The Social, Psychological and Economic Impact of Car Accidents on the Victims' Families

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Abstract
The study aimed at investigating the resulting effects on the families victims of car accidents in Jordan. The study focused on the social, economic and particularly on the psychological effect as it is the most influential on such families who get depression and anxiety. As car accidents do not stop the study attempted to answer the following question:
1- The social effects of car accidents on the families victims.
2- The psychological effects of car accidents on the families victims.
3- The economic effects of car accidents on the families victims.
To answer those question, a questionnaire consisted of (17) items delivered into the areas of the study was used.

Introduction
Car accidents are considered real problem resulting losses of souls and a number of disabilities, in addition to the destroying of private and public properties. Such accidents kill more than quarter million. The death rate of car accidents a citizen for each in developed countries is (5-10) thousand vehicle. In Jordan, there is a big increase in road accidents; it surpassed the world rates. This makes the sequenced government focus on this problem to come up with suitable solution (General directorate of security- conference of road safety in Jordan, 2002). The effects of such accidents are not restricted to losses and disabilities, but the psychological effect on the families' victims. Those families face sorrow, instability and lack of money, and good life. This study investigates the social, economic and psychological effects on the families' victims from the participants' perspective.

Problem of the Study
Everyday local and other newspapers present news about car accidents that harvest the souls of people and cause them much horror. What causes sorrow among Jordanian families is the highest percentage of death among the ages of 18-35. In spite this issue of car accident is presented in every occasion by all people especially by the specialists, the percentage of victims and the rate of accidents are increasing rapidly on the local level. Lots of effects such as social, psychological and economic are resulting from car accidents. Therefore, the problem of this study is identified by identifying the psychological, social and economic effects of car accidents.
Questions of the Study
The purpose of this study is in answering the following question:
- Is there any effect for car accidents on the victims' families?

There are other questions originated from this question These are:
1. What are the social effects of car accidents on the families victims?
2. What are the psychological effects of car accidents on the families victims?
3. What are the economic effects of car accidents on the families victims?

Objectives of the Study
The study aimed to achieve the following:
1. Finding the most significant psychological effects of car accidents on the families victims.
2. Finding the most significant social effects of car accidents on the families victims.
3. Finding the most significant economic effects of car accidents on the families victims.

Significance of the study
The effects made by the traffic safety group, car accidents are still a real dilemma causing anxiety because of the much killing and great social and economic losses. This serious situation demands comprehensive cooperation by all concerned ones to have good programs and special methods framed with a national strategy to work hard for getting good traffic safety and prevention. By doing this the effects resulting from car accidents could be reduced.

This study is very significant because it is considered a primary step to identify the most significant effects resulted from car accidents, in addition, to attempt to control such accidents and reduce them.

Limitations of the Study
The study is limited to the following:
1. The time limitation. The study is limited to the effects of car accidents through the time of the study.
2. The subjective place limitation:
   The study is limited to the effect of car accidents from the perspective of the participants.
3. The study is to identify the psychological, social and economic effects of car accidents for victims families.

Theoretical Background and Related studies
Introduction: Car accidents are a real dilemma in these days because it causes much killing and great loss in souls in addition to injuries and disabilities, and loss of privat and public properties. It is said that the victims of car accidents are more than the victims of wars and terror acts. Such Car accidents are connected with the psychological effects inspire of ignoring or keeping it hidden. What is taken into consideration in such accidents are the materialist losses, pain and physical disabilities without having much concern with the psychological effects after the individuals being exposed to road accidents: Such psychological effects might be developed to be severe (Butler et al., 1999) Whenever the violations and Car accidents increase, the anxiety, fear and tension also go up. Therefore, anyone who is exposed to car accidents, slhe might suffer from great difficulties in coping with their new style life. Their personalities might be changed and their tension go high to become more anxious, depressed and isolated. If this case continued for a month or more, the patient should be treated psychologically especially, if slhe had (P T S D) which is the fourth statistical diagnosis guide for the mental disorders (DSM-17) diagnostic and statistical mental, disorders. Three groups and different symptoms are formed out of it in addition to symptoms represented by the shocking feeling while remembering (unconsciously the events as nightmares), anesthetized emotion (the patient get difficulty in having positive emotions). Such disorders are connected with the shocking accident, such as (flash backs) nightmares and annoying dreams that cause insomnia which are symptoms resulted from car accidents in particular in having painful memories. Those disorders are characterized as the patients try not to talk about their previous events and avoid seeing or hearing anything remind them of what happened that causes them isolation and psychological Loneliness (Hauschildt, 2002). Therefore, such effects influence the individuals social life and lead him to be disable having an anxious and depressed personality (Butler et al., 1999). The statistics of car accident in most world counties world countries including Jordan shows that man is the reason for more than 90% of the accident. The roads also have a basic cause in percentage of 7% in some European countries (Road Rehabilitation seminar, 1983). People are different from each other according to their physical, psychological and social components and such differences are represented in their behaviors that lead to paradoxical behaviors far from the supposed modeling behaviors of the community (Al Amarat, 1990). Therefore, two interacted groups of factors are resulted from car accidents. These are: a-external factors that are related to the surrounding situations and circumstance of the accident such as bad lights and a sudden break failure while driving. b-self factors which are connected with the character of the accident doer and his physical, motion, mental and emotional characteristics, such as weak sensation and motion, weak concentration or fatigue that make him very emotional whether it is conscious or unconscious pushing him to have self aggression and be aggressive with others and things, as well (Al Smadi, 1994).

Related Studies
Basheers study (2009) was about the bad economic, social and psychological effects resulted from the car accidents in Tripoli. The study showed that the most prominent results of the accidents were the bad effect on the
families and the increase of death rates. In addition ,the father is exposed to disabilities forbidding him holding his responsibilities and becomes depressed . The findings indicated the necessity for including perils of road accidents and its reasons and results in the basic stage curricula . In addition , increasing the patrols on highways for controlling speeding. In addition, to holding training courses for people in road domain.

Ali's study (2008) was about social and economic effects resulted from car accidents and the role of social service in decreasing such effects . The study was conducted in Lybia on the car accident injured in the hospitals in Tripoli and in handicapped rehabilitation center in sahel Jafarah. The study showed that most of those injured were in lack of caring that they used to get before the accident. They also have responsibility towards their families. Their percentage was (7.50%) and the injured children were in a percentage of (97%) Some of those injured became disable and obliged to be far away from their friends in percentage of (71.3%). The bad effect on those injured within their families was in percentage of (84%). The percentage of injured families that take their decisions without consulting the injured member was (3.35%).

Bani saeed study (2008) was about car accidents in the Jordanian community. The findings showed that the drivers psychological cause has an effective role on increasing the accidents , in having anxiety, pessimism, selfishness and caring more about personal interest rather than the good for the public. The study indicated that those who cause accidents are males at the age of (26-35) . This category is productive and supportive for the country economy. In addition, those suffer from social and economic problems that make them angry and pessimistic and be highly emotional and not stable.

Al Ghabri (2006) conducted another study about roads phobia in Saudi Arabia. The study gives a deep look at the real size of car accidents phobia that takes out more than one million and 200 thousand souls yearly. To be much accurate, there is a dead person each 30 seconds in the world because of road accidents. Their percentage was estimated more that (35) thousand killed person on Arab high ways. The findings showed that the reasons for car accidents were speeding and not being committed to road regulations and neglecting car technical maintenance. The study showed that the economic estimated expense for the road injuries was between (1%) and (2%) of the total annual national income for such countries. This represents a great loss estimated by (65) billion dollars every year which is equal to dual developmental donation the developing countries take. Road accidents killed in 2002(1.2) million person and injured a bigger number, and exposed (5) million persons to be handicapped forever. The world death average resulted from car accidents was (19) for each one hundred thousand. The average in the middle east reaches (26.3) for one thousand. Everyday there are three thousand death cases because of road accidents. In addition to (15) thousand disability cases. Moreover, (140) thousand are injured by road accidents everyday(which is more than 5 million persons every year). One hundred million families all over the world are suffering of a death case or disabilities. Furthermore 50% at the road accident victims are the youth of the age (15-44) which is the productive category. More than (180) thousand children below the age of fifteen are exposed to killing yearly. According to the reading of the world health organization, it is said that in (2020) the road injuries will increase from rank nine to rank three. The number of dead and injured of road accident victims will increase more than (60%) A(95%) of those victims will be from the low and medium income countries.

Henrik Lilliestierna, Sven Britton (2006) conducted a study about "Cholera and car accidents" It was made in Torhonmun hospital on the patients of Cholera. The study showed a relation between the Cholera disease and car accidents in the big number of the patients and injured. Such problems should be stopped completely.

Gregory, Fritz (2005) also conducted a study entitled" keep your eyes open on uninjured children in car accidents". The study indicated that those uninjured children in car accidents haven't been physically hurt but got special psychological case needs special health care. So, road accidents cause tension, anxiety and even depression.

Many foreign and Arabic Studies dealt with car accidents and its effect on the victims families because of losses in souls and properties, in addition to economic losses.

Tom Mcnichol(2004) conducted a study entitled street deviance which took place in Holland presented by Hanz Hond Raman as road engineer who hated traffic lights. The study demanded taking off all such traffic lights from London streets. The findings showed embarrassing and anxiety of the drivers by such traffic that cause accidents and raise its percentage.

AL Madani (1997) conducted a study about the walking victim children in car accidents in Bahrain aimed at giving accurate details about the reasons for car accidents and how to avoid it because the most dangerous walking category is the children. It was indicated that half children were below the age of fourteen according to the statistics of 1995, it was reported that a child among thousand children between the age of five and nine dies
or gets injured in car accidents. It is because the children play and in the street move without paying good attention and being faced by cars. The number of car accidents in Bahrain was (424), which means (73) are accidents and the average was (3.8), which is high.

Al Badainah (1996) conducted another study entitled "measuring the fear degree for the Jordanian citizens about the car accidents". The study aimed at showing the Jordanian citizens awareness of fear from car accidents and identifying the most fearful social categories and examining the differences among such different social categories. The sample consisted of (1674) volunteers divided into (11) governorates: (986) males in a percentage of (59%) and (676) females in a percentage of (41%). The study indicated that the percentage of those who were frightened to be car accidents victims according to the variables of the study was (85.5%) of males and (86.5%) of females. A percentage of (86%) of the participants were aware of car accidents perils. Their number was (1420). Considering the analysis of official records, the injured drivers were (1337) and the injured passengers were (45807) and the injured walkers were (56939). In addition, there were cases of disabilities and loss of parents which lead to much fear for the Jordanian citizen that form a social and security problem affecting a big percentage of those citizens.

Al-Haddad (1988) conducted a study about road accidents in Kuwait and ways for dealing with it. The study showed what the family is exposed to after losing the father whenever the mother could not control the family resulting disorder among the children for taking over the responsibility of the family. In this way, the family ties are broken because of losing its main element.

**What distinguishes our study from the previous ones?**

The study focuses on the psychological effects of the victims’ families, after car accident. Such shocks threaten the family stability and its social structure. As for the previous studies, it talked mainly about the reasons of car accidents. As there is speeding there will be more victims without investigating of the family status after the accident as having depression and anxiety and the family become unstable and unable to get social security. Ali’s study (2008) showed the social and economic effects resulted from car accidents. Badainehs study (1999) showed the relation between fear and its relation with car accidents. As for the current study, it focuses on the victims families and how to comfort them through different procedures to re-adapt themselves with the new social situation especially if the father or mother dies or when one of the family member dies or gets jailed. All these change the family social situation to the worst. Those families might be affected psychologically and this will lead to deviances and committing wrong behaviors affecting badly the capable youth to be productive.

**Methods and Procedures**

In this chapter, there is a description for the sample of the study, the instruments used for data collection, validity, reliability and the statistic procedures used to answer the question of the study.

**Methods of the Study**

The researchers used the descriptive analytic method in conducting this study.

**The Population of the Study**

The population of the study consisted of the young females and males in Ajloun stat from different ages.

**The Sample of the Study**

The sample was chosen randomly of the young men whose families have been exposed to different car accidents in the governorate of Ajloun. It consisted of (250) males and females. The distribution of the sample is shown in table (1).

**The Distribution of the Sample of the Study According to the Demographic Variable**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Males</td>
<td>115</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>135</td>
<td>54%</td>
</tr>
<tr>
<td>Age</td>
<td>(18-22)</td>
<td>60</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>(23-35)</td>
<td>110</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>(more than 36)</td>
<td>80</td>
<td>32%</td>
</tr>
<tr>
<td>Education</td>
<td>Diploma</td>
<td>95</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>B.A</td>
<td>110</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Higher education</td>
<td>45</td>
<td>18%</td>
</tr>
</tbody>
</table>

**The Instruments of the Study:**

The questionnaire consisted of two parts:

- The primary data including sex, age, education. The second part included the data about the car accident effects: social in (7) items, psychological in (5) items and economic in (5) items.
Validity
For verifying the instrument of the study, a jury of social service specialists validated it. All their comments were taken into consideration.

Reliability
The Cronbach Alpha values for the domains of the study were extracted, and they were as follows:

<table>
<thead>
<tr>
<th>No.</th>
<th>Domain</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Accident Social Effect</td>
<td>0.79</td>
</tr>
<tr>
<td>2.</td>
<td>Accident Psychological Effect</td>
<td>0.85</td>
</tr>
<tr>
<td>3.</td>
<td>Accident Economic Effect</td>
<td>0.77</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0.82</td>
</tr>
</tbody>
</table>

The findings of the study indicated a rise in the reliability percentages which show high agreement between the items of each domain and the total domains. This high agreement is accepted in academic research.

Procedures of the Study
After validating the instrument of the study and identifying the sample, the questionnaire was delivered to all participants. The researchers explained the objectives of the study and assured the participants that their answers are treated secretly and used only for academic research purposes.

The level of answers are sequenced for each item according to Likert measurement and they were identified into five levels: strongly agree(5), agree(4), neutral (3), disagree(2), disagree strongly (1). The judgment measurement for the findings was divided into (high, medium, low) relying on the categories of the instrument which consisted of four categories (1-1.99), (2-2.99), (3.3.99), (4-5). This is related to the division of the categories on the fifth alternatives (agree strongly, agree, neutral, disagree, disagree strongly). In a mathematical way (4 ÷ 5 = 0.8), the three levels are as follows: Low degree (1 - less than 2.6), medium degree (2.6 - less than 3.4), high degree (3.4 - 5).

According to this, the levels are as follows:
1-less than 2.6 low degree
2.6 - less than 3.4 medium degree
3.4 - 5 high degree.

Statistical Procedures
To answer the questions of the study and to achieve the objectives, the following statistical procedures are used:

1. For answering the first, the second and the third questions, the means and standard deviations were used.
2. For validating the instrument of the study, Cronbach Alpha was used.
3. The frequencies and percentages were done to identify the sample of the study.

Findings and Discussions of the Study
For answering the first question that implies "What are the psychological effects of car accidents ?" the means and standard deviations for the answers of the participants related to the first domain about the road accident psychological effects were done. The results are shown in Table (3).
Table (3)
Means and Standard Deviation for the Participants' Answers on the Items Related to Psychological Effects

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Means</th>
<th>St. deviation</th>
<th>Rank</th>
<th>Estimation degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Feeling shy because of having an accident in the family.</td>
<td>4.48</td>
<td>1.07</td>
<td>1</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>Feeling guilty because of having an accident in the family.</td>
<td>4.47</td>
<td>0.70</td>
<td>2</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>Feeling revenge after having an accident in the family.</td>
<td>4.44</td>
<td>0.82</td>
<td>3</td>
<td>High</td>
</tr>
<tr>
<td>6</td>
<td>Feeling parentless after having an accident in the family.</td>
<td>4.40</td>
<td>0.77</td>
<td>4</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>Having the feeling of paying back because of having an accident in the family.</td>
<td>4.20</td>
<td>1.09</td>
<td>5</td>
<td>High</td>
</tr>
<tr>
<td>1</td>
<td>Family suffering of psychological effect after the accident.</td>
<td>4.10</td>
<td>0.97</td>
<td>6</td>
<td>High</td>
</tr>
<tr>
<td>7</td>
<td>Having depression after having a car accident for any member of the family.</td>
<td>4.06</td>
<td>0.84</td>
<td>7</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Total degree</td>
<td>4.31</td>
<td>63</td>
<td></td>
<td>High</td>
</tr>
</tbody>
</table>

It is clear from Table (3) that the mean scores were high for the items according to the answers of the participants. The total mean score was (4.31) while the standard deviation was (63). It is also clear from Table (3) that item (2) that implies "feeling shy after having an accident in the family" came in the first rank with a mean score of (4.48); whereas item (4) that implies "feeling guilty after having an accident in the family", came in the second rank having a mean score of (4.47). In the pre-final rank there was item (1) that implies "family suffering of psychological effect because of the accident". Its mean score was (4.10); whereas in the final rank there was item (7) which implies "having depression after having an accident in the family". The mean score was (4.06).

To answer the second question that implies "what are the social effects for car accidents?" the means and standard deviations for the answers of the participants related to the social effects were done. The results are shown in Table (4).

Means and Standard Deviations for the Participants' Answers for the Items that Measure the Social Effects of the Car Accidents

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Means</th>
<th>St. deviation</th>
<th>Rank</th>
<th>Estimation Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Caring for the family by different areas.</td>
<td>4.12</td>
<td>0.7</td>
<td>1</td>
<td>High</td>
</tr>
<tr>
<td>12</td>
<td>Having problems in the family because of car accident.</td>
<td>4.05</td>
<td>0.97</td>
<td>2</td>
<td>High</td>
</tr>
<tr>
<td>10</td>
<td>Having a member of the family injured because of car accident.</td>
<td>3.99</td>
<td>0.85</td>
<td>3</td>
<td>High</td>
</tr>
<tr>
<td>11</td>
<td>Losing the right track by a member of the family as a result of the accident.</td>
<td>3.95</td>
<td>0.9</td>
<td>4</td>
<td>High</td>
</tr>
<tr>
<td>9</td>
<td>Losing a member of the family because of car accident.</td>
<td>3.69</td>
<td>1.08</td>
<td>5</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Total degree</td>
<td>3.96</td>
<td>56</td>
<td></td>
<td>High</td>
</tr>
</tbody>
</table>

It is clear from Table (4) that the mean scores for the items according to the answer of the participants were high. The total mean score was (3.96) whereas the standard deviation was (56). Table (4) also shows that the item which implies "caring about the family by different areas" came in the first rank of a mean score of (4.12); whereas item (12) that implies "having problems in the family because of car accidents" came in the second rank having a mean score of (4.05). In the pre-final rank, there was item (11) that implies "Losing the right track by any member of the family because of car accident". Its mean score was (3.96). Item (9) came in the final rank having a mean score of (3.69). It implies "Losing a member of the family because of car accident".

To answer the third question that implies "What are the economic effects of car accidents?" the mean scores and standard deviations for the answers of the participants were done. The results are shown in Table (5).
### Table (5)

Means and Standard Deviations for the Participants' Answers on the Items that Measures the Accident Economic Effects

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Means</th>
<th>St. deviation</th>
<th>Rank</th>
<th>Estimation Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Insufficient income for the family because of car accident injuries or jailing a family member.</td>
<td>4.04</td>
<td>0.99</td>
<td>1</td>
<td>High</td>
</tr>
<tr>
<td>17</td>
<td>Arise in the economic expenses because of car accident in the family.</td>
<td>3.85</td>
<td>1.1</td>
<td>2</td>
<td>High</td>
</tr>
<tr>
<td>15</td>
<td>Losing private properties of the family because of car accident.</td>
<td>3.75</td>
<td>0.86</td>
<td>3</td>
<td>High</td>
</tr>
<tr>
<td>16</td>
<td>Being exposed to economic crisis because of losses resulted from car accident.</td>
<td>3.7</td>
<td>0.97</td>
<td>4</td>
<td>High</td>
</tr>
<tr>
<td>13</td>
<td>Losing the family in come because of the injuries of the father.</td>
<td>3.55</td>
<td>1.25</td>
<td>5</td>
<td>High</td>
</tr>
</tbody>
</table>

Total degree 3.78 0.69 High

It is clear from Table (5) that the mean scores of the items according to the answers of the participants were high. The total mean score was (3.78) whereas the standard deviation was (0.69). Table (5) also shows that item (14) that implies "insufficient income of the family after losing or jailing one of its members" came in the first rank having a mean score of (4.04). Item (17) which implies "arise in the economic expenses because of car accident" came in the second rank of a mean score (3.85). In the pre-final rank there was item (16) which implies "Being exposed to economic crisis as a result of car accident" having a mean score of (3.70), whereas item (13) that implies "Losing family income because of the injuries of the father" came in the final rank having a mean score of (3.55).

**The Study has come up with the following findings:**

1. As for the social effects of accidents, the study indicated that the car accident family is cared about by different areas.
2. The most psychological effects of car accidents is "feeling shy and guilty" for those who were exposed to such accidents.
3. The sample of the study explained that the economic effect of car accidents is the insufficiency income of the family who lost one member because of injuries or being jailed.

**Recommendations**

In light of the findings of this study, the researchers have a number of recommendations. These are:

1. Having strong observation on the roads and identifying the speed limit for each road that is exposed to accidents.
2. Having observation cameras on traffic lights.
3. Having strong observation in license centers and checking the maintenance of vehicles.
5. Adding an educating material for school students to enlighten them of traffic culture.
6. Holding seminars for education the families about the traffic regulations.
7. Education the parents about traffic regulations by the general security department to reflect positively on the individuals.

**References**


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