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# Road Traffic Accident Victims' Experiences of Return to Normal Life: A Qualitative Study

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## Abstract

**Background:** Road traffic accident (RTA) victims also suffer from different types of injuries and disabilities, which can affect their quality of life. They usually face with various physical, mental, and social problems. Most traffic accident victims had difficulty to return to normal life.

**Objectives:** This study aimed to understand the experiences of return to normal life in RTA victims.

**Patients and Methods:** This qualitative study with content analysis approach was conducted on 18 Iranian patients with disability in the upper or lower limbs caused by traffic accidents, who had passed a time between 3 months till 2 years. A purposeful sampling method was applied until reaching data saturation. Data were collected using semi-structured interviews. Afterwards, the gathered data were analyzed through conventional content analysis.

**Results:** By analyzing 498 primary codes, four main categories, including supportive needs, adaptation to the new situation, seeking information, and transition from functional limitation, were extracted from traffic accident victims' experiences of reintegration to normal life.

**Conclusions:** The results of this study may help policy-makers to take steps toward health promotion and recovery of RTA victims. Considering the results of this study, it is a need for further research to investigate RTAs victims' needs for reintegration to home and community. Access to training and supportive facilities like strong therapeutic, nursing and social support, and the possibility to participate in self-care activities is essential for reintegration to community in RTA victims.

**Keywords:** Return, Life, Experiences, Road Traffic Accidents, Victims, Content Analysis

## 1. Background

Traffic accidents are a major public health problem (1-3). Currently, more than 1.2 million people each year are killed in road traffic crashes around the world, while an additional 20 to 50 million are injured by these accidents (4). According to the global burden of disease study 2010, road traffic injuries (RTIs) were responsible for over a third of the world injury burden, which resulted in the loss of 76 million disability-adjusted life years (DALYs) (5, 6).

Most of traffic accidents victims suffer from different types of injuries and disabilities, which can affect their quality of life. These problems may affect the quality of patients' lives and their families (7). Injured people might experience limitation in different areas including physical and social functioning, mental health, and delay in returning to work and school (8-10).

Traffic accident casualties are doubtful for successful returning to normal life. Some of the studies have stated that physical and mental recovery of patients after traf-

fic accidents depend on multiple factors. Therefore, understanding of these factors is important by the health worker team (11-14). This subject in nursing studies has not been considered in Iran, and most of the studies on RTIs are epidemiological types. However, RTA casualties' recovery in Iranian settings is still not clear. Hence, the area of trauma care within the medicine and nursing appears underdeveloped (1, 15). In addition, most researches about the trauma nursing in Iran have been conducted with quantitative approach. Considering the lack of comprehensive study on the return to life in RTA casualties, this study aimed to explore the perception and experiences of the RTI victims; experiences from return to normal life in context of Iran.

## 2. Objectives

This study aimed to understand the experiences of return to normal life in RTI victims.

### 3. Patients and Methods

Since the preservation of knowledge is a subjective concept, an inductive qualitative content analysis was used to identify the varying viewpoints and experiences of the participants. This approach improved the comprehension of data in the study (16). In inductive content analysis, the codes are extracted from the data and new concepts pertaining to the phenomenon under scrutiny were emerged. In this article, the conventional content analysis procedure was used and it helped categories to be extracted directly from the data (17). In the analysis, data was scrutinized, charted, and arranged based on the main subjects and themes using five stages: familiarization, identifying a thematic framework, indexing, charting, and mapping and interpretation (18).

#### 3.1. Data Collection

This study was a qualitative research and the content analysis method was applied to data analysis. The data were collected through deep semi-structured face-to-face interviews. The interview began with an open-ended question based on the major research question and continued with probing and follow-up questions about effective factors in reintegration to life in patients with physical disabilities caused by traffic accidents. The data were collected within 9 months from July 2013 to March 2014. Each interview lasted 30-90 minutes depending on the patient's ability to continue the interview. The interview was performed in Persian by the first author, and then, translated into English. All the interviews were recorded by a digital voice recorder, and then, transcribed verbatim after each meeting. Major research questions were as follows: Would you tell which factors helped you to return to your previous life? Which factors inhibited return to your work after that traffic accident? Furthermore, probing questions were asked from the participants during the interview to make the answers clearer.

#### 3.2. Setting and Participants

In this study, participants were selected from Imam and Sina hospitals affiliated with the university of social welfare and rehabilitation sciences in Tehran city. The purposeful sampling method was used to recruit the participants. Purposeful sampling is a technique widely used in qualitative research for the identification and selection of informant participant. In this study, the sampling type was maximum variation sampling. The participants were selected from both sexes and different clinical situations and home with different socio-economic levels (19). In this study, victims with disabilities in upper and lower extremities with 1 year experience were selected using the purposive sampling method. The inclusion criteria included all patients injured in motorcycle or car accidents, physical disability in lower or upper limbs, ability to understand and speak Persian, willingness to participate in the study, age of 17 - 44 years, at least 3 days of hospitalization, and with passage of minimum 3 months

and maximum 2 years from the traffic accident. Patients with brain disorders, spinal cord injuries and psychological disorders were excluded from the study. Based on the computerized road accident data, patients were selected from the two specialized hospitals, Imam and Sina hospitals. Sina general hospital is located in the city of Tehran with a capacity of 625 beds, and Imam Khomeini general hospital is located in the center of Tehran with 1401 hospital beds. The setting for the present study was in the trauma care units of educational hospitals affiliated with Tehran University of Medical Sciences. Two hospitals are major referral centers for treatment and rehabilitation of collision victims in Iran. So, the researcher visited them on the appointed day after arranging through their telephone call number and receiving their consent for the interview and participating in the study.

#### 3.3. Ethical Considerations

The ethical and research committee of university of social welfare and rehabilitation sciences in Tehran (uswr. rec.1392.108) approved this study. Before starting each interview, all participants were informed about the objectives and method of the study. They were also informed that participation in the study is voluntary; therefore, they could refuse to participate or withdraw from the study at any time. Moreover, the participants were reassured that their responses would be kept confidential and their identities would not be revealed in research reports and publications of the study. Finally, the participants who agreed to participate in the study were asked to sign a written consent.

#### 3.4. Data Analysis

After the research team was sure that no new data were emerged, the data analysis reached to saturation, and the data analysis process was started. Data were analyzed according to stages suggested by Graneheim and Lundman (2004) (18) as follows: 1) Transcribing the whole interview immediately after completion; 2) reading the text to gather an overall understanding of its content; 3) determining meaning units and initial codes; 4) classifying initial codes into more comprehensive categories, and finally; 5) determining hidden content of the data. In this study, data were analyzed according to these stages, where after every interview contents were transcribed, typed and read several times to extract initial codes. The codes were combined according to similarities to form categories, and finally, hidden concepts and content of data were extracted. Although data analysis with software (e.g., MAXQ DA) was very convenient, researcher analyzed the data manually to understand the depth of data.

#### 3.5. Consideration of Rigor

To ensure the accuracy, reliability, and scientific accuracy of the qualitative data, we addressed the criteria of credibility, dependability or accountability, transferability,

and conformability. To ensure the accuracy, reliability, and scientific accuracy of the qualitative data, we addressed the criteria of credibility, dependability or accountability, transferability, and conformability (18-20). To increase the reliability of the data, the researcher was involved with the data over the two years duration of the study. Interview texts and a list of categories were revised by other research colleagues who had experience in qualitative research. In addition, through the process of member checks, initial coding of interviews was reviewed by the interviewees to confirm the accuracy of the codes. Three faculty members who were familiar with qualitative research reviewed the codes and agreed on the interpretations. To audit the study, the researcher accurately recorded and reported stages and process of the study.

## 4. Results

Demographic information: Eighteen participants (13 males and 5 females) were included in this study. The mean age of the participants was 25.6 years. The youngest patient aged 18 years and the oldest aged 44. The patients' age group in this study was between 18 and 44 years that most of the RTAs had occurred in this age group. Most of the participants (75%) were males (Table 1). Based on the participants' experiences, four major themes were conceptualized, including the supportive needs, adjusting to the new situation, seeking information, functional limitations (Box 1).

### 4.1. Supportive Needs

The "supportive needs" was the major theme extracted from the data of this study. This theme involved two sub-themes consisted of treatment support, social support need, and peer-support need.

#### 4.1.1. Treatment Support

Despite all facility deficiencies the participants experienced, they introduced the treatment team's support as a factor in their success to adapt with the problems appearing after the accident and the resulting disabilities. Some participants had found the attempts of the hospital's treatment team as the cause of their survival and adaptation and also introduced the favorable nurse interactions as the cause of their recovery:

"The support of the ward's nurses was very effective in returning to normal life and helped us to get along with this way of living."

"If they didn't support me, now, I wasn't here." (interviewed at workplace) P8.

#### 4.1.2. Need to Social Support

The participants stated that as the traffic accidents happened suddenly, their costs and other items were not predictable, and the injured people might be taken to any hospital that might not accept their insurance. In this respect, patients and their family faced with many

problems, and it seemed that the insurance rules were troublesome for them.

"No supportive source exists to reduce this suffering and losses of the accident." P7

"We've been left alone with lots of debts for my treatment. The first time, hospital services were free but other tasks had many problems and I myself had to pay for them." P6.

"The welfare organization doesn't help us at all. In such a situation, we need someone helps us." P4.

#### 4.1.3. Peer-Support Need

The participants reported less concern when meeting patients with physical disabilities caused by traffic accidents and talking with them. In this regard, a participant explained:

The participants considered it an invaluable experience when they shared experiences with their peers of traffic accidents and their adaptation with the changes in their life. They also introduced the need for peer-support as a significant factor in their recovery:

"When we're together and talk about our common problem, I really feel my pains subside, and really no one can help us like people who experienced it." P1.

### 4.2. Adapting With the New Situation

Adapting with the new situation was a major theme emerged from participants' experiences. In this study, the participants had returned to normal life gradually but had to adapt with physical limitations caused by the accident. The gradual reduction of patients' problems had facilitated their adaptation:

"Early days were passing very hard both for me and my family. I could hardly walk. Our recreations decreased, but I gradually accepted everything." P4.

"I was trying to live in the best possible way. I didn't show my pains to my wife and child. I tried hard to find myself soon." P11.

The considerable point among the participants was that their personal characteristics and use of adaptation skills were effective in accepting the situation after being injured:

"I tried hard to view this event as a rebirth. I continuously encouraged myself and thought that my life was what it was and I had to love it and be proud of it even if I had to lose some things to the end of my life, but I should be satisfied. Now thank God, I'm satisfied and largely think I've become normal and can continue living like other normal people." P2.

The study participants found his new life as unwavering God's mercy, and this made him better adapt with the condition.

### 4.3. Seeking Information

Seeking information was one of the strongest sub-themes of support and an important element for suc-

successful returning to normal life. The participants in this study had experienced the need to a variety of training techniques, such as the hospital training.

“Through training, we can learn how to breathe so we don’t catch lung infection, how to walk with a stick, how to bathe, and how to do daily activities. If they give necessary information to us and our family, we can care ourselves well.” P7.

“Participation in self-care increased in participants when they searched for necessary information that was introduced as a fundamental need in patients returning to normal life.

#### 4.4. Transition From Functional Limitation

Transition from functional limitation was a major theme emerged from the participants’ interview. This theme consisted of three subthemes: return to acceptable physical activity, return of changed roles, and returning to work.

##### 4.4.1. Return to Acceptable Physical Activity

The participants achieved their physical abilities gradually, as they stated they had various limitations at the beginning, which were obviated gradually.

“Now, I can walk with a stick, I can bathe alone, but I didn’t like this before. I was physically so weak in the last 6 months that I couldn’t go out of home.” P10.

“I was always in bed in the early days, but I gradually got

out of bed. I kept telling myself it’s not right others do my tasks. I should be able to do all my tasks.” P12.

##### 4.4.2. Return of Changed Roles

The participants could not do their personal, familial, and social roles and responsibilities, but they gradually recovered with time.

“I couldn’t do anything for my family. I had a little child that I couldn’t hug whenever he wanted me to, and this was very distressful. But, now I can do so I’m very happy. It’s 7 months since then, and I’m almost like that before the accident.” P7.

“My wife was a nurse. She was working, caring after the child, cooking, and also caring after me. I couldn’t do anything in those days. I grieved for the accident that blew my life like a bomb. But, now I’m happy I cannot only do all my tasks but also help my wife.” P10.

##### 4.4.3. Return to Work

The doctor recommended me to rest more, but I started working sooner during my sick leave because working affected my spirits and I was committed to my work...” P4.

Even now I’m walking and going to work with a stick and I walk in such a situation because this empowers my leg muscles and makes my spirit higher, and I can return to normal status faster. I returned to work when my sick leave hadn’t been finished. I’m very happy I go to work... God willing, I’ll be healthy and work.” P3.

**Table 1.** Description of Traffic Categories, Age, Sex and Job of the Victims

Traffic Categories	Age, y	Gender	Diagnosis	Job
Car occupant	19	Male	Leg and hand fracture	Unemployed
Motorcycle	33	Male	Femur fracture	Employee
Car occupant	22	Female	Ankle injury	Unemployed
Motorcycle	17	Male	Wrist and pelvic	Student
Car occupant	18	Female	Leg fracture	Student
Car occupant	33	Male	Wrist and leg	Employee
Pedestrian	26	Male	upper hand	Student
Car occupant	21	Male	Wrist and lower leg	Unemployed
Motorcycle	22	Female	Lower leg	Student
Car occupant	23	Male	Ankle injury	Employee
Motorcycle	30	Male	Wrist and pelvic	Student
Car occupant	44	Female	Leg fracture	Employee
Car occupant	21	Male	Wrist and lower leg	Unemployed
Motorcycle	40	Male	Lower leg	Student
Car occupant	18	Male	Ankle injury	Employee
Motorcycle	30	Male	Wrist and pelvic	Student
Car occupant	20	Female	Leg fracture	Employee
Car occupant	23	Male	Ankle injury	Employee

**Box 1.** Subthemes and Themes

Theme/Subtheme
<b>Supportive needs</b>
Treatment support
Need to social support
Peer-support need
<b>Adapting with the new situation</b>
Adapting with the new situation
<b>Seeking information</b>
Seeking information
<b>Transition from functional limitation</b>
Acceptable physical activity
Return of changed roles
Returning to work

**5. Discussion**

According to the participants' experiences, four major themes emerged including: supportive needs, adaptation to the new situation, seeking information, transition from functional limitation.

Results of the present study indicated that "supportive needs" was a principle in returning to normal life in RTI victims. Supportive needs could be in different forms, such as the treatment support, peer support, and social support.

Supportive needs were common among the participants of this study and were effective in reducing their stress and coping with damaging and disabling conditions. This result is consistent with McGarry et al.'s study (2013), in which the participants found that the family support is an effective factor in reducing care-related problems and important changes that might occur in their family life (21). Also, the participants in this study perceived treatment support as an important factor in adaptation with the problems and disabilities appearing after the accident. They considered favorable interaction in the treatment team the reason for their recovery and balance. The results of some studies showed that traumatic survivors struggled a lot to return to normal life but severely needed to receive support and security from the health worker team, especially nurses (9, 14). Participants in this study also had experienced the need to social support in different dimensions of their life. These patients had experienced severe suffering from the disease and its outcomes due to lack of adequate social protection in different ways. Strong social support has an important role during injury. This result is consistent with Valizadeh et al. (2014) study that support by family and friends, the participants seem to benefit from the support of the peer group and this group plays a prominent role in adaptation with amputation. Individuals in a particular social network, especially in the peer groups

such as groups consisted of patients with similar disease can help to other patients in finding a solution to the problem, authenticating, navigating to the information, creating positive emotions and comfort (22).

Transition from functional limitation was a major theme emerged from the participants' interview. This theme consisted of three subthemes: return to acceptable physical activity, return of changed roles, and returning to work. The results showed that participants had limitations in their life in various ways, most of them experienced the changes in physical functioning, doing familial and occupational duties after traffic accidents. This results concord with most studies suggest RTIs experience changes from limitations in life actives and a series of negative changes in patients, such as changed family and social roles to self-management (21, 23, 24). Some of the studies also suggest functional limitations are created in various aspects of life for several months after injury. Moreover, they mentioned failure to return to work or school, and loneliness (14, 25-27). The participants of this study gradually acquire management of their own affairs and life following the changes in physical, mental, and social functioning. The results showed that return to work after traffic accidents was also a means of being productive and independent, and adapting to challenges caused by the injury. This result is in accordance with Arango-Lasprilla and Kreutzer study that pointed returning to work in trauma patients was accompanied with increased sense of self-esteem and independence (28).

Another significant result of this study was seeking information. In this study participants had searched for information as a strategy for gaining independence, eliminating dependency, and making self-management sense. The need to acquire knowledge is very important in patients' participation in reintegration to normal life and reduces

vulnerability due to traumatic events (29). This study result is in accordance with some studies that suggested that the acquisition of knowledge about the injury and its caring challenges clarifies the ambiguities in patients' mind, reduces tension and fear, and subsequently, causes better adaptation with the conditions ahead (29-31).

Another finding of this study was adaptation to new situation experienced by the participants as a way of accepting the illness, trying to reduce the vulnerability due to the accident, increasing their quality of life and coping with the new situation. They had gradually coped with the problems and disabilities caused by the accident and gained independence and self-discovery, and this revealed their effective adaptation with the disabilities and acceptance of the current situation. This result might be due to the participants' satisfaction of the new situation that made them cope with themselves and reduced their stress. Moreover, the participants felt a new person was born again and their life evolved following this opportunity and understanding the value of the new life because a rebirth after a serious disabling illness was very important. Other studies verify this finding that satisfaction from the present situation and self-acceptance can facilitate adaptation and return to pre-injury life in RTI victims (14, 22, 32).

The results of this study revealed that returning to normal life was a complex, difficult, and long-term process in patients with traffic accidents, and the requirements for these patients to return to normal life included access to training and support (strong treatment, nursing, and social support) and participating in self-care activities. The conclusions of this study help policy-makers to take steps toward health promotion and recovery of patients with traffic accidents and so it is necessary to form small teams with participation of patients and their families, for regulation of caring informative guidelines, and also train healthcare staff. Considering the substantial improvements that have been made regarding postcrash care facilities in Iran during recent years, there is a need for further research to investigate if the accessibility to a specialized trauma team and free of charge services and utilization of postcrash care for patients' reintegration to home and community.

While this study was performed with only 18 RTI victims, it provided a good description about the phenomenon of return to normal life in RTIs victims in Iran context. The results of this study can be generalized to similar situation.

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## Footnote

**Authors' Contribution:** Fatemeh Pashaei Sabet: concept and design of the study, collection and analysis of

the data and writing the manuscript. Kian Norouzi Tabrizi, Hamid Reza Khankeh, Soheil Saadat, Alireza Bastami, and Heidar Ali Abedi: analysis of the data and revision and editing of the manuscript.

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