

## **Traumatic spinal cord injuries, their causes and levels of injury, and Patient Satisfaction among patients admitted in Paraplegic Center Peshawar**

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### **Abstract**

#### **Background:**

It's commonly said "When you break your back you actually break your family". In the present age spinal cord injuries are very common. Nearly 250,000 Americans are spinal cord injured which includes 52% paraplegics and 47% quadriplegics. Most common causes include road traffic accidents, violence, falls, and sports related etc.

#### **Objectives:**

To determine the Causes of spinal cord injuries, Levels of spinal cord injuries, Age and Gender distribution, Mean age of patients, Patient satisfaction among patients admitted in the paraplegic center Peshawar

#### **Method:-**

Cross sectional (record based) study was carried out in Paraplegic Centre Peshawar. Sample size was 70. Convenient sampling was applied. Duration of study was from nov 2010-may 2011. Bed side records of patients and questionnaire based interviews were done and analyzed in Microsoft Excel.

#### **Results:-**

We collected the data from the bed side records of the patients (handicapped) in order to determine the type cause and level of spinal cord injuries both for male and female patients. Out of 81 patients 65 were male and 16 were female. The facts were F.F.H (fall from height) (33%) contributed highest in the list of the causes followed by F.A.I (fire arm injury) (27%) AND R.T.A (Road Traffic Accidents) (24%). Cervical injuries were (15%), thoracic injuries were (78%) and lumber injuries were (7%). Mean age of patients was  $32 \pm 8$ . Among 81 patients 70 questionnaire based (PSQ 3 modified plus translated into Pashto) interviews from the patients were done. We analyzed and came up to the opinion that patients admitted they were quite satisfied with the medical treatment provided to them.

#### **Conclusion:-**

We concluded that patients were quite satisfied for the medical care including the facilities, adequate time to the patients, and proper attention by the HEAD, physiotherapists, and

paramedic staff. Spinal cord injuries are very high and need proper awareness, and preventive measures to reduce the incidence and prevalence of spinal cord injuries.

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**Keywords:-**Traumatic Spinal cord injuries, Causes & levels, Patient satisfaction, Paraplegic Centre Peshawar.

## **BACKGROUND**

Health is wealth is a common saying. Back Bone of the human body performs its function till it is intact. Devastating Problems arise when there is injury to the vertebrae or spinal cord. Spinal cord is a part of Central nervous system which carries impulses to and away from the Brain to the rest of the body. It is about 18 inches long and extends from the base of the brain, down the middle of the back, to about the waist. Basically it has two types of Neurons Sensory and the motor (upper motor neuron/lower motor neurons) The sensory portions provides feeling of sensations from skin and other tissues while the motor component is responsible for Muscle movement initiation.

Spinal Cord injuries (SCI) results from damage to the Spinal Cord that results in loss of function either it will be sensory or motor Or Both. As spinal cord has different regions cervical, thoracic, lumbar, sacral so the lesions occurring in particular region has different effects. SCI can be divided into two types of injury - complete and incomplete. A complete injury (traumatic) means that there is no function below the level of the injury; no sensation and no voluntary movement. Both sides of the body are equally affected. An incomplete injury means that there is some functioning below the primary level of the injury. A person with an incomplete injury may be able to move one limb more than another, may be able to feel parts of the body that cannot be moved, or may have more functioning on one side of the body than the other..

In general, the higher in the spinal column the injury occurs, the more dysfunction a person will experience. Cervical spinal cord injury usually results in loss of function of arms and legs (Quadriplegia). When thoracic level is affected it causes loss of function of chest and back (Paraplegia) Some injuries may result in Hemiplegia (involving arm and leg of one side of the body).

## **TREATMENT REGIMES**

According to National Acute Spinal Cord Injury Studies (NASCIS) I and II are as follows

1) Previously For acute non penetrating injuries – Administration of anti-inflammatory methylprednisolone within 8 hours of injury.

2) Presently Normal Saline (cold)

3) Improve blood pressure for nerve functions.

OTHERS include

**B) OCCUPATIONAL THERAPY** (To assist the patient to restore function and participate in daily activities important to them accordingly)

It has two parts

1) **Acute Recovery**

2) **Acute Rehabilitation**

(Assessment of limb functions, Self care, Bed mobility, transfer skills, mobility skills, community involvement, work and recreation, domestic retraining)

3) **Community Reintegration** (promoting social participation and life satisfaction, restoring self esteem, self worth and self efficiency in the community)

Family Impact, stages of grieving, adapting and coping with it, psychosocial implications are always related with spinal cord injured patients. There must be support system and community involvement for the active recovery of those individuals to restore their life and make them self efficient.

Spinal cord-injured persons and **their families** face a wide array of **emotional** and social issues. Their **prospects** for a **satisfying future** are dependent **partially** on the **information** and **support** they are given in the **acute care setting**, along with their own **innate abilities** to cope in a **stressful situation**. Health care personnel play a vital role in providing tools to enhance the spinal cord-injured patient's quality of life.

Approximately 450,000 people live with SCI in the US. There are about 10,000 new SCI's every year; the majority of them (82%) involve males between the ages of 16-30. These injuries result from motor vehicle accidents (36%), violence (28.9%), or falls (21.2%). Quadriplegia is slightly more so common than paraplegia.

PREVIOUSLY

Figures obtained by NSCIA in August, 1995, following were considered as the major causes of spinal cord injuries. One of the most surprising findings is that acts of violence have now overtaken falls as the second most common source of spinal cord injury, as of the 1995 findings.

Previous To 1995:

- Motor vehicles 48%
- Falls 21%
- Sports 14% (66% of which are caused in diving accidents)
- Violence 15%
- Other 2%

Another report "The University of Alabama National Spinal Cord Injury Statistical Center - **March 2002**" suggests

- 250,000 Americans are spinal cord injured.
- 52% of spinal cord injured individuals are considered paraplegic and 47% quadriplegic.
- Approximately 11,000 new injuries occur each year.
- 82% are male, 56% of injuries occur between the ages of 16 and 30.
- The average age of spinal cord injured person is 31.
- SCI injuries are most commonly caused by:
  - Vehicular accidents 37%
  - Violence (penetrating injuries, gunshots etc) 28%
  - Falls 21%
  - Sports-related 6%
  - Other 8%
- The most rapidly increasing cause of injuries is due to violence; vehicular accident injuries are decreasing in number.

- Only 52% of SCI individuals are covered by private health insurance at time of injury.
- Quadriplegia, incomplete 31.2%
- Paraplegia, complete 28.2%
- Paraplegia, incomplete 23.1%
- Quadriplegia, complete 17.5%

**32 injuries per million population** or **7800 injuries** in the US each year. Some researchers claim that an additional 20 cases per million (4860 per year) die before reaching the hospital.

Another Research in **China** “**Correlation between life quality and patients with traumatic**

**paraplegia and social support**” concluded that “the life quality of patients with traumatic paraplegia is generally poor and social support is low. The governments should pay more attention to the life quality of the patients.

#### **Rationale of study:**

In Pakistan there are very limited care providers for Spinal injured patients, as our province KPK has only one PARAPLEGIC CENTRE in Peshawar so we must look forward to increase the awareness of our government to take this in regard and improve health care facilities and consider the Rehabilitation as fourth pillar of MEDICAL SCIENCES. Patient satisfaction had always been very important in improving the quality of health providers however as such there had been no significant studies done to achieve this.

## **Objectives**

1. To identify the causes of spinal cord injuries.
2. To determine the levels of spinal cord injuries.
3. To determine the frequency of spinal cord injuries.
4. Age and gender distribution of spinal cord injuries.
5. To assess the patient satisfaction among the patients admitted in Paraplegic Center Peshawar for the medical care provided to them.

## **Methodology**

- Location Paraplegic Center Peshawar
- Study design Cross sectional Descriptive study (record based)
- Study duration Nov 2010 to May 2011
- Sampling: 70 and convenient sampling scheme was used.
- Data collection tool Bed side records of patients admitted in the hospital and Questionnaire based interviews.
- Operational definitions:
- Inclusion:- Our study includes only those patients who were admitted in paraplegic center peshawar in the time period of our study, patients suffering from traumatic spinal cord injuries, and excluded those patients who were admitted before or after the data collection time.

- Ethical considerations: informed consent was taken from each patient who was interviewed.
- Analysis plan: data was entered in microsoft excel; percentages, mean, sum, standard deviation etc
- Limitations of the study: Time frame and sample size was not sufficient to interpret the level of satisfaction, in addition to that the tools used were not able to give us a meaningful cut-off point in determining satisfaction. We could only give our opinion after applying reasonable statistics to our data that patients admitted there were quite satisfied for the health care provided to them.

## Results

- All patients had common characteristics of being suffering from spinal cord injury with some differences in causes and levels of spinal cord injury. These patients belonged to different areas of Pakistan as well as Afghanistan (5 patients) and were admitted here in Paraplegic Center Peshawar.
- Data collected from 81 patients was analyzed in the form of Microsoft excel sheets. Essential graphs and Tables were made. There were **81** patients among them **65 were males** and **16 were females** in the time period of **Nov 2010 – May 2011** with **mean age of  $32 \pm 8$** . **Paraplegics were (85 %)** and **Quadriplegics were (14.8 %)**. Among the causes of spinal cord injuries **Fall from heights were (33%)**, **Fire arm injuries (27%)**, **Road Traffic accidents (24%)**, while others included Weight fallen over (8%), Bomb Blast injuries (6%) while stab wounds and EARTH QUAKE victims were (1%) respectively. The leading causes in **males were Fire arm injuries (95.5%)**, while the leading cause in **females was Fall from height (29.6%)** while on the other extreme minimum patients among male side were due to STAB wound injury and females side were earth quake victims. We divided the levels of injury in to cervical, thoracic and lumber which included **Thoracic injuries (78%)**, **cervical injuries (15%)** and lumber (7%).
- Key:- R.T.A=Road Traffic Accidents , F.A.I = Fire Arm Injuries , EQV = Earth Quake Victims
- Figure 1 shows the percentages of different causes which contribute to the total number of spinal cord injuries with minimum 1% (EQV, stab wounds) and maximum (33%) (Falls from height)

### **MEAN AGE of Patients = $32 \pm 8$ years.**

- Figure 2 shows different levels of spinal cord injuries with maximum of 78% (thoracic), 15%(cervical) and 7%(lumber)
- Figure 3 percentages shows The leading causes in males were Fire arm injuries (95.5%) , while the leading cause in females was Fall from height (29.6%).
- Figure 4 shows comparison between paraplegics and quadriplegics.

Sum of males and female patients give us this graph showing highest number of patients suffering from SCI are due to FALLS FROM HEIGHTS (27 patients) followed by Fire Arm Injuries (22 patients)

Patient satisfaction was analyzed with the help of modified PSQ 3 . sum of scores by the individuals were calculated among different 8 categories on the basis of options given in the questionnaire with a 5 degree scale from strongly agree to strongly disagree . The minimum and

maximum possible score of those 64 questions were (64 and 320) . However achieved scores were in the range of 200-280.

The **highest score achieved** by the patient was **278** while the **lowest score** was **232**.

**Mean score was  $254.4 \pm 9.1$**

However following are the mean scores with standard deviations by those patients

From the above facts we can give the opinion that actually mean scores out of the total are depicting that patients were well satisfied with the health care provided to them in the hospital.

## **Conclusion**

According to our study we came to the conclusion that Spinal cord injuries are very common in Pakistan. We concluded that patients were quite satisfied for the medical care including the facilities, adequate time to the patients, and proper attention by the HEAD, physiotherapists, and paramedic staff. Spinal cord injuries are very high and need proper awareness, and preventive measures to reduce the incidence and prevalence of spinal cord injuries. Rehabilitation should be considered as fourth pillar of medical science and the government should take more interest in developing such health care facility centers for the spinal cord injured patients and launch awareness programs for its preventive side

## **Discussion**

Spinal Cord Injuries are generally common among the young and middle-aged productive and valuable workforce of the population. The severe nature of such injuries and the devastating physical debility they cause, plus the young age at which they occur and the instantaneous nature of these injuries, all these factors cause a severe detrimental effect on the psychological well-being of the patients. Therefore, such injuries decrease the socio-economic status of the society by reducing the number of healthy young people, who are a valuable asset to our country. It is important to know the causes of such injuries and to prevent them. It is equally important to rehabilitate the patients and assess their level of satisfaction, so that they can once again become an efficient and healthy part of our society.

The most common cause of spinal cord injuries, according to our study, was due to falls from heights. Falls from heights may be due to construction works, lack of appropriate safety measures at heights, suicidal attempts or other accidents. It is important to investigate the reasons why falls from heights are so common in Pakistan, and once we know the reasons for such a large number of injuries, we can initiate appropriate preventive measures and hence reduce the number of SCI due to falls from heights.

Studies conducted in America indicate that, as of 2002, road traffic accidents were the main cause of spinal cord injuries<sup>1</sup>. In Pakistan, however, road traffic accidents are the third most common cause. This could be a good sign that, despite the general lack of strict traffic regulations, there are not so many RTAs in Pakistan compared to other developed countries. However, there is the possibility that RTAs are not properly reported and documented. Many victims of RTAs may die instantaneously, and hence are not reported and not accounted for in estimates of SCI. Another reason could be that RTAs in Pakistan confer injuries other than SCIs to the victims, like limb fractures etc. The infrastructure of Pakistan is also not well developed,

the roads are not suitable for high speeds, and hence RTAs may not be so common. Also, drinking alcohol is a major cause of RTAs in western world, but it is not the case in Pakistan.

The second most common cause of SCI in developed countries was found to be violence and fire-arm injuries<sup>2</sup>. In our study, it was also found to be the second most common cause in Pakistan. There is a lack of proper crime investigation, apprehension and incarceration system in Pakistan. This is due to corruption and lack of justice and strict law enforcement agencies. Increasing the general condition of law and order and providing security to citizens could reduce the incidence of such injuries.

Regarding the gender distribution of Spinal Cord Injuries, it is clear from our results that males were much more affected than females. Except for earthquake victims, males were frequently the victims in all the other categories of SCI. This is obviously due to the fact that Pakistani females have a relatively limited mobility outside their homes, and are much less involved in daily matters outside. Males, on the other hand, are the main workforce in construction works; driving, heavy objects work etc and are almost exclusively the victims of dreadful violence occurring in this country, such as fire-arm injuries, penetrating injuries and bomb blasts.

The results regarding frequency of paraplegics and quadriplegics is significantly different from the results of studies conducted in developed countries. In the paraplegic centre, the majority were paraplegics while only 15% were quadriplegics.

Injuries at different levels of the spinal cord have different effects on the function of the body. In the paraplegic centre, majority of the patients suffered thoracic SCIs, while the frequency of cervical and lumbar injuries was relatively less.

Regarding the patient satisfaction of SCI victims, by far a large majority of the patients were satisfied regarding aspects of general satisfaction, technical quality, accessibility, communication, interpersonal matters, financial aspects and time spent with doctors. This reflects the efficiency with which the Paraplegic centre delivers quality health care to SCI victims. Their treatment, rehabilitation and care facilities are extraordinary. Such standard centers should be established throughout the province so that victims of SCIs can receive proper health care.

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**APPENDIX**

**“Traumatic Spinal cord injuries causes, levels and Patient Satisfaction among patients admitted in Paraplegic Center Peshawar.”**

**Patient Satisfaction Questionnaire  
Peshawar Medical College, Peshawar**

*Disclaimer: All information elicited through this is strictly confidential. It is for use of Research only. Your identity will not be disclosed. Identity of institution is confidential. Your information will not be disclosed to a third party without your written consent*

Form No:	Volunteer:
Location: Address	
Dated	Married / Single / No of Dependents
Age / Gender:	

AsSalam o Alaikum! Zama noom Dr. XYZ de. Za ba staasoo de ilaaj pa bara ke so khabaray tapose koma. Staaso ba 10-20 minutes lagee. Staasoo ijazat de che z a taposoono ookama. Da taposoono staaso staaso ilaaj behtari da paara dee. Tasoo ba maata wayaii che zama khabara BILKUL teek da, sirf teek da, BILKUL ghalata da aoo ka sirf ghalata da.

**PSQ Scale of AGREEMENT/Disagreement**

<b>1. Strongly Agree</b>	Poora ittefaq Karta/Karti Hoon
<b>2. Agree</b>	Ittefaq Karta/Karti Hoon
<b>3. Uncertain</b>	Kuch Keh Nahin Sakta /Saktee
<b>4. Disagree</b>	Ittefaq Nahin Karta/Karti
<b>5. Strongly Disagree</b>	Bilkul Ittefaq Nahin KartaKarti

<b>1. Strongly Agree</b>	Poora ittefaq koma. Bilkul
<b>2. Agree</b>	Ittefaq Koma/Manam
<b>3. Uncertain</b>	Sa waylay na sham, kidayshi/shayad
<b>4. Disagree</b>	Ittefaq na kaum
<b>5. Strongly Disagree</b>	Bilkul Ittefaq Na kauma

S.N	PSQ ITEM IN ENGLISH AND PUSHTO	1	2	3	4	5	+	-
1. +A	Places where I can get medical care, are very conveniently located <b>Stasu doctor ta pa asana rasaii</b>	1	2	3	4	5	+	-
2 +G	Your care meets your needs very well <b>Stasu ilaj stasu da zaroorat mutabiq de</b>	1	2	3	4	5	+	-
3 -T	Those who provide my medical care sometimes hurry too much when they treat me <b>Stasu doctor stasu muainey doran ki jaldi/taadikawi</b>	1	2	3	4	5	-	+
4 -G	I am not very satisfied with the medical care I receive <b>Tasu da khpal ilaaj na mukammal/Pura mutmaeen na yae</b>	1	2	3	4	5	-	+
5 -TQ	Doctors need to be more thorough in treating and examining me <b>Doctor stasu muaina tafseelan kawi</b>	1	2	3	4	5	-	+
6 -F	Sometimes I go without the medical care I need because it is too expensive <b>Da ilaj da grantiya pa waja bazi wakh tasu khpal ilaj na kawae</b>	1	2	3	4	5	-	+
7 -IP	I feel embarrassed when the doctor is examining me <b>Doctor na da muainay pa doran ke za katcha kegama</b>	1	2	3	4	5	-	+
8 +A	It is easy for me to get medical care in an emergency <b>Pa taklif ziatay do pa soorat kay tasu ta ilaj pa asana milawegi</b>	1	2	3	4	5	+	-
9 _IP	Doctors act too impersonal and business like towards me <b>Doctor rawayya ma sara karobari aoo ghir zaati wee</b>	1	2	3	4	5	-	+
10. +TQ	Is it easy for you to get lab and radiology work completed when ordered by your doctor <b>Kam tsetuna au x-ray che darata doctor wa leeki nu haga tasu pa asana kawale shae</b>	1	2	3	4	5	+	-
11. +IP	The doctor who treats me gives me proper respect <b>Doctor zama poora ihtiraam/izzat kawi</b>	1	2	3	4	5	+	-
12. -A	I find it hard to get an appointment for medical care right away <b>Da doctor na wakh agestal tasu ta graan we</b>	1	2	3	4	5	-	+
13. +IP	Doctors always do their best to keep me from worrying <b>Stasu doctor tasu da pashanai na bach kawalo har mumkin koshish kae</b>	1	2	3	4	5	+	-
14. +A	I have easy access to the qualified specialized doctors that I need <b>Tasu da khpal beemarai mutabiq mahir doctor ta pa asana rasaii</b>	1	2	3	4	5	+	-
15. -C	Sometimes doctors use medical terms without explaining what they mean <b>Doctor da medical dasi lafzoona istemalawe che pa haghay tasoo na poyegaii</b>	1	2	3	4	5	-	+
16. +G	You will recommend this doctor to your friend / family if such incidents take place with them <b>Tasu ba khpal khpalwanu au malgaro ta de doctor ta ratlo mashwara warkawae ka aghui sara um dasay haadsa oshi</b>	1	2	3	4	5	+	-
17. +C	During my medical visits I am not allowed to say everything that I think is important <b>Tasu ta doctor sara har aaga khabara kawalo moqa milawegi kama che stasu pa khyal ki zaroori/aham da</b>	1	2	3	4	5	+	-
18. -T	Where I get my medical care, people have to wait too long to get emergency treatment <b>haspatal ki khalko ta emergency imdad(taklif ziatay do pa soorat kay) dapara dair sahat intizar kawal ghwarhee</b>	1	2	3	4	5	-	+
19. -IP	Sometimes doctors make me feel foolish <b>Doctor kala kala tasu ta da tasu ta da ehsas darkare che tasu na poya yae</b>	1	2	3	4	5	-	+
21. +C	I can share my private/confidential matters with my doctor confidently <b>Taaso khpalay zaati aoo private khabaray doctor ta pa aitebar sara walay sahii</b>	1	2	3	4	5	+	-
22. +T	Doctors usually spend plenty of time with me <b>Doctor tasu ta munasib taim darkae</b>	1	2	3	4	5	+	-
23. -G	There are some things about the medical care I receive that could be better <b>Da de haspatal ke de nore / mazeed khawalee/taraqi zaroorat de</b>	1	2	3	4	5	-	+
24. +C	Doctor tries to understand my problems other than medical problems as well <b>Doctor zama da beemarai na ilawa zama pa noro masalo hum zaan poyolo koshish kaii</b>	1	2	3	4	5	+	-
25. +F	The amount that I pay for my medical care is reasonable <b>Zama ilaj bande che kama kharcha kaygee agha munasiba da</b>	1	2	3	4	5	+	-
26. +C	Doctors listen carefully to what I have to say <b>Doctor stasu khabara pa ghor awre</b>	1	2	3	4	5	+	-
27. -G	I am dissatisfied with some things about the medical care that I receive <b>Tasu pa khpal ilaj ki da sa khabaru na gair mutmaina/ na khwashala yae</b>	1	2	3	4	5	-	+
28. +C	Doctors are good about explaining the reasons for medical tests <b>Stasu doctor tasu ta da test kwalo poora/mukammal waja khaye</b>	1	2	3	4	5	+	-
29. +F	My monthly income, (monthly / daily) is enough to support my medical care <b>Sta amdan sata au sta da kor walo da ilaj dapara poora da</b>	1	2	3	4	5	+	-
30. +C	Doctor gives you advice you get about ways to avoid illness and stay healthy <b>Doctor tasu ta da beemarai ne da bach kedo au sheet mand osedo tareqe khae?</b>	1	2	3	4	5	+	-
32. _F	My disease is affecting my financial status <b>Sta beemari sta pa maali haalaat kharab asar guzawe</b>	1	2	3	4	5	-	+
33. +IP	My doctors treat me in a very friendly and courteous manner <b>Doctor rawayya ta sra dostana au hamdardana da</b>	1	2	3	4	5	+	-

34. +C	Doctors give adequate explanations about side effects of prescribed medicines <b>Doctor staaso dawayanu bad asarat bara ki maloomaat da kawi</b>	1	2	3	4	5	+
35. +GS	All things considered, the medical care I receive is excellent <b>De tolo khabaru na bawajood tasu ta kha ilaaj milao sho</b>	1	2	3	4	5	+
36. +TQ	Doctor informs you about the costs of care <b>Pa ilaj ratlunki kharcha bandei doctor tasu pa kha tareqa poyae</b>	1	2	3	4	5	+
37. -C	Doctors sometimes ignore what I tell them <b>Stasu doctor kala kala stasu khabare nazarandaaz kawi / Doctor staaso khabaro na la parwahi kaii</b>	1	2	3	4	5	-
38. -F	I have to pay far more for my medical care than I can afford <b>Tasu chi pa ilaaj sumra paise kharch kawaie aga stasu da wasa bahar di</b>	1	2	3	4	5	-
39. +G	I will come back to this doctor again. <b>Tasu ba da ilaaj dapara de doctor ta wapaa ratla ghwarhii</b>	1	2	3	4	5	+
40. +A.	You could get admitted in this hospital without major problems <b>Taso ta de haspatal ke dakhaila pa asana milao shwa</b>	1	2	3	4	5	+
41. _F	You are worried about paying large sum of money for medicines / tests from outside <b>Taso de bahar na aghasto wala dawaiyaano aoo testoono paiso pa bara ke pareshna yeii</b>	1	2	3	4	5	-
42. +GS	You are comfortable with your bed and surroundings in this hospital <b>Tasodalta khpal bed aoo haspataal noro seezoono na mutmaiin yaii</b>	1	2	3	4	5	+
43. +GS	General cleanliness of the hospital is adequate <b>Da de haspataal de safaii intizam poora de</b>	1	2	3	4	5	+
44. _GS	Toilets are not well maintained in this hospital <b>De haspataal ke de toilet/tashnaab/ghusal khana safaii teek na da</b>	1	2	3	4	5	-
45. +IP	Nursing care in this hospital is adequate <b>Pa de haspataal ke helperaan (ardali) kha kaar kawee</b>	1	2	3	4	5	+
46. +TQ	You are satisfied with the service and quality of food given to you in this hospital <b>Taaso de haspatal ke de dar krhay shaway khwaraak na mutmaiin yaii</b>	1	2	3	4	5	+
47. _TQ	Sometimes doctors make you wonder if their diagnosis is correct <b>Kala kala tasoo ta lagee laka doctor tashkhees teek na de / Doctor staaso pa maraz poora poye na de</b>	1	2	3	4	5	-
48. _IP	Nurses in this hospital are aloof and discourteous <b>Da de haspataal ardaliano rawayya sakhta da aoo aai staaso izzat na kawee</b>	1	2	3	4	5	-
49. IP	The helping staff do not bother if you call them for help <b>De haspataal k ardaliaan staso parwah na kai kala taso warta awaz okai</b>	1	2	3	4	5	-
50. A	<b>Taso ta dalta attendants praydi</b>	1	2	3	4	5	+
51.IP/ G	<b>kala taso ta chutti pakaar wi taso ta dui chutti na darkai</b>	1	2	3	4	5	-
52. G	<b>Haspataal wala khalaq taso ta chakkar/outing/picnic darkai?</b>	1	2	3	4	5	+
53.G	<b>Da mareezano yao bal sara taaaluq khan NA wi</b>	1	2	3	4	5	-
54.A	<b>Taso sara mulaqaat da para khalaq na predi</b>	1	2	3	4	5	-
55.A	<b>Pa monz / odas k darta rukawat kho na achai</b>	1	2	3	4	5	
56.G	<b>Mulaqaatiano sara mulaqaat da para munasib time wi</b>	1	2	3	4	5	+
57.T	<b>Bijli tlo pa soorat kay generator na lagai</b>	1	2	3	4	5	-
58.G	<b>Kala mulaqaat time khatam shi nu da haspataal amla aghui sara sakhti kai</b>	1	2	3	4	5	+
59.T	<b>Dalta munasib sahooliaat di warzash da para</b>	1	2	3	4	5	
60.Ti me	<b>Warsash wala staff taso ta puraa time o tawajjo darkai</b>	1	2	3	4	5	
61.T	<b>Wheel chairs,walking frame ao nor sahoooliat dalta kam di mareezano da para</b>	1	2	3	4	5	-
62.G	<b>Staso bemari na ilawa parayshaniyo da para doctor taso ta poora tasalli darkai</b>	1	2	3	4	5	
63.IP	<b>da ilaaj maamlay k doctor taso ta poora tasalli darkai</b>						
64.G	Apart from everything You are getting excellent treatment in this hospital <b>Da har san a ilawa staso de haspataal k dhair kha ilaaj kegi</b>	1	2	3	4	5	+
65.	<b>COMMENTS: TAASOO NORE SA WAYAL GHUWARHAI</b>						

- Table 1

<b>Causes</b>	<b>Males</b>	<b>Females</b>	<b>%age males</b>	<b>%age females</b>	<b>total</b>
<b>R.T.A</b>	15	4	78.9	21.1	19
<b>Falls From Heights</b>	19	8	70.4	29.6	27
<b>F.A.I</b>	21	1	95.5	4.5	22
<b>Weight fallen over</b>	5	1	83.3	16.7	6
<b>Bomb Blast injuries</b>	4	1	80.0	20.0	5
<b>EQV</b>	0	1	0.0	100.0	1
<b>Stab Wounds</b>	1	0	100.0	0.0	1

Table2

<b><i>Lumber injury</i></b>	<b>7.4%</b>
<b><i>Thoracic injury</i></b>	<b>77.7%</b>
<b><i>Cervical injury</i></b>	<b>14.8%</b>

Table3

<b>Paraplegics</b>	<b>85.2%</b>
<b>Tetraplegics</b>	<b>14.8%</b>

Table 4

Accessibility And Convenience (A)	Mean Score & standard deviation	Out of
Technical Quality (TQ)	36.3 ± 2.05	40
Interpersonal Matters (IP)	32.5 ± 3.69	40
Communication (C)	42 ± 3.56	50
General (G)	38.1 ± 3.15	45
Time Spent with doctor (T)	54.8 ± 3.91	65
Financial Aspects (F)	16.1 ± 2.70	25
General Satisfaction (GS)	19.2 ± 2.51	30
	15.7 ± 1.26	20

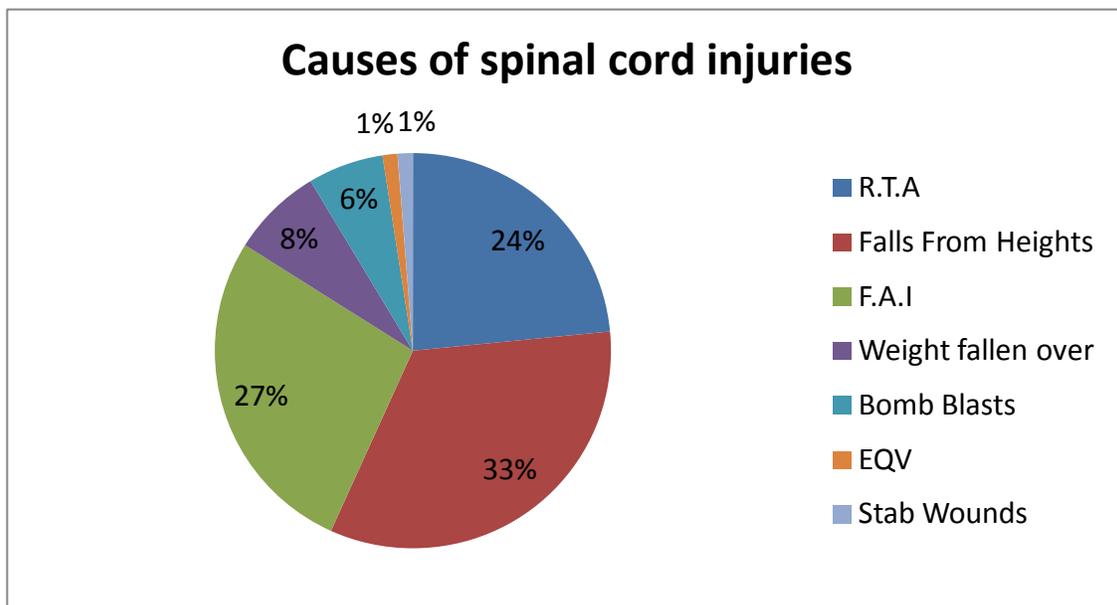
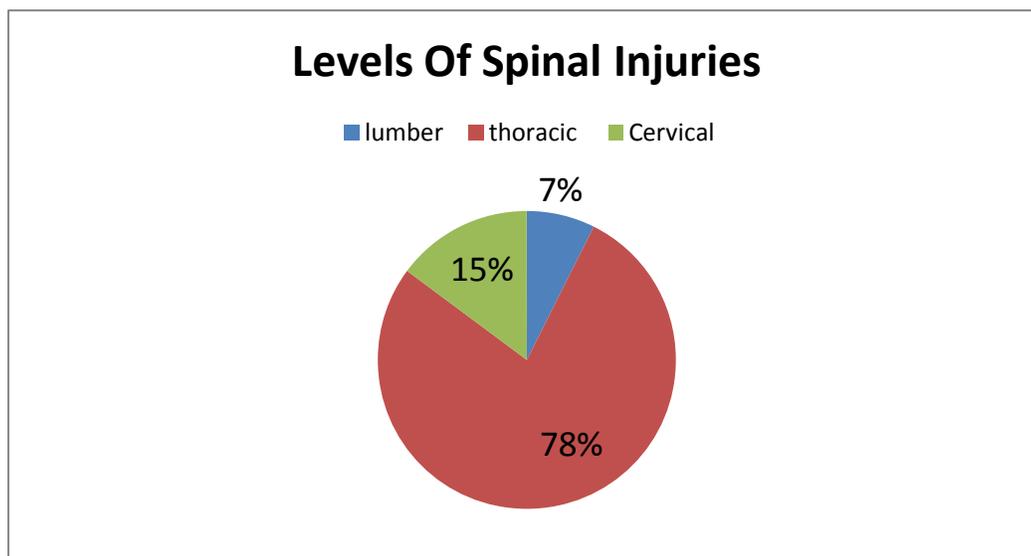


Figure 1



- Figure 2

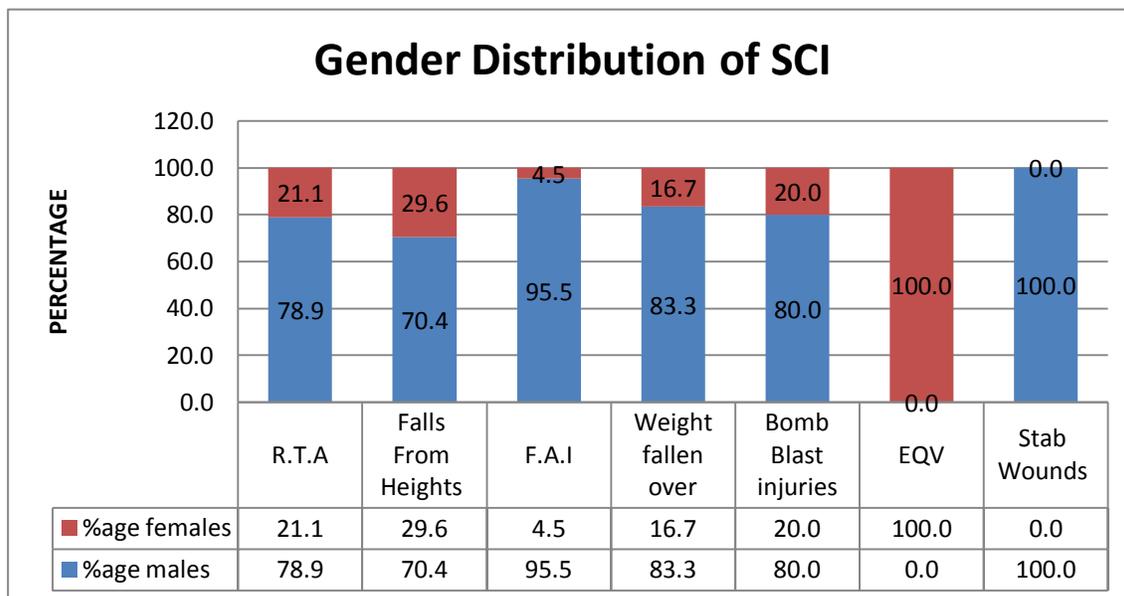


Figure 3

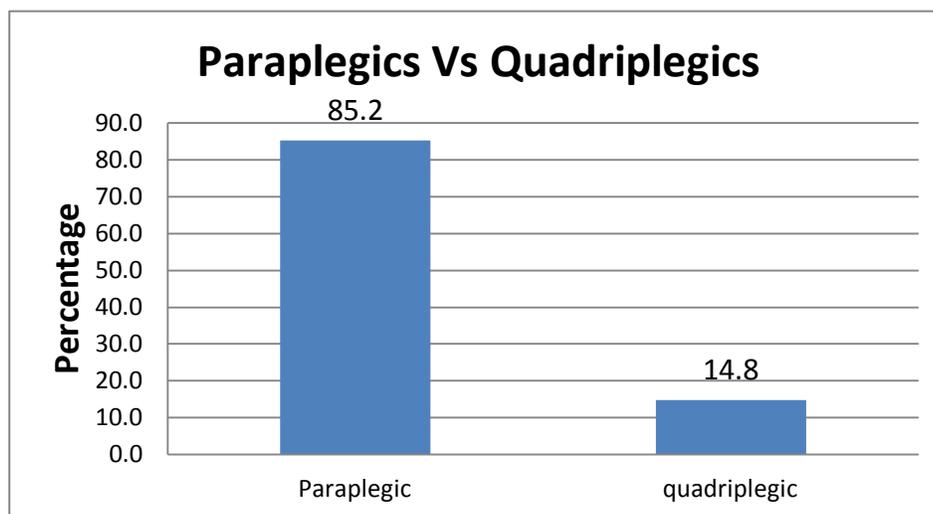


Figure 4

