

**ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES**

SCHOOL OF MEDICINE

DEPARTMENT OF EMERGENCY MEDICINE



**POST RESUSCITATION DEBRIEFING PRACTICE AND ASSOCIATED FACTORS
AMONG HEALTH PROFESSIONALS IN EMERGENCY DEPARTEMENT IN TIKUR
ANBESA SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA.**

Principal investigator: Dr. Yibeltal Seyid, MD

A research thesis submitted to the department of emergency and critical care medicine, college of health sciences presented in partial fulfillment of the requirements for a specialty certificate in emergency and critical care

December, 2024

Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF MEDICINE

DEPARTMENT OF EMERGENCY MEDICINE

Name of investigator	Dr. Yibeltal Seyid
Full title of the project	Post resuscitation debriefing practice and associated factors among health professionals in emergency department in Tikur Anbesa Specialized Hospital, Addis Ababa, Ethiopia.
Duration of the project
Study area	TIKUR ANBESSA SPECIALIZED HOSPITAL(TASH)
Total cost of the project	25,000 ETB
Source of funding	AAU
Address of the investigator	Cell phone: +251918574489
	Email: yibbose@gmail.com
Names of advisors	Prof. Aklilu Azazh Dr. Meron Tesfaye

Acknowledgements:

My deepest gratitude goes to my advisors **Professor Aklilu Azazh and Dr. Meron Tesfaye** for their support and constructive comments in doing this research.

I am also grateful to Addis Ababa University emergency and critical care residents and nurses for their participation in this study.

Finally, I would like to express my appreciation to the department of emergency and critical care medicine of Addis Ababa University for giving me this educational opportunity and a fortune to conduct this study.

Table of Contents

Acknowledgements:	1
Table of Contents	2
List of Tables:	3
List of Figures:	4
Acronyms	4
Abstract:	5
1. Introduction	6
1.1. Background	6
1.2 Statement of the problem	7
1.3 Significance of the study	7
2. Literature review	8
2.1 The practice of Post Resuscitation Debriefing	8
2.2 Barriers of Post Resuscitation Debriefing Practice	9
2.3 Benefits of Post resuscitation Debriefing	9
3. Conceptual Framework	10
.....	10
4. Objectives of the study	11
4.1 General Objective:.....	11
4.2 Specific Objectives:.....	11
5. Methods and materials	11
5.1 Study setting and period.....	11
5.2 Study design	11
5.3 Population.....	12
5.3.1 Source population	12
5.3.2 Study population.....	12
5.4 Eligibility criteria	12
5.4.1 Inclusion criteria	12
5.4.2. Exclusion criteria.....	12
5.6 Sample size determination and sampling procedure:	12
5.6 Study variables	14

5.6.1 Dependent variable:	14
5.6.2 Independent variables:	14
5.7 Operational definitions	15
5.8 Data collection tool and procedures	15
5.8.1 Data collection tool.....	15
5.8.2 Data collection Procedure.....	16
5.9 Data quality control.....	16
5.10 Data processing and analysis.....	17
6. Ethical Considerations	17
7. Results:.....	18
8. Discussion:	27
9. Limitations and strengths.....	28
10. Conclusion:	28
12. Recommendations:.....	29
13. References:.....	29
Annexes	32
Annex 1: Information sheet and consent form	32
Annex 2: Data Collection Tool	33

List of Tables:

Table 1: Socio-demographic related characteristics among health professionals in ED, at TASH, Addis Ababa, 2024.....	18
--	----

Table 2: Professional and institution related characteristics among health professionals in ED, at TASH, Addis Ababa, 2024	19
Table 3: Current PRD practice among health professionals in ED at TASH, Addis Ababa, 2024	24
Table 4: Factors associated with PRD practice among health professionals in ED at TASH, Addis Ababa, 2024.....	26

List of Figures:

Figure 1: Conceptual framework illustrating factors affecting the practice of PRD	11
Figure 2: schematic presentation of sampling procedure to select study participants for quantitative data	15
Figure 3: Schematic presentation of purposive sampling procedure to select FGD participants...16	
Figure 4: PRD practice and attitude towards PRD practice among health professionals in ED at TASH, Addis Ababa, 2024	

Acronyms

AAU: Addis Ababa University

AHA: American Heart Association

ALS- Advanced Life Support

BLS: Basic life support

CPR: Cardiopulmonary Resuscitation

ED: Emergency Department

ER: Emergency

EMCC: Emergency Medicine and Critical Care

FDG: Focused Group Discussions

ICU: Intensive Care Unit

PRD: Post Resuscitation Debriefing

TASH: Tikur Anbessa Specialized Hospital

Abstract:

Background: The practice of post resuscitation debriefing following critical events emerged from the philosophy of understanding and learning from one's mistakes. It is a reflective and guided method of discussion that promotes positive coping, provides peer support, evaluate team performance and identify factors that facilitate and hinder quality of resuscitative procedure. Despite recommendations from the American Heart Association to practice debriefing after critical events, only few emergency departments actually practice it.

Objectives: To assess post resuscitation debriefing practice and associated factors among health professionals in emergency department in Tikur Anbessa Specialized Hospital, Addis Ababa.

Methods: Institution based cross-sectional mixed design was conducted among health professionals at TASH from July1 to 30, 2024. Quantitative data was collected from participants which were selected by convenience sampling method using a structured tool via Kobo toolbox and entered to Excel and exported to SPSS version 27 for further cleaning and analysis. We used descriptive statistics to describe the socio-demographic variables of participants. Bivariable and multivariable logistic regression analyses were done to test the association. The odds ratio at 95% CI and P-value < 0.05 was used to ascertain statistical significance. For qualitative part purposive sampling was used to select participants and the data were collected by two focus group discussions and analyzed through a thematic content analysis.

Results: A total of 100 health professionals participated in this study and nearly one-third (35%) were females. Of the participants more than half (53%) were emergency medicine and critical care residents and the rest were nurses. In this study nearly one-fifth of the participants had good PRD practice ($\geq 25\%$ of the time). Simulation sessions (AOR: 4.74, 95% C.I: 1.23,

18.22), training (AOR: 5.88, 95%CI: 1.51, 22.94) and favorable attitude (AOR: 5.88, 95%CI 1.48, 23.33) were significantly associated with PRD practice.

Conclusion: In this study, PRD practice was low. Simulation sessions, training, and having favorable attitude were positively associated with PRD practice. It is better to apply frequent simulation sessions, trainings, and behavioral change communication regarding debriefing practice. Further multicenter study using large sample size is also recommended.

Key words: Debriefing, practice, Resuscitation, Emergency department.

1. Introduction

1.1. Background

Post resuscitation debriefing is a special kind of group discussion that helps to guide, reflect, analysis, and ultimately learn after a practical experience. During this process, participants of the resuscitating team share their experiences and observations of the event, discuss what they did or did not do and, mostly importantly, why, and develop plans to apply and improve in the future practice. A successful debriefing requires active engagement, an environment of mutual respect, and a focus on improved patient outcome on subsequent resuscitative procedures and learning from each experience(1–5).

Emergency medicine is a stressful discipline and emergency health workers encounter traumatic experience on a daily basis which is very demanding both physically and mentally(6). This frequent exposure to critical events may lead to stress as a basic reaction that an organism may have in response to any demand placed on it. After exposure to such severe critical events, abnormal stress patterns may develop and lead to physical, psychological and behavioral problems which progress to compassion fatigue and burnout (7). Debriefing after critical events is a tool which helps to create a mutual understanding among resuscitating team and help to dissolve the mental stress in the group with rational and professional analysis of the event. Debriefing after adverse outcomes using a structured model has been used in health care as a non-threatening and relatively low-cost way to discuss unanticipated outcomes, identify opportunities for improvement, and heal as a group(7,8).

Medical errors are currently the third greatest cause of death in the United States, following heart disease and cancer. Medical errors are primarily caused by human error and communication

breakdowns, according to a vast number of root cause studies. Debriefing has been demonstrated to be a crucial method for identifying medical errors, improving teamwork, evaluating performance, and providing emotional support following major incidents(9). Even though the majority of healthcare professionals understand the benefits of debriefing, and despite the recommendations of American Heart Association and the UK Resuscitation Council about the need of debriefing following every critical clinical event attended by a healthcare professional in general and cardiac arrest in particular, it has not become part of everyday clinical practice and not many studies have been conducted on the topic. In the emergency department (ED), this is in part attributable to time pressures and workload (3,9–11).

1.2 Statement of the problem

Resuscitation procedures are integral part of emergency health providers and having a post resuscitation debriefing after such resuscitative interventions helps to evaluate the standard of care given to patients. But there are irregularities in the practice of post resuscitation debriefing(5,9). A national needs assessment of Canadian Pediatric Emergency Departments found that post-resuscitation debriefing occurs less than 25% of the time(12). Despite its well-known benefits, there is no research done about the practice of post resuscitation debriefing and associated factors in Ethiopia. This study can be a guide for experts and decision makers to formulate well-functioning system for practical application of post resuscitation debriefing as a routine component of clinical care in ED.

1.3 Significance of the study

This study primarily assesses post resuscitation debriefing practice and associated factors among health professionals working at ED in TASH, Addis Ababa. The findings help to understand the actual PRD practice in the ED. Health professionals can improve their debriefing skills after identifying factors that affect it. It will be important for policy makers to design strategies to mitigate factors that hinder debriefing practice. Further, our findings will be baseline for future researchers.

2. Literature review

2.1 The practice of Post Resuscitation Debriefing

A study done by Sandhu et.al regarding the practice of post resuscitation debriefing among ED nurses, fellows, and attending physicians at 10 pediatric tertiary care hospitals across Canada which included 183 participants showed that even though 88.8% of the participants believed that debriefing is an important process, 52.5% indicated that debriefing after real resuscitations occurs less than 25% of the time and another important finding from this study was that 72% of the participants felt that medical and crisis resource management issues are dealt adequately when post resuscitation debriefing occurs (12).

A survey based cross-sectional study done among anesthesiologists in Portuguese hospitals which included 186 participants revealed that debriefing after critical event occurred rarely or never in 53% of the time and only 4% reported having specific tools in their institutions to carry out post resuscitation debriefing (10).

The incidence of psychological trauma symptoms among resuscitation providers and an examination of debriefing processes including 517 emergency department physicians, nurses, and health care assistants (HCAs) were undertaken by Spencer et al. in 2018 G.C.in the emergency medical unit and the intensive care unit of a district general hospital revealed that out of 1,463 in hospital cardiac arrests only 258 (17.6%) were debriefed after the event. It also revealed that only 8/67 (11.9%) of resuscitation leaders had prior debriefing training(6).

A qualitative study done by De Villiers et.al in South Africa regarding the practice of post resuscitation debriefing among nurses working in Accident and Emergency Unit of St Dominique's hospital in which 12 nurses participated in an in-depth interview, they concluded that debriefing after resuscitation of critical patients occurred rarely and the quality of debriefing was also substandard(13). Unfortunately, there is no any study done in Ethiopia regarding post resuscitation debriefing practice and related issues.

2.2 Barriers of Post Resuscitation Debriefing Practice

In a study done by Sandhu et.al regarding the practice of post resuscitation debriefing among ED health professionals in Canada which included 183 participants, 90.4% indicated that ED workload and time shortages are major barriers to effective debriefing. The majority of respondents also said that a debriefing tool to help facilitators with various skills, like setting reasonable debriefing goals and giving constructive criticism, might be helpful. Additionally, 68.3% of them said their institution had no expectations for post-resuscitation debriefing, and 63.4% of them had never received any debriefing training(12).

In a national survey done in USA by Lauren E et.al on Debriefing practices within pediatric emergency departments by pediatric emergency medicine fellows which involved 201 fellows, 88.0% of them responded that they had no formal teaching on how to debrief and most (91.5%) of the fellows indicated they would like further education about debriefing(14).

Another study done by Perkins et.al on the practice of post resuscitation debriefing in UK in which 78 health professionals working at emergency and medical ICU identified that time constraints within a shift, limited space for debriefing, and difficulty of emotional preparedness of team members for engaging in reflective discussions as the common barriers of effective debriefing after resuscitation(15).

2.3 Benefits of Post resuscitation Debriefing

A meta-analysis of 31 literatures done by Tannenbaum et.at regarding the effectiveness of debriefing in quality improvement of clinical care showed that individuals and teams performance improved by approximately 20% to 25% by using properly conducted debriefs following critical clinical scenarios(16).

A study done by Ryoo et.al on the importance of debriefing in a simulation-based learning in nursing students in South Korea, which was nonequivalent control group pretest-posttest design, in which 49 second-year nursing students were involved, compared to non-debriefing group, the debriefing group had better level of clinical performance competency, self-reflection, and

satisfaction with simulation-based learning. This reflects the need of debriefing in real time clinical scenarios to have a good outcome in emergency and critical care practices(17).

A study done by Edelson et.al which was a prospective interventional trial on internal medicine residents at a university hospital who attended weekly debriefing sessions of the prior week's resuscitations, using a historical control group to evaluate the effects of performance debriefing on CPR quality and patient outcomes showed that there was improved CPR quality and increased rate of return of spontaneous circulation following debriefing sessions(18).

PRD was also implemented during the COVID-19 crisis to cope with adaptability needs and it was well received by staff and resulted in better interpersonal interactions and team building(19).

3. Conceptual Framework

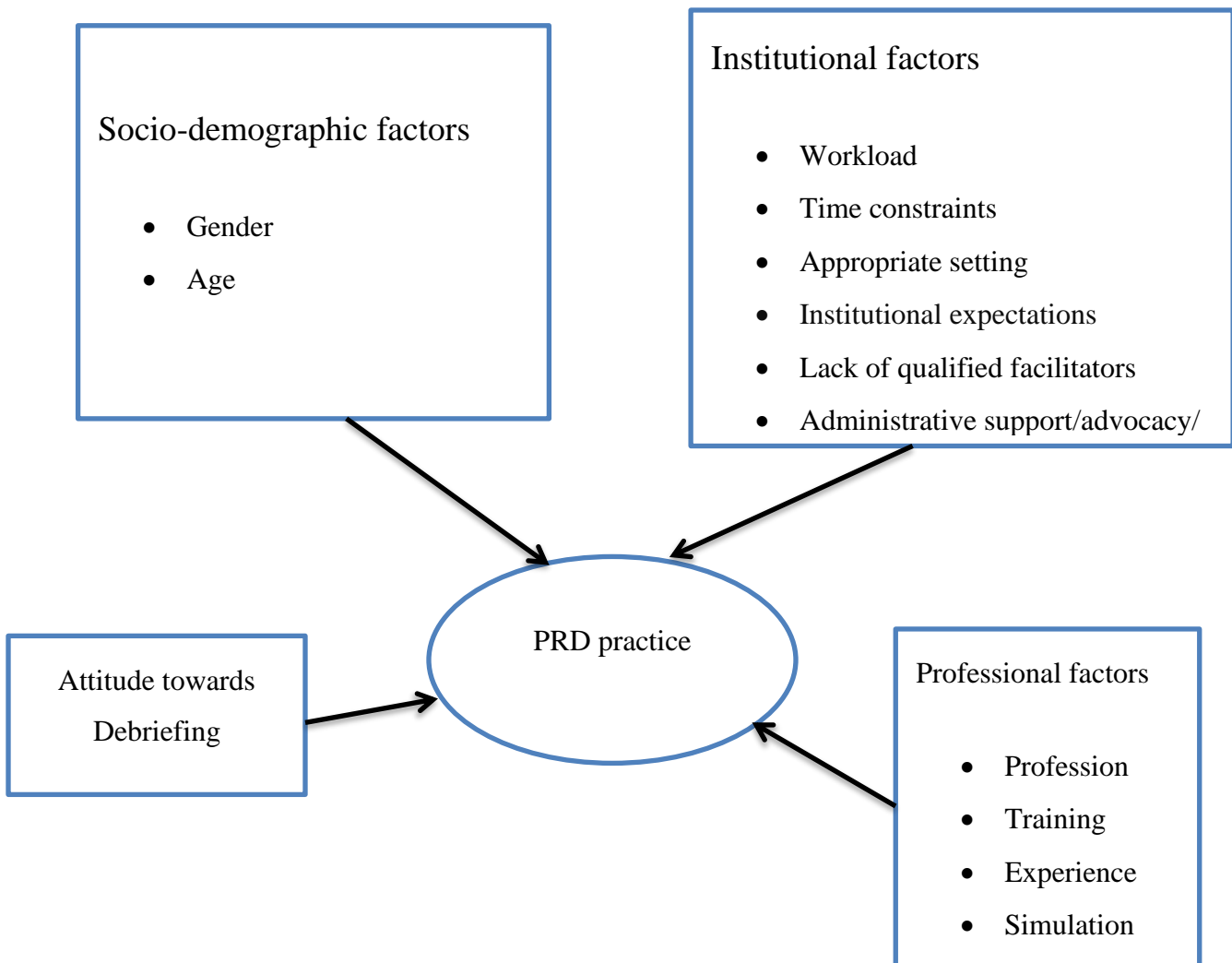


Figure 1: Conceptual framework illustrating factors affecting the practice of PRD(7,9,12).

4. Objectives of the study

4.1 General Objective:

To assess post resuscitation debriefing practice and associated factors among health professionals in the ED at Tikur Anbesa Specialized Hospital, Addis Ababa, 2024

4.2 Specific Objectives:

- To evaluate the current practice of post resuscitation debriefing in ED of the study area
- To assess factors that affect the PRD practice
- To identify gaps on PRD practice and develop recommendations

5. Methods and materials

5.1 Study setting and period

The study was conducted in the adult emergency unit of Tikur Anbesa Specialized Hospital (TASH) which is selected by convenience. TASH is Ethiopia's largest specialized public hospital and one of the University Hospitals in the country. It was founded in 1950, and on March 26, 1963, the faculty of Medicine received official approval. In 1979, the postgraduate training program was underway. In association with AAU, the University of Wisconsin, and the University of Toronto, the department of emergency and critical care (EMCC) medicine was established at Tikur Anbesa Specialized Hospital (TASH) in 2010 G.C. The hospital is open around-the-clock for emergency services and offers tertiary level referral treatment.

. The emergency room is typically staffed by EMCC consultants, EMCC residents, nurses and interns. This study was conducted from July1 to July 30, 2024G.C.

5.2 Study design

A cross-sectional study design with mixed research method was used.

5.3 Population

5.3.1 Source population

EMCC residents and nurses working in the adult emergency unit of Tikur Anbessa Specialized Hospital (TASH)

5.3.2 Study population

All EMCC residents and nurses working in the adult emergency unit of TASH who were eligible to the study.

5.4 Eligibility criteria

5.4.1 Inclusion criteria

All EMCC residents and nurses working in the adult emergency unit of TASH who were available during the study period.

5.4.2. Exclusion criteria

Residents from other departments who were attaching to adult ED, interns on adult ED rotations and EMCC specialists

5.6 Sample size determination and sampling procedure:

The required sample size is calculated using single proportion sampling method.

$$n = z_{\alpha/2}^2 * P(1-P)/d^2$$

Here, $Z_{\alpha/2}$ is the value under the normal standard table for the provided confidence interval (1.96 for the 95% CI), and n is the required minimum sample size. P is the best estimate of prevalence since there is no previous research done in our nation; $p = 50\%$; d is the margin of error (0.05); and $n = (1.96)^2 * 0.5(1-0.5) / (0.05)^2 = 384$

As the population under consideration is less than 10,000, the above formula was modified by the following sample correction method;

Corrected sample size: $n_{adj} = n / (1 + (n/N))$

Where n is the sample size we calculated (384), N is our total population (115)

The corrected sample size became 89. Adding a 10% non-response rate the sample size calculated becomes: $89 + 115 * 10\%$ (non-response rate) = 100.

Whereas, for the qualitative part: two Focus Group Discussions (FGDs), each having 8 members (available at adult ER during the study) was conducted for 60-90 minutes until data saturation.

Convenience sampling technique with proportional allocation was used on a total of 115 source populations (60 EMCC residents and 55 nurses) working at ED of TASH (**figure 2**).

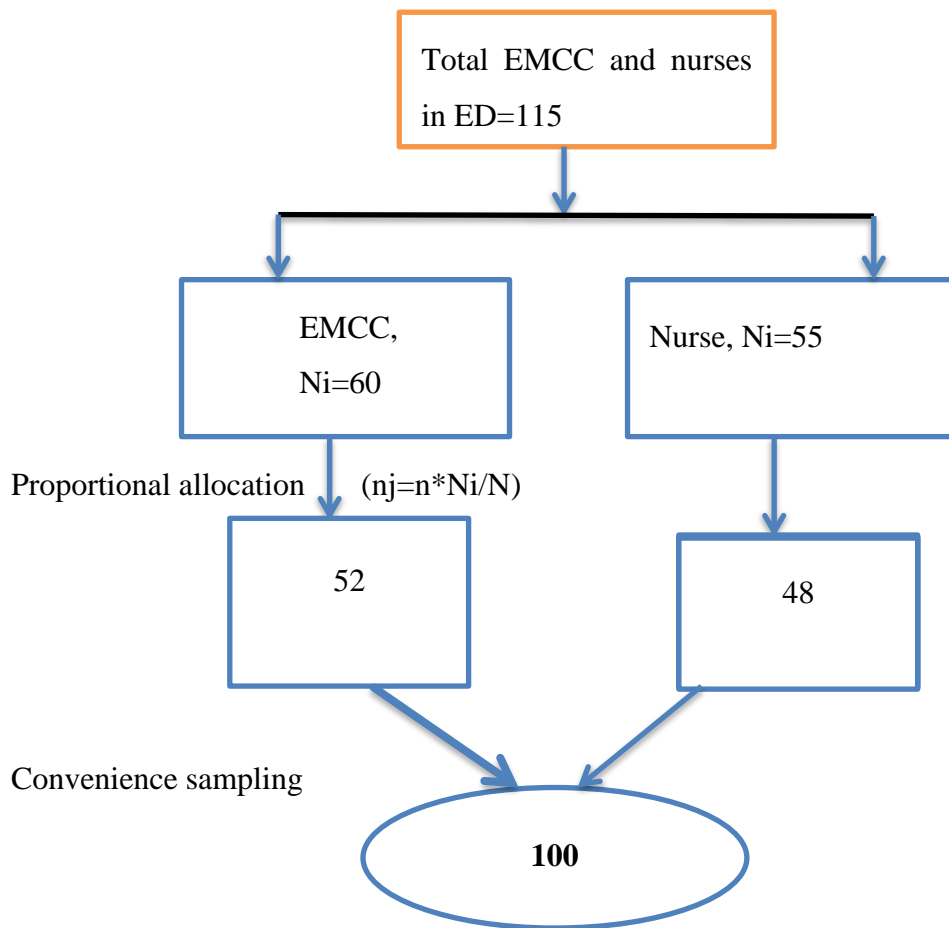


Figure 2: Schematic presentation of sampling procedure to select study participants for quantitative data.

For qualitative part, 16 participants were selected using purposive sampling technique among the EMCC residents and nurses taking in to account their profession and years of experience. (Figure 3 and 4):

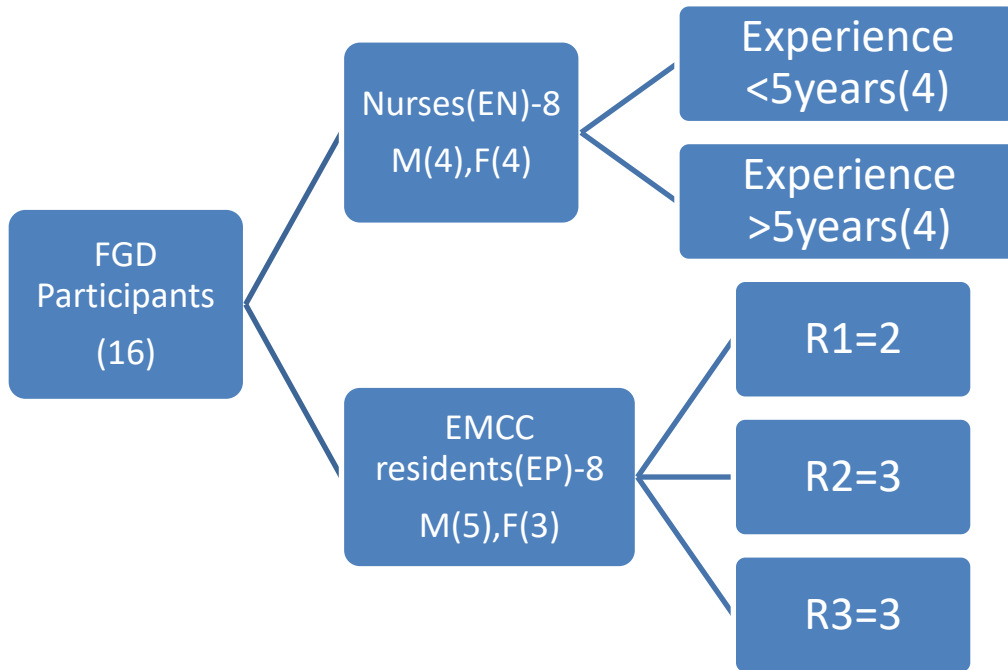


Figure 3: Schematic presentation of purposive sampling procedure of FGD participants.

(EP= Emergency physician, EN= Emergency nurse)

5.6 Study variables

5.6.1 Dependent variable:

Post resuscitation debriefing practice

5.6.2 Independent variables:

Previous training on post resuscitation debriefing, year of experience, years of residency, ER workload, availability of set up for debriefing, institutional expectation, administrative support, timing of post resuscitation debriefing after critical event, type of profession (Physician, nurse)

attitude towards debriefing and demography of the participants such as age, sex and were independent variables.

5.7 Operational definitions

Resuscitation: is a series of interventions conducted by a team of health care providers aimed at restoring and/or supporting vital function in any critically ill patient.

Post-Resuscitation Debriefing: Post-resuscitation debriefing is a facilitated and guided reflection after a resuscitation which provides an opportunity to review events and develop insights for use in similar scenarios in the future.

Good PRD practice: \geq computed median value of the magnitude of post resuscitation debriefing practice.

Favorable attitude: \geq mean score of the attitude Likert scale items

Critical event: It is an event with a specified, high consequence which can result in severe injury or fatality(21).

Emergency simulation: Imitation of an emergency situation to which a described or simulated response is made and help to validate and enhance preparedness and response plan for any emergency condition(22).

5.8 Data collection tool and procedures

5.8.1 Data collection tool

Quantitative data was collected with a validated, pretested and structured self-administered questionnaire which was adopted from previously published papers(7,9,12) with necessary modifications. The questionnaire includes five parts: Part1: socio-demographic related (3 items), part 2: PRD practice related (12 items), institution related (8 items), part 3: Profession related (4 items) and attitude related (12 items) with five Likert scales (1: strongly agree, 2: agree, 3: neutral, 4: disagree, and 5: strongly disagree). For the qualitative part, FGD interview guide containing three open-ended questions with probing was used which was adapted from previous study(13).

5.8.2 Data collection Procedure

Quantitative data was collected through structured and self-administered questionnaire after pilot test of data collection tool was done on 5% of the sample size and given to the study participants using KOBO toolbox with written informed consent form. For qualitative part, focused group discussion was held both with residents and nurses after verbal consent was obtained by the principal investigator from the participants. Eight participants were taken from each stratum. Appointment was done by sending a letter to each participant via telegram. It was held in 2 days, on the first day, the selected 8 residents discussed on problem identification and assessment of the current practice of post resuscitation debriefing and their suggestions of future area of improvements. On the second day, similarly 8 nurses discussed on similar points of discussion. The discussion was facilitated and led by the principal investigator. The FGD was audio-recorded after obtaining permission from the participants and field notes were taken which were considered and included in the qualitative analysis. English and Amharic languages were used for the FGD.

5.9 Data quality control

Data collection tool was adopted from previously published papers which were prepared by panels of experts and necessary modifications was made to the tools(7,9,12).The structured checklist is prepared in English. Data was collected through pilot-tested tool (on 5% of the sample size). The collected data was checked manually for completeness and consistency daily by the principal investigator.

For qualitative part, FGD was conducted in quite setting on the participants' preferred time and place, and equal chances were given for all participants. Both English and Amharic languages were used to make the discussion easy and enable the participants to use their preferred language. Ideas forwarded with Amharic language were translated to English and audio record was transcribed by the principal investigator. Data saturation was assured by continuing the FGD until the point where no more additional new ideas came. The trustworthiness of the findings was checked using various techniques. For instance, credibility of the findings was checked using triangulation in methodologies. Purposive sampling was done to include experienced health professionals to ensure the transferability of the findings. In addition, coding and recoding

technique, and peer examination was done to ensure its' dependability. Moreover, good facilitation, safeguarding informants' identity by providing code for each participant and rapport and trust building with participants was used to keep the data integrity.

5.10 Data processing and analysis

Data was exported from Kobo toolbox into Microsoft Excel for cleaning and exported into SPSS version 27.0 software for further cleaning and analysis. Frequencies, percentages, and mean scores were computed to summarize variables using tables, graphs, and text. The computed median value was used to categorize good and poor practice towards PRD and the mean score of the attitude on Likert scale items was used to categorize favorable and unfavorable attitude towards PRD. Bivariable and multivariable logistic regression analyses were done to test the association. The model fitness was tested by using the Hosmer-Lemeshow goodness of fit test and it was fitted ($p=0.378$). To determine statistical significance, the odds ratio at 95% CI and P-value < 0.05 were employed.

Quantitative findings were triangulated with qualitative findings. The qualitative data were analyzed through a thematic content analysis manually. Participants' verbatim were used as quotations to illustrate the findings. The principal investigator with the help of qualified data analyzer (MPH graduate) identified themes and subthemes through repeated reading and line-by-line coding of the transcribed data. Thematic analysis was conducted using steps of familiarizing with data, generating codes, merging similar code and removing unimportant codes, grouping the codes to subthemes, grouping the sub-themes to themes, and finally findings were presented in narratives by thematic areas and supported the quantitative finding.

6. Ethical Considerations

The protocol was submitted to the department of emergency and critical care medicine for ethical clearance. Data collection was started after formal letter was obtained from the department of emergency and critical care medicine. Participants were provided with a written consent form with a brief explanation of the purpose of the survey on the first page of the questionnaire in English. Verbal consent was taken from FGD participants and audio recording was recorded after permission was obtained from the FGD participants. The privacy of FGD participants was

secured by assigning a code for each FGD participant rather than their name. The audio recording was kept in secured manner so that only the principal researcher could access it.

7. Results:

7.1: Socio-demographic Characteristics of study participants:

In this study, a total of 100 health professionals participated with a response rate of 100% and nearly one-third (35%) were females. Of the participants more than half (53%) were emergency medicine and critical care residents and the rest were nurses. The mean age of participants was 29 ± 3.6 years with majority age of (72%) ≥ 30 years old (Table 1):

Table 1: Socio-demographic related characteristics among health professionals in ED, at TASH, Addis Ababa, 2024

Variable		Frequency	Percent	FGD
Gender	Male	65	65.0%	9
	Female	35	35.0%	7
Age	<30	72	72.0%	10
	≥ 30	28	28.0%	6
Profession	EMCC residents	53	53.0%	8
	Nurse	47	47.0%	8
Year of residency of EMCC residents	R1	15	28.3	2
	R2	16	30.2	3
	R3	22	41.5	3
Year of work experience of nurses in ED?	1-5	37	78.7	4
	>5	10	21.3	4

7.2 Profession related characteristics

In the past one year, the majorities of participants were attending less than 10 simulated and real case debriefing sessions. More than half (60%) of them did not take any PRD related training and the rest took ≤ 1 day, >1 day courses of training. None of them took formal training with certificate. Majority of participants (76%) reported that debriefs should be facilitated by EMCC consultants. (Table 2).

Table 2: Profession and institution related characteristics among health professionals in ED, at TASH, Addis Ababa, 2024.

Variable		Frequency	Percent
Last year, PRD sessions after real cases	<10	75	75.0%
	≥10	25	25.0%
Last year, PRD sessions after Simulation	<10	78	78.0
	≥10	22	22.0
PRD Training	Yes	39	39.0%
	No	61	61.0%
Course of training	≤1 day	19	19%
	>1 day	20	20%
	Formal training with certificate	0	0%
Who should be facilitating debriefs?	EMCC consultants	76	76.0%
	EMCC residents	66	66.0%
	Nurses	45	45.0%
	Any health worker who leads resuscitation	58	58.0%
Who normally attends debriefing?	Physicians	92	92%
	Nurses	87	87%
	Interns	92	92%
Expectation of PRD in your institution	Yes	59	59%
	No	41	41%
Workload	Yes	98	98%
	No	2	2%
No identified interest or need.	Yes	49	49%
	No	51	51%
Lack of qualified/trained facilitators.	Yes	52	52%
	No	48	48%
No appropriate setting available.	Yes	56	56%
	No	44	44%

Did not feel comfort to discuss in team.	Yes	34	34%
	No	66	66%
Felt criticized and judged.	Yes	28	28%
	No	72	72%
Too soon or late after the event.	Yes	18	18%
	No	82	82%
Lack of administrative support	Yes	73	73%
	No	27	27%

Majority of FGD participants mentioned knowledge gap/lack of regular training/ and absence of frequent emergency drills/simulation sessions/ as the main professional factors for poor PRD practice.

One of the EN mentioned the following.

"I only heard the term debriefing while I was student in one of my practical sessions. Other than that, I have never practically encountered debriefing sessions in my stay at ED for the past four years. I have never had any training regarding post resuscitation debriefing" (Code: EN 03)

Another EP stressed on the need of training:

"...me as an EMCC resident, I have had the opportunity to participate in training on resuscitation and debriefing whenever the TAAAC team came. But the nursing team and interns do not have that kind of opportunity so the department should facilitate training for them regularly." (Code: EP 06)

Another EP added:

"In the best setups, doing regular emergency drilling is a common practice which keeps the ER team to be prepared for any emergency situation and learn a lot about resuscitation and debriefing. In our ED, it has not been a common practice to perform drilling and this created a big gap in our actual practice" (Code: EP 02)

7.3 Institution related characteristics:

More than half of participants (59%) noted that PRD practice is expected from their ED. Almost all (98%) of the participants faced difficulty of practicing PRD due to high work load in the emergency department. Participants further reported different barriers to apply frequent post resuscitation debriefing practice, such as, lack of need assessment in the ED (45%), lack of qualified facilitators of debriefing (51%), unsupportive setting/working environment (56%), lack of team work (34%), fear of criticism (28%), timing of debriefing (18%) and lack of administrative support (73%) among the barriers of PRD practice (**Table 2**):

From the qualitative data analysis, most of the FGD participants mentioned that work overload, overcrowding, limited resource, lack of institutional protocol on PRD, lack of qualified facilitators, poor institutional support and absence of institutional expectation as institutional factors which hinder PRD practice.

One of the EPs mentioned the following:

“Everybody is on move. Once we resuscitate a critical patient, we run to evaluate other patients. Most of the time it is unthinkable to discuss about our performance due to high burden of work on ED team. Even some of the resuscitating team members went to other patients in the middle of our resuscitation depending on the urgency of other patients’ issues.” (Code: EP 04)

One of the ENs described the situation at ER as follows:

“While three or four patients wait for me, how can I stand for fifteen minutes or longer to debrief a patient who has already had resuscitation? The patient to nurse ratio is very high and it is really hard to participate in debriefing sessions.” (Code: EN 06)

Another EP stressed the shortage of necessary resources at ED as one factor as follows:

“Since we frequently lack basic resuscitation drugs and other supplies in our emergency department, it has been exceedingly challenging to assess our resuscitation performance through debriefing. Due to these, our resuscitation process is sub-optimal mostly and whenever we try to discuss about the issue, it is always beyond our capacity. I saw loss of hope on the face of the resuscitating team.” (Code: EP 01)

Regarding the lack of institutional protocol and expectation, one EN stated:

“To be honest, before this focus group discussion, I had never considered debriefing following resuscitation to be a part of emergency treatment. I have never seen any protocol regarding debriefing in our ED and I did not know that debriefing is expected to be done regularly.”

(Code: EN 02)

Another EP also said:

“There is no institutional guideline or protocol regarding post resuscitation debriefing in our ED which resulted in lack of common understanding among ER team. If there was clear understanding of its vitality in emergency care and if everyone was expected to do it after each resuscitation, it would be a routine practice but currently it is not like that in our ED.” (Code:

EP 05)

Regarding qualified facilitators, some of the participants mentioned it as follows:

“After resuscitation, I only observed a small number of EMCC experts (I can name them) conducting debriefing. Other than those consultants I did not see anyone trying to have discussion after resuscitation. It would be good if more capable facilitators are available in our ED to make regular debriefing sessions.” (Code: EN 01)

Another EP emphasized the lack of institutional support as main factor for poor PRD practice.

“Even though our hospital's emergency department serves as the main entrance, not much effort is made to raise the quality of treatment provided there. We cannot see debriefing as a separate entity rather it is part of the whole emergency care. In the presence lots of shortages and poor set up our ED, doing proper resuscitation and debriefing is really challenging.” (Code: EP 08)

7.4 Attitude related characteristics:

More than half of the participants (53%) had unfavorable attitude towards PRD sessions' importance and different critical events' debriefing such as death, CPR, life threatening

arrhythmia, trauma, multiple casualty/disaster, Status epileptics, Respiratory arrest, shock, and medical errors (**figure 4**):

During the FGD, some of the FGD participants stated that there is poor attitude towards the benefits of PRD and some debriefing sessions lack inclusiveness.

One of the participants mentioned the following:

“I believe that PRD will not improve patient care in our emergency department since it may delay patient evaluation and treatment when there are many critically ill patients in need of our immediate attention. In addition to this, doing PRD in such crowded area with the presence of lots of patients and attendants will create mistrust since they hear what was missed in the resuscitation process.” (Code: EN 08)

Another EP described his own experience regarding attitude towards PRD as follows:

“As the most senior resident at the time, I was in charge of a debriefing session at the emergency department. We successfully performed synchronized cardioversion (resuscitation) on an unstable SVT patient and after that we discussed about our resuscitation process and tried to give feedback for the team but some of the team members were not interested and left the team and went to sit somewhere plus some members of the resuscitating team took my feedback negatively. It needs more effort to change such wrong attitude towards PRD.” (Code: EP 07)

Another EN also stated the following:

“At times, we performed resuscitation as a team and, with the exception of the nurses, several members of the resuscitating team participated in the debriefing. It was very disappointing and it hurt our team spirit.” (Code: EN 04)

7.5 PRD practice:

Nearly two-third of the participants involved in resuscitation once or more in a week. But majority of the participants (about 81% of participants) reported that PRD was done <25% of the time and only (2%) reported frequent practice (50-75% of the time) The majority of debriefing sessions (71%) were performed immediately/same shift and 12%. Most of the debriefing

sessions (98%) were facilitated by a person who involved in resuscitation and nearly half (54%) of each session completed within fifteen minutes. (**Table 3**):

Table 3: Current PRD practice among health professionals in ED at TASH, Addis Ababa, 2024

Variable		Frequency	Percent
How often do you participate in resuscitations?	More than once a week	66	66%
	Once every 1-2 weeks	31	31%
	≤Once a month	3	3%
Period of time for debriefing at your ED?	Immediately/same ER shift	71	71%
	24-48 hours after the event	3	3%
	Timing is variable	14	14%
	Debriefing does not usually occur	12	12%
Optimal time for debriefing	Immediately/same ER shift	95	95%
	24-48 hours after the event	5	5%
Facilitator of debriefing is a person involved in resuscitation	Yes	94	94%
	No	6	6%
How long PRD usually take?	< 15minutes	54	54%
	15- 30 minutes	44	44%
	> 60 minutes	2	2%
How frequently is PRD actually practiced at ED?	< 25% of the time	81	81%
	25 – 50% of the time	17	17%
	50 – 75% of the time	2	2%

In this study overall, nearly one-fifth of the participants had good PRD practice ($\geq 25\%$ of the time (Figure 4):

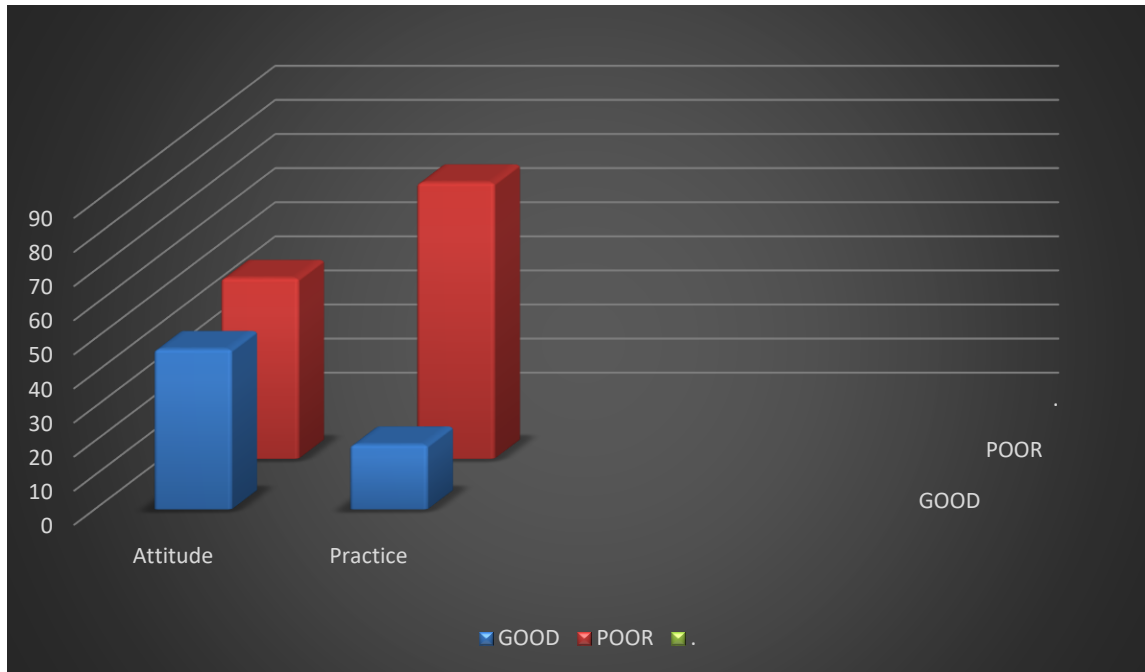


Figure 4: PRD practice and attitude among health professionals in ED at TASH, Addis Ababa, 2024

Regarding the current practice of post resuscitation debriefing, most of the FGD participants stated that it occurred rarely and few of them mentioned that PRD was not being conducted at all in their ED.

Among the FGD participants one mentioned the following:

“PRD is done rarely. I only remember four actual debriefing sessions after treating critical patents in my stay of more than two years as EMCC resident. All of those sessions were led by EMCC consultants. Other than these, I only participated in debriefing in simulation sessions while I was training with TAAC team.” (Code: EP 04)

Another EP stated:

“PRD is not being practiced routinely. We do PRD rarely and it is suboptimal and sub-standard, personally I debriefed on limited occasions involving the junior residents and nurses. Mainly I tried to address knowledge and technical issues observed during resuscitation. I got feedback from seniors only on 2 occasions after resuscitation.” (Code: EP 01)

Among ENs, one of the participants described the current practice of PRD as follows:

“It is better to say that debriefing after resuscitation is not being done in our ED at all. In my

stay at ED for the past 3 years, I encountered only one or two sessions of debriefing after resuscitation. Other than these, I only heard about its importance during my undergraduate course only.” (Code: EN 05)

Another EN also stated:

“To me, post resuscitation debriefing is a new idea. I have never seen any debriefing practice in my stay of more than two years at this ED. Whenever there is a critical patient, we do our best to save his/her life then we focus on other clinical activities. There is no any habit of discussion about our resuscitation process at all, maybe we talk about it with some of our colleagues informally but not a formal discussion.” (Code: EN 08)

7.6 Factors Associated with PRD practice:

In the current study, participating in simulation sessions per year, taking trainings and having favorable attitude were significantly associated with PRD practice. Participants who attend 10 or more simulation sessions per year were nearly five times (AOR: 4.74, 95% C.I: 1.23, 18.22) more likely to practice PRD compared with those who took <10 sessions. Similarly, participants who trained for less than one day or more were nearly six times (AOR: 5.88, 95%CI: 1.51, 22.94) more likely practice frequent PRD compared with their counterparts. The odds of frequent PRD practices were nearly six times (AOR: 5.88, 95%CI 1.48, 23.33) more likely for those having favorable attitude towards PRD compared with their counterparts (**Table 4**):

Table 4: Factors associated with PRD practice among health professionals in ED at TASH, Addis Ababa, 2024

Variable		PRD practice		COR(95% C.I)	P	AOR (95% C.I.)
		Good	Poor			
Sex	Male	51	14	1.64(.53, 5.02)	.291	2.04 (.54, 7.74)
	Female	30	5	1		1
Age	<30	60	12	.60(.20, 1.72)	.126	.35(.09,1.33)
	≥30	21	7	1		1
Profession	EMCC	41	12	1.67(.59, 4.68)	.472	1.57(.45, 5.44)
	Nurse	40	7	1		1
Simulation sessions per year	≥10	14	8	3.48(1.18,10.2)	.023	4.74(1.23, 18.22)
	<10	67	11	1		1
Training	Yes	26	13	4.58(1.56,13.4)	.011	5.88(1.51, 22.94)
	No	55	6	1		1

Qualified facilitator	Yes	38	13	2.45(.847,0.08)	.355	1.88(.49, 7.27)
	No	43	6	1		1
Appropriate setting	Yes	42	14	2.6(.85,7.89)	.722	1.28(.32, 5.14)
	No	39	5	1		1
Lack administrative support	Yes	60	13	.75(.25, 2.25)	.300	.47(.11, 1.93)
	No	21	6	1		1
Attitude	Favorable	33	14	4.07(1.33,12.3)	.012	5.88(1.48,23.33)
	Unfavorable	48	5	1		1

8. Discussion:

In this study, we aimed to assess PRD practice and factors associated with it in ED at TASH. Regarding the practice of PRD, this study showed 81%, 17%, and 2% of the participants practiced PRD for < 25% of the time or not at all, 25 – 50% of the time, and $\geq 50\%$ of the time respectively. Overall, nearly one-fifth (19%) of the participants had good PRD practice ($\geq 25\%$ of the time), i.e. every one or more out of four critical events were debriefed. This finding was consistent with a study by Spencer et.al that revealed out of 1,463 in hospital cardiac arrests only 258 (17.6%) were debriefed after the event(6).

But our finding is lower than the similar study done in Canada that found 52.5%(Vs 81%) indicated that debriefing after real resuscitations occurs less than 25% of the time(12). This indicates that PRD is practiced in the ED of TASH very rarely as vast majority of the participants reported. Similarly our finding was less frequent than study conducted in Portuguese hospitals that found debriefing after critical event occurred rarely or never in 53% of the time (10). These differences could be explained by the study population variations that the Portuguese hospitals' study was among anesthesiologists and the Canadian study included attending physicians and fellows. Additionally, the lower sample size, and higher work load in our study might lead this discrepancy. This implies post critical event discussion had not been practiced by the majority of health care professionals which could negatively affect experience sharing, team work, mutual understanding and patient outcomes.

In the current study, participating in simulation sessions, taking trainings and having favorable attitude were positively associated with PRD practice. Participants who attend 10 or more simulation sessions per year were five-folds more likely to practice PRD. This finding is

supported by previous study done in South Korea found that better level of clinical performance competency, self-reflection, and satisfaction with simulation-based learning(17). Simulation-based training has been recommended as an authentic, low-risk learning environment for teaching teamwork competencies and promoting reflective, deliberate practice(23). Additionally, evidence revealed that weekly debriefing sessions improved CPR quality and increased rate of return of spontaneous circulation (15). This finding suggests the need of debriefing in real time clinical scenarios to have a good outcome in emergency and critical care practices.

Similarly, participants who took training were practiced frequent PRD compared with their counterparts. This is consistent with similar study in Canada that found limited access to courses and/or training materials was one of the factors adversely affect PRD practice(24). Evidences showed that training helps to improve debriefing practice and overall clinical performance (25). Thus, our finding suggest that program planners should strive to provide health professionals certified in various resuscitation areas with greater access and opportunity for participation in hands-on training to update their skills.

Having favorable attitude increased the odds of frequent PRD practice. It is obvious, that the attitude of health professionals is essential to deliver proper health care including post resuscitation debriefing. Having favorable attitude might increase their interest to know about the situations during the critical event to update themselves from the team and own experiences and feedbacks. Evidences showed that there is a direct relationship between the practice of PRD and attitude towards PRD(26).

9. Limitation and strengths:

The small size is the primary limitation of this study. There may be also recall and response bias for quantitative and qualitative data, respectively. Furthermore, it is single center study which reduces its generalizability for other health facilities in Ethiopia. However, it is the first study in Ethiopia which can be baseline for future studies.

10. Conclusion:

In this study PRD practice was low. Participating in simulation sessions, trainings, and having favorable attitude were positively associated with PRD practice. Workload, crowding,

unsupportive setting, lack of administrative support, lack of training, lack of protocol and poor attitude were identified as main barriers of PRD.

12.Recommendations:

As an essential component of clinical care in the emergency and critical care medicine, debriefing should be endorsed by the ED and health professionals working at ED. Improving health professionals' skills and attitude toward post resuscitation debriefing through regular training and conducting regular simulations will help to make post resuscitation practice a routine activity at ED. Making the working environment supportive, improving the crowding and workload on health professionals working at ED would improve the practice of PRD among other interventions. It would be good if the ED prepare protocol regarding debriefing after critical events. Lastly, we recommend future researchers to do multi-centered study with large sample size.

13. References:

1. Gardner R. Introduction to debriefing. *Semin Perinatol.* 2013 Jun;37(3):166–74.
2. Rajwani K. Debriefing in critical care. *Qatar Med J [Internet].* 2020 Feb 6 [cited 2024 May 10];2019(2). Available from: <https://www.qscience.com/content/journals/10.5339/qmj.2019.qccc.43>
3. Gilmartin S, Martin L, Kenny S, Callanan I, Salter N. Promoting hot debriefing in an emergency department. *BMJ Open Qual.* 2020 Aug;9(3):e000913.
4. Rao P. Introduction to Debriefing.
5. Kam AJ, Gonsalves CL, Nordlund SV, Hale SJ, Twiss J, Cupido C, et al. Implementation and Facilitation of Post-Resuscitation Debriefing: A Comparative Crossover Study of Two Post-Resuscitation Debriefing Frameworks. *BMC Emerg Med.* 2022 Sep 2;22(1):152.

6. Spencer SA, Nolan JP, Osborn M, Georgiou A. The presence of psychological trauma symptoms in resuscitation providers and an exploration of debriefing practices. *Resuscitation*. 2019 Sep;142:175–81.
7. Gayaparsad M. Debriefing following specific critical events in a department of anaesthesiology.
8. Schmidt M, Haglund K. Debrief in Emergency Departments to Improve Compassion Fatigue and Promote Resiliency. *J Trauma Nurs*. 2017 Sep;24(5):317–22.
9. Ugwu CV, Meadows M, Don-Pedro D, Chan J. Critical Event Debriefing in a Community Hospital. *Cureus* [Internet]. 2020 Jun 25 [cited 2024 May 10]; Available from: <https://www.cureus.com/articles/33643-critical-event-debriefing-in-a-community-hospital>
10. Teles D, Silva M, Berger-Estilita J, Pereira H. Practice of debriefing of critical events: a survey-based cross-sectional study of Portuguese anesthesiologists. *Porto Biomed J*. 2023;8(3):e215.
11. Arriaga AF, Szyld D, Pian-Smith MCM. Real-Time Debriefing After Critical Events. *Anesthesiol Clin*. 2020 Dec;38(4):801–20.
12. Sandhu N, Eppich W, Mikrogianakis A, Grant V, Robinson T, Cheng A, et al. Postresuscitation debriefing in the pediatric emergency department: a national needs assessment. *CJEM*. 2014 Sep;16(05):383–92.
13. Drotske J, De Villiers P. Resuscitation debriefing for nurses at the Accident and Emergency Unit of St Dominique’s Hospital in East London (South Africa). *South Afr Fam Pract*. 2007 Nov;49(10):17–17d.
14. Zinns LE, O’Connell KJ, Mullan PC, Ryan LM, Wratney AT. National Survey of Pediatric Emergency Medicine Fellows on Debriefing After Medical Resuscitations: *Pediatr Emerg Care*. 2015 Aug;31(8):551–4.

15. Couper K, Perkins GD. Debriefing after resuscitation: *Curr Opin Crit Care*. 2013 Jun;19(3):188–94.
16. Tannenbaum SI, Cerasoli CP. Do Team and Individual Debriefs Enhance Performance? A Meta-Analysis. *Hum Factors J Hum Factors Ergon Soc*. 2013 Feb;55(1):231–45.
17. Ryoo EN, Ha EH. The Importance of Debriefing in Simulation-Based Learning: Comparison Between Debriefing and No Debriefing. *CIN Comput Inform Nurs*. 2015 Dec;33(12):538–45.
18. Edelson DP, Litzinger B, Arora V, Walsh D, Kim S, Lauderdale DS, et al. Improving In-Hospital Cardiac Arrest Process and Outcomes With Performance Debriefing. *ARCH INTERN MED*. 2008;168(10).
19. Paquay M, Simon R, Ancion A, Graas G, Ghuysen A. A success story of clinical debriefings: lessons learned to promote impact and sustainability. *Front Public Health*. 2023 Jul 5;11:1188594.
20. Hohenstein C, Hempel D, Schultheis K, Lotter O, Fleischmann T. Critical incident reporting in emergency medicine: results of the prehospital reports. *Emerg Med J*. 2014 May;31(5):415–8.
21. Okuda Y, Bryson EO, DeMaria S, Jacobson L, Quinones J, Shen B, et al. The Utility of Simulation in Medical Education: What Is the Evidence? *Mt Sinai J Med J Transl Pers Med*. 2009 Aug;76(4):330–43.
22. Beaubien JM. The use of simulation for training teamwork skills in health care: how low can you go? *Qual Saf Health Care*. 2004 Oct 1;13(suppl_1):i51–6.
23. Curran V, Fleet L, Greene M. An Exploratory Study of Factors Influencing Resuscitation Skills Retention and Performance Among Health Providers. *J Contin Educ Health Prof*. 2012;32(2):126–33.

24. Salas E, Klein C, King H, Salisbury M, Augenstein JS, Birnbach DJ, et al. Debriefing Medical Teams: 12 Evidence-Based Best Practices and Tips. *Jt Comm J Qual Patient Saf.* 2008 Sep;34(9):518–27.
25. Lyman K. The relationship between post-resuscitation debriefings and perceptions of teamwork in emergency department nurses. *Int Emerg Nurs.* 2021 Jul;57:101005.

Annexes

Annex 1: Information sheet and consent form

I am Dr. Yibeltal Seyid, a third-year resident at Addis Ababa University, Tikur Anbessa Specialized Hospital, Emergency and Critical care Medicine department. As for the partial fulfilment of the academic year, I am doing this research on the practice of post resuscitation debriefing among EMCC residents and nurses working at ED of TASH, Addis Ababa, Ethiopia.

I would appreciate you in taking your time to fill this form as it is important for me to understand my research question. This will only be used for quality improvement and educational purposes and your identity will be kept confidential.

Persons to contact for further information: If you have any questions, you can contact the principal investigator at the following address:

Name: Dr. Yibeltal Seyid

Tel: +251918574489

Email: yibbose@gmail.com

Contact information for complaint: If you have any concern that the research team is conducting their activities unethically or inappropriately, please contact Addis Ababa University, college of health sciences at the following address:

Email: health.sciences@aau.edu.et

If you agree to participate in this study, I appreciate your truthfulness.

Are you willing to participate in this study? Yes [] No []

Annex 2: Data Collection Tool

1. Questionnaire

Part – I Directions: - Please place a mark on the given spaces, checkbox choices, and write comments accordingly.

1.1 Base line Information

1. Age...

2. Sex

A. Male

B. Female

3. Your current role in the ED:

A. EMCC resident

B. Nurse

4. Your number of years of clinical experience in the ED:

. < 1 year

. Between 1-5 years

. > 5 years

1.2 Current practice of PRD

5. Resuscitation is a series of interventions conducted by a team of health care providers aimed at restoring and/or supporting vital function in a critically ill patient (including but not limited to CPR). Approximately how many ER resuscitations are you involved in each year?

- . > Once a week
- . Once every one – two weeks
- . Once a month
- . < Once a month

6. Post-resuscitation debriefing is a facilitated and guided reflection after a resuscitation that provides an opportunity to review events and develop insights for use in similar scenarios in the future. Of the previously mentioned resuscitations, how often is there a post-resuscitation debriefing at ED?

- . < 25% of the time
- . 25 – 50% of the time
- . 50 – 75% of the time
- . > 75% of the time

7. In the past year, in how many debriefing sessions have you participated...

After real resuscitation cases?

- . < 10
- . 10-20
- . 20-50
- . > 50

After simulation scenarios?

- . < 10
- . 10-20
- . 20-50
- . > 50

8. What, if any, previous training did you have in debriefing?

- . No previous experience
- . Course of 1 day or less in duration
- . Course >1 day in duration
- . Formal training and certificate in debriefing and/or simulation

9. Is there an expectation in your institution that debriefing occurs after resuscitation?

- . YES
- . NO

10. Within what period of time does debriefing typically occur after resuscitation at your ED?

- . Immediately/same ER shift
- . 24-48 hours after the event
- . 3 – 7 days after the event
- . Timing is variable
- . Debriefing does not usually occur

11. In your opinion, when is the optimal time during which debriefing should occur?

- . Immediately/same ER shift
- . 24-48 hours after the event
- . 3 – 7 days after the event

. > One week or late

12. Is the facilitator/leader of the debriefing typically a person involved in the resuscitation?

. YES

. NO

13. Who is the facilitator/leader of the debriefing typically in your ED:

. EMCC consultant

. EMCC resident

. Nurse

. No idea

14. Who normally attends the debriefing? (Mark all that apply.)

. Physicians

. Nurses

. Interns

. Other: _____

15. How long does debriefing usually take?

. < 15 minutes

. 15- 30 minutes

. 30- 60 minutes

. > 60 minutes

Part – II Directions: Please indicate your level of agreement with the following statements regarding post-resuscitation debriefing in your ED by circling your response:

1. Strongly disagree

2. Disagree
3. Neutral
4. Agree
5. Strongly agree

16.Regarding the current practice of post resuscitation debriefing after critical event at ED:

N	Questions	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Medical issues are addressed adequately					
2	Teamwork, leadership, communication issues, and resource allocation are addressed adequately					
3	Emotional issues are addressed adequately					
4	There usually is enough time to cover all issues					
5	The debriefing environment is supportive and non-threatening					
6	The facilitator has a strong impact on the quality of the debriefing					

7	Post-resuscitation debriefings occur in a timely fashion					
---	--	--	--	--	--	--

1.3 Perceived needs and barriers of PRD

Part – III Directions: Please indicate your level of agreement with the following statements regarding post-resuscitation debriefing in your ED by circling your response:

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree:

17. Regarding the practice of post resuscitation debriefing after critical events:

N	Questions	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Debriefing is an important process after a resuscitation					
2	Critical incidents that should be debriefed include:					
A	Death of a patient					
B	Cardiopulmonary resuscitation (CPR)					
C	Life threatening arrhythmias					
D	Status epilepticus					

E	Respiratory arrest					
F	Trauma resuscitation					
G	Multiple casualty/disaster					
H	Shock					
I	Medical errors in resuscitation					
J	Any resuscitation in the ED (as defined in question 5)					
3	Facilitators of debriefing should have a specific skill set developed through formal training sessions.					
4	Who should be facilitating debriefs?					
A	EMCC consultants					
B	EMCC residents					
C	Nurses					
D	Any ED health worker who was leading the resuscitation process					

5	What do you see as the purpose of debriefing?					
A	Emotional release					
B	Reviewing the medical care of the patient					
C	Discussing medical errors					
D	Developing guidelines or protocols to manage similar resuscitations in the future					
E	Building team morale					
F	Discussing teamwork, communication, leadership, and resource allocation					
G	Blaming and judging					
H	To take administrative measures on incompetent staffs					
I	Others...					

18. Identify barriers to effective debriefing in your ED (mark all possible answer)

- A. ER workload and environment does not allow sufficient time to debrief
- B. No identified interest or need
- C. Lack of qualified/trained facilitators

- D. No appropriate setting available
- E. Did not feel comfortable discussing the event in the group/team environment
- F. Felt criticized and judged
- G. Too soon or late after the event
- H. Lack of administrative support for debriefing
- I. Other: _____

19. Please provide any other comments you may have:

2. Questions for Focus group discussion

1. Discuss on the current practice of PRD at ED of TASH

- 1.1 How do you see the practice of PRD at ED?
- 1.2 Do you think it is being practiced appropriately? How/Why?
- 1.3 How often you debrief or debriefed after resuscitation of critical events?
- 1.4 Who leads the debriefing process in your experience? How/Why?
- 1.5 Have you ever taken feedback from a debriefer after resuscitative procedure? If so, was that constructive and based on your draw backs?

2. Discuss on barriers of PRD

- 2.1 What are the factors that hinder the practice of PRD at you ED? How?

3. Discuss about the perceived benefits of PRD and recommendation for areas of improvement

- 3.1 What do you think about the benefits of PRD at ED?
- 3.2 what do you recommend to improve the current PRD practice?

