtain a bachelor's degree in

nursing. Only one nurse had the title of maternal and child health specialist. The mean length of professional experience was 12.22 years, with a minimum of 2 years and a maximum of 27 years, and the mean length of experience in transporting critically ill patients was 10 years.

Critically ill patient and inter-hospital (inter-island) transport: nurses' understanding of these concepts

When nurses were asked about the "concept of critically ill patient," two subcategories emerged: "patient in imminent danger of death" and "patient in need of specialized or advanced care" (Table 1). The subcategory "patient in imminent danger of death" had the highest number of recording units and was defined as the "(...) patient who is in imminent danger of death due to trauma or disease" (N7). All nurses defined the "concept of inter-hospital transport" as the transfer of patients between healthcare units.

Table 1

The understanding of nurses of the concepts of critically ill patient and inter-hospital transport

Category	Subcategory	Recording units: example/s	*n*
Concept of critically ill patient	Patient in imminent danger of death	"[It] is a patient who is in imminent danger of death due to trauma or disease" (N7).	7
	Patient in need of specialized or advanced care	"[It] is a patient who, because of his or her clinical situation, requires specialized care with the highest degree of urgency" (N1). "[It is a patient that] requires advanced means of monitoring, therapeutic intervention and diagnosis" (N4).	5
Concept of inter-hospital transport	Patient transfer between healthcare institutions	"It is the transfer of a patient between health units" (N7).	8

Feelings experienced by nurses when caring for critically ill patients during inter-hospital (inter-island) transport

Regarding the feelings experienced by nurses during inter-hospital transport, two subcategories emerged (Table 2): Negative feelings (anguish, fear, worry, outrage, impotence, suffocation, sadness, anger, distress, nervousness, apprehension, stress, and uncertainty) and Positive feelings (relief, satisfaction, joy, responsibility, hope, empathy, faith, resilience, love, strength, optimism, zeal, courage, commitment, and motivation).

The entire sample reported Negative feelings, mostly related to the transport (due to lack/deficiency of the means of transport and bad weather conditions/ sea conditions/ motion sickness) and the patient's condition (severity and instability), as shown in Table 2. The Positive feelings are mainly associated with the successful delivery of the patient to the institution of destination, demonstrated by the terms joy, relief, and satisfaction, among others.

Table 2

The feelings experienced by nurses when caring for critically ill patients during inter-hospital transport

Category	Subcategory	Recording units: example/s	*n*
Feelings experienced by nurses when caring for critically ill patients during inter-hospital transport	Negative feelings	"A feeling of great distress, stress . . . There are situations that don't take into account that we are not sailors, but nurses; for example, I feel very nauseous and sick when I have to accompany a patient in inter-hospital transport by sea . . . But I have to do it because I cannot refuse the assistance . . . It is within the nurse's competence; we have an obligation to do it without considering that if we can't travel by boat, what condition will we be in to take care of a patient, especially in critical condition, this causes worry, anguish and insecurity" (N5). "The feeling of anguish when you imagine you have to transport a critically ill patient whose condition can worsen at any moment. And, also, the anguish and fear of the trip . . . due to bad weather conditions" (N8).	8
	Positive feelings	"We also feel joy when we manage to deliver the stabilized patient to the destination hospital . . . the hope of one day having more suitable means of transport to evacuate patients . . . I always keep calm and the faith and hope that transport conditions will improve one day" (N3).	

Main difficulties experienced by nurses in inter-hospital (inter-island) transport

The following six subcategories emerged regarding the main difficulties experienced by nurses in inter-hospital transport (Table 3): Lack of/difficulties with means of transport, Lack of adequate material resources to assist during transport, Difficulties in ensuring patient comfort and privacy, Problems with inter-hospital referral/communication network, Absence of a physician during transport, and Costs associated with the inability of the nurse to return immediately after delivering the patient. All participants mentioned aspects related to the Lack of/difficulties with means of transport, such as the lack of a helicopter or a dedicated boat for patient transport, which forces the critically ill patient to be transported on commercial passenger ships or even on fishing boats, whose conditions are not adequate, as reported by N4. The second subcategory refers to the Lack of adequate material resources to assist during transport, such as the lack of a portable oxygen tank or dedicated first aid bag, as well as the lack of a stretcher on which to carry the patient, as reported by N6. The third subcategory, Difficulties in ensuring patient comfort and privacy, derives from the first category, as shown by the statement of N5, who explains that most transports are carried out on passenger boats, and even on fishing boats, without a specific room for patients, which results in the difficulty of ensuring their comfort and privacy. In addition, this difficulty is compounded by the gastrointestinal discomfort (nausea and vomiting) associated with sea travel (motion sickness). Problems with inter-hospital referral/communication network appear as the fourth subcategory, referring to the lack of coordination and communication between healthcare institutions, as reported by N5. The sixth subcategory, Absence of a physician during transport, relates to the issue of human resources, where the absence of a doctor during transport is another of the most mentioned difficulties, as expressed by N8. With the same number of recording units (three), the seventh subcategory, Costs associated with the inability of the nurse to return immediately after delivering the patient, refers to the difficulties encountered by nurses to return immediately to their place of origin, which imply expenses with accommodation, food, and means of transport.

Table 3

Main difficulties experienced by nurses in inter-hospital transport

Category	Subcategory	Recording units: example/s	*n*
Main difficulties experienced by nurses	Lack of/difficulties with means of transport	"Transport is irregular . . . if there are commercial airplanes and boats, the patients are evacuated in them, but if not, the coast guard is called, or [they are transported] in small boats and fishing boats . . . many hours of transport and without any conditions" (N4).	8
	Lack of adequate material resources to assist during transport	"I had a lot of difficulties with transporting the oxygen . . . there was no portable oxygen ... another difficulty is the lack of a dedicated first aid bag for the transport of patients . . . another difficulty is getting a stretcher, I have transported patients on the floor . . . there was no stretcher to carry [them]" (N6).	6
	Difficulties in ensuring patient comfort and privacy	"We have a lot of difficulties . . . to ensure the comfort and privacy of the patient" (N5).	5
	Problems with inter-hospital referral/communication network	"When I arrived, they said that the patients should not have been transferred to this hospital, but to another central hospital; there are also occasions when they discuss which specialist should treat the patient . . . for me, our difficulties are not only the lack of technical resources, materials and difficulties in transport but also the lack of organization between institutions" (N5).	4
	Absence of a physician during transport	"There are few doctors, and we are almost always the ones who accompany the patient on inter-island transport" (N8).	3
	Costs associated with the inability of the nurse to return immediately after delivering the patient	"There is the financial issue; I transported patients and then had to pay for [my] food and accommodation myself; the stipend is paid long after the transport is done." (N8).	3

During the FG, the participants offered suggestions to minimize some of the difficulties described, such as: providing dedicated means of patient transport; improving resources by integrating portable equipment (e.g., portable oxygen tanks, monitors); increasing medical personnel resources needed to accompany the transport of patients; implementing specific action protocols; and providing advanced life support training.

Importance of nurses in inter-hospital (inter-island) transport of critically ill patients from the participants' perspective

Two subcategories emerged regarding the importance of nurses in inter-hospital transport of critically ill patients: very important in stabilizing patients; and important in meeting the multidimensional needs of patients. All nurses emphasized the importance of nurses in stabilizing patients, as shown by N3's statement: "We ensure the well-being of the patient, whether the patient is well or not, we have to keep calm to be able to respond to situations and minimize risks, stabilize patients, and get patients to their destination unit" (N3). Five participants highlighted the importance of nurses in meeting the multidimensional needs of critically ill patients, essentially associating them with a multi-professional role, as reported by N2: "We play many roles ... nurse, doctor, psychologist, even boat captain ... and often we play the role of family members, so we have to try to help [patients] in every way because we are the only persons they have there" (N2).

Discussion

The majority of the sample of this study associated the concept of critically ill patient with that defined by the OE – Portuguese Nursing Regulator (Ordem dos Enfermeiros, 2018), based on the imminent danger of death and the corresponding need for advanced means to reverse the situation. All nurses correctly identified inter-hospital transport as the transfer of patients between healthcare institutions and recognized the phases (decision, planning, and execution) of the whole process as described by the Portuguese Professional Association of Physicians and the Portuguese Society of Intensive Care (Ordem dos Médicos & Sociedade Portuguesa de Cuidados Intensivos, 2008). As for the feelings reported by the nurses, they are essentially negative (unfavorable), which is partly similar to the observed in the studies by Delgado (2018) and Rodrigues and Martins (2012), with an identical context (inter-hospital transport between islands). The interpretative content analysis shows that these negative feelings are essentially due to the difficulties experienced. Positive (pleasant) feelings are also pointed out, as in the study by Rodrigues and Martins (2012), and associated with the successful delivery of the patient to the destination hospital, literally described as relief and satisfaction, among others.

Regarding the main difficulties encountered, the difficulties related to transport are highlighted due to the problems of inter-island connections and the lack of

adequate means of transport or minimal conditions for transporting critically ill patients. The constraints in internal and external patient evacuation in terms of medical assistance and means of transport have already been identified by the Cape Verdean National Commission for Human Rights and Citizenship (2018), which considers the panorama in Cape Verde extremely worrying. The second subcategory that emerged was the lack of adequate material resources for assistance during transportation. The equipment to be used must be taken into account during the planning phase, as its absence can affect the quality and safety of assistance. Bourn et al. (2018) point out that transfer equipment should be durable, compact, and intuitive to use. They also highlight the need for additional airway, breathing, and circulation (ABC) equipment stored in a dedicated transfer bag. In the United Kingdom, the Intensive Care Society, in collaboration with the Faculty of Intensive Care Medicine, has published guidelines to promote high standards of care in the transfer of critically ill patients (Intensive Care Society & Faculty of Intensive Care Medicine, 2019). These guidelines recommend that equipment should be appropriate for use in the transfer environment when transporting a critically ill patient. The need for continuously monitoring critically ill patients during transport means that suitable equipment must be used, such as monitors with a clear, illuminated display capable of showing ECG, oxygen saturation, blood pressure, and other values. The difficulty of ensuring the comfort and privacy of patients was another of the most highlighted subcategories, similar to Delgado (2018) and Rodrigues and Martins (2012). These difficulties are considered to be due to the use of non-specialized means of transport (such as commercial passenger ships and fishing boats) without the appropriate conditions to ensure comfort and privacy and to the need to transport patients by sea under conditions that often cause gastric discomfort (nausea and vomiting) for both the patient and health professionals. In descending order of major difficulties, nurses also mentioned problems at the level of the inter-hospital referral/communication network (fourth subcategory). If good practices are followed, problems in this area can be prevented before a transfer takes place, as described in the Portuguese Health Regulatory Authority's Regulation No. 964/2020 (2020) on the transfer of patients between healthcare institutions. This regulation describes that there must be prior contact (preferably by telephone) with the person in charge of the destination institution, in which the patient's situation is explained in clinical terms (signs and symptoms, diagnosis, and prognosis) as well as the reasons and benefits of the transfer, and the availability of resources to receive the patient is confirmed. This contact should be duly recorded in the patient's medical record, with the identification of the persons in charge of both institutions (origin and destination), the date and time of the contact, and the identification of the person who carried out the transport. The same regulation emphasizes that the health institution of origin is responsible for the clinical stabilization of the patient. The subcategories related to the absence of a physician during the transport and the costs incurred due to the impossibility of the nurse's immediate return after the patient's delivery (accommodation, food, return trip) appear in the end with fewer recording units. Regarding the need or not for medical monitoring, the use of a risk score for patient transport (Ordem dos Médicos & Sociedade Portuguesa de Cuidados Intensivos, 2008) helps to define the monitoring and equipment needs for each level of severity, and an assessment table properly adapted to the context in question helps to manage resources. Among the difficulties presented, the participants also suggested solutions regarding the means of transport and human and material resources, emphasizing the design and implementation of action protocols. Matias et al. (2022) conducted a mixed methods systematic review of 15 studies published between 2012 and 2021 to analyze how the interventions of a multi-professional team promote safety in the transport of critically ill patients. In their conclusions, they highlight the importance of standardizing the transport of critically ill patients by creating institutional protocols, specific procedures, and checklists and promoting the adequacy of equipment. They also emphasize the importance of continuing education and skills training to build team capacity and create a culture of safety.

The importance of the nurse in the inter-hospital transport of critically ill patients is clear in the statements of all participants, with emphasis on the role of stabilizing patients and meeting their multidimensional needs. Fernandes (2022) highlights the existence and importance of nurses dedicated to this activity, with differentiated experience and skills, specific training and education, and good communication and teamwork skills.

Based on the nurses' experiences, the statements analyzed in this study allow only a first diagnosis of the situation since they refer to a single space-time context. Therefore, the results do not allow generalizations, but a first reflection on the subject, from which more complex studies can be carried out involving larger samples and a more comprehensive range of variables.

Conclusion

From prehospital stabilization of critically ill patients to their safe delivery to the destination hospital, the nurse's role in inter-hospital transport is critical to ensuring the survival of critically ill patients. Several factors may condition patient transport and increase the negative feelings associated with its performance, so it is essential to identify these factors. This study explored the experiences of a small group of nurses from an island in Cape Verde regarding inter-hospital (inter-island) transport of critically ill patients. The feelings experienced by the nurses were divided into two opposing groups: negative and positive. Negative feelings resulted from experiences in less favorable conditions, such as transporting patients in non-dedicated means of transport (commercial and fishing boats) and sea travel (due to bad weather conditions/ sea conditions/ motion sickness). The lack of adequate material resources for transport and the dif-

ficulties in ensuring patient comfort and privacy were also highlighted. The main guidelines recommend that transport be carried out by adequately trained and experienced teams, with appropriate equipment certified for the type of transport required. The use of maritime means of transport dedicated to inter-hospital transfer, with special teams and appropriate equipment/materials, ensures the best assistance to the critically ill patient. In the absence of access to these specific means, the possibility of using a properly prepared space in ships with reliable equipment (tested in advance) would improve working and transport conditions. The establishment of internal and external partnerships could be an asset, either for the improvement/sharing of human and material resources or for the transfer of knowledge related to the transport of critically ill patients, including training in emergency situations (basic and advanced life support, trauma), with emphasis on the importance of implementing action protocols aimed at providing safe and quality assistance.

Author contributions

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