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Quality Of Life Post Traffic Accidents Among Youth

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Abstract

Introduction: Traffic accidents cause more than 1.2 million deaths every year, and the leading cause of death among youth aged 15-24 years in Egypt. **Aim** :This study aimed to evaluate Quality of life post traffic accidents among youth. **Design**: A descriptive analytical design was utilized to conduct this study . **Setting**: The study was conducted at outpatient clinic orthopedic hospital Ain Shams University Hospitals, and El Helal Hospital. **Sample:** A purposive sample consists of 250 cases available of youth post traffic accidents after three months from accidents. **Tools:** three tools were used for data collection, the first tool: An interviewing questionnaire. The second tools: Medical record. Third tool, Universal pain assessment tool. **Results:** The result found that 71.2% of the total sample of youth post traffic accidents was male and 28.8% of them were female and 80.8%aged for 21-24 years. Most of them had poor quality of life as 90.8% for physical, 99.2% for psychological, 98.8% for social, and 97.2% for spiritual dimension .There were 33.2% of study sample achieved their total health needs while 66.8% of them couldn't achieve them . Also there were a highly statistical significant association between socio-demographic characteristics of youth post traffic accidents and their health needs and problems at P= 0.001. **Conclusion:** The study concluded that there was a highly significant relation between quality of life for youth post traffic accidents and their total independency level for all daily living activities where p =0.001. **Recommendation:** Health education program for youth post traffic accident and their family to secure them and help them to cope effectively with their disabilities which may have positive effect on improvement of their quality of life .

Key words: Traffic accident, Youth, Quality of Life.

Introduction

Traffic accidents are major health problems in developed and underdevelopment countries and are known as the main reason for disabilities all around the world. Thousands of people lose their lives on the traffics every day. Many millions and more are left with disabilities or emotional scars that they will carry for the rest of their lives, youth are among the most vulnerable ***(Altschuler et al., 2010)***

Every hour of every day, forty youngsters die as a result of traffic accidents. This means that every day another one thousand families have to cope with the unexpected loss of a loved one. Also losing a youth is never easy. Knowing that a youth was lost to a preventable incident may add to the pain and suffering, and can leave families and communities with emotional wounds that take decades to heal. ***(Garg,n et al., 2016).***

WHO believes youth are the permanent wealth and health of any society. They are the precious treasure of any developing nation.

The future of a country is its youth people. We cannot afford to lose our youth to traffic accidents. When planning traffic safety initiatives, need to recognize youth's vulnerabilities as well as, their inexperience, developmental needs and exuberance for life. .Every day just over 1000 youth under the age of 25 years are killed in traffic accidents around the world. Traffic injuries are the leading cause of death globally among 15–24-year-olds.**(*Furlong,& Andy, 2013).***

Youth is best understood as a period of transition from the dependence of childhood to adulthood's independence and awareness of our interdependence as members of a community .2020 Youth is a more fluid category than a fixed age –group .and the general assembly resolution the Unsafe ,for statistical consistency across regions, defines youth , as those persons between the ages of 15-24 years, without prejudice to other definitions by member stats .All UNSF statistics on youth are based on this definition ,as illustrated by the United Nations system on demography ,education, employment and health***.(Garg et al., 2016)***

Death is the end of human function and production. After that, physical disability "one person killed and four injured every hour rinse as a health care provider, can divide disability into two parts: total and partial. Total disability consists of head and spinal injury: whereas, partial consists of lacerations, loss of limbs or fractured bones. The victims of head and spinal injury may be unable to return to their normal lives they may even require full care all the time usually these conditions are permanent and they are no actual treatments or cures because of the drain and spine***.(Thomas, 2011)***

Complications of traffic accidents are victims die on the scenery hospital survivors also suffer from different types of injuries and disabilities which can affect their quality of life. Suffers can be passengers or pedestrians. And the driver's youths, they can even be the cause of the accident themselves; their families and communities loss of manpower has a huge impact on the economic status of many countries***.(WHO,2017)***

Quality of life is defined as an individual's perception of ***their*** position in life in the context of the culture and value systems in which they live and in relation to their goals, expectation, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological stat, and level of independence, social relationship to salient features of their environment ***(Baumann, 2010)***

The role of community health Nurse toward traffic accidents are one of the leading causes of unintentional death all over the world proper triage and pre –hospital treatment can prevent death and minimize permanent disabilities .transporting patients with life-treating injuries to trauma centers in an appropriate way quite simply can save lives. Reduce disability and mortality. It is up to us to do the best we can for every patient .youth with physical and psychological effects post traffic accidents: these patients need strong support during and after discharge .they need to follow their treatments to strengthen themselves .In some cases, physical rehabilitation is needed to enable TA patients to work properly, and to become productive members of their societies ***(Mayou & Bryant, 2013 and Gallo et al., 2016).***

Aim of the Study:

The aim of this study was to evaluate Quality of life post traffic accidents among youth through:-

1-Asessing quality of life for youth post traffic accident (physical, psychological, level of dependence, social relationship, environmental, spiritual)

2-Asessing the health needs and health problems for youth post traffic accidents.

Research Questions:

1-Are there a relation between socio-demographic of the youth and their health needs?

2-Are there a relation between socio-demographic of the youth and their health problems?

3-Are there effect of post traffic accidents on the quality of life among youth?

4-Are there an affects of traffic accidents on daily living activities among youth?

Subjects and Methods

Research Design:

A descriptive analytical study was utilized in order to evaluate Quality of life post traffic accidents among youth.

I. Technical Design:

Setting:

This study was conducted at two places firstly, the outpatient clinic of Ain shams University Hospitals and secondly, Outpatient clinic of El –Helal Hospital the selection of the both units based on the high follow of this cases.

These two hospitals are the most crowded in Cairo where receiving large numbers of emergency cases of accidents and cover the governments all over the country. El –Helal Hospital is the only specialized hospital for orthopedic cases in Egypt affiliated to the Ministry of Health and receiving the health insurance cases

Sampling:

A purposive sample consisted of 250 cases from both sex of youth aged between 15-24 years old post traffic accident after three months from accident.

Subjects of the study:

The size of the study samples is 250 youth post traffic accident selected randomly after permission from Outpatient clinic managers, where the number of youth post traffic accident in last two years were about 2500 in year 2013/ 2014 and 10% of total mothers taken in the study, according the following inclusion criteria set for sample selection as follow:

Those cases represent 10% of the mean (2500) of the last past two years respectively from 2013 to 2014 according to the following inclusion criteria set for sample selection as follow:

Sample Criteria:

The youth post traffic accident was selected according to the following criteria:

1. Male and Female of youth post traffic accident

2. The youth's age were ranged from 15 year to 25 years.

3. Youth post traffic accident after three months from accident.

4. Youth post traffic accident was free from any congenital disabilities.

Technical design

Tools of data collection:

The data were collected using the three following tools:

It was developed by the investigator, based on reviewing the related literatures, magazines and supervisors opinions, written in Arabic language to assess quality of life for youth post traffic accidents.

First tool: An interviewing questionnaire: This tool included the following parts.

Part (I): This part included: Questions to assess socio-demographic characteristics of the study sample of Youth post traffic accident. This part included 11 closed ended questions (1-11): such as gender, age, educational level, marital status, family size, number of home rooms, crowding index, occupation, family Income , income enough to treatment cost, and working or studying hours.

Family Crowding Index equation adopted from (American Association of Public Opinion Research, 2007): The family crowding index (FCI) was defined as the total number of co-residents per household, excluding the newborn infant, divided by the total number of rooms, excluding the kitchen and bathrooms. The continuous variable was re-grouped into three distinct categories:

Scoring Design:

- Not Crowded Family (< 1)
- Crowded Family (> 1)
- Over Crowded Family (> 1.5)

Part (II): This part included: Questions to assess Quality of life domain of the study sample of Youth post traffic accident**:** Quality of life was evaluated with a standard instrument adopted from (the World Health Organization Quality of life Questionnaire-short form (WHOQOL-BRF) (WHO, 2010) and adapted by the researcher which covers 4 domains.

This part included 45 closed-ended questions by using three categories of Likert scale as always, sometimes, and never. The items included were quality of life according to physical domain (9 items), quality of life according to psychological domain (19 items), quality of life according to social domain (12items), and quality of life according to spiritual domain (5items).

Scoring system for quality of life domains:

Physical domain (9 items): Each of the quality of life items scored 2 marks for "always" response, 1 mark for "Sometimes" response and zero for "Never" response for first 5 items and versus to last 3 items to zero for "always" response, 1 mark, for "Sometimes" response and 2 marks for "Never" response .

Psychological domain (19 items): Each of the quality of life items scored zero for "always" response, 1 mark, for "Sometimes" response and 2 marks for "Never" response for all items.

Social domain (12items): Each of the quality of life items scored zero for "always" response, 1 mark, for "Sometimes" response and 2 marks for "Never" response for all items.

Spiritual domain (5items): Each of the quality of life items scored 2 marks for "always" response, 1 mark for "Sometimes" response and zero for "Never" response for all items.

The total quality of life scores was calculated by summing all these marks and converting them into percentages as the following: The total quality of life, was considered poor quality of life if the percent score was <50%, average if the percent score was 50%: 75%, and good if the percent score was > 75%.

Part (III) this part included: Questions to assess health needs for youth post traffic accidents**:**

This part included main 7items and 23 sup items presented in closed ended questions (1-7) such as: the nutrition, rest and sleep, pain management, exercise and mobility, personal hygiene, medical follow up, and socioeconomic needs.

Scoring system of health needs:

Each of the health needs items scored 1 marks for "yes" response, zero mark for "No" response .

The total score for all items related to health needs was 23 items and categorized into two levels as followings **< 60%** unachieved health needs and **> 60 %** achieved health needs.

Part (IV) this part **composed of two parts** of questions to assess Daily living Activities (DLAs) and Instrumental Daily living Activities (IDLAs) for youth post traffic accidents**:** This tool is:

(A)- Daily living Activities (DLAs) assessment format which is composed of ten close-ended questions (1-10). It covers mobility, transferring, bathing, dressing, going to bath room, deification, feeding, up stairs, practices exercise, general appearance.

(B)- Instrumental Daily living Activities (IDLAs) assessment format is composed of eight close-ended questions (1-8). It covers Communicating by telephoning, shopping, getting medication, managing money, food preparation, Care of home, laundry, and Transforming using Transportation.

The score ranged between three categories (0-1-2) for every point, which is composed of three items for every point, score (2) for independent performance, score (1) for independent performance with assistant and score (0) for total dependent performance.

The total score is categorized as follow:

Daily living Activities (DLAs) score (0-20):

0 -7 = Dependent.

8 -12 = independent with assistant.

13 -20 = Completely Independent.

Instrumental Daily living Activities (IDLAs) score (0-16):

0 - 6 = Dependent.

7 - 10 = Independent with assistant.

11 - 16 = Completely Independent.

Second tool: Medical analysis record: This tool included the following parts.

Part (I): This part included: Questions to assess physical health status as vital signs and anthropometric measurements of the study sample of Youth post traffic accident. This part included 6 open ended questions (1-6): such as body temperature, blood pressure, pulse, respiration, height, weight, body mass index (BMI).

Scoring system:

The normal range of vital signs according to American College of Emergency Physicians, *(2015)*: Body Temperature: (36.6°C) and (37°C) when measured orally, Normal Blood Pressure: 80/120, Heart Rate: 50-80 peat/m, Respiratory Rate: 16-20 P/m.

The equation to calculate BMI:

BMI = Weight (kg)/height^2 (cm^2).

According to the recommendations of ***Centers for Disease Control and Prevention (CDC) (2016)***, BMI categorization for teens and adult between age 12 and 30 is as follows:

- Underweight <5%.
- Normal weight 5% - 85%.
- Overweight 85- 95%.
- Obese > 95%.

Part (II): This part included: Questions to assess medical history for Youth post traffic accident. This part included 7 closed ended questions (1- 7): such as weight loss, or weight gains after the accident, chronic or heredity diseases, smoking, addiction and its type, finally the current medical diagnosis.

Part (III): This part included: Questions to assess physical health status as present complain for Youth post traffic accident. This part included 11 closed ended questions (1- 11): such as respiratory system, ears, digestive system, u*pper limbs, l*ower limbs, urinary tract, genital organ, circulatory system, muscular skeletal system, joints, heads.

Part (IV): This part included: Questions to assess laboratory investigations for Youth post traffic accident. This part included 8 closed ended questions (1- 8): such as Hemoglobin, white blood cells, uric acid, blood calcium, blood phosphates, blood sugar, liver enzymes, investigation related to bones.

Table (1): Scoring system: According to (*Laboratory reference range values, 2014)*the normal values for laboratory test were as follow:

Items	Normal rang
Hemoglobin:	▪ 13-17 g/dL (men), ▪ 12-15 g/dL (women)
White blood cells(WBC)	▪ 4-10 x 10^9/L
Uric acid:	▪ 0.18-0.48 mmol/L
Blood calcium:	▪ 2-2.6 mmol/L
Blood phosphates	▪ 0.8-1.5 mmol/L
Liver enzymes: SGOT: SG PT: Bilirubin:	▪ 0 - 35 U/L ▪ 3 – 36 U/L ▪ 2-20 µmol/L
Blood sugar: - Fasting blood sugar - Post prandial blood sugar - Random blood sugar	▪ (70 to 99 mg/dl) ▪ (140 mg/dl) ▪ 79–140 mg/dl
Investigation related to bones: Romatoid factor ESR CRP	▪ < 25 IU/ml ▪ Less than age/2 mm/hour ▪ < 5 mg/L

Part (V): This part included: Questions to assess X – Ray's investigations for Youth post traffic accident. This part included 5 closed ended questions (1- 5): such as abdominal sonar, C.T brain, C.T abdomen, chest – x-rays, MRI.

Part (VI): This part included: Questions to assess pain feelings for Youth post traffic accident. This part included 6 closed ended questions about pain feeling and analgesic medication taking

Third tool: Universal pain assessment tool: This tool using universal pain assessment tool for Youth post traffic accident.

Scoring System of pain assessment feeling:

This tool is intended to assess pain according to individual patient's expression. Explain and use the 0 to 10 scale for patient self-assessment. Use the faces or behavioral observations to interpret expressed pain when patient cannot communicate his/her pain intensity. The pain assessment feeling was categorized into four categories as follow:

- No Pain : 0- 2

- Mild : 2- 6
- Moderate: 6- 8
- Severe : 8- 10

II. Operational Design:

Preparatory Phase:

A review of literature was done regarding current and past available literature, covering the various aspects of the problem, using text books, articles, magazines and internet search. This was necessary for the researcher to get aquatinted with, and oriented about aspects of the research problems, as well as to assist in development of data collection tools.

Pilot Study:

A pilot study was conducted at the beginning of the study on 25 cases (10% of the total sample) to investigate the feasibility of data collection tools, their content, clarity and simplicity. It took about one month from beginning of May 2016 to the beginning June 2016. Based on the results of the pilot study, the necessary modifications were done; subjects included in the pilot study were excluded in the actual study sample.

Field work:

The actual process of data collection was carried out in the period from the beginning of June 2016 until the end of Dismember 2016, two days /weekly nearly about 8 hours /daily (Monday, and Thursday) in order to collect the total sample. The researcher interviewed herself to the hospital administrator, outpatient clinic manager, and the other health team work that will help her in data collection to save the time and to also gain the trust of youth. The researcher explained the aim of the study to all of them and then distributed the questionnaire sheet after clear explaining the way to fill it out. The interviewing tools took about maximum 30 minutes for every one of youth and the physical assessment tool took about 4o minutes for each one. The pain assessment tool took about 5 minutes.

Administrative Design:

Formal letter from the Dean of the Faculty of Nursing, Ain Shams University to the directors of outpatient clinics of Ain shams University Hospitals and, of outpatient clinic of El –Helal Hospital requesting their approval to conduct this study at these outpatient clinics.

Ethical consideration:

All ethical considerations were considered for ensuring the youth privacy and confidentiality of the collected data during the study. The purpose and nature of the study were explained for the participants and oral agreement was taken to gain their participation after being informed that each study subject is free to withdrawal at any time through the study. All selected study sample agreed to participate in the study and they were assured that the study would posed no risks or hazards on their social, psychological or physical health.

Statistical design:

Data were coded, scored, tabulated, and analyzed by using Microsoft office excel 2007, while statistical analysis was done using the statistical package for social sciences (SPSS), version 19.0. Quality control was done at the stages of coding and data entry. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables. Qualitative variables were compared using Chi-square test (X^2). The significance of the results was considered as not significant, if P

> 0.05; significant, if P < 0.05; and highly significant, if P <0.001.

Validity and Reliability: Content and face validity were performed by 3 professors of the community specialty of nursing faculty and two professors from the orthopedic department, Faculty of Medicine, all experts were affiliated to Ain Shams University, Egypt who reviewed the tools for content accuracy . The developed tool was tested for reliability on a sample of 25subjects . The reliability test of translated version was established by using the Cronach alpha and person correlation which showed good internal consistency construct validity cronbach alpha=(0.887).

Results:

Table (1): The distribution of study sample of socio-demographic characteristics for youth post traffic accidents (n= 250).

Items	No	%
Gender		
Male	178	71.2
Female	72	28.8
Age		
15 < 18	22	8.8
18 < 21	26	10.4
21 ≤ 24	202	80.8
Educational level		
Illiterate	64	25.6
Moderate educated	171	68.4
Highly educated	15	6.0
Marital Status		
Single	79	31.6
Married	129	51.6
Divorced	42	16.8
Family size		
3-5 members	124	49.6
6-8 members	123	49.2
>8 members	3	1,2
Mean = 5.19 Std. Deviation = 1.375 Minimum = 3 Maximum = 10 members		
Crowding index		
Crowded	63	25.2
Over crowded	187	74.8
Occupation		
Student	28	11.2
worker	145	58.0
Employee	62	24.8
house wife	15	6.0
Family Income		
500:1000 LE.	90	36.0
>1000 LE.	160	64.0
Income enough to treatment cost		
Yes	23	9.2
No	227	90.8
Working or studying hours		
0: 6	15	6.0
6: 8	10	4.0
8: 10	33	13.2
10: 12	118	47.2
12: 14	74	29.6
Mean = 9.5 Std. Deviation = 2.89 Minimum = 0 Maximum = 14 members		

Table (1) shows that, 71.2 % of the total sample of youth post traffic accidents were male and 28.8% of them were female and 80.8% aged 21 ≤ 24 years. Regarding the educational level, 68.4 % of youth were moderately educated and 25.6 % of them were illiterate. The table also demonstrates that, 51.6% of youth were married compared with 16.8% were divorced. Regarding family size, the mean was 5.19 members and Std. Deviation was 1.375 members were

living in overcrowded homes for 74.8% of them. According to occupational type, 58.0% of them were workers and 90.8% of them hadn't enough income to treatment cost while the mean of working hours was 9.5 hours and Std. Deviation was 2.89 hours.

Table (6): The distribution of study sample of youth post traffic accidents according to their health needs (n= 250).

Item	N	%
Nutrition		
Eating independently	11	4.4
Eating 3 complete meals	23	9.2
Eating all nutrient requirements	44	17.6
Rest and sleep		
Sleep < 8 hours /day	46	18.4
Sleep 8 hours /day	13	5.2
Sleep> 8 hours/day	191	76.4
Take a rest period in the day	237	94.8
Pain management		
Pain can be relieved	242	96.8
Taking a lot of analgesic medication	151	60.8
Follow as doctor order	97	38.8
Exercise and mobility		
Can move independently	11	4.4
Can walk independently	13	5.2
Can upstairs independently	11	4.4
Use crutches	219	87.6
Use wheelchair	18	7.2
Practices pelvic muscle exercises independently	0	0.0
Personal hygiene		
Bathing once /day	5	2.0
Bathing once weekly	9	3.6
Bathing twice weekly	236	94.4
Medical follow up		
Apply medical follow up	214	85.6
Follow through health insurance	90	36.0
Socioeconomic needs		
Need financial aids	90	36.0
Income is not enough to cost Treatment	227	90.8

Table (6) shows that, little of study sample of youth post traffic accidents 4.4% and 9.2% ate independently and ate three complete meals respectively. Regarding rest and sleep, 94.8% of youth could take a rest period in the day, 96.8% of them their pain could be relieved and 60.8% of them took a lot of analgesic medication.

Little of youth post traffic accidents 4.4% could mobile regularly independently and 5.2% of them could walk independently, while 87.6% of them used crutches, and 7.2% of them used wheelchair. Most of youth post traffic accidents 94.4% took body bath twice weekly and majority of them 85.6% applied medical follow up and 36.0% out of them followed through health insurance where, 90.8% of them hadn't enough income to pay for treatment.

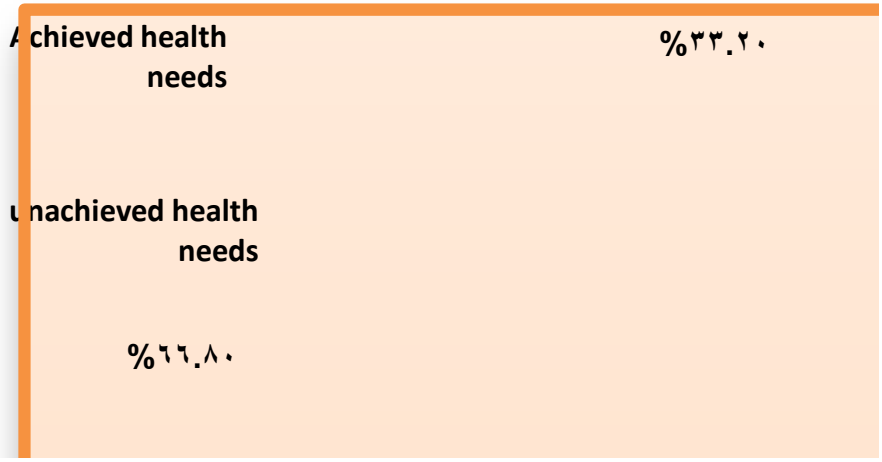


Figure (1): The distribution of study sample of youth post traffic accidents according to their total health needs **(**n= 250).

Figure (1) illustrates that, 33.2% of study sample of youth post traffic accidents achieved their total health needs while, 66.8% of them didn't achieve them

Table (2): The distribution of study sample of youth post traffic accidents according to evaluation of their pain feelings (n= 250).

Items	No	%
Pain Feeling		
More than before	242	96.8
As the same	6	2.4
Less than before	2	0.8
Analgesic		
Cataflam	99	39.6
Tramadole	151	60.4
Non prescribed medications taken	153	61.2

Table (12) displayed that, most of youth post traffic accidents 96.8%, reported that pain feeling became more than before, while 39.6%, 60.4%, and 61.2%were taking analgesic such as Cat flam, Tram dole, and non prescribed medications, respectively.

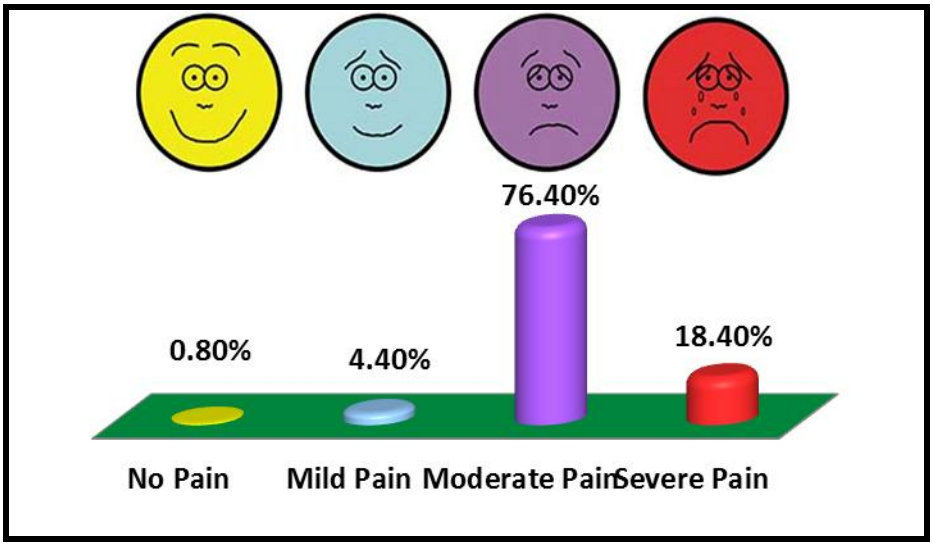


Figure (2): The distribution of study sample of youth post traffic accidents according to evaluation of their pain feelingsas Universal pain assessment tool (n= 250).

Figure (3) illustrates that, 76.4%of youth post traffic accidents suffered from moderate pain feeling and 18.4% of them suffered from severe pain feeling according to Universal pain assessment tool.

Table (3): The distribution of study sample of youth post traffic accidents according to their daily living activities (n= 250).

DLAs	Dependent		Independent with assistant		Completely Independent	
	No	%	No	%	No	%
Mobility	56	22.4	183	73.2	11	4.4
Transforming	0	0.0	237	94.8	13	5.2
Bathing	9	3.6	236	94.4	5	2.0
Dressing	136	54.4	102	40.8	12	4.8
Going to bath room	18	7.2	219	87.6	13	5.2
Deification	0	0.0	173	69.2	77	30.8
Feeding	0	0.0	277	90.8	23	9.2
Up stairs	51	20.4	188	75.2	11	4.4
Practices exercise	250	100.0	0	0.0	0	0.0
General Appearance	120	48.0	122	48.8	8	3.2

Table (13) displays that, 22.4% of youth post traffic accidents couldn't mobile independently and most of them 94.8%, 94.4% could bathe or transform independently with assistant, respectively. The majority of them 87.6% and 90.8% could go to bath room and feed independently with assistant respectively. Also this table shows that all study sample 100% couldn't practices exercise independently.

Table (4): The distribution of study sample of youth post traffic accidents according to their instrumental daily living activities (n= 250).

IDLAs	Dependent		Independent with assistant		Completely Independent	
	No	%	No	%	No	%
Communicating by telephone:	0	0.0	167	66.8	83	33.2
Shopping	219	87.6	25	10.0	6	2.4
get medications	41	16.4	162	64.8	47	18.8
Managing money	204	81.6	33	13.2	13	5.2
Food preparation	206	82.4	44	17.6	0	0.0
Care of home:	192	76.8	58	23.2	0	0.0
Laundry	202	80.8	48	19.2	0	0.0
Transforming using Transportation:	97	38.8	147	58.8	6	2.4

Table (14) presents that, majority of youth post traffic accidents 87.6%, 81.6% 82.4% and 80.8% couldn't make shopping, manage money, prepare food and do laundry independently, respectively. Therefore no one of study sample could prepare food, care of home, or do laundry independently.

Research questions:

1. **Are there relation between socio- demographic of youth post traffic accidents and their health needs?**

Table (5): The relation between socio- demographic characteristics of youth post traffic accidents and their health needs (n= 250).

Socio- demographic characteristics	Achieved health needs		unachieved health needs		Chi-Square value P. value
	No	%	No	%	
Gender					25.708
Male	42	16.8	136	54.4	0.000
Female	41	16.4	31	12.4	HS
Age	0	0.0	1	0.4	8.012
15 < 18	12	4.8	9	3.6	0.046
18 < 21	11	4.4	15	6.0	S
21 ≤ 24	60	24.0	142	56.8	
Educational level					1.584
Illiterate	19	7.6	45	18.0	0.453
Moderate educated	57	22.8	114	45.6	NS
Highly educated	7	2.8	8	3.2	
Marital Status					3.925
Singe	31	12.4	48	19.2	0.141
Married	43	17.2	86	34.4	NS
Divorced	9	3.6	33	13.2	
Family size					8.571
3-5 members	52	20.8	72	28.8	0.014
6-8 members	30	12.0	93	37.2	S
>8 members	1	0.4	2	0.8	
Crowding index					0.001
Crowded	21	8.4	42	16.8	1.000
Over crowded	62	24.8	125	49.8	NS
Occupation					
Student	16	6.4	12	4.8	
worker	32	12.8	113	45.2	27.081
Employee	24	9.6	38	15.2	0.000
house wife	11	4.4	4	1.6	HS
Family Income					4.861
500:1000 LE.	22	8.8	68	27.2	0.027
>1000 LE.	61	24.4	99	39.6	S
Income enough to treatment cost					1.500
Yes	5	2.0	18	7.2	0.221
No	78	31.2	149	59.6	NS
Working or studying hours					
0: 6	18	7.2	7	2.8	
6: 8	12	4.8	21	8.4	20.529
8: 10	35	14.0	83	33.2	0.000
10: 12	17	6.8	54	21.6	HS
12: 14	1	0.4	2	0.8	

Table (15) demonstrates that there was no statistical significant association between the socio-demographic characteristics of youth post traffic accidents as educational level, marital status, crowding index, income enough to treatment cost and their health needs, where **X^2= 1.584, 3.925, 0.001,** and **1.500**, respectively at **P >0.05.**

Meanwhile, there was a statistical significant association between age**,** family size, and family Income of youth post traffic accidents and their health needs , where **X^2= 8.012, 8.571,** and **4.861**, respectively at **P <0.05**. Also this table elaborates that there is a highly statistical significant association between gender, occupation, working or studying hours of youth post traffic accidents and their health needs where **X^2= 25.708, 27.081, and 20.529**, respectively at **P <0.001**.

2-Are there relation between socio- demographic and their health problems?

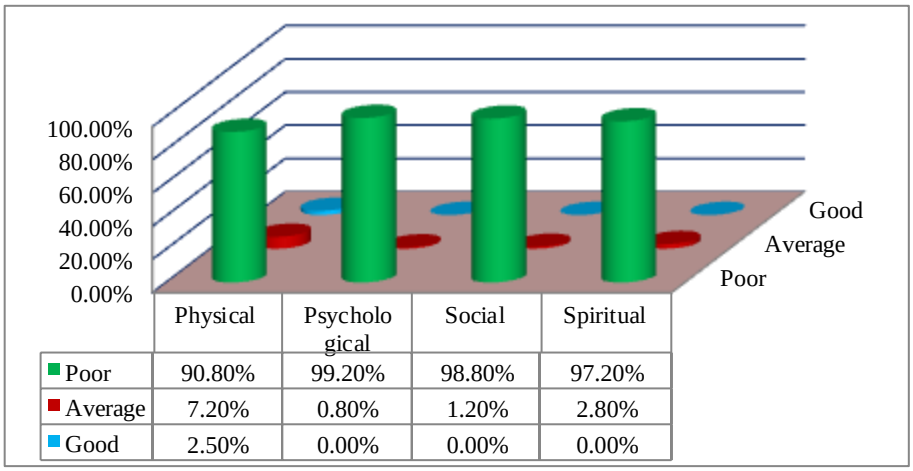
Table (16): The relation between socio- demographic characteristics of youth post traffic accidents and their health problems as dependence level (n= 250).

socio- demographic characteristics	Dependent		Independent with assistant		Completely Independent		Chi-Square value P. value
	No	%	No	%	No	%	
Gender							16.08
Male	80	32.0	90	36.0	8	3.2	0.000
Female	16	6.4	45	18.0	11	4.4	HS
Age							
15 < 18	11	4.4	7	2.8	4	1.6	13.99
18 < 21	4	1.6	20	8.0	2	0.8	0.030
21 ≤ 24	81	32.4	108	43.2	13	5.2	S
Educational level							
Illiterate	33	13.2	30	12.0	1	0.4	11.95
Moderate educated	60	24.0	96	38.4	15	6.0	0.018
Highly educated	3	1.2	9	3.6	3	1.2	S
Marital Status							
Single	31	12.4	40	16.0	8	3.2	9.88
Married	41	16.4	79	31.6	9	3.6	0.042
Divorced	24	9.6	16	6.4	2	0.8	S
Family size							
3-5 members	47	18.8	66	26.4	11	4.4	1.60
6-8 members	47	18.8	68	27.2	8	3.2	0.807
>8 members	2	0.8	2	0.4	0	0.0	NS
Crowding index							3.46
Crowded	21	8.4	39	15.6	3	1.2	0.483
Over crowded	75	30.0	96	38.0	16	6.4	NS
Occupation							
Student	12	4.8	13	5.2	3	1.2	8.571
worker	64	25.6	72	28.8	9	3.6	0.199
Employee	17	6.8	40	16.0	5	2.0	NS
house wife	3	1.2	10	4.0	2	0.8	
Family Income							17.498
500:1000 LE.	50	20.0	35	14.0	5	2.0	0.00
>1000 LE.	46	18.4	100	40.0	14	5.6	HS
Income enough to treatment cost							5.036
Yes	4	1.6	16	6.4	3	1.2	0.081
No	92	36.8	119	47.6	16	6.4	NS
Working or studying hours							
0: 6	4	1.6	8	3.2	3	1.2	18.23
6: 8	3	1.2	5	2.0	2	0.8	0.051
8: 10	13	5.2	18	7.2	2	0.8	NS
10: 12	56	22.4	53	21.2	9	3.6	
12: 14	20	8.0	51	20.4	3	1.2	

Table (18) shows that there was no statistical significant association between the socio-demographic characteristics of youth post traffic accidents as family size, crowding index, occupation, income enough to treatment cost, and working or studying hours, and their health problems as dependence level where **X^2= 1.60, 3.46, 8.571, 5.036, & 18.23**, respectively at **P >0.05.**

Meanwhile, there was a statistical significant association between age, marital Status, educational level of youth post traffic accidents and their health problems as dependence level , where **X^2= 0.030, 0.018, &0.042**, respectively at **P <0.05**. Also this table demonstrates that there is a highly statistical significant association between gender, family income of youth post traffic accidents and their health problems as dependence level where **X^2= 16.08 &17.498** , respectively at **P <0.001**.

3-Are there effect of post traffic accidents on quality of life among youth?



	Physical	Psychological	Social	Spiritual
Poor	90.80%	99.20%	98.80%	97.20%
Average	7.20%	0.80%	1.20%	2.80%
Good	2.50%	0.00%	0.00%	0.00%

Figure (3): The distribution of study sample of youth post traffic accidents according to their quality of life dimension(n= 250).

Figure (4) illustrates that most of study sample of youth post traffic accidents 90.8%, 99.2%, 98.8% and 97.2% had poor quality of life as physical, psychological, social, and spiritual dimension respectively. Also the figure shows that no one of study sample had good quality of life as psychological, social, and spiritual dimension.

4-Are there affects on daily activities post traffic accidents among youth?

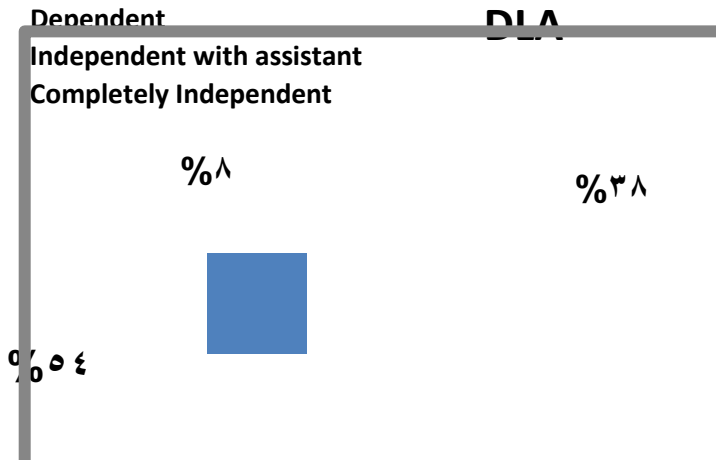


Figure (4): The distribution of study sample of youth post traffic accidents according to their Total independency level for all daily living activities(n= 250).

Figure (5) illustrates that more than half of study sample of youth post traffic accidents (54%) their total independency level for all daily living activities were independent with assistant. Also the figure shows that just little of study sample (8%) their total independency level for all daily living activities were completely independent.

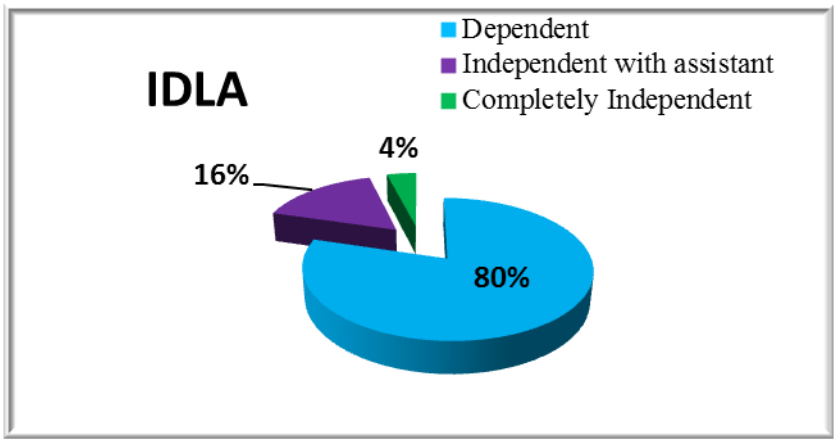


Figure (5): The distribution of study sample of youth post traffic accidents according to their Total independency level for all instrumental daily living activities (n= 250).

Figure (6) illustrates that majority of study sample of youth post traffic accidents (80%) their total independency level for all instrumental daily living activities were dependent. Also the figure shows that just little of study sample (4%) their total independency level for all instrumental daily living activities were completely independent.

Table (19): The relation between quality of life for youth post traffic accidents and their total independency level for all daily living activities (DLAs)(n= 250).

Quality of life	Dependent		Independent with assistant		Completely Independent		Chi-Square value P. value
	No	%	No	%	No	%	
Physical							
Poor	192	76.8	30	12.0	5	2.0	67.237
Average	7	2.8	9	12.0	2	0.8	P= 0.00
Good	0	0.0	2	0.8	3	1.2	HS
Psychological							
Poor	199	79.6	39	15.6	10	4.0	10.277
Average	0	0.0	2	0.8	0	0.0	0.006
Good	0	0.0	0	0.0	0	0.0	S
Social							
Poor	198	79.2	39	15.6	10	4.0	5.616
Average	1	0.4	2	0.8	0	0.0	0.060
Good	0	0.0	0.0	0.0	0	0.0	NS
Spiritual							
Poor	199	79.6	36	14.4	8	3.2	29.90
Average	0	0.0	5	2.0	2	0.8	0.000
Good	0	0.0	0	0.0	0	4.0	HS

Table (19) elaborates that there was no statistical significant association between quality of life for youth post traffic accidents as social dimension and their total independency level for all daily living activities, where $\mathbf{X^2= 5.616}$ at **P >0.05.** While there was highly statistical significant association between physical and spiritual dimension and their total independency level for all daily living activities, where $\mathbf{X^2= 67.237, \&29.90}$, respectively at **P <0.001**.

Table (20): The relation between quality of life for youth post traffic accidents and their total independency level for all instrumental daily living activities (IDLAs) (n= 250).

Quality of life	Dependent		Independent with assistant		Completely Independent		Chi-Square value
	No	%	No	%	No	%	P. value
Physical							
Poor	192	76.8	30	12.0	5	2.0	67.23
Average	7	2.8	9	3.6	2	0.8	0.000
Good	0	0.0	2	0.8	3	1.2	Hs
Psychological							
Poor	199	79.6	39	15.6	10	4.0	10.277
Average	0	0.0	2	0.8	0	0.0	0.006
Good	0	0.0	0	0.0	0	0.0	S
Social							
Poor	198	79.2	39	15.6	10	4.0	5.616
Average	1	0.4	2	0.8	0	0.0	0.060
Good	0	0.0	0	0.0	0	0.0	Ns
Spiritual							
Poor	199	79.6	36	14.4	8	3.2	29.900
Average	0	0.0	5	2.0	2	0.8	0.000
Good	0	0.0	0	0.0	0	0.0	Hs

Table (20) demonstrates that there was statistical significant association between quality of life for youth post traffic accidents as psychological dimension and their total independency level for all instrumental daily living activities, where **X^2= 10.277 at P <0.05.** While there was highly statistical significant association between quality of life for youth post traffic accidents as Physical and Spiritual dimension and their total independency level for all instrumental daily living activities, where **X^2= 67.23 &29.900,** respectively at **P <0.001.**

Discussion

Traffic accidents are serious events which often have devastating effects on survivors and their families. Individuals can be affected in many different ways and of particular importance are aspects such as physical impairment, socio-economic implications and mental health issues. There are relatively few studies which have specifically examined the physical and psychological outcomes of road injury and quality of life ***(Barnes and Thomas, 2016)***

This study revealed that less than three quarter of the total sample of youth post traffic accidents was males and slightly more than one quarter were female***(Table 1).*** These study congruent with***(Ferrando,et al.,2010)*** who reported that the number of male victims is about 4 times more than females who die in traffic accidents the study of ***Ferrando*** showed that men's are consisting nearly two third of mortalities in traffic accidents.

This study also in agreement with the study in India ***(Ismail, 2009)***. And two separate studies in turkey have shown that more than nearly three quarter of accidents were related to men ***(Juillard G.,et al.,2010).*** In Thailand, the number of male who got injured or died due to traffic accidents is 4to5 times more than woman ***(Mustafa, 2011).*** That back to the youth male had chance to drive more than female

and peer influence can make pressure to behave in a risky manner on the traffic.

Additions to that inexperience of the youth make them less able to accurately perceive hazard, control the vehicle and make appropriate decision on traffic, Using in vehicle technology(Cell /Smart phones,MP3 Players , ect) , tend to exceed the speed limit ,never use the seat belt ,often don't leave a safe distance ,faults of others, lake of attention ,and wrong passing (***Agbonkhese et al.,2013).***

This study finding revealed a1 strong relation between occupation, family income and income enough to treatment cost. More than half of the study sample of youth post traffic accident were workers and had salary less than one thousand pound per month which caused that, the most of them became unable to cover treatment cost plus to that another responsibilities like marriage or divorced.

Also ***table (1)*** demonstrated that, more than two third of study sample had married and divorced that's ranked to family don't well to do (mean to the client became burden on their family) plus their medications and other intervention to mange any hazard resulted from accidents such as another operation, physiotherapy and recurrent visit to outpatient clinic to follow up.

This study concerning to determined health needs for youth post traffic accidents to evaluate the achievement of health needs of this study found that, most of study youth used crutches and a little of them used wheel chair ***Figure (5).***

It matched with the results finding of youth post traffic accident hadn't enough income to cover treatment cost and the youth post traffic accidents had become burden on others. The study also revealed according to Daily Living Activities that, more than half of study sample of youth post traffic accidents their total independency level for all daily living activities were independent with assistant .Also regarding to the Instrumental Daily Living Activities the majority of study sample of youth post traffic accidents were dependent or totaly independent level for all instrumental daily living activities ***Figure (6)***.

This reflects, explores and explains why this sample of youth post traffic accidents had poor physical activities ,and don't achieved health needs that related to ***Table (9)*** where Most of the study sample had fracture in Upper Limbs, also in Lower Limbs may be separate fracture or (multiple) doubled fracture that increase that they don't achieved health needs, increase pain sensation and lead to take analgesic such as Cataflam, Tramdole, and non prescribed medications, as doctor order to control on their pain .

This study concerned with an effect of post traffic accidents on quality of life among youth which illustrated that, most of study sample of youth post traffic accidents had poor quality of life as physical that never practices vigorous activities, such as running, lifting heavy objects, or participating in strenuous. Always their time spent in work is reduced, in addiction had difficulty in their performance at work or other activity. Regarding upper limb most of them had fracture and a little of them had amputation ***Table (8).***

Regarding lower limb most of them suffered from fracture and just only little of them had amputation in lower limb and about two fifth of youth suffered from fracture in the pelvic. More than half of them couldn't be able to practice the sex with their couple.

In our opinion these results lead to more than one third of study sample of youth post traffic accidents achieved their total health needs while, more than two thirds of them didn't achieve their needs for them and their family which became extra burden and need to use artificial limbs to enhance quality of life to adapt with disability, increase pain sensation which lead to taking analgesic such as Catflam, Tramdole, and non prescribed medications, as doctor order to control on their pain .

This findings were with ***(Hauer ,et al., 2012)*** who mentioned that, patients with trauma; considering the present medical insurance system, treatment is even more difficult for patients with fractures or internal organ damage since they often require long-time to reduce patients' disabilities and improve prognosis, sufficient hospitals that can provide specialized treatment to traffic accident patients are required, in order to improve the quality of life for patients and their families and reduce the physical loss of patients. Regarding medical follow up there were no follow-up observations were made due to the data on complications, such as pain, that can occur after discharge were unavailable. In addition, future investigations on the association between return to work and quality of life would be meaningful.

This study concerning to discuss an effect of post traffic accidents on quality of life among youth that illustrated that, no one of study sample of youth post traffic accidents had good quality of life as psychological that they always unsatisfied with health status, and hadn't a lot of energy, that they always more nervous than before, very anxious and had fear for future, and felt depression and sadness sensation.

This study go on with ***(Teese, et al., 2016)*** who revealed that in their research,that psychological well-being, and the indicators that are used for youth were investigated. Additionally, the problems about these indicators are also included importance and frequency of care provided by family members and other informal support systems. Also as well as go on finiding with ***(Inzlicht. et al., 2012).***

This study has several limitations. Functional and psychological evaluations, which are expected to influence patients' prognosis, were not sufficiently conducted; since no follow-up observations were made due to the complications, such as pain, that can occur after discharge were unavailable. In addition, future investigations on the association between return to work and quality of life would be meaningful.

The study sample of youth always feels pain more than before and don't tolerate it ***Table (3).*** These findings are strongly related to the results illustrated in ***Table (12)*** and ***Figure (3)*** which demonstrated that, slightly two third of study sample taking analgesic such as tram dole, and non prescribed medications related to above three quarter of them suffered from moderate pain feeling and twenty percent suffered from severe pain according to Universal pain assessment.

Regarding to the social domain, there were most of study sample always had poor effects of social relationship; they always found difficulty to communicate with others, unable to share the others in their social situations. Always their families didn't own the financial support, always unable to visit their relatives and friends, the accident complications or handicap and medications always affect on daily life activities.

These findings are congruent with a study conducted in Sweden which showed that there was a high rate of psychosocial complications following traffic accidents, even for minor injuries. Almost half of the respondents in the study group still reported

anxiety two years after the accidents. Pain, fear and fatigue were also commonly found. Also the employee, and less than one fifth of them could not return to their ordinary jobs, while a third reported a reduction in leisure-time activities ***(Teese et al., 2016).***

Also congruent *with* ***(Hours et al., 2015)*** who stated that traffic accidents can diminish quality of life and can lead to functional and occupational activity impairments, as well as psychological problems among the injured patients. In South Korea, there were a total of people injured from traffic accident in 2012. As compared to statistic of data of the previous year, the number of both, total traffic accident and subsequent death, were increased the need for systematic rehabilitation therapy to reduce complications which are also anticipated to increase.

Regarding to spiritual domain, little of youth post traffic accident always feel with internal peace full, practice the pray & religious habits, and the accident help them to be more neared to God, also sometimes the accident may causes a negative change in their life ***Table (5).***

The researcher revealed that these study findings are due to the culture of the Egyptian society and its customs and traditions as they are a religious people

The Answer Of Research Questions According The Study Results:-

1-Are there relation between socio- demographic of youth post traffic accidents and their health needs?

The relation between socio-demographic characteristics of youth post traffic accidents and their health needs .demonstrates that there was no statistical significant association between the socio-demographic characteristics of youth post traffic accidents as educational level, marital status, crowding index, income enough to treatment cost and their health needs, Meanwhile, there was a statistical significant association between age, family size, and family Income of youth post traffic accidents and their health needs , Also this table elaborates that there is a highly statistical significant association between gender, occupation, working or studying hours of youth post traffic accidents and their health needs .

2-Are there relation between socio- demographic and their health problems?

The relation between socio-demographic characteristics of youth post traffic accidents and their health problems as dependence level showed that there was *no statistical significant* association between the socio- demographic characteristics of youth post traffic accidents as family size, crowding index, occupation, income enough to treatment cost, and working or studying hours, and their health problems as dependence level **.** Meanwhile, there was a statistical significant association between age, marital Status, educational level of youth post traffic accidents and their health problems as dependence level , Also this table demonstrates that there is a highly statistical significant association between gender, family income of youth post traffic accidents and their health problems as dependence level .

3-Are there effect of post traffic accidents on quality of life among youth?

The distribution of study sample of youth post traffic accidents according to their quality of life dimension.

Illustrated that most of study sample of youth post traffic accidents had poor

quality of life as physical, psychological, social,and the spiritual dimension .

4-Are there affects on daily activities post traffic accidents among youth?

Regarding the study result about total independency level for all daily living activities and instrumental daily living activities for youth post traffic accidents, the results illustrated that, more than half of study sample of youth post traffic accidents (their total independency level for all daily living activities were independent with assistant. Also the study result shows that just little of study sample their total independency level for all daily living activities were completely independent.

Conclusion:

- The result of this study found that 71.2 % of the total sample of youth post traffic accidents was male and 28.8% of them were female and 80.8% aged 21 ≤ 24 years.
- The current study revealed that most of study sample of youth post traffic accidents had poor quality of life as 90.8% for physical, 99.2% for psychological, 98.8% for social, and 97.2% for spiritual dimension.
- There were 33.2% of study sample achieved their total health needs while, 66.8% of them didn't achieve them.
- More than half of study sample of youth post traffic accidents (54%) were independent with assistant for all daily living activities while, majority of them (80%) were dependent for their all instrumental daily living activities.
- There were a highly statistical significant association between socio- demographic characteristics of youth post traffic accidents and their health needs at P <0.001.
- Also there was a highly statistical significant association between gender, family income of youth post traffic accidents and their health problems as dependence level where X2= 16.08 &17.498 , respectively at P <0.001.
- there was a highly significant relation between quality of life for youth post traffic accidents and their total independency level for all daily living activities where P <0.001.

Recommendations

Based on the findings of the present study the following recommendations were formulated:

- Health education program for youth post traffic accident and their family to secure them and help them to cope effectively with their disabilities which have an effect on improvement of their quality of life.
- Hospital discharge plan should be advocated for youth post traffic accident about care at home and medical follow up.
- Further studies should be conducted to improve the youth knowledge and practices for proper dealing with their disability and first aid in accidents as it plays an important role on their quality of life which and lead to disability limitation and prevent complications.

References:

Agbonkhese, O. Yisa, G.L. Agbonkhese, E.G. Akanbi, D.O. Aka, E.O. Mondigha, E.B. (2013): Road Traffic Accidents in Nigeria: Causes and Preventive Measures. Civil and Environmental Research www.iiste.org.ISSN 2224-5790 (Paper) ISSN 2225-0514 (Online).Vol.3, No.13,

Altschuler, D. Strangler, G. Berkley, K. Burton, L. (2010): Supporting Youth in Transition to Adulthood: Lessons Learned from Child Welfare and Juvenile Justice.

American Association of Public Opinion Research. (2007): ER 101: Vital Signs. American College of Emergency Physicians. Available at http://www.emergencycareforyou.org/VitalCareMagazine/ER101/Default.aspx?id=500. Accessed: December 11, 2014.

Barnes J., and Thomas P., (2016): Quality of Life Outcomes in a Hospitalized Sample of Road Users Involved in Crashes, ournal List Annu Proc Assoc Adv Automot Med v.50; 2016 PMC3217474

Baumann, C. Erpelding, M. Regat, S. Collin, J. Briancon, S. (2010): The WHOQOLBREF questionnaire: French adult population norms for the physical health, psychological health and social relationship dimensions. Rev EpidemiolSante´ Pub. 2010;58:33Y39.

Centers for Disease Control and Prevention. (CDC) (2016): DEPARTMENT OF HEALTH AND HUMAN SERVICES. https://www.cdc.gov/niosh/docs/2012-122/pdfs/2012-122.pdf

Furlong, Andy. (2013): Youth Studies, An Introduction. Milton Park, Abingdon: Routledge. pp. 2–3.

Ferrando,et al 2010) (Motor Vehicle Injury patterns in emergency-department patients in a south-European urban setting

Garg,N.,and A.A.Hyder,(2016): Exploring the relationship between development and road traffic injuries:a case study from india .Eur, J.public Health .16(5):487-91.

Hauer, K.; Christopher, B.; and James, W. (2011): Oxford textbook of trauma and orthopedics, (2ed ed). Exercise training for rehabilitation.

Hours, Martine. Tardy, Helene. Hoang-Thy Nhac-Vu. (2015): Quality of life 1 year after a road accident: Results from the adult Trauma Acute Care Surg.Vol. 74(1).

Ismail, S. (2009): Road accidents in Egypt and its consequences. [available at: http://www.analysthome.com/newsletter1.htm] [accessed at 8/12/ 2014]

Inzlicht, M. and Schmader, T. (2012). Threat: Theory, Process, and Application, Vol. 5.NewYork,NY:OxfordUniversityPress,141–143

Juillard, C. Labinjo, M. Kobusingye, O. Hyder, AA. (2010): Socioeconomic impact of road traffic injuries in West Africa: exploratory data from Nigeria. Inj Prev Dec; 16(6):389–92. Retrieved, February 24, 2017. Available athttp://dx.doi.org/10.1136/ip.2009.0

25825 pmid: 2080562 men (Jacobs G., Aeron-Thomas A. and A strop A ,2010).(Li, X., Lord, D. and Zhang, Y ,2012)

Mustafa, H. (2010): Egypt is the first at traffic accidents Retrieved, February 24, 2017. Available atwww.elghad.com/read.asp?news_Id=2010100000552]

Teese, R., and Bradley,G.(2016). Predicting reckless nessine merging adults: a test of apsychosocial model. J.Soc. Psychol. 148,105–126.doi: 10.3200/ SOCP. 148.1.105-128

Thomas, A. (2011): Psychology of Adolescents, Self-Concept, Weight Issues and Body Image in Children and Adolescents, p. 88.

WHO. (2017): Global status report on road safety. Retrieved, February24, 2017.Available athttp://www.who.int/violence_injury_prevention/road_safety_status/2013/en/.