

# Families' Psychological Fragility during an Emergency

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**Abstract.** *Critical conditions due to traffic accidents are situational crises for families which result in a disruption in the stability of the equilibrium and cause psychological problems to family members. This study aimed to explore the psychological reaction experienced by the families of traffic accident victims who were treated in the emergency room in a critical condition. A qualitative interpretive phenomenology approach was applied as the research design. Purposive sampling technique was used to recruit participants according to the inclusion criteria. The inclusion criteria were the nuclear family, families of critically traumatized patients and who were able to communicate. There were 10 participants involved in this study. Data collection was conducted via the semi-structured interviews. Data were analyzed by Braun and Clarke Thematic Analysis. Five overarching themes emerged from this study. Firstly, the family feels "denial reaction to an accident" and when the patient is critical, they become "fearful of losing a loved one". This situation makes them "vulnerable to fragility" and in the end "give up hope". The physical condition of the patient and the loss of family members can be the traumatic effect of an accident. Interestingly, we found that a critical situation leads to a closer relationship within family members. The emotional response felt by the family member provides an overview of the family's feelings in a state of grieving and they need support from other people including health care providers. Appropriate coping mechanisms and family support are important to prevent fragility in the families of critical patients in the emergency room.*

**Keywords:** *traffic accident, psychological of family, critical ill, emergency*

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## I. INTRODUCTION

Accidents are health problems that occur significantly in various stages of human life. Twenty-five percent of patients who were admitted to the emergency department (ED) were the result of a traffic accident. In 2013, based on WHO data in the Global Status Report on Road Safety, 1.24 million died and 20 - 50 million people were seriously injured in traffic accidents. Road traffic accidents in Indonesia are a very serious problem over the last three years and have become the third biggest killer and this increases every year [1] [2]. The number of traffic accidents in Indonesia in 2016 was 106.129 with a total death toll of 26.185, 22.558 serious injuries and 121.550 minor injuries. Serious injuries from accidents have increased by 300% in the past ten years [3]. The accident is the highest cause of death and disability globally [4]. Deaths due to motor vehicle accidents are estimated at 1.17 million and 70% of deaths occur in developing countries [5]. Accident victims can experience critical conditions that could lead to developing a disability and death within minutes or hours. The victims' critical conditions could threaten the stable state of the internal equilibrium of the family [6].

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Accidents or trauma occur suddenly, fast, and are unpredictable for both the patient and their family members and expose them to experience crisis conditions. A crisis condition is a stressor for the family that causes traumatic experiences among family members [7]. The crisis causes a disruption in the balance which causes failure in coping mechanisms and unable to control an individual's life [8]. These conditions make the family prone to mental disorders such as fear, anxiety, and depression and lead to psychological fragility. The fragility occurs because the family is in a state of 'high alert' and 'on watch' for anything else that might happen [9]. Facing the fragility, the family needs support from relatives and health care providers. The nurse should understand the family's feelings and permit them to reflect on the fragility [10]. However, in the Emergency Department nurses and other health workers often focus on emergency care such as resuscitation measures when dealing with critical patients in order to save their life and often neglect the family members' needs [11].

Previous studies about the emotional responses of family members of ill patients indicate that there are some emotional reactions when a family member is admitted in a critical condition. They are challenged with feelings of uncertainty, abandonment, being close to death, being in a no-man's-land and attachment. Factors that provoke family emotional reactions are the patient's life-threatening condition and the bond of brotherhood with the patient. The other studies have explored the emotional response of families of critically ill patients admitted to the ICU. Some of the emotions were anxiety, panic attack, helplessness and hopelessness, and intense emotional distress. The family also feels shock, denial, anger, despair, guilt, and fear of loss of a loved one [12] [13] [14]. Meanwhile, to the researcher's knowledge, no study has explored the emotional experiences of families of critically ill patients treated in emergency rooms following traffic accidents in Indonesia. It is important to explore the emotional response of families in the emergency room, especially in critically ill patients who are victims of traffic accidents. Therefore, this study aimed to explore the emotional response experienced by families of victims of traffic accidents who were treated in ED in critical conditions.

## II. METHODS

- Study Design

The design used in this study was qualitative with an interpretative phenomenology approach. The study population was a family of critically traumatized patients who were treated in the emergency room of Private Hospital Lamongan over one year ago. The participants in this study were selected by purposive sampling technique that was in accordance with the inclusion criteria. The inclusion criteria in this study were the nuclear family of critical trauma patients, families of critically traumatized patients who had been discharged from the hospital for 1-2 months after trauma and were able to communicate using Indonesian language and local dialect (Java). 15 patient's families were suitable with the inclusion criteria. The number of participants obtained after the data was saturated.

The study was conducted at the ED of a private hospital in Lamongan. Most traffic accident patients are treated in this hospital. The researcher collected data on patients treated in the ED with trauma and in critical condition or first-priority patients. Critical patients have the right to be accompanied by a family member (Article 32 of Law No. 44 of 2009). This research was approved by the Ethics Commission of the Faculty of Medicine, Universitas Brawijaya (No.337/EC/KEPK-S2-PSIK/05/2014).

- Data Collection

Semi-structured interviews were used to explore information from participants. Interview guidelines were developed based on the crisis theories developed by Lindemann (1944) that are relevant to the problems to be explored in the study. The interview guidelines were validated by the emergency teams (senior nurse in ED, doctor in ED, and nursing lecturer in ED nursing program), trials with two family members of critically traumatized patients and clarification with other family members. Data on demographics and priority of patients were obtained from the

hospital medical records. Validated Interviews guides were used to collect data from participants, “how do you feel when one of your family members has an accident?”. The question then developed into, “How did you react when you saw family members in critical condition?”. The interviews in this study were supplemented by field notes during the interview process. The interviews were conducted until no new themes evolved or data had been saturated. During the interview process recording is done using a recording device. The results of the interviews were then transcribed verbatim.

- **Data Analysis Procedure**

Data analysis used thematic analysis, a method for identifying, analyzing and reporting patterns (themes) of data [15]. Data analysis was carried out together with data collection, data interpretation and report writing. The transcribed verbatim were analyzed using the Braun and Clarke Thematic Analysis approach to obtain themes as a result of the research [16]. There are six stages in analyzing data using Braun and Clarke Thematic Analysis. These stages were familiarizing with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report. Data validity was done through the triangulation of data. Data from interviews that were in the form of verbatim transcripts were then reconfirmed by other family members and the participants themselves to ensure that the written information was correct.

### III. RESULTS

The study involved 10 participants, six women and four men aged between 29 - 59 years. The relationship between participants and patients is as husband, wife, mother, father, brother and child. In this study, as many as six family members of the participants (patients) died, three were cured and one had complications. The education level of the participants was four undergraduates, two senior high schools, three junior high schools, and one elementary school. All the participants were Javanese. Eight participants were in the emergency room for more than four hours and two participants for less than two hours.

Table 1. Participants' Demographic Data (N=10)

No of Participant	Gender	Relationship to the patient	Education
1	Female	Wife	Bachelor Degree
2	Male	Husband	Bachelor Degree
3	Male	Father	Senior high school
4	Male	Husband	Elementary school
5	Female	Daughter	Senior high school
6	Female	Daughter	Junior high school
7	Female	Mother	Bachelor Degree
8	Female	Wife	Junior high school
9	Female	Wife	Bachelor Degree
10	Male	Daughter	Junior high school

There are five themes and ten subthemes derived from this study. The themes were denial reaction to the accident, fear of losing a loved one, vulnerable to fragility, giving up hope, the traumatic effect of accidents. The subthemes were shock and disbelief (theme 1), losing family support and losing financial support (theme 2), physical fragility and emotional fragility (theme 3), God willing and acceptance of fate (theme 4), prolonged sadness and feeling traumatized (theme 5). The participants' experience regarding emotional reactions when they accompanied the patients to the emergency room was very diverse. This reaction is influenced by the relationship with the patient and the ability to use coping mechanisms.

- **Theme 1: Denial Reaction To Accidents**

The first experience felt by the patient's family when they heard the news of an accident and saw the patient's condition was a reaction of denial. Family emotional reactions include feelings of distrust, surprise, shock and crying. Accidents are events that occur suddenly and unplanned. Families feel disbelief and shock because the patient had never been sick before. The family looks at the patient many times and with a blank stare.

*At the first time ... I didn't believe it ... At first I didn't believe that my wife had an accident, then I thought at first it was just an accident ... because I was in town ... When I arrived at the hospital ... I was shocked to see that my wife was not as I thought ... (Participant 2)*

*Disappointed ... obviously I felt disappointed ... the problem (he) didn't keep getting sick suddenly ... mother T didn't get sick ... T's mother ... never got sick ... so sick immediately critical ... isn't that right ... yes ... disappointed yes that was ... how come I never got sick ... it hurts so badly ...  
I don't think it is that heavy ... Not critical ... I think it's normal ... people say when they get hit by him they can still talk ... (Participant 5)*

Shock is a condition in which participants feel surprise that has never been imagined and thought before. Shock occurs because the family sees the unconscious patient and the possibility of the patient recovering. The participant's emotional reaction is crying and at a certain moment becomes silent. Other feelings felt by the family are anxiety due to the uncertainty of the patients' condition who is still critical.

*I am shocked, ma'am ... the shock is ... just one child ... how come this is the situation ... how can it be ... can it recover or not ... so ... my mind is ... shocked ... I ... Shock ... Shock ... he's not aware ... at that moment when he was just silent ...  
At that time ... I couldn't say anything ... I just cried ... lamenting ... (Participant 3)*

*I was inside, in the emergency room ... that .... sometimes I cry ..cry ... go out ... come in again ... (Participant 7)*

*My feelings are not careless, trembling, at that time someone cut down a tree on the road, fell and hit my child's head ... then he was taken to the hospital (Participant 10)*

- Theme 2: Fear of Losing a Loved One

Loss of family members is one thing that is feared by the family when the patient in a critical condition. The emotional reactions are worry and fear of losing their loved ones. The family is afraid that if the patient dies, the role of the patient will disappear while they cannot replace it.

*Just in the mind ... maybe something happened to you father ... is it possible to die ...  
The feeling is Ma'am ... not messy (unpleasant) ... after that this thought is messed up ... anxious ... worried ... mixed up ..  
my mind is messed up ... I hope you don't die ... (Participant 6)*

Fear of losing family members occurred because participants felt sad about the uncertainty of life when the family members die. Families of husband and wife will think about the child left by the patient and the impact on their lives.

*Yes it's the same ... confused ... confused ... sad ..  
Confused it was not due to financial problems ... because my child was still small ... 5th grade elementary school ... children that age are still needing to be educated by his mother ... I am always on the move all the time ... rarely at home ... sadly there is no one who took care of ..or.... kept my children how ...  
If my children are already big, they will be taken care of by their husband ... but my little child is still not able to eat alone, he is still bribed ... these two children ... Kindergarten and 5th grade (Participant 4)*

- Theme 3: Vulnerable to Fragility

Fragility is a condition where something is easy to damage or weaken. A crisis-situation experienced by the family when a family member is involved in a traffic accident and in critical condition causes vulnerable emotions in families. The family has the potential to experience physical, psychological, and social problems.

*So... my family who helps me ... eee .. strengthens me .. encourages me .. not only from nurse but also my family .. just pray, sir ... assisted with prayers .. assisted with prayers only .. (Participant 2)*

*"My son's compilation died ... my husband and I did not take care of the administration because we were both in a state of shock ... so for administrative matters were taken care of with the brothers .. friends .."  
my family said ..... Yes ... all those things .. those who are strong ... those lives don't have anyone ... those who have it are Gusti Allah .. just handed over .. like that ,, all see so .. (Participant 3)*

- Theme 4: Giving Up Hope

Hope is a source of strength within the family to be able to control emotions during the ED. What families can do is pray for the patient to heal and hand in to God. Resignation to God makes the family understand that everything happens at the will of God. In the end, the family felt that everything that would happen to the patient was the best for her.

*I just realized ... I realized ... if all that is God's will ... Allah has everything ... Everything is also like that ...who wishes for everything that is God...humans only try... (Participant 4)*

*His son who was not able to stand ... when told like that ... yes ... how else can I do it ... yes indeed his fate is like this ... just be patient ... yes it has been explained ... I am so ...  
The child can't bear it ... can't bear to say it ... can't bear it, it's better to let it go ... (Participant 5)*

- Theme 5: Traumatic Effect of Accidents

Accidents are a big stressor for families. Families are faced with health problems in one family member that occur in a fast and unpredictable way. Accidents are a traumatic event for the family resulting in chaos and crisis in the family system. The crisis that happened to the family in a short time made the accident traumatic for the family. This is supported by critical patients who die. Participants cannot explain the situation experienced in the emergency room because they are still traumatized and do not want to remember the incident. Families assume that the world seems to stop spinning when they lose family members.

*I ... crying already crying ... sometimes I arrived, yeah already ... traumatized ... down ... hmmm (while looking down) ... until I stepped away, I got a chance ... after I sat down besides my husband ... what ... I'm waiting for my husband ... (Participant 1)*

*Yes ... when I saw my child in that room ... I can't say anything ... crying that was felt ... until now it's still shocked ma'am ... his friends didn't dare to be afraid here he said ... seeing I'm still sad ... (Participant 3)*

*I could not tell the incident at that time ... the incident made me sad ... made me think back to my husband ... (Participant 9)*

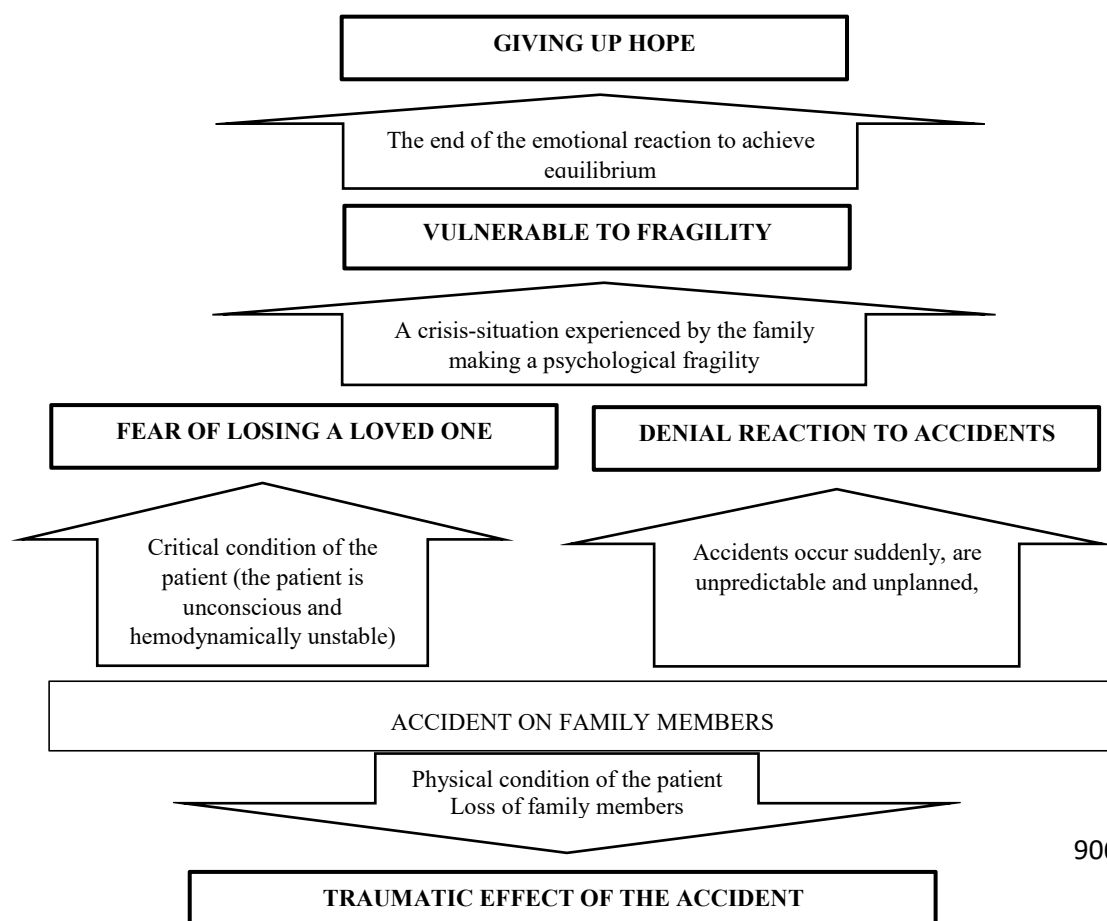


Figure 1. Themes of the emotional reaction of family members of critically ill patients in ED

#### IV. DISCUSSION

Critical conditions due to traffic accidents are one of the situational crises experienced by families. In the face of situational crises [8], families can show various responses including emotional responses that are strong emotions [14]. Feeling helpless, lack of control and less opportunity of anticipatory coping can lead to emotional distress to the family [17]. The emotional response experienced by the family is a form of feeling that they feel when they hear, see and accompany critical family members in the emergency room.

The initial reaction when someone is in a state of grief is a reaction of denial. Denial reactions in this study include feelings of distrust, surprise, anxiety, crying and shock. This emotional reaction is felt by families because accidents are unexpected events, with a rapid onset, that occur suddenly, and with no prior preparation [14]. In the stage of the process of losing or grieving, the reaction that appears at the stage of denial can be in a physical and psychological form [18]. The initial reaction to accidents is a feeling of delusion, a feeling that what is experienced is not true and like a dream [8]. The others' reactions include feelings of guilt, anger, worry, frustration, despair, loss, distrust, shock, silence, fatigue, confusion, denying reality [17]. Crying is a resolution of all emotions that the family feels and healing for the wound created by the loss [19] [20].

Most of the participants were afraid of losing loved ones when they saw family members in a critical condition. They feel scared and worried if their family dies. This feeling is due to the condition of the patient who is critical and does not show progress or has a bad prognosis (high risk of death) and the family will lose the role of the patient [12]. Emotional closeness with patients makes families feel scared if they have to be abandoned by their loved ones [21]. Furthermore, the role is one of the reasons to feel this emotion. Each family member has a role that influences one another. When the role of one family member is lost, the family must make adjustments and sometimes it cannot be replaced [19]. Previous research said that the emotional reactions that can be felt by the family in ED are fear, sadness, anger and impatience. Fear is caused by the possibility of the patient dying, the environment of the emergency room, and the number of critical patients present in ED. Meanwhile, feelings of sadness will arise when the patient dies and there are restrictions to accompany the patients.

A crisis situation is an unimaginable condition precipitated by a sudden unexpected event in a person's life. James and Gilliland (2013) said that crisis is the perception or experience of an event or situation as an intolerable difficulty that is exceeded. Several things affect one's acceptance of traumatic events such as previous experience, personality, socioeconomics, beliefs and culture. Stages of situational include (1) a period of disequilibrium; (2) a process of working through the problems; and (3) an eventual restoration of equilibrium. If someone reaches the stage of balance there will be a decrease in anxiety and a satisfying experience can be achieved [10]. We should be building a resilience system in the emergency room to convey the disruptive influence of fragility [22]. Support from relatives and caregivers is needed for families to be able to face fragility. The nurse should understand the family's feelings and permit them to reflect on the fragility [10].

One of the ways to control emotional reaction in the family is to leave everything to God. They believe that God will give the best to their family members. Resignation is when a person faces a problem and feels unable to solve it himself. In resignation, the family hopes that the patient will recover. Hope provides positive energy for the family to be able to remain in a stable emotional state. Hope can be used as a coping mechanism to be able to understand the

situation that occurs [14]. Expectations for patients to recover remain in the family's mind even though the prognosis of the patient is poor [23].

The experience of having a family member in critical condition after an accident can be very traumatizing which will lead to a high risk of anxiety, irritation, depression or post-traumatic stress disorder. This reaction depends on the degree of vulnerability or threshold [24]. Families often witness invasive actions given to patients which they have not seen before. The family of critical patients is also the person responsible for making decisions regarding the treatment [25]. Loss of family members is a traumatic event that can cause emotional or psychological changes [26]. In this study, the family felt that the incident they had experienced during the ED left them traumatized. When someone asks about the incident, the family becomes quiet and sometimes cries, they do not want to remember the incident because it is very painful. In the process of searching for participants, several times the researchers were rejected by the patient's family because if asked they could not narrate the events they experienced during the ED.

## V. CONCLUSION

Critical conditions in patients have a tremendous impact on the family. The emotional reactions of families vary greatly depending on their level of vulnerability to crises in the family. Families experience emotional problems both at the ED and after the incident. Family emotional reactions include denial reaction to the accident, fear of losing a loved one, giving up hope, vulnerable tend to fragility and traumatic effects of the accident. Nurses need to assess the family's emotional reactions, provide opportunities for families to express feelings, and give support. Emotional support can be provided by therapeutic communication with the family. ED can provide special facilities for families and one nurse who can give full support to the family. By understanding the emotional reactions, nurses can be more respectful to the family and provide psychosocial support. The family is the main source of support to patients and stabilizes the patient's emotions.

## CONFLICT OF INTEREST

No conflict of interest has been declared.

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