Original Article

เสียงจากนักศึกษามหาวิทยาลัยสงขลานครินทร์ในการเข้าถึงบริการการแพทย์ฉุกเฉินของโรงพยาบาลมหาวิทยาลัย

รุ่งนภา คำผาง[1]
ปิยวรรณ เชียงไกรเวช[2]*
วิชย เพชรเลียบ[1]
เชษฐา งามจรัส[1]
ลัพณา กิจรุ่งโรจน์[3]

PSU Students' Voices: Accessibility of Emergency Medical Services of the University Hospital.

Roongnapa Khampang[1], Piyawan Chiengkriwate[2], Witchaya Petliap[1], Chetta Ngamjarus[1], Luppana Kitrungrote[3]

[1]International Programme Study in Epidemiology, [2]Pediatric Surgery Unit, Department of Surgery, Faculty of Medicine, [3]Department of Surgical Nursing, Faculty of Nursing, Prince of Songkla University, Hat Yai, Songkhla, 90110, Thailand.

*E-mail: chiengkriwate_piyawan@hotmail.com

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บทคัดย่อ:

วัตถุประสงค์: ความพร้อมในการเข้าถึงบริการการแพทย์ฉุกเฉิน เป็นบริการที่สำคัญสำหรับนักศึกษาซึ่งเป็นกลุ่มคนส่วนใหญ่ในมหาวิทยาลัยสงขลานครินทร์ การศึกษานี้มีวัตถุประสงค์เพื่อค้นหาความหมายของการเข้าถึงบริการการแพทย์ฉุกเฉิน ภายใต้การรับรู้ของนักศึกษามหาวิทยาลัยสงขลานครินทร์ ประสบการณ์การใช้บริการดังกล่าว การจัดการเมื่อเผชิญกับสถานการณ์การเข้าถึงบริการการแพทย์ฉุกเฉินที่ไม่คาดคิด และข้อเสนอแนะการปรับปรุงการเข้าถึงบริการการแพทย์ฉุกเฉิน

[1]หน่วยระบาดวิทยา [2]หน่วยศัลยกรรมเด็ก ภาควิชาศัลยศาสตร์ คณะแพทยศาสตร์ [3]ภาควิชาการพยาบาลศัลยศาสตร์ คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ อ.หาดใหญ่ จ.สงขลา 90110

รับต้นฉบับวันที่ 2 กันยายน 2556 รับลงตีพิมพ์วันที่ 7 มีนาคม 2557

วัสดุและวิธีการ: การใช้วิธีวิจัยเชิงคุณภาพกับนักศึกษามหาวิทยาลัยสงขลานครินทร์ 10 คน ที่เคยมีประสบการณ์การเข้ารับบริการการแพทย์ฉุกเฉินของโรงพยาบาลสงขลานครินทร์ในช่วงระยะเวลาที่ศึกษาอยู่ในมหาวิทยาลัย การเก็บรวบรวมข้อมูลใช้การสัมภาษณ์เชิงลึกและกลุ่มสนทนา แล้วนำเนื้อหามาประมวลและวิเคราะห์อย่างง่าย
ผลการศึกษา: นักศึกษาให้ความหมายของการเข้าถึงบริการการแพทย์ฉุกเฉิน คือ การมีความพร้อมในการให้บริการทั้งด้านเวลา บุคลากร และอุปกรณ์ ในสถานการณ์ทั้งก่อนมาถึงโรงพยาบาลและในห้องฉุกเฉิน นักศึกษาบอกว่าการบริการการแพทย์ฉุกเฉินของโรงพยาบาลสงขลานครินทร์ โดยรวมดี ในด้านความสะดวก การเว้นจ่ายค่ารักษา และคุณภาพการดูแลจากบุคลากรการบริการการแพทย์ฉุกเฉิน อย่างไรก็ตาม ผู้ให้ข้อมูลเผชิญกับอุปสรรคต่างๆ เช่น การไม่รู้เบอร์โทรศัพท์ของ EMS การใช้เวลารอคอยการตรวจ ปัญหาการสื่อสารกับบุคลากรสุขภาพ และความรู้สึกโดดเดี่ยวหรือไม่มีความเป็นส่วนตัว ผู้ให้ข้อมูลต้องจัดการกับสถานการณ์การเข้าถึงบริการการแพทย์ฉุกเฉินที่ไม่คาดคิดด้วยตนเอง หรือแสวงหาความช่วยเหลือจากผู้อื่น นอกจากนี้ได้เสนอแนะเกี่ยวกับการให้ข้อมูล การเตรียมอุปกรณ์ให้พอเพียง รวมทั้งปรับปรุงการสื่อสารของบุคลากรและเวลารอคอยที่ห้องฉุกเฉิน
สรุป: นักศึกษามหาวิทยาลัยสงขลานครินทร์มีประสบการณ์ทางบวกและลบเมื่อใช้การบริการการแพทย์ฉุกเฉิน เพื่อพัฒนาคุณภาพของการให้บริการการแพทย์ฉุกเฉิน บุคลากรทางสุขภาพควรให้ข้อมูลการบริการการแพทย์ฉุกเฉินและจัดเตรียมอุปกรณ์อย่างมีประสิทธิภาพ ช่วยนักศึกษาให้รู้สึกสุขสบาย และปรับปรุงการสื่อสารและระยะเวลาการรอคอยที่ห้องฉุกเฉิน

คำสำคัญ: การเข้าถึงบริการ, การบริการการแพทย์ฉุกเฉิน, นักศึกษา, ห้องฉุกเฉิน

Abstract:

Objective: Ready access to Emergency Medical Services (EMS) is crucial for students as the majority group of the Prince of Songkla University (PSU) community. This study aimed to explore the meaning of accessibility to EMS based on PSU students' perception, their experiences in accessing these services, and management when facing unanticipated EMS accessibility situations. Their suggestions to improve access to the EMS are also described.
Material and Method: A qualitative method was conducted on 10 PSU students who had used the EMS of the PSU Hospital during the study period. Data were collected through in-depth interviews and focus group discussions, and were analyzed with simple content analysis.
Results: Participants perceived the meaning of accessibility as the readiness of services in terms of time, personnel and equipment at both the pre-hospital and emergency room (ER) situations. Overall, the EMS was good in terms of convenience and being provided free of charge, and the quality of the help provided by the EMS personnel. However, participants faced various barriers such as not knowing the EMS telephone number, waiting time, facing communication problems with the health care providers and feeling alone or treated in a non-private setting. Participants managed unanticipated EMS accessibility situations either by themselves or seeking help from others. Their suggestions included providing EMS information, preparing available equipment and improving health care provider's communication and waiting time at the ER.

Conclusion: PSU students had positive and negative experiences while using the EMS. To improve the quality of EMS in PSU community, the EMS personnel should provide the EMS information and equipment effectively, make the PSU students feel comfortable, and improve their communication and overall waiting times at ER.

Keywords: accessibility, emergency medical services, emergency room, students

Introduction

Emergency medical services (EMS) are a type of emergency service dedicated to providing out-of-hospital acute medical care, and transport to definitive care for patients with illnesses or injuries that prevent the patient from transporting themselves. The goal of most EMS is to either provide treatment to those in need of urgent medical care, with the goal of satisfactorily treating the presenting conditions, or arranging for timely removal of the patient to the next point of definitive care.[1]

The Emergency Medicine Institute of Thailand (EMIT) was established by the Thailand Medical Emergency Response Act B.E. 2551. The involvement of the EMS begins with the reporting of an emergency at the national emergency call number 1669 command center. The command center is responsible for deciding the appropriate level of medical emergency services required by the caller, and providing pre-hospital medical services before and during transporting emergency cases to the nearest emergency room (ER).[2]

Accessibility refers to people's ability to access good quality EMS health services when they are needed.[3] The core concept of access is defined as the quality of interaction between an individual and the health system's attributes in terms of delivery and financing. This interaction can be further divided into three dimensions: availability, affordability, and acceptability.[4]

In the Prince of Songkla University (PSU) community, EMS are provided by the Songklanagarind Hospital. Access to EMS is crucial for Thai students as they represent the majority of PSU people, and understanding how these students perceive their accessibility to EMS and how they utilize the services, based on their experience, is therefore important. However, evidence exploring university students' perception of access to EMS is limited. Therefore, this study aimed to explore the perception of PSU students regarding the meaning of accessibility of EMS, experiences in using the EMS, how to manage with unexpected situations and their suggestions to improve the accessibility of EMS.

Material and Method

Study design

A qualitative approach was conducted through focus groups and in-depth interviews. Participants were asked to describe the meaning of EMS's accessibility, their experiences using EMS, management of EMS's unanticipated situations and suggestions for improving access to EMS.

Study setting and population

To gain the PSU students' experiences in accessibility of EMS, the students were recruited as participants from PSU Hat Yai Campus in January 2012. The PSU campus has the Songklanagarind Hospital which is a tertiary level hospital providing health care and referral services to the 14 southern provinces of Thailand, as well as the PSU community. With the use of purposive sampling, verbal invitation was performed to participants who currently PSU students and had used the EMS in the Songklanagarind Hospital while they were a student.

In general, the qualitative method involves the study of a small number of participants to develop patterns and relationship of meaning.[5] A sample size of five to eight is suitable for homogeneous sample: twelve to twenty or more are generally needed when the researcher is attempting to reach maximum variation.[6] In this study, the researcher conducted a focus-group discussion and interviews with participants until the data reached a point of saturation (no new themes are being expressed). Therefore, a total of 10 PSU students were included in this study.

Data collection

This qualitative study used focus group discussion and in-depth interviews to collect data by following a designed interview guide (i.e., "What is it like for the accessibility of EMS of Songklanagarind Hospital?", "How did you feel when using the EMS?", "How did you manage with difficult situations of the EMS?", "Any suggestions are for improving the EMS?"). Questions were validated through the consultation with a qualitative thesis advisor. Before collecting data, the researchers were trained in a qualitative research course and did a pilot study. Then, the researchers contacted the participants and build relationships with them until the researchers felt that the participants trust them and did not think them as a stranger. Next the researchers asked those participants to contribute their experiences via focus-group-discussion and interviews.

In this study, one focus group discussion was conducted by 4 researchers over a period around 45 minutes with 10 participants. Then, to gain considerable insight for each individual, 4 participants were asked to engage in in-depth interviews. During conducting the focus group discussion and in-depth interviews, the researchers recorded with audiotaped and observed the non-verbal behaviors and emotional qualities of participants' conversation.

Data analysis

The data collected from both focus group discussion and in-depth interviews were stored on a computer. Each researcher independently conducted the coding. Then, the researchers discussed the themes and subthemes that had emerged during the interviews. Disagreements were solved by consensus and in consultation with the qualitative thesis advisor who was expert in Phenomenology research. Summarized themes and sub-themes with supporting quotations were translated from Thai to English language and discussed with experts (two lecturers who are familiar in using bilingual language in Thai and English).

Trustworthiness

The researchers were trained before conducting the interviews and also piloted the proposed interview guide within the group and in consultation with the qualitative thesis advisor. Good relationships between the researchers and the participants were established before performing the focus group discussion and in-depth interviews. The researchers kept journals in which they recorded their reflections on the progress of the research, and used their reflections for improving the interview guide and process accordingly. Non-participant observations were incorporated into the analysis by visiting and talking with EMS personnel at Songklanagarind Hospital which is a tertiary level hospital providing health care and referral services to the 14 southern provinces of Thailand, as well as the PSU community. Peer debriefings were done by consulting the advisor to comment on and make suggestions on our findings. To reduce bias, investigator triangulation (two lecturers are expertise in ethnography practice and ground theory) also was occurred to check the internal validity of the findings in final.

Protection of human rights

Prior to undertaking this study, the proposal for the study was approved by the Ethical Review Committee of Faculty of Medicine, PSU (EC 561411013). All participants were informed about the design and purpose of the research project, given an information sheet, told about their rights, and signed a written consent form before joining a focus group or participating in their interview. Confidentiality of the collected data was ensured as only the researchers and the advisor had access to the raw data (recorders, verbatim transcriptions). Participants' names were not disclosed in the final research report. The audiotapes were destroyed at the completion of the study.

Results

Sample

Ten Thai PSU students, including 5 males and 5 females, participated in this study. The age range of participants was 22 to 24 years, with an average age of 22.7 years. The majority (n=7) were studying for a bachelor degree and three were in post-graduate programs from several faculties including general science, social science and health sciences. The EMS were mainly paid for by the PSU student health insurance (n=8). One participant paid for the services with the Thai universal health care coverage program, and one paid by himself due to use his parent CSMBS (Civil Servant Medical Benefit Scheme). The number of ER visits ranged from one to three, and the majority had visited the ER only one time (n=6). The total number of visits was 17 (2 trauma visits and 15 non-trauma visits). The majority of the students had sought emergency care because of low complexity presentation of illness (i.e, abdominal pain, tachycardia, ear pain). Most participants visited the ER out of normal 'office hours' (between 4.30 pm to midnight).

The meaning of accessibility of EMS: readiness of services at pre-hospital and emergency room

The participants perceived the meaning of accessibility to EMS as the readiness of services both before arriving at the hospital and in the ER.

Three themes emerged from the study. First, a rapid response time was an important issue for EMS as the participants believed they should not have to wait times for any investigations and should be treated quickly for their emergency situation. Second, the appropriateness of the health care team was stated as important in both the pre-hospital and hospital phases. 'Appropriateness' refers to a sufficient number of health care providers, activeness and motivation of providers, proper transportation and good communication between the patient and the health providers. A 'sufficient number of providers' was defined by the participants as a number of doctors are sufficient to meet the health needs of the patient. Third, good quality equipment in both the EMS vehicle and the ER was deemed as an important part of adequate service. All equipment should be ready at all times.

Participants shared their ideas and expectations as follows:

"...If it is a real emergency, I wish doctors are more active working. The hospital may increase the number of doctors or anything that makes them [patients] feel like they have chance to see doctors. So, they [patients] will feel that it is a real emergency..." [FGD: P3]

"...the EMS team should have a nurse too. If the illness is more severe than mine [participant], the EMS team should come with a doctor. Moreover, patients should be transported as soon as possible. The communication should be good, for example if I lost my consciousness, they [EMS team], should inform my relatives." [IDI: P2]

"If there is a severe injury, the equipment and staff should be ready to help patients with their full capacity." [IDI: P1]

Positive and negative experiences regarding using EMS

After they experienced with using the EMS, the participants had both positive and negative views.

Positive experiences

Eight of the ten participants said that the emergency care they received was convenient because it was free, and they received good help from the EMS staff. Also, they thought that the process of history taking and receiving their medications was quick and efficient. For example,

"I got in an accident on the Punnakun road which is near Songklanagarind Hospital, I called my friend to bring me to the hospital because it [hospital] is close and convenient." [FGD: N1]

"I used the student's health insurance. I just gave them my student ID and my name. They [registry administrators] did not require my student card. It [the process] was pretty convenient." [FGD: N3]

"The staff were smiling and willing to provide service. They [staff] did not show any signs of boredom although it was during the night. They [staff] were willing to help." [IDI: P1]

"The process of receiving my medicine was fast." [FGD: P6]

Negative experiences

Some participants had negative experiences when using the emergency care system, including not knowing the EMS number or its services, waiting times at the ER waiting room, a problem in communicating with the EMS staff, and feeling alone or not having their privacy respected.

A majority of participants (n=6) were not aware of the EMS number "1669" at the time they required the emergency service. Two participants had heard of the service, but did not understand the function of the 1669 number. They thought that "1669" was an emergency service only for people involved in a severe accident, and did not include university students with non-accident situations. Only two participants knew the services available from "1669", because they were both medical students who had learnt about the emergency services during their classes.

"I don't know [1669]. Is there such a kind of services? I should find more information related to this number on the internet. Truly speaking, I don't know this number." [IDI: P5]

Another concern was waiting time to receive care. Eight participants felt that they had waited too long for their investigations or to receive care. Some participants said that after they were examined by a triage nurse, they waited more than 1 hour before entering the ER from the waiting room. Once they were inside the ER, some participants also complained that they waited a long time before the doctor began their investigations, and then for the laboratory results.

"I waited three hours in front of the ER. It was a very long time, and finally I felt better and I told my friends that I did not need to see the doctor anymore [crying sound]." [IDI: N1]

The health staff's communication problems, including unexplained, unclear, and unsuitable messages, were also reported according to the participants' experiences. For example, they felt there was a lack of communication about some things, such as the steps of triage screening and the health provider's identification.

"The doctor did not tell me that the EKG result the first time was not normal. I learned this only because my friends saw the EKG result and told me." [IDI: P2]

Unclear communication means ambiguous messages or EMS personnel who have not identified themselves, and a failure to tell the patient clearly about such things as investigation results, the recommended treatment, discharge procedure, or how to use the medications prescribed. The participants who complained about their service said:

"I was not informed about the reason for my discharge when I did not feel well enough to return home. I wish they [doctors] had given me more time to make me feel better or to observe that the symptoms were gone." [IDI: P2]

In addition, one participant defined part of unsuitable communication as being talked to impolitely. This was reported by a female participant who was not happy with the unfriendly manner of the doctor when she sought care a second time with the same but less severe symptom.

"When I met the doctor, the doctor said "You have come here a second time, what do you want from here?" It was not appropriate."[IDI: N1]

Moreover, feeling alone or treated in a non-private setting was mentioned by two participants. For example, a female participant who had tachycardia and was forced to lie on a bed in front of the x-ray room at 11 pm. without anyone looking after her said:

"A nurse left me alone in front of the x-ray room to wait for a doctor to take me into the room for the requested investigations. I was afraid. There was nobody with me [in front of the x-ray room]." [IDI: P2]

One female participant reported that a crowd of patients and their families in the ER made her feel uncomfortable, as follows:

"Patients have little privacy. When they lay in their bed, there may be other people walking around. There is no curtain. Sometimes when there was a severe case, other less ill patients, and the patient's relatives, would go and look at that case." [FGD: P3]

Management of unintended situation when using emergency care

Participants managed unanticipated situations when faced with a situation requiring emergency care, the students had two choices – managing the situation by themselves, or seeking help.

When coping with an emergency situation by themselves, the participants described several things they could do, such as asking someone for information, attempting to understand the situation and keeping calm, negotiating with the doctor and managing the payment for services by using the student health insurance.

"I understand that there were no drugs that would relieve my symptoms. They [doctors] could only observe my symptoms and wait until they [my symptoms] improved." [IDI: P2]

"The doctor wanted to prescribe a drug to relieve my muscle pain. I asked him [doctor] whether it was the same drug as I was already using." [IDI: N1]

"When a doctor told me that my blood pressure was normal, I told him [doctor] that it was not a normal blood pressure for me, it was too high. He [doctor] finally prescribed me a drug to lower my blood pressure." [IDI: P2]

Seeking help from others referred to the participants' searching for a friend, family member, teacher, or some other persons to help with transportation, information, or emotional support.

"We did not know the phone number of the campus driver, so we just walked back or tried to call a friend to take us back [dormitory]." [FGD: P6]

"I got a feeling of dizziness and could not breathe around midnight. I called my mom to take me to the hospital." [IDI: P2]

Suggestions

The suggestions were mentioned by many of the participants that could improve access to the PSU emergency services. Firstly, providing more information about the EMS should be done by coordinating with the university student affairs officers. The information should be clearly readable and easily noticeable via posters or on university services webpage the students would refer to regularly. The information should include the EMS call number, the security services numbers, and details of what the PSU student health insurance services cover. Secondly, improving health care provider's communication to be more effective was seen as a crucial step with many participants, including ensuring the health care provider clearly gives the steps of service and reasons for whatever they want to do with a warm approach. They also felt it was important that the health care provider clearly identified their level – that is, were they a medical student, an intern, or a fully qualified doctor. Another suggestion was that the emergency vehicle and ER should be well equipped.

"I would like them [health care team] to let me know that when I finish with this step, what the next step is I should go to. Sometimes, I did not know when or if I should go further." [FGD: P6]

"There should be different zones in the ER to separate patients with a stomachache or fever and patients who have had an accident of some kind, and have active bleeding - these patients should be hidden from others." [FGD: K]

"If there is a severe injury, the equipment and staff should be ready to help patients with their full capacity." [IDI: P1]

The final suggestion involves improving waiting times in the ER. An ER system should be organized methodically in terms of sufficient and qualified workforce, effective communication and coordination.

"The medical staff should be managed systematically, and the number of doctors should be enough to meet the needs of the patients." [FGD: N3]

Discussion

Accessibility was perceived as appropriateness of time, personnel and equipment. The participants stressed the importance of a quick response time and the readiness of equipment and the EMS team. Some aspects of acceptability such as communication between the patient and the EMS providers were raised. Providing good quality emergency services, personnel, equipment and supplies, and competency were emphasized.[7]

In this study, the participants had both positive and negative perceptions of their experiences with the PSU EMS. They had positive perceptions concerning the convenience of the service, that it was free to use, and about the staff. The possible explanation for this is that the EMS was located close to where they lived and the convenience of the online registration. However, participants also reported negative experiences, including not knowing the EMS number and the EMS available, waiting a long time in the ER waiting room, health staff communication problems and feeling alone or not having their privacy respected.

One earlier study on student perceptions of the quality of emergency care explored expectations and satisfaction with care received, and found that the EMS response time was delayed because those needing the service had only poor knowledge of how and when to access ambulance services for their acute asthma. This study also showed that students who are acutely ill need to contact emergency services promptly and appropriately to improve their health outcomes.[8] Another study about accessing emergency care at the time of a heart attack found that health authorities were expected to produce detailed plans and protocols that describe pre-hospital service care models. Included in these expectations was a public education campaign aimed at encouraging people to call the appropriate EMS number, 999 in the study, for an ambulance in the event of symptoms suggestive of a heart attack. Factors influencing health seeking behaviors of these clients were misconceptions about the correct 'procedure' or way to access emergency services and a range of personal and contextual factors.[9] These findings are in line with our findings showing that lack of information, although the information was available if they looked, was an important factor in their problems accessing

appropriate care. Although our participants sought emergency care mainly due to less severe illnesses, information on the procedures and steps of care was still considered to be important.

An earlier study by Carter et al. in a teaching hospital found that perceived crowding was the greatest barrier to providing timely patient care.[10] Other studies found that overcrowding led to some patients who sought care at a public hospital emergency department to leave without being seen by a physician.[11] These studies support our findings, as the study setting was also a teaching hospital, where overcrowding seems to be a common phenomenon. This phenomenon was supported by a study mentioning that collaboration between managed care organizations and healthcare providers was one of the biggest challenges in providing effective emergency care.[12] In a teaching hospital, young interns often need to consult a supervising doctor before making a diagnosis or giving treatment, and this can slow the overall patient flow. Apart from these factors, the concern of the students about the seriousness of their illness could make them anxious, and give them a feeling that they were not being seen quickly enough. Another study found that a large majority of emergency patients perceived the problems for which they sought care from an emergency department as urgent, even when they were assessed as non-urgent by a health professional.[13]

Inadequate information may have been an important reason many students were unhappy with the EMS. Inadequate information is also an important factor when patients are unhappy with their ER experience, as found in an earlier study which found that providing patients with adequate, clear information during all phases of the care process, giving them the opportunity to ask questions, resolving doubts and providing legible and easily understood discharge instructions all contribute to increasing patient satisfaction in the emergency department.[14] Another study focused on the communication practices between health professionals and patients, and found that proactive behaviors from health professionals is an important system characteristic because this can allay patient anxiety by making patients feel that their concerns are being taken seriously and that the staff can adequately deal with problems such as feeling 'stuck in' or 'bounced around' the system. Service providers should discuss candidacy whereby eligibility for health care, and negotiate with the user.[15] In our study poor communication which includes unexplained, unclear and/or unsuitable communications makes a patient unhappy regarding access to the emergency department.

Limitations

The study was based on qualitative research, and thus it cannot determine causation nor is it meant to imply that this information can be generalized to other groups or individuals in PSU. Rather, it presents perspectives and meanings for the EMS for further consideration by the health care staff of the EMS.

Recommendations

Further research recommendations from this study are: first and foremost, a large group of PSU students should be surveyed in a similar way

as this current study, to provide a better picture of EMS as it is currently offered to the PSU students. The study should note the different situations between Thai and international students. It would be beneficial to PSU students if the student affairs division of PSU made a better effort to provide students with EMS information, to increase knowledge of EMS and PSU students' access to care. Improving communication and available equipment, reducing waiting times and making PSU students feel comfortable should also be major considerations for EMS personnel when such students presenting both at pre-hospital and at ER.

Conclusion

PSU students perceived the accessibility of EMS as the readiness of services including time, personnel and equipment from pre-hospital to ER. They expressed on overall experiences of good accessibility to EMS of Songklanagarind Hospital, although with some criticisms of these services. They manage the unexpected services problems by themselves and seeking help from others. To improve the accessibility of EMS, the PSU students provided suggestions regarding EMS information, equipment preparing, health staff's communication and reducing waiting times at ER.

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