

The lived experiences of providing nursing care in coastal areas: A qualitative study

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Abstract

Objective: To explore nurses' experiences in providing care in coastal areas.

Method: The phenomenological study was conducted from July to September 2020 in two coastal areas located in the Riau province of Indonesia, and comprised nurses working in public health centers, hospitals and district health offices. Data was collected using in-depth interviews. Data was subjected to thematic analysis.

Results: Of the 13 nurses, 10(77%) were females and 3(23%) were males. The overall age range was 24-44 years. Four themes that emerged were health problems in coastal areas, obstacles in nursing care delivery, irrelevant duty, and procedures in delivering nursing care. There were a total of 10 sub-themes as well.

Conclusion: Despite the challenged faced by the nurses, communities in coastal areas deserve to get due healthcare services.

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Introduction

Coastal areas refer to areas of transition between land and sea where the seaside is affected by activities on land, such as sedimentation and freshwater flows, and the terrestrial part is affected by ocean activities, like tides and sea breeze. The scope of regulation of coastal areas and small islands includes transitional areas between terrestrial and marine ecosystems affected by changes on land and sea, according to the jurisdictional boundaries of a country.

Various community health issues may occur in coastal areas that require attention from the relevant quarters. For this reason, coordination, communication and cooperation among various agencies and service providers are essential for ensuring that sustainable health services are available to the coastal communities.

Indonesia has a coastline running along 95,181 km, which is the second longest in the world, with a sea area of 5.8 million square kilometres (km²). In other words, about 71% of the entire territory of Indonesia is water. The province of Riau, with an area of 87,023.66 km², is strategically located on the coast of the Malacca Strait bordering Malaysia, and has a large coastal area. The province consists of Riau mainland and Riau waters, with various islands along the Strait of Malacca.¹ There are 12 regencies, or cities, in Riau, and some of them are in coastal areas, such as Rokan Hilir, Indragiri Hilir, Dumai, Bengkalis and Meranti Islands. A significant number of people in the province live in coastal areas, and they primarily work as fishermen. Unfortunately,

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seawater pollution is not uncommon owing to various factors, such as oil spill or garbage thrown by the community.^{2,3} In addition, humidity and environmental conditions of the sea also affect the degree of health and diseases that the coastal communities may suffer from.⁴

Healthcare facilities, such as public health centres and hospitals, are rarely located near the coastal areas, affecting the ability of the coastal communities to access healthcare services. Moreover, there is still a lack of nurses and health workers providing services to people in such areas, especially those far from the main urban centres. The existence of nursing services in such communities is crucial, especially during emergency conditions.⁵ Research has generally focussed on diseases experienced by coastal communities or the behaviour and influence of the coastal environment on community health.^{1,6-9} The current study was planned to explore nurses' experience of providing care to the coastal communities.

Methods

The phenomenological study was conducted from July to September 2020 in two coastal areas located in the Riau province of Indonesia. The participants were recruited using purposive sampling technique. Those included were nurses working in public health centers, hospitals and district health offices. Exclusion criteria of the participants were those retired as nurse and were unhealthy both physically and psychologically. Each subject, willing to participate in the study, was asked to sign a consent form prior to data collection. Number of participants needed in the study was decided based on data saturation. When data were saturated in which no new information was obtained,

recruitment of subjects was stopped. Data were collected through in-depth interviews and analyzed using thematic analysis. The study was approved by the IRB of Faculty of Nursing, University of Riau, number 453/ UN. 19.5.1.8/KEPK.FKp/2022.

Results

Of the 13 nurses, 10(77%) were females and 3(23%) were males. The overall age range was 24-44 years. Four themes that emerged were health problems in coastal areas, obstacles in nursing care delivery, irrelevant duty, and procedures in delivering nursing care. There were a total of 10 sub-themes as well.

The first theme was related to health problems experienced by the coastal communities. The theme had 2 sub-themes. The first sub-theme was hypertension (HTN) and stroke. HTN is among the most common health issue experienced by the coastal communities. Moreover, stroke caused by uncontrolled HTN is also one of the primary factors forcing the patients to visit hospitals.

"But if you look at the cases I mentioned earlier, of course, most cases of the elderly are due to diseases such as hypertension and stroke." (P1)

"Diabetes, hypertension, and respiratory infection diseases. These are the three top diseases." (P5)

The second sub-theme was myalgia, which is a complaint widely experienced by coastal communities, especially those working as fishermen.

"... (M)uscle pain, leg and hand pain. This is probably because the majority of the population are fishermen who perform menongkah (lift jaring, push canoe), and often myalgia for productive age." (P10)

"The majority of those aged 30 and above suffer from myalgia, hypertension, sugar." (P12)

The second theme related to obstacles in delivering nursing care. This had 4 sub-themes.

The first sub-theme was transportation difficulties. Transportation that is not fast and smooth, particularly sea transportation, was the main barrier to providing health services to people living in coastal areas and surrounding island areas. There was a limited number of transportation options, and even they had their limitations:

"If you take a roro (a big boat), it takes 20 minutes to reach the nearest public health centre. Previously, it could be longer because of the queue to get into the roro. The queue can be 4-6 hours because the roro could not carry much load; just a few cars or several motorcycles." (P1)

Table: Characteristics of the participants (n=13).

Code	Initial	Age (years)	Gender	Occupation	Length of working	Education
P1	DI	43	Female	Emergency nurse	21	Master
P2	A	36	Female	Operating theatre nurse	13	Bachelor
P3	M	44	Female	Operating theatre nurse	19	Bachelor
P4	HA	32	Male	Public health nurse	7	Bachelor
P5	DF	38	Female	Public health nurse	3	Bachelor
P6	YD	43	Female	Public health nurse	6	Bachelor
P7	R	48	Female	Outclinic nurse	34	Bachelor
P8	MR	24	Male	Surgical Ward nurse	2	Diploma
P9	R	34	Male	Emergency nurse	13	Bachelor
P10	RF	32	Female	Public Health nurse	3	Bachelor
P11	AW	34	Female	Medical Ward nurse	7	Bachelor
P12	EH	28	Female	Public health nurse	3	Bachelor
P13	HA	34	Female	District health officer	5	Bachelor

The second sub-theme was marine ambulance and charter boat. To deal with the transportation challenge, some health workers, especially nurses working in the coastal areas, used small boats, called sea ambulances, to take patients to healthcare facilities. Alternatively, renting a boat to come to the patient's home was also a solution chosen by the nurses for providing services and referring patients to healthcare facilities on land.

"We use a small boat as a sea ambulance. The sea ambulance can accommodate 3 people. The boat is small, and the waves are horrifying. We also choose to rent boats specifically for public health centres because they are usually more economical. This way, referrals can still be done." (P12)

The third sub-theme was coverage of national health insurance. Health costs covered by the patients are a significant issue in the provision of health services, including nursing for the coastal communities. Some people have inadequate incomes, and national health insurance, which is the mainstay of the communities to access health services, does not cover all healthcare costs borne by the coastal communities. *"Well, that is a big obstacle because the national health insurance does not cover all the costs. So they have to pay with their own money. And it is a big obstacle." (P4)*

The fourth sub-theme was a guarantee letter as a guarantee of payment. To deal with the issue of costs not covered by the national health insurance, the management of healthcare facilities provides a way out by involving local governments. The patients have the option to obtain a guarantee letter from the local government to pay fees of healthcare services after returning home.

"The solution from our management is to sign the guarantee letter first so that the process may be completed, or, later, local officials there contact the hospital management." (P13)

The third theme identified was irrelevant duty. Some nurses complained that they were sometimes assigned duties that were incompatible with their function as providers of nursing services to coastal communities. The theme had 2 sub-themes.

The first sub-theme was administrative tasks. Some participants revealed that they were provided too many documents to fill out and complete in the delivery of nursing services, which consumed a great deal of their time. Due to the large number of documents to be completed, they felt that they served the dual roles as a nurse as well as an administrative officer. *"There are too many documents to fill out so that the time is exhausted in filling out the documents."* (P5)

The second sub-theme was not focussing on providing services. As a result of burdensome administrative tasks, the nurses found it difficult to focus on providing nursing services to the communities.

"Because of such services, the nurses cannot focus on their work. For example, there are nursing care documents, but then there are other things as well. Another example is that nurses are still required to handle medical record documents when it should be the job of the medical records section. The provision for manpower should have been submitted by the administration." (P3)

The fourth theme was procedures in delivering nursing care, which had 2 subthemes. The first sub-theme was the move from the public health centre to the hospital.

People who needed nursing services had to go to the public health centre first. It was only when they could not be handled at the health centre that they were moved to the hospital. *"For nursing care, patients have to go to the health center first. If it is impossible to handle the patients there, then we refer them to the hospital."* (P6)

The second sub-theme was reference and follow-up care. For follow-up post-hospital care, patients in coastal areas received a letter of follow-up care from the hospital. Alternatively, they could be referred to a health centre or private clinic to access follow-up care. *"Because after returning home, we were given a letter of follow-up care to the polyclinic, and it was for the residents of our area. If the residents are outside our area, the patients and families usually stay at a rented house in the area. It can also be referred to a health centre near the patient's home. I have a private clinic. Usually, patients from outside the area come to my clinic. It is a proof that the patient still receives health services after being discharged from the hospital."* (P1)

Other participants emphasised the importance of referrals

as a continuation of care for patients. *"Patient referral is part of the nursing service to continue care for the patient."* (P9)

Discussion

To our knowledge, the current study is the first to examine the nurses' experience in providing care to coastal communities in the Riau province. The most common health issues experienced by the coastal communities are those caused by their activities and diet, including disorders in the eyes, skin, muscles or musculoskeletal, digestion, nutrition, accidents, drowning, and bad habits, like alcohol, smoking, and not maintaining environment cleanliness.^{4,10}

Public health problems, including environmental health and nutritional issues, can stem from the behaviour of individuals, families or communities. Because people live near the sea, their staple food includes fish, shrimp and squid. It means that in addition to being sold at local markets, the food is also consumed by families of the fishermen, or preserved so that it can be used for a long time. This food contributes to the coastal communities experiencing HTN, which, if uncontrolled, may cause a stroke. In addition, coastal communities have the habit of consuming large amount of sugar, leading to high rate of diabetes.¹¹

Furthermore, since fishermen require a great deal of energy for carrying the marine catch from the fishing boats to markets or auction houses, the majority of the fishermen complain of muscle-related issues or myalgia. Besides, the unhealthy habit of smoking and hereditary factors also result in health problems that health workers working in coastal areas need to pay attention to.¹²⁻¹⁵

Some nurses in the current study considered that sustainable nursing services were being carried out in the form of referrals. Patients who could not be treated at the public health center were referred to the hospital. After leaving the hospital and returning home, they were given a follow-up letter that allows them to visit the hospital or the public health centre for follow-up care.¹⁶⁻²⁰

The public health center also had a home visit programme to monitor the health of coastal communities. Although the area that is the responsibility of the public health centre was not easily accessible, public health centre nurses continued providing health services by visiting residents in need. They used a variety of alternatives, including small boats, to reach the patients.

The current study has limitations. The quality of healthcare was not studied as only nurses were involved. Other aspects of providing nursing care, such as budgeting, planning and evaluation, were not investigated despite

their impact on the quality of nursing care.

In the light of the findings, people living in coastal areas should be encouraged to have a variety of food and avoid only consuming seafood. In addition, people must quit unhealthy habits, such as smoking. Nurses and other health workers need to raise general health awareness among the coastal communities.

Conclusion

Coastal communities experienced generative diseases, and complained of various health issues. Lifestyle and hereditary factors are among the causes of diseases experienced by the coastal communities. Further studies are needed to explore in depth, the relationships between other factors to public health of the coastal communities.

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