Appendix 1. Consolidated criteria for reporting qualitative studies (COREQ): 32-Items checklist

Domain 1: Research team and reflexivity

Personal Characteristics

No Item

Guide questions/description Line

1. Interviewer/facilitator	Which author/s conducted the interview or focus group? first author (F.A)	108
2. Credentials	What were the researcher's credentials? E.g. PhD, MD MSc, MPH	109
3. Occupation	What was their occupation at the time of the study? First author: Nursing instructor, correspond author: associate professor in policy research center, third author: PhD candidate in medical informatics department, forth author: professor in nursing and midwifery school	108
4. Gender	Was the researcher male or female? Female	108
5. Experience and training	What experience or training did the researcher have? Nursing instructor in emergency department	109
Relationship with participants		
6. Relationship established	Was a relationship established prior to study	105
	commencement? Yes, Prior to the interviews, the participants were provided with a form including information about the research questions, background, and objectives.	106
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research Prior to the interviews, the participants were provided with a form including information about the research	111
	questions, background, and objectives. For these interviews, the information forms and informed consent forms were sent via Email or WhatsApp. The participants were also provided with the opportunity to ask their questions.	106
8. Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic Considering that the researcher, as a <b>nursing instructor in</b> <b>emergency department</b> , witnessed the educational needs of emergency nurses and the challenges of meeting the	109

educational needs, she was interested in conducting the	
present research.	

## Domain 2: study design

## Theoretical framework

9. Methodological orientation and	What methodological orientation was stated to underpin	
Theory	the study? e.g. grounded theory, discourse analysis,	129
	ethnography, phenomenology, content analysis	
	The present study used the conventional content analysis	
	method suggested by Graneheim and Lundman (2004).	
Participant selection		
10. Sampling	How were participants selected? e.g. purposive,	
	convenience, consecutive, snowball	92
	purposeful sampling	
11. Method of approach	How were participants approached? e.g. face-to-face,	110
	telephone, mail, email	113
	face-to-face and telephone	114
12. Sample size	How many participants were in the study?15	91
13. Non-participation Setting	How many people refused to participate or dropped out?	
	Reasons? The participants were included in the study	
	based on their personal consent, and none of them	
	withdrew.	
14. Setting of data collection	Where was the data collected? e.g. home, clinic,	113
C	workplace.	114
	workplace	
15. Presence of non-participants	Was anyone else present besides the participants and	
	researchers? No	
16. Description of sample	What are the important characteristics of the sample? e.g.	93
	demographic data, date	94
		95
		Table
		(1)
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors?	121-
C	Was it pilot tested?	126
	What is one of your working day in the emergency	
	department like? Please describe your experience while	

	focusing on your educational needs. Then, the following	
	questions were asked:	
	While working at a patient's bedside, what educational	
	needs do you feel?	
	What are the challenges against meeting educational needs	
	in your opinion?	
	What are the strategies to meet these educational needs?	
	How would you like your educational needs to be	
	eliminated?	
18. Repeat interviews	Were repeat interviews carried out? If yes, how many? No	
19. Audio/visual recording	Did the research use audio or visual recording to collect the data? Yes, audio and visual recording	115 127
20. Field notes	Were field notes made during and/or after the interview or	127
	focus group? yes	115
21. Duration	What was the duration of the interviews or focus group?	114
	40-65 minutes	
22. Data saturation	Was data saturation discussed? Yes	131-
		139
23. Transcripts	returned Were transcripts returned to participants for	145
	comment and/or correction? Member checking	

## Domain 3: Analysis and findings

Data analysis

24. Number of data coders	How many data coders coded the data? 2	139 140
25. Description of the coding tree	Did authors provide a description of the coding tree?	131-136 Table 2
26. Derivation of themes	Were themes identified in advance or derived from the data?	136-138 Table2
27. Software	What software, if applicable, was used to manage the data? MAXQDA10	141
28. Participant checking	Did participants provide feedback on the findings? Yes	146
Reporting		
29. Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. participant number	In the result Pages 6-12

	yes	
30. Data and findings consistent	Was there consistency between the data	In the
	presented and the findings? Yes	discussion
31. Clarity of major themes	Were major themes clearly presented in the	In the
	findings? Yes	result
		Pages
		6-12
32. Clarity of minor themes	Is there a description of diverse cases or discu	In the
	minor themes? Yes	discussion
		pages13-17