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**The psychological Impact of Al Aqsa Intifada physical injury on the
Injured Palestinian adults in Gaza Strip**

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Title: The psychological Impact of Al-Aqsa Intifada Physical Injury on Palestinian Injured Adults in Gaza Strip

Background : Researchers long been a concern in the study of physical injury and the extent of their impact on the functional aspect. Recently more attention is given to the psychological side of physical injury , but it is still low. In our region Israeli violence against Palestinians is considered the main cause of physical injury among Palestinian people especially among young adults (Palestinian Health Information Centre ,2006), and it affect psychological state of Palestinian people at is shown in many studies .

Objective of this study : The main purpose of this study is to asses the psychological impact of different physical injuries resulting from El-Aqsa Intifada events on injured Palestinian adults, and to determine the variables that may increase the risk of developing psychological problems after the physical injury including (age, sex, marital status ,educational level, occupation ,time since injury ,site of the injury and type of the injury .

Study design : The researcher used in this study descriptive analytical approach, because this approach suits the nature of the study .

Participants : The study sample consisted of 300 injured Palestinians from both sexes ,aged 18 or older who were injured through out Al- Aqsa intifada events between the period 2005 and 2008 and they live in Gaza Strip conservatisms, and who were registered in the Support of the Families of Martyrs and Injured Institution (SFMII). We exclude brain injuries.

Instruments of the Study: SCL-90 scale was used to measure the nine psychological symptoms including depression ,anxiety, somatization, obsessive compulsive ,interpersonal sensitivity ,hostility ,phobic anxiety ,paranoid ideation and psychoticism , and simple questionnaire that describes the injury characteristics including (site of the injury, nature of the injury, the type of weapons used , pain due to injury and healing from the injury).

Statistical Analysis : in this study we used Descriptive Statistics, Correlation Coefficient "Pearson" ,t-Test and One Way ANNOVA .

Results : (1) The results related to descriptive analysis about the characteristics of the injury suffered by the individuals in the sample showed that The most commonly injured body regions were the limbs (74.0 %) and multiple body parts regions injury (60.0%). The face injury was (33,3 %), abdomen injury was (31.3 %), chest injury was (29,7 %), back injury was (28, 3%), pelvic injury was (16.7%), and finally (14.3%) of cases was neck injury. Fragments and explosives (63,3 %) were the most common cause of injury. (34.3%) of the respondents were injured as a result of explosion of missile fragments resulting from aerial bombardment, while (29%) were injured as a result of the explosion fragments of artillery shells. Bullets accounted (36.7%), and (7 %) for other weapons. (2) The results showed that more psychological symptoms which injured individuals suffer from it were somatization with relative weight of (39%), followed by obsessive-compulsive (33.2%) , interpersonal sensitivity (32.5%) , (32%) had depression, and (30.9%) for anxiety , and (30.3%) for hostility, (29.5%) for paranoid ideation , (26.2%,) for phobic anxiety and finally (25.1%) for psychotics .These psychological symptoms related to the following factors (older age, female gender ,low educational level, occupation, time since injury, site of the injury and type of the injury, but not related to marital status variable.

Conclusions : The physical injury resulting from second Palestinian intifada uprising has a significant impact on the psychological wellbeing of the injured Palestinian adults in Gaza Strip.

Recommendations : psychological aspect of physical injury should be given more attention and considered in all stages of trauma care intervention including rehabilitation to decrease the psychological suffering of the injured people and to prevent developing of the psychological disorder

عنوان البحث : الأثر النفسي للإصابة الجسدية الناتجة عن انتفاضة الأقصى على الجرحى الفلسطينيين البالغين في قطاع غزة

اهتم الباحثون قديما في دراسة تأثير الإصابة الجسدية على جسم الإنسان من الناحية الجسمية والوظيفية فقط ، ولقد تطورت الأبحاث حديثا لتشمل دراسة تأثير المرض والإصابة على حالة الإنسان النفسية بالإضافة إلى تأثيرها على جوانب أخرى مثل الجانب الاقتصادي والاجتماعي . إن فهم الأثر النفسي للإصابة الجسدية ولا سيما إصابات الحروب يساعد في نجاح عملية العلاج وإعادة التأهيل . حيث وجد أن الإصابات الجسدية الشديدة يمكن أن تسبب اضطرابات عقلية وعاطفية، و في منطقتنا يعتبر العدوان الإسرائيلي من أهم أسباب الإصابة الجسدية خاصة في أوساط الشباب (وزارة الصحة الفلسطينية ، 2006) .

أهداف الدراسة : إن الهدف الرئيسي من هذه الدراسة هو تقييم الأثر النفسي للإصابة الجسدية الناتجة عن أحداث انتفاضة الأقصى على الجرحى الفلسطينيين البالغين ، كما وتهدف إلى دراسة العوامل التي يمكن تساهم في ظهور الأعراض النفسية بين الجرحى ، ولقد أستخدم المنهج الوصفي التحليلي في هذه الدراسة .

المشاركين : تم اختيار عينة عشوائية من 300 جريح فلسطيني معظمهم من الذكور (83,3%)، تبلغ أعمارهم 18 وما فوق، و جرحوا خلال أحداث انتفاضة الأقصى الفلسطينية في الفترة ما بين 2005 و 2008 ويسكنون في مختلف محافظات قطاع غزة، ومسجلين في مؤسسة رعاية أسر الشهداء والجرحى ، وتم استثناء إصابات الدماغ من هذه الدراسة . ولقد استخدم مقياس SCL-90 لقياس الأعراض النفسية التالية (الأعراض الجسمانية، الوسواس القهري، الحساسية التفاعلية، الاكتئاب، القلق، العداء، قلق الخوف، البار انويا التخيلية، الذهانية) .

النتائج : أظهرت النتائج أن

39%	33.2%		
32.5%	32%	30.9%	30.3%
26.2%	25.1%		29.5%
74%	60%		

الاستنتاج : كان للإصابة الجسدية الناتجة عن أحداث انتفاضة الأقصى تأثير واضح على الحالة النفسية للجرحى الفلسطينيين البالغين في قطاع غزة ، ذو علاقة بالعوامل التالية (العمر، والجنس، ومستوى التعليم ، ومدة الإصابة ، ونوع العمل، ومكان الإصابة وطبيعة الإصابة) ، في حين لم توجد علاقة بين وجود الأعراض النفسية وعامل الحالة الاجتماعية لدى الجرحى .

التوصيات: إن تحديد وفهم الأثر النفسي للإصابة الجسدية يساهم في نجاح عملية التدخل بما فيها عملية التأهيل لذا يوصى بإعطاء اهتمام أكثر للجانب النفسي للإصابة الجسدية في كل مراحل العلاج وعمل أبحاث أخرى في هذا المجال .

Dedication

To my precious mom and dad

To my dear husband

To my child Nour

To my brothers, sisters and friends

***And to injured Palestinians who belong to my
beloved country " Palestine***

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I would like to express my gratitude to all those who gave me the possibility to complete this study . I am deeply indebted to my supervisor Dr Samir Qouta from the Islamic university in Gaza Strip whose help, stimulating suggestions and encouragement helped me in all the time of research for and writing of this thesis.

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Table Of Contents

English Abstract	I
Arabic Abstract	III
Dedication	IV
Acknowledgement	V
Table of contents	VI
List of Tables	IX
List of Figures	XII
List of Abbreviations	XIII
List of Annexes	XIV

Chapter 1: Introduction

1.1. Background	1
1.2. Justification of the study	4
1.3. Significance of the study	5
1.4. The study objectives	6
1.5. Research questions	7
1.6. the Study hypotheses	8
1.7. Operational definitions of the study terms	9
1.8. The Study Context	10
1.9. Limitation of the study	11

Chapter 2: Conceptual Framework

2.1. Introduction	12
2.2. Physical injury characteristics	12
2.3. Types of physical injury	13
2.4. Mechanism of physical injury	14

2.5. Injury care (Assessment and management)	15
2.6. Emotional response to physical injury	16
2.7. Psychological response of injured patients throughout trauma cycle	17
2. 8. The importance of understanding the psychological response in the rehabilitation process	19
2.9. Coping with physical trauma	21
2.10. Religion , coping and wellbeing	23
2.11. The Israeli violence against Palestinians	24
2.12. The Palestinian Al-Aqsa Intifada	25
2.13. Israeli occupation and Palestinians psychological health	27

Chapter 3: Literature Review

3.1. Introduction	28
3. 2. Previous studies related to the psychological impact of exposure to traumatic events including war related violence.	29
3. 3. Previous studies related to the psychological impact of exposure to different types of physical injuries.	33
3. 4. The previous studies that discusses the psychological impact of exposure to violence resulting from the Israeli-Palestinian conflict on Palestinian people	49
3. 5. Commentary on previous studies as a whole	52

Chapter 4: Methodology

4.1.Introduction	56
4.2.Study Design	56
4.3. the Study population	56
4.4. Sample size	56
4.5. Sample description	57
4.6. Data collection	59
4.7. The Study instruments	59
4.8.1. The reliability of SCL-90	60
4.8.2. The validity of SCL-90	61
4. 8. Statistical methods	71
4.9.Citation and referencing method	71
4.10. The study barriers	71

Chapter 5: The Results

5.1. The Results of first questions	72
5.1.1. The injury in the face region and the nature of the injury	72

5.1.2. The injury in the neck region and the nature of the injury	73
5.1.3. The injury in the chest region and the nature of the injury	73
5.1.4. The injury in the back region and the nature of the injury	74
5.1.5. The injury in the abdomen region and the nature of the injury	74
5.1.6. The injury in the pelvic region and the nature of the injury	75
5.1.7. The injury in the extremities region and the nature of the injury	75
5.1.8. The injury in multiple body parts and the nature of the injury	76
5.1.9. causes of the injury in terms of the type of weapon used	77
5.2. The results of second research question	78
5.3. The results related to the research hypothesizes	80
5.3.1. The results and interpretation related to the first hypothesis	80
5.3.2. The results and interpretation related to the second hypothesis	81
5.3.3. The results and interpretation related to the third hypothesis	82
5.3.4. The results and interpretation related to the fourth hypothesis	83
5.3.5. The results and interpretation related to the fifth hypothesis	85
5.3.6. The results and interpretation related to the sixth hypothesis	89
5.3.7. The results and interpretation related to the seventh hypothesis	91
5.3.8. The results and interpretation related to the eight hypothesis	95
Chapter 6: Discussion	
6.1. Discussion	98
Chapter 7 : Conclusions and Recommendation	
7.1. Conclusion Remarks	106
7.2. Recommendations	107
References	108
Annexes	115

List of Table

Table		Page
Table 4.1.	The demographic variables for members of the sample	58
Table 4.2.	The nine psychological dimensions of the SCL-90 tool and the number and orders of the phrases that express on each dimension	60
Table 4.3.	The correlation coefficients between the SCI-90 dimensions and the overall grade of the test	61
Table 4.4.	correlation coefficients between symptoms of the somatization dimension and the total degree of the dimension	62
Table 4.5.	correlation coefficients between symptoms of the obsessive compulsive dimension and the total degree of the dimension	63
Table 4.6.	correlation coefficients between symptoms of the interpersonal sensitivity dimension and the total degree of the dimension	64
Table 4.7.	correlation coefficients between symptoms of the depression dimension and the total degree of the dimension	65
Table 4.8.	correlation coefficients between symptoms of the anxiety dimension and the total degree of the dimension	66
Table 4.9.	correlation coefficients between symptoms of the hostility dimension and the total degree of the dimension .	67
Table 4.10.	correlation coefficients between symptoms of the phobic anxiety dimension and the total degree of the dimension	68
Table 4.11.	correlation coefficients between symptoms of the paranoid ideation dimension and the total degree of the dimension	69
Table 4.12.	correlation coefficients between symptoms of the psychoticism dimension and the total degree of the dimension	70
Table 5.13.	The number of the respondents who exposed to the face injury and the nature of the injury	72
Table 5.14.	The number of the respondents who exposed to the neck injury and the nature of the injury	73
Table		Page

Table 5.15	The number of the respondents who exposed to the chest injury and the nature of the injury	73
Table 5.16.	The number of the respondents who exposed to the back injury and the nature of the injury	74
Table 5.17.	The number of the respondents who exposed to the abdomen injury and the nature of the injury	74
Table 5.18.	The number of the respondents who expose List of Figures d to the pelvic injury and the nature of the injury	75
Table 5.19.	The number of the respondents who exposed to the extremities injury and the nature of the injury	75
Table 5.20.	The number of the respondents who exposed to more than one body region and the nature of the injury	76
Table 5.21.	The causes of the injury in terms of the type of weapon used	77
Table 5.22.	Arithmetic averages, Standard deviations and the Relative weight of the psychological symptoms of the injured individuals	78
Table 5.23.	Correlation coefficient (r) between the degrees of psychological symptoms and age of the injured Palestinians	80
Table 5.24.	t- Test results of comparing between the averages of male degrees and average of female degrees proportion to the psychological	81
Table 5.25.	One Way ANNOVA between the marital status of the injured individuals and the psychological symptoms	82
Table 5.26.	One Way ANNOVA Test Analysis between the educational levels of the injured Palestinians for the psychological symptoms	83
Table 5.27.	The results of LSD test for dimensional comparison in the psychological symptoms related to educational level	85
Table 5.28.	One Way ANNOVA test analysis between the type of work to the injured Palestinians in the psychological symptoms	86
Table 5.29.	The results of LSD test for dimensional comparison in the psychological symptoms related to type of occupation	88

Table		Page
Table 5. 30.	Correlation coefficient Factor (r) between the grades of psychological symptoms and the time of the injury	89
Table 5. 31.	The Results of the multi-linear regression analysis in the regression way between the psychological symptoms and the site of the injury	91
Table 5. 32.	One direction variance analysis between the nature of the injury to the injured individuals in the psychological symptoms	95

List of Figures

Figure		Page
Figure 5.1.	Descriptive information of respondents have a remaining fragments in the body, complete healing from the injury ,and still suffering pain after the injury	77
Figure 5. 2.	The degree of suffering of the respondents from the psychiatric symptoms	79

List of Abbreviations

Al- Aqsa Intifada	(AAI)
Acute Stress Disorder	(ASD)
Diagnostic and statistical Manual of Psychiatric Disorder	(DSM-IV)
Intensive Care Unit	(ICU)
Injury Severity Score	(ISS)
The Special Interest Group in Amputee Medicine	(SIGAM)
National referral program	(NRP)
Post Traumatic Stress Disorder	(PTSD)
Short Form	(SF)-36,
Secondary Fragments	(SF)
Sickness impact profile	(SIP)
Post Traumatic Stress Disorder	(PTSD)
Spinal cord injury	(SCI)
Support Of Families of Martyrs and injured Institution	(SFMII)
World Health Organization Disability Assessment Schedule II	(WHODAS II)

List of Annexes

Annexe-1 : Informed consent in Arabic

Annex-2 : Information related to the injured person in English Language

Annex-3 : Injury Description tool in English

Annex-4: SCI-90 Questionnaire in English language

Annex-5 : Information related to the injured person in Arabic

Annex-6: Injury Description tool in Arabic

Annex-7: SCI-90 Questionnaire in Arabic language

Annex -8: Official approval by the SFMIL.

Annex-9 : Palestine Map

Annex-10 Gaza Strip Map

Chapter (1)

INTRODUCTION

1.1. Background

Yearly many people are exposed to different form of extreme traumatic events . A traumatic event is a sudden incident that deviates from the realms of normal human experience, leading to a sense of horror and a feeling of powerlessness, and involving a significant threat to the victim's psychological or physical existence (American Psychiatric Association ,1995) . A traumatic events takes different forms including different types of physical injuries ,such as (war related injuries ,road traffic accidents ,falls, sport injuries), natural disasters (e.g., tornadoes, floods, and hurricanes), life-threatening illnesses and associated painful medical procedures (e.g., severe burns, cancer, and limb amputations), physical abuse, witnessing domestic or community violence, kidnapping, and it usually affect the young adult (Helen,1988 and caffo and Belaise ,2003).

Physical injury is one form of traumatic event that is widely extended world wide due to different causes including war events . It is founded that trauma is a leading cause of death and disability for all age groups except persons 60 years or older (World Health Organization ,2004) .

In our region the Israeli aggression against Palestinians is considered the main cause of physical injury among Palestinian people in Gaza Strip and West Bank especially among young adults (Palestinian Health Information Center,2006) .

Trauma is the Greek word that means "a wound" , "a damage" or "a defect" (Medicine.net Inc, 2005) . Physical trauma is defined as a body wound or shock produced by sudden physical injury, as from accident, injury, or impact. Physical trauma also is defined as a severe and perhaps life-threatening injury .The injury it self is defined as a damage or harm caused to the structure or function of the body caused by an out side agent or force, which may be physical or chemical (Wikipedia , 2002).

War related injuries are injuries that caused by war events. It is founded that war have significant consequences for the morbidity of many people around the world and it has disturbing effect on civilians health (Gartner , 1990) .A huge numbers of people suffer injuries and permanent disabilities as a result of war and other violence forms in many parts of the world (World Health Organization,1994). Impairments and disability resulting from the war events are usually a result of different types of physical injury include the following : orthopedic trauma (especially limbs including amputation), spinal cord injury, head injury ,eye injury, hearing damage, burn ,respiratory complications, psychological and emotional trauma (Rehabilitation International/UNICEF 1992).

Although many studies have proved that the physical injury has psychological and social impact but it is still a shortage in studies and evidence based researchers that have investigated the psychological impact of trauma experience.(Leon et al ,2006). Each one is acceptable to react psychologically after traumatic events such as war related injuries (Leon et al 2006) .Physical injury may cause severe mental and emotional disturbances to one's well being and the sudden nature of it may cause sudden change ,worry and both physical and psychological instability and insecurity (Deborah Langstaff,2000) .The short and long term outcome of trauma exposure range from complete recovery to severe psychological disturbances, and the severity of response can be over come with time passing (Ibor, 2005) . Distress, behavioral changes and some advance psychiatric disorders such as Acute stress disorder (ASD), Post Traumatic stress disorder (PTSD) and trauma related depression are common specific trauma –related psychiatric disorders (Ibor, 2005).

The perceiving and response to physical injury differ from one to another and depend on many factors including: the size and locations of the defect , congenital or required origin , the phase of one's life cycle when acquired (age), the function of the defect part, experience, severity of the injury, degree of life threat, the duration of individual and community disruption, , developmental stage , previous ability ,life style

achievements ,family status ,interests ,social support, individual's coping style self concepts and general responsibilities(Leon et al 2006;David et al and Ibor 2005).

The researchers founded that the higher the physical, mental or social achievement the person has reached pre morbidity, the greater the challenge in accepting the loss and more functional and psychological deficits (Helen ,1988 and Ibor, 2005).

In the early stage of recovery of permanent disability, the patient and the family may not accept the long term functional and psychological implication. Un resolved problems, unmet needs, unanswered questions contribute to develop long time denial that lead to anger, depression, and rejection of both individual potentials and therapeutic programs .The difference between what was and what is may result in fears, confusion, questions ,insecurity ,feelings of inadequacy or disequilibrium (Helen ,1988).

Understanding of post traumatic psychopathology is important because it may complicate the recovery from the physical injuries. (Sutherland et al , 2006).

Studying the psychological effect of the trauma and chronic illness are increasing day after day. In Palestine there are many researches that studied the political, social ,psychological and economical condition of Palestinian society. Some researchers studied the psychological trauma and violence impact on Palestinian children like Samir quota ,but there is rare researches that assessed the psychological effects of physical injury that resulted from Intifada physical trauma .

In this study mainly we will asses the psychological impact of the physical injuries resulting from the events of The second Intifada uprising as well as we will identify the factors that may increase the risk of developing psychological problems after the injury .

1.2. Justification of the study

1. From the beginning of Al Aqsa Intifada in 28/9/2000 to 31/12/2006 ,the number of killed Palestinian in both west Bank ,and Gaza Strip was 4315 individuals ,%93,1 of them were males and %77 of them aged above 19.In Gaza strip alone the number of injured Palestinians were 16215 individuals ,%88,9 of them aged above 19 years (Palestinian Statistical Center,2007).
2. In the past the studies focused mainly on the effect of major trauma on physical health out come and it showed that major trauma restricted the function and work productivity of traumatic patients (Melissa et al , 2003) . Studying the psychological effect of the trauma and chronic illness are increasing day after day, and more attention has been given to the psychosocial impact of physical injuries .
3. The difficult political and social conditions experienced by Palestinian people as a result of ongoing Israeli-Palestinian conflict are considered a rich source of research ,especially those relating to practices that lead to psychological pressures such as frequent violence and invasions ,injury and killing ,siege and complete closure of border ,unemployment and extreme poverty (Gouda , 2006).
4. In Palestine there are many studies related to the political, social ,psychological and economical condition of Palestinian society . Some researchers studied the psychological trauma and violence impact on Palestinian children like Samir qouta and El Sarraj ,but there is rare researches that assessed the psychological effects of physical injury resulting from the ongoing Palestinian- Israeli conflict.

1.3. Significance of the study

1. Understanding of the psychological aspect of physical injuries is essential to success of the intervention process including assessment, treatment and rehabilitation .
2. It is expected from this study to assist in focusing on psychological suffering of the injured Palestinians that will help in introducing the required psychological support which will reduce the psychological pain and suffering of the physical injury .
3. It is expected from this study to increase knowledge in the field of psychological sequels of physical injury , and to be as a source for information to conduct additional studies in this field .
4. According our knowledge , this study is considered the first study in Gaza Strip that asses the psychological impact of physical injury resulting from the events of the Al-Aqsa Intifada among injured Palestinian adults .

1.4. The study objectives

1.4.1. General Objectives

The main purpose of this study is to assess the psychological impact of physical injuries that resulted from Al-Aqsa Intifada events among injured Palestinian adults, and to determine the variables that may increase the risk of developing psychological problems after the physical injury .

1.4.2. Specific Objectives

1. To examine the demographic variables that may increase the risk of developing psychological problems after physical injuries such as age and gender .
2. To examine the socio- economic variables that may increase the risk of developing psychological problems after physical injuries such as marital status, educational level and occupation.
3. To examine the injury characteristics factors that may increase the risk of developing psychological problems after physical injuries such as site , and nature of the injury .
4. To examine the factor of time since injury that may increase the risk of developing psychological problems after physical injuries.
5. Through out our study we will recognize on different physical injuries that resulted from events of Al Aqsa intifada .

1.5. Research Questions

1.5.1. Main Questions

1. What are the characteristics of Al Aqsa intifada physical injury ?
2. What is the psychological impact of the physical injury resulting from AL-Aqsa Intifada events on injured Palestinian adults?

1.5.2. Sub Questions

1. Is there a statistical significant differences in the psychological symptoms among injured Palestinians adults related to age variable?
2. Is there a statistical significant differences in the psychological symptoms among injured Palestinians adults related to gender variable(male and female) ?
3. Is there a statistical significant differences in the psychological symptoms among injured Palestinians adults related to marital status variable ?
4. Is there a statistical significant differences in the psychological symptoms among injured Palestinians adults related to educational level variable ?
5. Is there a statistical significant differences in the psychological symptoms among injured Palestinians adults related to occupation ?
6. Is there a statistical differences in the psychological symptoms among injured Palestinians adults related to time of the injury variable ?
7. Is there a statistical significant differences in the psychological symptoms among injured Palestinians adults related to the site of the injury variable ?
8. Is there a statistical significant differences in the psychological symptoms among injured Palestinians adults related to nature of the injury

1.6. The Study Hypotheses

1. There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to age variable.
2. There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to gender variable (male and female) .
3. There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to marital status variable .
4. There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to educational level variable .
5. There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to occupation .
6. There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to time of the injury variable .
7. There is statistical significant effect in the independent variables of the site of the injury that includes (the face region, the neck region, the chest region, the back region, the abdomen region ,the pelvic region ,the extremities region and in multiple body parts) on the dependent variables (nine psychological symptoms).
8. There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to nature of the injury .

1.7. Operational Definitions of the Study Terms

1.7.1. The psychological impact

The researcher adapted the psychiatric criteria for the psychological impact where it will be assessed as the following : anxiety , depression, phobic anxiety , somatization , obsessive compulsive , interpersonal sensitivity , hostility , paranoid ideation and psychoticsm.

1.7.2. Al Aqsa intifada Physical injury

It is the injury that resulting from Israeli aggression on Palestinian people through out the AL Aqsa Intifada events and that affects one or more body regions including (face ,neck, chest, back, abdomen, limbs ,pelvis, or multiple body parts) and lead to different damage and harms. We excluded brain injuries from the study .

1.8. The Study Context

1.8.1 Gaza Strip

Gaza Strip is a coastal strip of land along the Mediterranean sea, bordering Egypt on the south-west and the occupied Palestinian territories on the north and east. It is about 41 kilometers long, and between 6 and 12 kilometers wide, with a total area of square kilometer. The territory takes its name from Gaza, its main city. Gaza Strip consists of five provinces, namely northern Gaza, Gaza, Deir el-Balah, Khan Yunis and Rafah. The refugees in Gaza Strip live in eight camps which are the Beach camp, Jabaliya refugee camp, Rafah camp, Khan Younis camp, Bureij camp, Nuseirat camp, El-Maghazi camp and Deir El-Balah camp (alquds, 2008). It has about 1.4 million (PSC, 2007). In 1967 Israel military occupied Gaza Strip and the West Bank. The first Palestinian uprising broke out in Gaza in December 1987, when an Israeli truck crashed into cars at the crossing of Beit Hanoun (Erez) and killed four Palestinian workers. Under the Oslo Accords formed the Palestinian National Authority in Gaza, in addition to the city of Jericho in the West Bank in 1994. On 28/9/2000 the second Palestinian uprising broke out (Al-Aqsa Intifada) as a result of the failure of the Palestinian-Israeli negotiations and a visit by Sharon to the Al-Aqsa Mosque, which led to the deterioration of all aspects of life in the occupied Palestinian territories including the Gaza Strip (Haim Gordon et al, 2003).

1.8.2. Support of Families of Martyrs and Injured Individuals Institution

the Support of Families of Martyrs and Injured Individuals Institution (SFMII) : It is from Palestinian national authority institutions. It is introduced different services such as financial, social, educational and health services for Palestinian people and their families who were injured or killed as a result of Israeli aggression. The institution work through out the different branches in the Arabic countries such as (Jordan, Lebanon, Syria, Iraq), and through out its branches in both the West Bank and Gaza Strip.

1.9. limitation of the study

The present study limits in the studying the psychological impact of the second intifada physical injury ,and in the factors that may increase the risk of developing psychological problems after the injury include age, marital status, educational level, occupation ,time since the injury ,site of the injury and the nature of the injury .We uses the descriptive analytical study design to asses the psychological impact of the physical injury. Also our study is limited with a random sample of 300 injured Palestinians aged 18 or older who were injured through out the second intifada uprising between the period 2005 and 2008 and who were registered in Support of Families of the Martyrs and Injured Institution (SFMII). And it is limited in the instruments of the study including SCL-90 scale to measure the psychological symptoms and injury description tools to describe the injury characteristics , and in the statistical tools and measures including Descriptive Statistics, Correlation Coefficient "Pearson", T-Test, One Way ANNOVA , multiple regression and the medians .

Chapter (2)

CONCEPTUAL FRAME WORK

2.1. Introduction

This chapter focus mainly on the physical injury ; its causes ,types and trauma care including rehabilitation , and its psychological consequences and also we will discuss the physical injury in the Palestinian society that resulting from continuous Israeli violence against Palestinians mainly through out (AAI).

2.2. Physical injury characteristics

There are some characteristics that distinguishes traumatic injury about other medical conditions and diseases .Trauma is the diseases of young adult and it affect male mainly. It is founded that the average age of injured patients is 16 to 44 years old .Traumatic injury occurs suddenly and un expectedly .The cope with trauma must be immediately and emergently and thee is no time for planning and preparing .Early complications and deterioration during hospitalization may occur as a result of severity and complexity of the injury .It is difficult to implement a standard methods of treatment as result of existence of multiple injuries that affect several body parts. Psychological problems are common after traumatic injury such as post traumatic stress syndrome ,anxiety and depression .Most of injured patients require long term rehabilitation .Treatment and rehabilitation after traumatic injury may need high cost. (Virginia et al ,1993) .

2.3. Types of physical injury

Injury can be classified into three basic types including, penetrating, blunt ,or thermal injuries .Penetrating injuries occur when the injured object come s in contact with and pierces the skin causing damage to underlying tissues. The amount of injury that occurs depends on the size and velocity of the penetrating object entering the body.

Blunt injuries are considered the most common types of trauma and the most difficult to diagnose because there are not always obvious external indicators with penetrating and thermal injuries .Thermal injury caused by heat or cold and it may occur in conjunction with other injuries (Susan Budassi et al ,1994).

Gun Shot and blast and explosive injuries are examples about the penetrating war related injuries and it is considered the main causes of physical injuries among Palestinian peoples in the second intifada events (PHIC,2006). Gunshot injuries is considered one of the most common penetrating missile injuries. The damage , severity and extent of the wound resulted from gun shot injuries depend on the weapons characteristics such as composition and weight of the bullet ,size of the caliber, velocity of the missile and from what the distance the victim was shot.Greater caliber and greater the velocity more damaged occurred (Susan Budassi et al , 1994).

Blast and explosion can cause injury through out the following :

- **Blast wave :** Blast wave is a front of overpressure formed by the compression of air at the interface of the rapidly expanding sphere of the hot gases. The injury is produced by initial body compression that lead to contusion of underlying organs followed then by disruption of tissues at air/tissues interfaces mainly in the lung .Lung injury and rupture of ear drum is two familiar example resulting from blast wave .

- **Blast winds** : (blast winds are the rapidly moving air followed the blast wave).It can disintegrate and dismember any one close to the site of the explosions .The wind also may throw the person against solid objects causing impact fractures or deceleration injurious. Debris of glass, stones carried in the wind may produce fragmentation missile injuries .
- **Fragmentation missiles** : The missiles may arise primary from the bomb itself including parts of the bomb casing ,nails, nuts and bolts packed around the explosive or it may arise secondary from the environment stones ,glass and wood. Missiles injury may affect multiple body parts and patients may not be aware of all their injuries .
- **Flash burn** : The burns that resulting from explosions usually is superficial and of exposed skin .Smoke inhalation with upper airway involvement also it can occur and should be considered .
- **Crush injuries** : explosions may cause crush injury by collapse the building on the people inside .
- **Psychological injuries** : Short term panic and fear and long term post traumatic disorder are often occurred after explosions (David Skinner et al ,1996).

2.4. Mechanism of physical injury

Understanding the mechanism of injuries is essential to determine the nature and severity of the injury , prepare the trauma team and the required facilities before the injured patient's arrival to the hospital , assists in identifying population at risk for particular types of injury , and in raising awareness for prevention. The mechanism of injury depends on the type of injury it self ,for example in explosion and blast injuries understanding the mechanism of injury required information related to power of blast, distance the victim was from the blast, distance the victim was thrown, what the victim landed on, environmental conditions at the time of injury (extreme hot or cold, smoke) and type of agent .Also knowing Newton law of motions and basic laws of kinetic energy is very necessary to understand the mechanism of the injury.(Susan Budassi et al ,1994).

2.5. Injury care (Assessment and management).

An assessment and management of the injured patients usually performed through out primary and secondary assessment and management .

1. Primary assessment and management

The main objective of the primary assessment is to hunt out and treat any immediately life threatening injuries. It is known as resuscitations phase, and it include air way ,breathing and circulation ABC management (David Skinner 1996).

- **Airway management** objectives are to clear the obstruction and to keep air way patent .Protection of cervical spine by keeping the neck in a neutral position is very important if there is suspicion of injury above the clavicles (WHO,2004).
- **Breathing management** is very important to keep adequate ventilation and to avoid immediately life threatening thoracic conditions such as massive haemothorax and air way obstructions.
- **Circulation management** aimed mainly to control ,correct and prevent shock. control of external hemorrhage can be performed by applying manual pressure and different types of pressure dressing. Signs of shock include increase respiratory rate, heart rate, capillary refill time and decrease in blood pressure, pulse pressure ,urinary output and conscious level .Rapid assessment of (CNS) function also is very important to detect only gross neurological damage ,and it is made by assessing the papillary reflexes ,asking the patient to "put out your tongue", "wiggle your toes", and "squeezes my fingers" . Removing the clothes to check under the patient and cover him/her with blanket and keeping the resuscitation room warm is important to avoid patient's to be cold (David Skinner 1996 and Virginia et al ,1993).

2. Secondary assessment and management

The objectives of secondary assessment are to examine the patient from head to toe and from front to back ,take a complete medical history (Allergies, medications, past medical history ,last meal and event leading to injury and the environment),make the required laboratory and radiological investigations, and formulate management plan for the patient and treat the presenting injuries for example amputation and burns (David Skinner 1996).

2.6. Emotional response to physical injury

In most individuals who has physical injury resulting in body change and function loss ,the emotional response can be seen as composed of five stages; shock, denial, depressive reaction ,reaction against independence and adaptation.

- **Shock** : it is an immediate response to trauma , a sense of shock ,numbness and lack of ability to realize or determine the magnitude or severity of the injury. The shock may last for several hours or prolonged much longer .
- **Denial** : denial is adaptive and protective initial reaction to the individuals who have sudden onset of severe physical disability .It may last from a few days to two or three months .It is essential reaction because most individuals can't realize that they will remain permanent disable as they are at the moment. Also denial delays the depression response until recognizing the extent of the problem .Maladaptive denial can be seen in different forms such as patient insistence on walking when such hopes are impossible or the persistence of dreams of a lost limb or function still being present .
- **Depressive reaction** : depression is manifested when there is a sense of helplessness and self esteem can't be maintained .It is founded that the factors which contribute in developing of depressive illness after physical trauma include the following ;the patient's emotional history ,a family history of depression ,a history of depressive illness ,predisposition toward depression such as a history of childhood trauma and early parent loss.
- **Reaction against independence** :reaction against independence occurs when the patients achieve some independency in rehabilitation efforts and self care .Separation ,independency and autonomy are so new among late adolescents and young adults patients that any regression to a dependent is threatening. But for patients with long standing conflicts of dependent versus independent they tend to ward dependence in the need for physical nursing care.
- **Adaptation** : It is founded that in most patients without significant psychopathology before exposed to trauma ,they adapt with their problem but time to time there will be expected anger, depressive or frustration (David , 1984) .

2.7. Psychological response of traumatic patients throughout trauma cycle

Trauma cycles : it can be defined as the stages that the traumatic patients may pass in it from the time of injury to journey back to health and it can be divided into the following (resuscitation cycle, critical care cycle, intermediate care, rehabilitation care, and community integration) . Throughout trauma cycle the injured individual experiences a variety of psychological reactions as the following:

- **Resuscitation cycle** : in which the patient feels extreme fear of death and anxiety and he/she is in a state of psychological shock in which the patient demonstrates a sense of numbness with tunneling of awareness ,impaired memory and disorientation .The patient try to cope with stressors by agitation, verbal or physical hostility, and emotional withdraw .He /she is confused, behaves randomly and feels loss of control .To decrease fear and anxiety level it is useful to support the patient and provide him with information regarding him/her self ,environment, what was happened and is happening .
- **Critical care cycle and immediately after resuscitation**: the patients shifts from a major fear of death and life loss to increasing concerns about Pain, alteration of body and significant losses .A mental image of the body and sense of personal identity reflect the conception of one's about him self that his/her body is intact in both form and function through out social interaction with others in the environment . Also during critical cycle of trauma traumatic patients feel grief and anger which reflects it in both verbalization and behavior result from loss of control on the body ,environment, depending on others and inability to change what was happened. Some traumatic injuries such as facial trauma and some medical instruments and procedures such as in tubes and tracheotomies may impair the traumatic patient to express about his needs and feelings through verbal communications (Virginia et al,1993) .

- **Intermediate cycle of trauma** : in which the patient becomes better physically and he/she is more oriented to the disability and the physical body alterations .The grieve and anger continue .the patient may express verbal and physical hostility and he /she blames the medical staffs about his problem and focus anger on them . Depression may arise in this phase as a result of anger and hope loss about the future and it is reflects in the patient's mood and affect (physical appearance deteriorates, little attention to personal hygiene , stooped posture ,and sadness, apathy , and withdrawn ,diminished in appetite ,fatigue and change in sleep pattern, liable mood ,self criticism and negativity) .Pathological depression characterized by the severity and continuity of symptoms and the person's loss of contact with his present reality .
- **Rehabilitation cycle of trauma** ,the traumatic patient starts to accept gradually his disability and new body image and he/she tries to modify new body movements to compensate those that have been lost. More responsibility is given to the patient and his family and the patient starts to return to community . Frustration and depression may be resulted if the patient fail to control over the changes as a result of community view ,family isolation and others such as pain, and immobility (Virginia et al ,1993).

2.8. The importance of understanding the psychological response for the injury in the rehabilitation process

In physical injuries that need intervention ,the emotional rehabilitation is as important as physical rehabilitation. It is founded that the facilitating or impeding of physical rehabilitation of physical problem is affect by the psychological and emotional response to trauma (David, 1984)

In the past the rehabilitation process was viewed from the physical side only and the main goal of it was to restore physical ability and compensating for and adapting to physical disability and to return to work (Ramsay and Noorbergen , 1981).Recently more attention is directed toward the need to comprehensive rehabilitation including physical, cognitive and psychological rehabilitation (Virginia et al ,1993). Successful rehabilitation requires learning the injured individuals to adapt both physically and psychologically, and the type of rehabilitation services is related to the degree of deficits resulting from the injury(Bromely, 2002) .

It is difficult to determine the rehabilitation potential and final outcome after major trauma but there are factors that help in determination of patient's potential include physical (such as the ability of human organism to adapt or adjust physiologically to the injury), cognitive (such as patient's affinity to learning, ability to process and understand information, ability to make appropriate judgments and decisions) and psychological functioning (including coping abilities, outside stressors, personal ability ,family support and relationships) , other factors include patient's age, length of time since injury and resources availability (Virginia et al ,1993).

2.8.1. Traumatic patients can receive rehabilitation services in one or more of the following settings:

The factors that play an important role in selection of suitable setting for rehabilitation of traumatic people include: patient's medical stability, patient's needs and program goals, funding issues, type of services ,functional ability and psychosocial considerations (David ,1984).

- **In-patient rehabilitation :** in which patients receive a comprehensive rehabilitation services in the hospitals for the bulk of day (Bromely , 2002).
- **Outpatient rehabilitation :** it is provided when the patient requires less medical care and he\she is functionally independent to live in another setting but still need rehabilitation (Bromely , 2002).
- **Home-Based rehabilitation :**in which the patient lives and participates in the program at home .It requires effective participation of the patient and the family and it benefits when in patient and out patient rehabilitation programs are difficult.

2.9. Coping with physical trauma

Although each one response to stressors events such as physical trauma is unique some aspects are common to most patients . In the following part we will discuss the common traumatic patients coping responses during trauma. Empirical studies recommended that an individual's coping style and level of social support are significant variables in the outcome of traumatic events (Deborah et al,2000).

Coping is defined as the behaviors and process that uses to tolerate, master , or control the numerous threatening, demanding and harmful stressors (Virginia et al ,1993).The individual manages like these demanding stressors such as physical injuries by using previous coping strategies which were effective and successful in the past ,which may be intended or subconscious ,or by getting new coping mechanisms(Deborah et al , 2000).

Coping process is guided by internal and external factors . Internal factors include preferred coping style and personality factors such as negativity ,hardiness, optimism and control . External factors include time, presence of other life stressors ,social support and money . It is founded that some personality resources augment the experience of stress, where as others reduce it .Many research investigations have founded that personality characters such as an optimistic and hardness relate to good physical and mental health and help in effective coping to stressful events including traumatic events . Hardiness is a sense of commitment (the tendency to involve one self in what ever one encounters),belief in control (the sense that one causes the events that happen and that one can influence one's environment) and the challenge (a willingness to undertake change and confront new activities that represent opportunities to growth) (Shelly Taylor , 1995). Persons who have high negative affective personality express distress, discomfort and dissatisfaction across a wide range of situations.(Brett et al , 1990 ; Watson and Clark, 1984).

Coping style is a general tendency to deal with stressful events in a particular way for example by avoidance, confrontation or catharsis .Each coping styles have it's advantages and liabilities depending in the situations in which it is used . For example vigilant coping style is more successful than avoidance if one can focus on the information (such as sensory details) present in the situations ,rather than on one's emotions whereas avoidant coping style is more effective with short term threats but not with persists or repeated threats because of possibility of inability to deal with future threat (Shelly Taylor , 1995) .

To assist the traumatic patients to cope well it is important to gradually confront them with their problems , supply them with required information about their conditions and treatment procedures ,give the patients the chance and time to express about their feelings ,promote problem solving ,encourage and support them to be independence as can as possible , provide verbal and non verbal support and encourage and assist both the family and the friends for social support (Virginia et al , 1996) .

2.10. Religion ,Coping and Well being

Religion promotes psychological well being .Individuals with strong religion faith report greater personal happiness, greater satisfaction ,and fewer negative consequences of traumatic life events in comparison with those not involved informal religion (Ellison ,1991) .

Many individuals report that religion is helpful to them when they must cope with stressor event (Freidman et al, 1963 ; Palmer & Nobel, 1986). Many studies suggest that an active religious commitment is helpful in preventing mental and physical illness, improving recovery and enhancing the ability to cope with illness (Hassed,1999), Religion may help people cope with stress , act as an analgesic to reduce physical and mental pain, protect against depression and suicide , and it may promote health by adding social or psychological support (or both) to people's lives, by providing a perspective on stress that reduces its negative impact, or by encouraging people to avoid risky behaviors, such as alcohol addiction (Larson and Koenig ,2000).

Religion and spirituality may also be beneficial in medical rehabilitation and in the lives of persons with disabilities (Underwood-Gordon et al ,1997). Religion and spirituality can improve the quality of life by enhancing a patient's subjective well-being through social support and stress and coping strategies (Daaleman and VandeCreek , 2000).

Islam religion means peace and submission to the will of God (Allah). Muslims believe in one God (Allah) and the last Messenger, Mohammed (salla-Allah - alayhi wa sallam) .They also believe in all the other prophets from Adam to Jesus, all the revealed books, the angels and the last day. When the Muslim afflicted with a sickness or injury ,the feeling of panic decrease or removed because his belief in the mercy of God, his faith in destiny and his faith enjoining forbearance and patience, all these elements give him strength to stand fast and endure his ordeal. However, he is supposed to seek treatment in response to the Prophet's Mohammed (salla-Allah - alayhi wa sallam) order, by accepting the Prophet's Mohammed (salla-Allah – alayhi- wa sallam) statement that there is a cure to every disease, the Muslim patient builds up a strong hopeful attitude that helps him resist the disease ,pain and injury and overcome it (Shahid Athar , 2003) .

2.11. The Israeli violence against Palestinians

From more than a half of century Palestinians exposed to different forms of violence resulting from ongoing Israeli Palestinian conflict .Israeli aggression is considered the main traumatic event in Palestinians life and it affects all Palestinian life domains including social, health ,economical ,psychological and others .The violence took different forms such as (forced migration, home demolition, exaction of Palestinian land , kill and injuries , torture , widespread arrests , extreme siege and closure of borders, invasions and bombardments and others).We don't aggrandize when we say most of Palestinian people in Palestinian territories and at different age groups witnessed or hear or experienced the violence resulting from Israeli occupation and aggression .

2.11.1 The Palestinian Al-Aqsa Intifada

The Palestinian Al-Aqsa Intifada(The Second Intifada) is considered as a phase of the phases of uprising that Palestinian people passed it through out Israeli Palestinian conflict and they used it to express about their rejection to the Israeli occupation and aggression . Al-Aqsa Intifada defines as the Palestinian uprising which was exploded in 28, September 2000 by provocative visit of Ariel Sharon to Al-Aqsa mosque in Jerusalem(the Islamic third most holy mosque) .Through out the second intifada Palestinians in both Gaza Strip and West Bank were exposed to different forms of violence such as killing, injuries, hurts, home demolitions, widespread arrests , complete siege and border closure with the surroundings. Israel used different military means and very developed ,strong weapons against the Palestinian civilians such as (heavily armored equipment as the Merkava tank and various military aircraft including F-16s , drone aircraft and helicopter gun ships and very developed and extreme explosive missiles and bombs) which lead to kill and injured a big number of Palestinians (Haim Gordon et al , 2003).

From the beginning of the Al Aqsa Intifada in 28/9/2000 to 31/12/2006 the number of killed Palestinian in both West Bank and Gaza strip was 4315 individuals, %93,1 was males and %77 of them aged above 19 years .In Gaza strip the number of Palestinian injured were 16215 ,%88,9 of them were males , and %52,8 of them aged above 19 years.

The site of injury was distributed as the following : head and neck %15,8 , chest %6,2 , abdomen and pelvic % 4,6, upper limbs %12,1 , lower limbs %27,1 , multiple body parts % 10,1, hit %,2 , wounds % 0,2 , comatose % 0,3 , falling %2,5 , others % 9,9 and nervous breakdowns %3,0.(PHIC , 2007 and PSC ,2007). Eight years since the start of the Al-Aqsa Intifada, Israel has killed 5,389 Palestinians in the West Bank, Gaza and East Jerusalem , 194 were women and 995 children . 32,270 Palestinians were injured over the last eight years, and 3,530 of those injured have suffered permanent handicaps, and at least 220 Palestinians have died waiting for treatment abroad (Press. T.V. , 2008).

The bad political conditions and continuous Israeli aggression during the second intifada affect most life aspects of Palestinian people .It is founded that in Palestinian community men experience more traumatic event than women, whereas exposure is associated with more severe psychiatric disorders among women . (Qouta et al,2003).

In one report of Palestinian ministry of health showed that the most injuries resulting from (AAI) events that reached to the hospitals and need surgical procedures was resulting from severe explosive fragments resulting in amputated and sever burn of the limbs extended to many body parts .The fragments caused small opens inside the body of injured person and spread inside it causing abandonment and burned of organs of digestive system such as spleen , intestine , stomach and liver . The burns resulting from fragments causing severe distortion. Explosive fragments contain some poisoning ,dangerous and radiance materials that lead to internal tearing and burns. Theses injury increase the length of stay in the hospitals and increase the demand on continuous follow up and rehabilitations and it affects the future of the injured individuals as a result of its complexity and severity (PHIC, 2006) . Palestinian doctors showed that Israel has used experimental heavy metal and chemical weapons against the people in Gaza . Doctors had appealed for help in identifying the cause of these strange injuries that were small, often invisible to X-rays . In many cases, doctors found that their patients, after initially appearing to recover, suddenly died after one or two days. Most of the deaths and injuries were caused by Israeli drones, unmanned light planes that dropped weapons using precise remote-controlled devices against pre-established targets (Jean , 2006) .

2.11.2 Israeli occupation and Palestinians psychological health

The continuous violence and oppression against Palestinians in the occupied Palestinian territories lead to increase the prevalence of psychological trauma among them in general and there is an increase in the number of psychological traumatic patients followed by community mental health centers by 38.2% in comparison to year 2000 (MOH, 2004). Many psychological studies report that individuals subjected to traumatic events associated with military and political conflict experience dire psychological consequences . (Baker and Shalhoub-Kevorkian ,1999).

Many studies in psychology and mental health proved that the psychological health affects in the different conditions and situations and the pressures accompanied with it that the human exposed and passed it in his life in all life aspects such as social, psychological, political, health and others , subsequently the violence resulting from Israeli aggression comprises a dangerous on the psychological status of Palestinian people because it causes pressures on all Palestinian life aspects(Alean al- Krenawi et al , 2004) . The continuous Israeli aggression aimed mainly to destroy the Palestinian people conation ,and to make them live in fear, anxiety and ,depression and frustration to overcome on their resistance and to constrain them on surrender on his lands and rights .

Occupation resistance is considered the main way to achieve self esteem and confidence and to overcome on the fear, and frustration and to get freedom and peaceful. It was founded that the Palestinian mental health was affected in the following factors : mainly the situation and behaviors of the Palestinians against Israeli occupation, personal factor, in addition to another factors such as the religious factor, economical condition, social support, family relationship , and level of consciousness. The positive reinforcement of these factors contributes in improvement of Palestinian mental health and decrease of the negative psychological impact that might result from continuous Israeli aggression against Palestinian people (El Taweel , 2005).

Chapter (3)

LITERATURE REVIEW

3.1.Introduction

This chapter of our study contains on previous studies which can be classified into three main parts include the following :

- **Firstly** : The previous studies that discusses the psychological impact of exposure to traumatic events including war related violence .
- **Secondly** : The previous studies that discusses the psychological impact of exposure to different types of physical trauma such as(traffic related injuries, musculoskeletal injuries, spinal cord injuries ,amputation, and burns),and the possible factors that may affect the psychological response of exposure to physical trauma .
- **Thirdly** : The previous studies that discusses the psychological impact of exposure to violence resulting from the Israeli-Palestinian conflict on Palestinian people .

3.2. Firstly :Previous studies related to the psychological impact of exposure to traumatic events including war related violence.

Shalev et al (2006), made a study aimed to evaluate the psychological responses to continuous terror .They collected data after 10 months of escalating hostilities against civilians in Israel .The participants were randomly selected adults living in Jerusalem, one frequently and directly exposed to acts of terrorism (N=167) and the other indirectly exposed (N=89).The measurement tools was Brief Symptom Inventory. The results indicated that residents of the directly exposed community reported more frequent exposure to terror and deeper disruption of daily living. Even though , the directly and indirectly exposed groups reported comparable rates of PTSD and similar levels of symptoms: 26.95% of the directly exposed group and 21.35% of the indirectly exposed group met DSM-IV PTSD symptom criteria (criteria B through D), and about one-third of those with PTSD symptoms reported significant distress and dysfunction. Exposure and disruption of daily living contributed to PTSD symptoms in the directly exposed group. Disruption of daily routines contributed to Brief Symptom Inventory scores in both groups. From theses results the researchers concluded that continuous terror created similar distress in proximal and remote communities. Exposure to discrete events was not a necessary mediator of terror threat.. Disruption of daily routines was a major secondary stressor.

Lincoln et al (2006), made a study aimed to report the exposures, clinical status, and utilization of 53 combat veterans who participated in the National Referral Program (NRP) from January 2002 until March 2004. Participants were primarily male (81%) and served in the Persian Gulf War (79%). Common diagnoses were chronic fatigue syndrome (n = 23, 43%), neurotic depression (n = 21, 40%), and post-traumatic stress disorder (n = 20, 38%). Self-reported exposures related to weaponry, disease prophylaxis, environmental hazards, stress, and poor hygiene. A small increase in mean SF-36V mental component scores (2.8 points, p = 0.009) and use of rehabilitation therapies (1.6 additional visits, p = 0.018) followed the NRP referral. The small improvement in mental function suggests that the NRP may benefit combat veterans with long and complex medical histories.

Quota and Sarraj (2004), studied the prevalence of PTSD, and other psychological problems among 944 Palestinian children aged ranged between 10-19 years ,and living under severe conditions in Gaza strip during the last two and half years of the El Aqsa Intifada (half o 2001 to 2004) .The group excluded those with previous mental health problems .The researches used in this study was trauma scale, PTSD scale, the child posttraumatic stress index ,the children's PTSD symptoms.The results showed that 32.7% of the children started to develop acute PTSD symptoms that need psychological intervention and 49.2% suffered from moderate level of PTSD symptoms. Also the results indicated that the most prevalent types of trauma exposure for children are for those who had witnesses funerals(94.6%),witnessed shooting (83.2%),saw injured or dead who were not relatives (66.9%) and saw family members injured or killed (61.6%).

De Jong et al (2001), made a study aimed to determine the prevalence rates , and risk factors of posttraumatic stress disorder (PTSD) in four post conflict and low-income countries. Epidemiological survey conducted between 1997 and 1999 among war survivors or mass violence aged 16 years and above who were randomly selected from community populations Algeria (n=653),Cambodia(n=610),Ethiopia (n=1200),and Gaza(n=585) .PTSD module of the composite International Diagnostic Interview version 2.1 and an adapted version of the Life Events and Social history Questionnaire were used as assessment tools . The results showed that the prevalence rate of assessed PTSD was 37.4% in algerria,28.4% in Cambodia ,15.8%in Ethiopia ,and 17.8%in Gaza . Also the results indicated that conflict related trauma after age 12 years was the only risk factor for PTSD that was present in all 4 countries .Torture was a risk factor in all samples except Cambodia. Psychiatric history and current illness were risk factors in Cambodia and Ethiopia .Poor quality of camp was associated with PTSD in both Algeria and in Gaza ,and death or separation in the family ,youth domestic stress ,and alcohol abuse in parent were associated with PTSD in Cambodia . By using the assessment methods a wide range of PTSD symptoms found among 4 low-income populations who have experienced war conflict.

Amy et al (1999), made a study to assess the relationship between war related trauma and symptoms of post traumatic stress disorder among adult Kosovar Refugees. They conducted a caseworker-assisted survey of 129 Kosovar refugees (aged 18 to 79 years, 55% male). Of these individuals, 78 (60.5%) showed the likely presence of PTSD. The mean number of war-related traumatic events reported was 15 ($SD = 4.5$). Higher PTSD scores were associated with more traumatic events and female gender.

Amir and Sol (1999), made a study aimed to study the prevalence of exposure and the psychological impact of traumatic events in 983 Israeli university students, and to examine the psychological effects of exposure to single versus multiple traumatic events, and the effects of trauma-related physical injury. 67% of the respondents reported having been exposed to at least one traumatic event. Of those exposed, 6% were diagnosed as having posttraumatic stress disorder (PTSD). Men were more at risk for exposure, but women were more at risk for PTSD. Women and the physically injured showed more psychological distress following exposure.

3.2.1. Commentary on previous studies related to the psychological impact of exposure to traumatic events including war related violence.

Many studies proved that the exposure to different forms of traumatic events such as physical injuries and violence resulting from war events affect the psychological state of the exposed individuals. Level of stress increase among those live in ongoing conflict area as a result of feeling of possible life loss. A wide range of psychological disorders can be developed after traumatic events such as physical injury (Deborah et al, 2000). Through studying and analysis of previous studies that dealt with the psychological impact of exposure to traumatic events including war violence we founded that De Jong, 2003, Amir, 1999, Shalev, 2006, Hobfoll, 2003, Amy 1999 and Lincoln 2006 agreed in the results of their studies that experience of different form of war violence was associated with different rates of psychological problems and disorders including (post traumatic stress disorder, anxiety and depressive symptoms). Also they founded that men were more at risk for exposure but women were more at risk for psychological distress and symptoms.

3.3. Secondly : Previous studies related to the psychological impact of exposure to different types of physical injuries

3.3.1. Introduction

Physical injuries is considered one form of traumatic events that the human may experience it in his/her life .The following studies discuss the different psychological sequels that may resulted from exposure to different types of physical injuries including (musculoskeletal injuries, ,spinal cord injuries, amputations and severe burn injuries). The studies also will discuss the possible participating factors that may affect one's perceiving and psychological response of exposure to physical injury such as (gender ,age, personality factor, injury characteristics and degree of functional limitation).

James et al (2007), made a prospective cohort study aimed to asses the psychological distress among survivors with major burn injury . They used Brief Symptom Inventory (BSI) to assess symptoms in-hospital ($n = 1232$) and at 6 ($n = 790$), 12 ($n = 645$), and 24 ($n = 433$) months post burn. The results show that there is significant in-hospital psychological distress occurred in 34% of the patients, and clinically significant and reliable change in symptom severity by follow-up visits occurred infrequently. Principal components analysis of in-hospital distress symptoms demonstrated "alienation" and "anxiety" factors that robustly predicted distress at 6, 12, and 24 months. The researchers founded that clinically significant in-hospital psychological distress was common and tends to persist.

Sheffy et al (2006) , made study aimed mainly to compare terror-related injuries caused by secondary fragments from explosive devices with terror-related penetrating injuries caused by gunshot wounds. A case-comparison study conducted in a tertiary university hospital and the only Level I trauma center in the Jerusalem. The study included 533 patients who were admitted for hospitalization. Data were collected from trauma registry records. Gunshot-wound victims were mostly men, aged 19 to 30, and SF victims were more evenly distributed between the genders and across the age spectrum. Injury Severity Score (ISS) was considerably higher in SF victims, although critical mortality rates were higher in gunshot-wound victims. More than 40% of SF victims were injured in three or more body regions, as opposed to < 10% in gunshot-wound victims. Use of imaging modalities and intensive care units was considerably higher for SF victims. Terror victims suffering from SF wounds have more complex, widespread, and severe injuries than victims suffering from gunshot wounds. They tend to involve multiple body regions and use more in-hospital resources.

Kapidzić Duraković et al (2006), made a study aimed to investigate the relations of physical trauma and psychological changes at persons with lower extremities amputations (LEA) and determined factors which influence those changes. 37 persons with (LEA) were examined. The sample included 26 veterans and 11 civilians with diseases related amputations. They voluntarily filled Check List of Symptoms SCL-90-r . 37 persons with lower extremities amputations and average chronological age 46.2 +/- 10.92 years were analyzed. 30 of them were married, 4 were not married and 3 were widowers. Considering level of amputation 27 of them had amputation below knee, 5 of them amputation above knee and 5 of them foot amputation. SCL-90-r in both groups determined high level of sensitivity, anxiety, hostility and paranoia. Veterans showed higher level of paranoia comparing to civilians , and younger veterans and married ones had higher level of paranoia comparing to other veterans . Persons with amputations below and above knee showed higher level of paranoia comparing those with foot amputation .Persons with lower extremities amputations have considerably more expressed sensitivity, anxiety, hostility and paranoia. These dimensions are related to age, marital status and level of amputation. They recommended that psychological support and rehabilitation of persons with lower extremities amputations are very helpful.

Graham et al (2006), made a study aimed to evaluate the psychological state and physical rehabilitation of patients who have sustained limb loss as a result of terrorist activity in Northern Ireland and to determine their satisfaction with the period of primary prosthetic rehabilitation and the artificial limb. The main outcome measures were the SIGAM mobility grades, the General Health Questionnaire (GHQ12) and three screening questions for Post Traumatic Stress Disorder (PTSD). The results indicated that out of a 66% response rate, 52 (69%) patients felt that the period of primary prosthetic rehabilitation was adequate; 45 (60%) patients stated that they were still having significant stump pain. Significant stump pain was associated with poorer mobility. (56%) upper limb amputees used their prosthetic limb in a functional way; 33 (44%) patients showed "psychiatric restlessness" on the GHQ 12 and 50 (67%) had symptoms of PTSD. A high percentage of patients continue to have psychological problems and stump pain.

Sutherland et al (2006), made a study aimed to investigate the relationship between physical and psychological recovery in victims of musculoskeletal trauma. A prospective cohort of 200 patients with musculoskeletal injuries was investigated, correlating development of psychopathology (measured by the General Health Questionnaire) and functional outcome (measured by Short Form-36, Sickness Impact Profile, and Musculoskeletal Function Assessment) ,2 and 6 months after their injuries. Pre-existing psychological disturbance was found in 11% of all patients; this figure rose to 46% of patients at 2 months but fell to 22% at 6 months. The researchers concluded that posttraumatic disturbance correlated strongly with impaired functional outcome.

Wang, Tsay, and Bond (2005), made a study aimed to investigate relationships between PTSD, anxiety, depression and quality of life in traffic-related injuries patients. Data were collected at 1 and 6 weeks post-injury for 64 patients. Instruments were the New Injury Severity Scale, Post-traumatic Stress Disorder Reaction Index, Beck Depression Inventory, State Anxiety Inventory and Medical Outcomes Study Questionnaire. The results indicated that there is statistically significant improvements occurred in depression, anxiety and the quality of life between week 1 and week 6 ($P < 0.05$); high levels of PTSD symptoms at week 1 and at week 6 showed no statistically significant improvement. There was +ve correlation between post-traumatic stress disorder and depression and between post-traumatic stress disorder and anxiety, and a negative correlation between post-traumatic stress disorder and quality of life. Depression was the most important variable to predict post-traumatic stress disorder at week 6, with depression levels at week 6 being a more powerful predictor than those at week 1. Regression analysis revealed that depression (19%) at week 1, depression at week 6 (45%), anxiety (3.8%) at week 6 and post-traumatic stress disorder (5.8%) explained a statistically significant amount of the variance at week 6. The findings suggest that traffic accidents have an impact on people's psychosocial wellbeing.

Holbrook et al (2005), examined multiple outcomes after major trauma in 401 eligible trauma adolescents aged 12 to 19 years, including quality of life and psychological sequel such as acute stress disorder and posttraumatic stress disorder. The admission criteria were as follows: age 12 to 19 years and injury diagnoses excluding severe traumatic brain injury or spinal cord injury. Quality of life after trauma was measured using the Quality of Well-being scale, acute stress disorder before discharge was diagnosed with the Impact of Events Scale-Revised. Patient outcomes were assessed at discharge and at 3, 6, 12, 18, and 24 months after discharge. The researches concluded that adolescent trauma survivors have high rates of acute stress disorder which severely impacts quality of life outcomes and is related with female sex and mechanism of injury in adolescents. Early recognition and treatment of acute stress disorder in seriously injured adolescents will improve quality of life outcomes.

Read et al (2004), made a study aimed to investigate life-altering outcomes after lower extremity injuries sustained in motor vehicle crashes. A sample of 65 drivers who sustained lower extremity injuries and interviewed during hospitalization, at 6 months, and at 1 year. All were occupants of newer vehicles with seatbelts and airbags. The results indicated the followings; Injuries included mild brain injury (43%), ankle/foot fractures (55%), and bilateral injuries (37%). One year post-injury, 46% reported limitations in walking and 22% with ankle/foot fractures were unable to return to work. Depression (39%), cognitive problems (32%), and post-traumatic stress disorder (18%) were significant in the mild brain injury group.

Holbrook and Hoyt (2004) , made a study aimed to examine gender differences in quality of life outcomes and the early incidence of combined depression and symptoms of acute stress reaction after injury, controlling for injury severity, specific body area injured, and mechanism. 1,048 eligible trauma patients triaged to four participating trauma center hospitals in the San Diego Regionalized Trauma System between 1993, and 1996 were enrolled in the study. The inclusive criteria for the study included age 18 years and older, admission Glasgow Coma Scale score of 12 or greater, and length of stay greater than 24 hours. QOL outcome after trauma was measured after injury using the Quality of Well-being scale. Depression was assessed using the Center for Epidemiologic Studies scale. symptoms of acute stress reaction was assessed using the Impact of Events scale. Patient outcomes were assessed at discharge and at 6, 12, and 18 months after discharge. The results showed that women (n = 313) were significantly more likely to have poor QOL outcomes at follow-up than men (n = 735). Quality of Well-being scores at each of the 6, 12, and 18 month follow-up time points were markedly and significantly lower in women compared with men, independent of injury severity, serious and moderate injury status, lower extremity injury, intentional or unintentional injury type, and blunt or penetrating injury. Women were also significantly more likely to develop early combined depression and to have continuous depression throughout the 18 month follow-up period. The researchers concluded that women are at risk of worse QOL outcomes and early psychological morbidity after major trauma than men, independent of mechanism and injury severity.

Willebrand, Andersson and Ekselius(2004), made a study aimed to predict psychological health 3 months after burn injury from coping and trauma-related factors assessed early in hospitalization . 34 burn patients were interviewed during hospitalization about their accident and coping. Questionnaires were administered during hospitalization and 3 months after the burn including the Impact of Event Scale-Revised for posttraumatic stress symptoms (intrusion, avoidance, arousal) and the Hospital Anxiety and Depression Scale for mood .The results showed that anxiety, depressive, and avoidant symptoms at 3 months were highly predicted by baseline levels of these symptoms and avoidant coping. The life threat at the burn event predicted intrusive and arousal symptoms, and coping by self-control predicted less intrusive symptoms. This study concluded that burn severity was not predictive of psychological health, but coping style, life threat during the accident, and early symptoms are strong predictors of psychopathology after a burn.

Cansever et al (2003),study aimed to compare the prevalence of depression among traumatic and surgical amputees and to examine the relationship between depression and socio-demographic/clinical characteristics of amputees. A sample of 49 patients with traumatic lower part amputation and 35 patients with surgical lower part amputation. The diagnosis of depression was confirmed by means of the Structured Clinical Interview for DSM-IV, Turkish version. The results showed that The level of depression was assessed by using the Hamilton Depression Rating Scale. The prevalence of depression was 34.7% in the traumatic amputee group and 51.4% in the surgical amputee group ($p > 0.05$). In the traumatic group, depression was associated with time since amputation but not with other variables. In the in the surgical group, depression was associated with age, education level, marital status, economic status, time since amputation, and whether the patient was treated with prosthesis. The researchers data indicated that depression is a common clinical condition among amputees. They recommended that schedule periodic contacts with amputees over long periods to identify those in need of psychiatric intervention should be benefit .

McCarthy et al (2003), made a study aimed to examine the psychological distress associated with severe lower injury. Adult patients with lower limb injury were enrolled during their initial hospitalization. Patients were re contacted at 3, 6, 12, and 24 months after the injury and asked to complete the Brief Symptom Inventory, a 35-item, self-reported measure of psychological distress. The results showed that of the 569 patients enrolled, 545 (96%) completed at least one BSI and 385 (68%) completed all four. 48% of the patients screened positive for a likely psychological disorder at three months after the injury, and this percentage remained high (42%) at twenty-four months. Two years after the injury, almost one-fifth of the patients reported severe phobic anxiety and/or depression. While these two subscales reflected the highest prevalence of severe psychological distress. Factors associated with a likely psychological disorder included poorer physical function, younger age, non-white race, poverty, a likely drinking problem, neuroticism, a poor sense of self-efficacy, and limited social support. Relatively few patients reported receiving any mental health services following the injury (12% at three months and 22% at twenty-four months). The researchers concluded that severe lower-limb injury is associated with considerable psychological distress. More attention to the psychological as well as the physical health of patients who sustain a limb-threatening injury may be needed to ensure an optimal recovery following these devastating injuries.

Van Loey and Van Son (2003), made a study aimed to show psychopathology and psychological problems in patients with burn scars. They founded that Depression and post-traumatic stress disorder PTSD are prevalent in 13-23% and 13-45% of cases, respectively. The traumatic nature of the burn accident and the painful treatment may induce psychopathological responses. Risk factors related to depression are pre-burn depression and female gender in combination with facial disfigurement. Risk factors related to PTSD are pre-burn depression, type and severity of baseline symptoms, anxiety related to pain, and visibility of burn injury. Neuropsychological problems are also described, mostly associated with electrical injuries. Social problems include difficulties in sexual life and social interactions. Quality of life initially seems to be lower in burn patients compared with the general population. Over a period of many years, quality of life was reported to be rather good. Variables such as low social support, emotion and avoidant coping styles, and personality traits such as neuroticism and low extraversion, negatively affect adjustment after burn injury. A profile of the patient at risk, based on pre-injury factors such as pre-morbid psychiatric disorder and personality characteristics, peri-traumatic factors and post-burn factors, is presented. The results also showed that objective characteristics of disfigurement appear to play a minor role, although other factors, such as proneness to shame, body image problems, and lack of self-esteem may be of significance.

Ul Rich Schnyder et al (2001), made a study aimed to assess the prevalence of posttraumatic stress disorder PTSD and symptoms of depression and anxiety in severely injured accident victims 1 year post trauma and to predict psychiatric morbidity by means of variables assessed shortly after the accident. The sample consisted of 106 consecutive patients with accidental injuries (mean Injury Severity Score = 21.9, mean Glasgow Coma Scale score = 14.4) admitted to the intensive care unit of a University Hospital. Patients with severe head injuries, suicide attempters, and victims of physical assault were excluded. At 1-yr follow-up, two patients had PTSD, and 13 had sub syndromal PTSD. 18 patients had symptoms of anxiety, and 9 were depressed.. Biographical risk factors and a sense of death threat contributed significantly to the predictive model. The researchers concluded that a substantial proportion of severely injured accident victims develop some form of psychiatric morbidity that can be predicted to some degree by mainly psychosocial variables.

Schnyder et al (2000) study, aimed to investigate the early psychological reactions to life threatening injuries. They assessed the prevalence of posttraumatic stress symptoms and coping patterns in severely injured accident victims; studied correlations between injury severity and psychosocial variables and the presence of posttraumatic stress symptoms; and analyzed intensive care unit (ICU) personnel's global clinical appraisals in relation to patient characteristics. 121 consecutive patients with accidental injuries admitted to the ICU between 1996 and 1997, aged 18-68 yrs. Patients with severe head injuries, attempted suicides, and victims of physical assault were excluded. The measurements tools were Extensive clinical interview, Impact of Event Scale, PTSD Scale, Sense of Coherence questionnaire and Freiburg Questionnaire of Coping with illness. It founded that Posttraumatic psychiatric symptomatology did not correlate with objective injury criteria, but rather with pre trauma variables (female gender, biographical risk and protective factors, life events), the patients' subjective appraisal of the severity and threat of the accident, their general attitude toward life ("sense of coherence"), and their current coping strategies. Surgeons' and nurses' global clinical appraisals did not correlate with injury severity or with the patients' coping strategies.

Kennedy and Rogers (2000), made a study aimed to examine the prevalence of anxiety and depression in a sample of patients with a spinal cord injury (SCI). A prospective, longitudinal, multiple design with measures taken on 14 observational periods ranging from initial contact in the acute stages of hospitalization to 2 years' post-discharge to the community in the National Spinal Injuries Centre, Stoke Mandeville Hospital, in united kingdom, and the general community. The cohort consisted of 104 patients with traumatic SCI (19 women, 85 men). Measures included the Beck Depression Inventory, the Beck Hopelessness scale, the State Anxiety Inventory, the functional independence measure, and the Social Support Questionnaire. The data illustrates a consistent pattern of results across measures, with scores highest in the acute phase of the injury and during the months leading up to discharge. The researchers concluded that the numbers of persons scoring above clinical cut-off scores for anxiety and depression highlight the need to continue to ensure that appropriate psychological care is available within SCI rehabilitation settings.

Krause , Kemp and Coker (2000), made a cross sectional study aimed to investigate the relation among aging, gender, ethnicity, socioeconomic indicators, and depressive symptoms after spinal cord injury (SCI). 1391 Participants, identified from outpatient records from Southeastern rehabilitation hospital, who met the following inclusion criteria: traumatic SCI; at least 18 years old at the time of study; and injured for at least 1 year . The Older Adult Health and Mood Questionnaire, a 22-item measure of depressive symptoms designed following Diagnostic and Statistical Manual of Mental Disorders (DSM III-R) criteria was used to measure depression. The results illustrated that 48% of the participants reported clinically significant symptoms. Minority participants, particularly women, were at a substantially higher risk for depressive symptoms. This risk diminished but did not disappear after controlling for years of education and income, both of which were highly negatively correlated with depressive symptoms. Aging factors were modestly positively correlated with depression, although education or income did not mediate these associations. Symptoms of depression are highly prevalent after SCI and are related to aging, gender or ethnicity, and socioeconomic status indicators (education and income).

Mollica et al (1999) study, aimed to assess the relationship between psychiatric symptoms and disability in Bosnian refugee survivors of mass violence. Cross-sectional survey conducted in 1996 of Bosnian refugee adults living in a camp established by the Croatian government near the city of Varazdin. One adult aged 18 years or older was randomly selected from each of 573 camp families; 534 (93%) agreed to participate (mean age, 50 years; 41% male). Culturally validated measures for depression and posttraumatic stress disorder (PTSD) included the Hopkins Symptom Checklist 25 and the Harvard Trauma Questionnaire, respectively. Disability measures included the Medical Outcomes Study Short-Form 20, a physical functioning scale based on World Health Organization criteria, and self-reports of socioeconomic activity, levels of physical energy, and perceived health status were used as a measurement tools for this study. The results showed that 18% (n=95) of the respondents had experienced 1 or more torture events. While 55.2% reported no psychiatric symptoms, 39.2% and 26.3% reported symptoms that meet DSM-IV criteria for depression and PTSD, respectively; 20.6% reported symptoms co morbid for both disorders. A total of 25.5% reported having a disability. Refugees who reported symptoms co morbid for both depression and PTSD were associated with an increased risk for disability compared with asymptomatic refugees. Older age, cumulative trauma, and chronic medical illness were also associated with disability. In a population of Bosnian refugees who had recently fled from the war in Bosnia and Herzegovina, psychiatric co morbidity was associated with disability independent of the effects of age, trauma, and health status.

Holbrook et al(1998), made a study aimed to examine patients out comes including Quality of life ,functional outcomes and psychological sequel such as depression and post traumatic stress disorder (PTSD) after major trauma at discharge and at 6,12, and 18 months after discharge. The participants were 1,048 eligible trauma patients triaged to four participating trauma center hospitals in the San Diego Regionalized Trauma System. The admission criteria were as follows: (1) age 18 years or older, (2) Glasgow Coma Scale score on admission of 12 or greater, and (3) length of stay greater than 24 hours. Functional outcome after trauma was measured before and after injury using the Quality of Well-Being (QWB) scale, and standard activities of daily living (ADL) scale. The researchers concluded that Post injury functional limitation is a clinically significant complication in trauma patients at discharge and a 6-month follow-up. Post injury depression, PTSD, serious extremity injury, and length of stay are significantly associated with 6-month QWB outcome.

Scivoletto et al (1997), made a study aimed to assess the degree of anxiety and depression in SCI patients, and studied the factors contributing to their genesis, 100 SCI in- and out-patients were administered questionnaires for self-rating anxiety and depression. A group of newly injured patients was followed up for a year after their discharge to study the evolution of the two psychological syndromes. These two psychological pathologies in SCI patients were respectively 13% (anxiety) and 16% (depression). Some characteristics were significantly associated with a higher risk of developing psychological distress: the presence of severe complications, the lack of autonomy, and low educational level. They did not observe any modification of the psychological picture over time. They explained The lack of reduction in anxiety and depression over time could mean that the two pathologies are maintained by the obstacles SCI patients meet every day resulting from their neurological deficit. They recommended that provision of psychological services for SCI patients in the rehabilitation centers should still be available to the patients even after discharge.

Craig, Hancock and Dickson(1994), made a study aimed to assess the extent of spinal cord injury (SCI) persons' depression and anxiety in comparison to an able bodied control group matched for age, sex, education and as far as possible, occupation. Psychological adjustment to SCI was assessed in terms of scores on the Trait Anxiety Inventory and the Beck Depression Inventory. Results obtained at the 2 year follow up were not significantly changed from those obtained over the first year. The results showed that there was no significant improvement in anxiety and depression scores in the SCI group 2 years post injury. Examination of the SCI scores suggest that psychological morbidity was confined to a group of approximately 30% of persons, whilst the remaining persons were not severely anxious or depressed. Traditional stage models of adjustment to SCI which suggest that the passage of time is associated with better adjustment were not supported by the present data in this study .

Craig , Hancock and Dickson (1994),made a prospective longitudinal study aimed to isolate factors which might predispose a person to depression two years after sustaining spinal cord injury (SCI). Thirty-one patients who suffered acute spinal injuries resulting in permanent loss of movement, and who had no head injuries or any pre-existing psychopathology, were at least 17 years of age, and who were able to speak English, participated in the study. Using the Beck Depression Inventory (BDI) as a measure of depression, a regression analysis demonstrated that the experience of pain two years post-injury and feeling out of control of one's life prior to hospital discharge were predictive of depression two years post-injury. No demographic variables or injury characteristics such as level of lesion or completeness of lesion were related to long-term depression. Pain management and rehabilitation technique are recommended as interventions that could act to reduce depression in the long term in persons with spinal cord injury.

Tate et al (1994) study , aimed to examine whether experiences of handicap influence levels of depression and distress among persons with spinal cord injury (SCI) during the years after initial discharge from rehabilitation . A participants was 163 SCI outpatients, who had received inpatient treatment at one of two rehabilitation centers in Michigan and who were between 2 to 7 years since injury. Measures of depression, of psychological distress and of handicap were collected during 2 consecutive years utilizing the Zung Self-Rating Scale, the Brief Symptom Inventory and the Craig Handicap Assessment and Reporting Technique in conjunction with the Perceived Handicap Questionnaire , respectively. The study's findings illustrates that depressed/distressed SCI subjects reported spending more hours in bed, fewer days out of the house and receiving more paid personal care assistance than did other subjects. They also expended more for general medical expenses and reported less access to readily available transportation. CHART total scores , reflecting a simple objective measure of handicap were significantly associated with both distress and depression as measured during the second year of data collection. Other significant predictors of depression and distress included subjects' self-perceived handicap , gender, marital status and age.

Malt and Olafsen (1992), made a study aimed to investigate the cognitive, emotional and behavioral responses of 109 accidentally injured adults via audio tape semi structured interviews and self-assessment rating scales. They founded that following civilian trauma, the cognitive, emotional and behavioral responses are strongly related to pre-accident and accident-independent life circumstances, ratings of avoidance, intrusion, and anxiety were more strongly associated with psychopathology than objective danger or injury severity. Neither subjects estimation of disability or death, nor the emotional responses corresponded strongly to the severity of the physical injury but instead, reflected, to a large extent, the personal meaning of the injury. The researcher suggested that post-traumatic mental disorders should be evaluated in much the same way as psychiatric disorders after physical injury .

3.3.1. Commentary on previous studies related to psychological impact of exposure to physical injuries .

Regardless of the cause of physical injury , in most studies of the psychological impact of trauma, it is founded that common psychological problems such as anxiety ,depression ,cognitive problems and emotional problems are associated with different types of physical injuries such as (brain injury, spinal cord injury, multiple injury ,lower extremity injury and amputation). Wang 2005 and Read 2004 agreed in the results of their studies that the accident physical injuries have a significant impact on physical and psychological status of traumatic patients . The psychological problems including (depression, anxiety, post traumatic stress disorder and cognitive problems) are significantly associated with accident related trauma and its long lasting psychological burdens negatively affect the quality of life of traumatic patients.

Sutherland ,2006 and McCarthy 2003 agreed in their results that patients with lower extremity injuries screened significantly positive for psychological problems including anxiety, depression and severe phobic which may last for long time post injury . The risk factors include younger age, poor physical function ,poverty, drinking problem, poor sense of self esteem ,neuroticism and limited social support.

Craig 1994 , Kennedy2000, Scivoletto 1997 , Krause 2000 and Tate 1994 accorded in their results that psychological problems including depression and anxiety are significantly associated with traumatic spinal cord injuries . They illustrated the predictive factors that may affect the psychological response after spinal cord injuries including(age, gender, marital status , education level , complexity and severity of the injury, presence of severe complications, degree of physical limitation and handicap , personality factors, socioeconomic factors and ethnicity factors).

Cansever 2003, Kapidzic 2006 ,Platisa 2006 ,and Graham 2003 illustrated in the results of their studies that psychological problems including (anxiety ,depression, phobic pain , paranoia, hostility ,mal adaptive responses and post traumatic stress disorder)were significantly associated with amputation injuries . Related variables including (level of amputation, time since amputation, age and marital status).

James 2007,Willeband 2004 ,and Van Loey 2003 agreed in the results of their studies that there is significant psychological distress among burn injured patients including (anxiety, depression, post traumatic stress disorder, avoidant, intrusive and arousal symptoms) . Risk factors of psychological distress among burn patients including(type and severity of the injury ,traumatic nature of burn ,painful treatment, female gender ,burn disfigurements, life threatening during the accidents, and male coping style ,pre morbid psychiatric disorders , personality problems ,body image problems and lack of self esteem).

3.4. Thirdly : The previous studies that discusses the psychological impact of exposure to violence resulting from the Israeli-Palestinian conflict on Palestinian people

Lavi and Solomon(2005), studied the nature of chronic exposure to terror and its psychological and cognitive effects on Palestinian youths of the Intifada. as is reflected in posttraumatic symptoms, future orientation, and attitudes toward peace. In 2001 , 245 Palestinian and 300 Israeli-Palestinian adolescents in the sixth to ninth grades were assessed with self-report questionnaires that measured level of exposure to terror, posttraumatic stress disorder, anxiety, depression, anger, dissociation, future orientation, and attitudes toward peace. The results cleared that Palestinians experienced significantly more traumatic events than Israeli Palestinians; the groups did not differ, however, in their subjective perception of the threat. Palestinians also reported higher levels of posttraumatic symptoms, more pessimistic future orientation, and less favorable attitudes toward peace negotiations than the Israeli Palestinians. The groups did not differ in reported psychological symptoms related to chronic exposure to stress. In both groups, subjective perceptions of the threat were implicated in the pathogenic sequel of exposure to terror-induced trauma. .

Giacaman et al (2004), made a study aimed to examine the Palestinian adolescents coping with trauma .A stratified representative sampling frame of sample of 3415 students attending 10th and 11th grades from Ram Allah district of West bank. The researchers founded a very high level of exposure to violent events was reported by students in the study .Boys reported significantly more exposure to violent events than girls at both the individual level and at the collective level ,but girls reported higher levels of subjective health complaints ,such as feeling depressed ,headache and inability to concentrate on daily tasks and studies and having nightmares. Boys had an increase in aggressive behaviors and abusive language. Significantly more girls reported low life satisfaction levels and worse health than boys .Both boys and girls had high levels of anger, desperation, helplessness with significantly more girls reporting these feeling than boys. Exposed to other events ,mainly through media and adults ,reported more anticipatory anxiety and cognitive expressions of distress who were directly exposed .

In one study for Giacaman (2004) about the psycho-social/mental health care in the Occupied Palestine Territories :the embryonic system ,Institute of community and Public Health .He reported that there has been a perceptible shift to a higher reporting of emotional problems constituting the most common cases being dealt with (74%) followed by behavioral problems(35%) ,somatisation(20%) and diagnosable psychiatric disorders (17%). The researcher indicated that there is no evidence of a coherent approach to assessment and intervention and the role off psych-social mental health workers should be more clearly defined .

Quota , El Sarraj and Punamaki (2003), made a study aimed to report the prevalence and PTSD determinants among 121 Palestinian children ;aged range 6 to 16 years ;55% boys and 45 % girls living in the area of bombardment .The mothers aged 21-55 years ,and the children themselves reported their exposure to military violence post-traumatic –stress disorder (PTSD : intrusion, avoidance and hyper vigilance) .The results indicated that 54 % of the children suffered from severe ,33.5 % moderate ,and 11% from mild and doubtful levels of PTSD .Girls were more vulnerable ,58% of them suffered from severe PTSD and none scored on the doubtful or mild PTSD levels .The child's age ,gender , mother's education and marginally exposure to traumatic experiences were significant .The younger girls whose mothers had a high level of PTSD were the most vulnerable to intrusion symptoms .The children who had personally been targets of military violence and whose mothers showed a high level of PTSD symptom and better educated were most vulnerable to avoidance symptoms .

Quota, Punamika, and El Sarraj (1997) study aimed to examine the immediate effects of one's home losing and demolition witnessing of others houses on the mental health of Palestinian adults and children. The sample consisted of the following main groups: The loss group consisted of 47 adults and 38 children whose homes were demolished, the witness group of 24 adults and 36 children who witness the house demolition and the control group of 33 adults and 50 children. The results showed that adults who were exposed to house demolition showed a higher level of anxiety, depression and paranoiac symptoms than the witness and control groups. The children in the loss group showed higher level of psychological symptoms than the children in the witness and control groups. Having more depression among women and more psychological symptoms in children in the witness group than those in the control group. Women experienced more anxiety, depression and paranoiac symptoms than men in the loss and witness group and not in the control group.

3.4.1. Commentary on previous studies related to psychological impact of exposure to violence resulting from the Israeli-Palestinian conflict on Palestinian people

Quota et al. 2003, Giacman 2004, and Lavi 2005 agreed that exposure of Palestinian people to violence events resulting from Israeli aggression affect negatively the psychological status of exposed Palestinian. Psychological sequels including (post traumatic disorder, anxiety, depression, low self-esteem, paranoiac symptoms, and memory, attention and concentration problems) are significantly associated with exposure to violence. Also the researchers founded that men experience more traumatic events while exposure is associated with more psychiatric disorders among women.

3.5. Commentary on previous studies as a whole

According to the aims of the study De Jong 2001, Denson 2007, Shalev 2006, and Amy 1999, Lincoln 2006 agreed in the main aim of their studies which was to examine the psychological distress resulting from exposure to war related violence.

Sutherland et al 2006, Read et al 2004, and McCarthy et al 2003 agreed in the main aim of their studies which was to investigate the psychological problems associated with musculoskeletal injuries.

Craig, 1994, Kennedy and Rogers 2000, Scivolletto et al 1997, Krause 2000 and Tate 1994 agreed in the main aim of their studies which was to investigate the psychological outcomes after traumatic spinal cord injury.

Can sever et al 2003, Kapidzic et al 2006, Platisa 2006 and Graham et al 2006 agreed in the main aim of their studies which was to investigate the psychological status and reaction of patients with amputation.

James et al 2007, Will brand et al 2004 and Van Loey 2003 agreed in the main aim of their studies which was to investigate the psychological distress after burn injury.

Quota and Sarraj 2004, and Giacman et al 2004 agreed in the main aim of their studies which was to examine psychological disorders after exposure to war related trauma among Palestinian people mainly children who lived in ongoing conflict area.

Regarding to the results ,many researchers founded that the war related violence and different physical injuries significantly affect the psychological well being . Also they founded that the one's perceiving and responses to trauma differ from one to another depending on the following factors :

1-Gender factor

It founded that men were at more risk for experiencing of traumatic events including physical injury but women were at higher risk for developing psychological symptoms and disturbances than men (Amir and Soul,1999,Amy 1999,Holbrook,2005, Van Loey,2003,Krause ,2000,Araya ,2007,Giacman ,2004, Schnyder ,2000, Punamaki,2005,Quta,2003 ,Afana 2002,Malt 1992 ,and Lavi 2005) .

2-Prepsychiatric factor

It is founded patients with pre psychiatric morbidity are at more risk for developing of psychological disorders after physical injuries (Van Loy ,2003and De Jong 2001).

3-Functional limitations

It is founded that the post traumatic disturbances correlated strongly with impaired functional outcome after physical injuries (Sutherland et al ,2006). Disabled people had significantly poorer mental health and lower social functioning than those who were non disabled (Cardozo,2004). Psychiatric co morbidity was associated with disability independent of the effects of age, trauma and health status (Moltica et al ,1999). Experience of handicap influence the levels of psychological problems among traumatic injured patients (Tate ,1994). Long lasting physical problems affect most life domains including psychological domains (Soberg et al ,2007) .

4- Injury characteristics

Injury characteristics including level of injury is not related to long term psychological problems post injury (Craig et al ,1994 ,and Will brand ,2004) . But UI Rich Schneider et al 2001 and Kapidzic 2006 founded that severity of injury, level of injury and type of injury contributed significantly to psychological problems among severely accident victims including posttraumatic stress disorder ,anxiety and depression .

5- Age factors

Van loey 2003, McCarthy 2004 and Kapidzic 2006 and founded that younger age traumatic patients are more vulnerable to psychiatric morbidity after physical injuries . But Krause et al,2000 study showed that aging factors were modestly positively correlated with depression among patients with spinal cord injury.

6-Socioeconomic factor

It is founded that Limited social support ,low income level and poverty have negative psychological impact on traumatic patients (UI Rich 2001 ,Krause 2000 and Mc Carthy 2003).

6-Personality factor

Malt and Olafsen 1992 and Schynder 2000 founded that neither subject's estimation of disability or death ,nor the emotional responses correspond strongly to the severity of the physical injury but instead ,reflected to a large extent ,the personal meaning of the injury and his/her general attitudes toward life" sense of coherence " . Personality problems including neuroticism, a poor sense of self efficacy ,lack of autonomy and lack of self esteem make the traumatic patients at risk for developing psychiatric problems after physical injuries (Scivelotto 1997 and Van Loey 2003) .

7-Time passage factor

Craig et al 1994 indicated that there is no improvement in psychological adjustment of traumatic spinal cord injured patient with time passage that disagree with traditional stage models of adjustment that suggest that passage of time is associated with better adjustment ,But Kennedy,2000 and Krause 2000 agree with traditional models of adjustment .

We can divide the sample of the previous studies into three subgroups :

1. A sample of individuals who exposed to different forms of war violence such as (persons exposed to violence associated with armed conflict (De Jong,2003) ,Kosovar refugees (Amy L ,1999),and combat veterans (Lincoln,2006).
2. A sample of individuals who experience different types of traumatic physical injuries such as (persons after major trauma (Holbrook,2005),patients with musculoskeletal trauma (Sutheland,2006), persons with traumatic spinal cord injuries (Kennedy ,2000), survivors with major burn (James ,2007),and persons with limb loss (Graham,2003).

3. A sample of Palestinian people who lived in area of ongoing conflict and who exposed to different forms of violence resulting from Palestinian Israeli conflict such as Qouta and Punamaki , 2004, El Sarraj , 2003 and Lavi ,2005.

We observed that the sample size was relatively high and in some of the previous studies and in some studies it reach to more than 1000 persons as in Holbrook et al ,2003 study . In most of the previous studies the number of men were higher than the number of women that agrees with the studies that showed that men experience more traumatic events in their life than women .

Regarding the instruments ,the researches used many psychometric tests to measure the psychological sequel of exposure to violence and different types of physical injuries such as Post-Traumatic Stress Reaction Index ,Beck Depression Inventory and State Anxiety Inventory tests to measure PTSD, depression and anxiety respectively . Some tests used to predict the factors which make the traumatic patients at higher risk for developing psychological disorders after experience physical injury such as Injury Severity Score (SSI) which measure the severity of the injury ,Disability Assessment Schedule II(WHODASII) , and Medical Outcomes Study short Form 20 to measure degree of disability. Open Questions ,and personnel interviews also were used . The most psychological problems that were measured in the most of the previous studies were post traumatic stress disorder ,depression ,and anxiety .

Chapter (4)

METHODOLOGY

4.1. Introduction

This chapter includes the study design , the study population and sample , an instruments of the study and procedures in the search, as well as the statistical methods used in data processing and research in the following breakdown.

4.2. Study design

The researcher used in this study descriptive analytical approach, because this approach suits the nature of the study. Descriptive design is defined as: "a way of analysis and interpretation scientifically structured to reach out to specific purposes, social status or social problem or a certain population (Gouda ,2006).

4.3.The Study population

The study population includes all the injured Palestinians who were injured by the Israeli aggression on the Gaza Strip in the events of the Al Aqsa Intifada and their ages ranged between 18 and 75 years old .

The exclusive criteria of the study population were as follow :

- Injured Palestinians aged less than 18 years
- Head brain injuries
- Hospitalized injured .
- Individuals who were injured before the year 2005 .

4.4.Sample Size

Study sample consisted of two samples:

1 - **Reconnaissance sample:** 30 individuals were selected by simple random way in order to check the validity of research tools and used to calculate the honesty and stability.

2 - **The total study sample:** consisted of (300) individual from the injured Palestinians who were injured by Israeli aggression during the El Aqsa Intifada events , and you specifications of the total sample.

4.5. Sample Description

The study sample consisted of 300 injured Palestinians from both sexes who were injured through out AL- Aqsa intifada events in Gaza Strip between the period 2005 and 2008 , and who were registered in Support of the Families of Martyrs and Injured Individuals Institution (SFMII) . 88.3% (n=265) of the sample was males , while females accounted for 11.7% per sample (n=35), ranging in age between 18 - 75 years old with an age average 25.63 and a standard deviation 9.7 years. 50.7% of the individuals were not married, 49.3% married. According to the educational level, it was noted that 44% of individuals obtaining high school degree , 34% held a preparatory degree or less, and 22.0% held a university degree or above, while 39.3% of the m were unemployed, 26.3% were students , and 19.3 % were employees . Most of the individuals in the sample live in the North Province by 94%. See table 4.1 .

Table 4.1. The demographic variables for members of the sample (N = 300)

variables	N	%
Gender		
Male	265	88.3
Female	35	11.7
Marital Status		
Single	152	50.7
Married	148	49.3
Educational level		
Lower secondary least	102	34.0
Secondary	132	44.0
University & over	66	22.0
Type of occupation		
Employees	58	19.3
Workers	22	7.3
Students	79	26.3
Unemployed Workers	118	39.3
Housewives	23	7.7
Place of residence		
The north	282	94.0
Gaza	10	3.3
Rafah	8	2.7

4.6. Data Collection

Descriptive analysis design was used. A random sample of 300 injured Palestinians adults living in Gaza Strip conservatisms . 88.3% of them were male and 11.7% was females ,aged 18 years or older, injured between 2005 and 2008 and who registered in (SFMII) were self administrated completed the SCL-90 scale and the injury description tool. The process of data collection took two months . Through out data collection process the injured individuals were informed about the right way of completing the questionnaires . An incomprehensible points were explained for the respondents .

4.7. The Study Instruments

1- include the demographic data and simple questionnaire that describe the injury characteristics including (site of the injury, nature of the injury, the type of weapons used , pain due to injury and healing from the injury).

2- SCL-90 tool : which is a 90-item symptom checklist scale that developed from the Hopkins symptom checklist and it measure s nine psychometric symptoms including depression ,anxiety, somatization, obsessive compulsive ,interpersonal sensitivity ,hostility ,phobic anxiety ,paranoid ideation and psychoticism SCL-90 scale is economical ,easy to use and available in 26 languages including Arabic, English and German (Mark,1999).

The following table shows the nine dimensions of the SCL-90 tool and phrases that reflect each dimension in the test.

Table 4.2. The nine psychological dimensions of the SCL-90 tool and the number and orders of the phrases that express on each dimension .

No	The measure	The number of phrases	The figure of the phrases
1	somatization	12	1-4-12-27-40-42-48-49-52-53-65-58
2	obsessive compulsive	10	45-38-51-9-46-55-10-28-65-3
3	interpersonal sensitivity	9	6-21-34-36-37-41-61-69-73
4	Depression	13	5-14-15-20-22-26-29-30-31-32-54-71-79
5	Anxiety	10	2-17-23-33-39-57-72-78-80-86
6	Hostility	6	11-24-63-67-74-81
7	Phobic Anxiety	7	13-25-47-70-75-82-50
8	Paranoid Ideation	6	18-43-68-76-83-8
9	Psychotism	10	7-16-35-62-77-84-85-87-81-90
10	Additional phrases	7	19-60-44-64-66-59-89

First: The Reliability of the SCL-90 scale

After Applying the test and entering the data into the statistical program SPSS , the reliability was calculated in two ways as follows:

1 - Alpha – Kronbach method : After applying the test on the sample ,the alpha kronbach coefficient was calculated to measure the reliability, which found that the value of alpha Kronbach equal 0.96 , and this is enough evidence that the SCL-90 to has a high reliability factor.

2 - Split_half methods: After applying the test on the sample, the reliability factors was calculated by using split-half method , with an apportionment of the total test items into to halves, then calculate the coefficient of the correlation between summation of the first test items and summation of the second test items. Pearson correlation coefficients of the test in this way is (0.84), and by using the amended Spearman - Brown Equalization ,the reliability factor became (0.91).

Spearman, Brown amended equation = $X^2 / t = 0.84^2 / 0.84 + 1 = 0.91$

This is proof enough that the test has a high degree of reliability .

Second: Validity of the SCL-90 scale

To verify from the validity of the test the validity was calculated in the following manner:

Internal consistency

The internal consistency is a Pearson correlation factor between the degree of dimension with the overall grade of the test, and it has been calculated correlation between the degree of each dimension of SCL-90 test dimensions and the overall grade of the test, so as to know the extent of links between the dimensions of the test with overall grade of the test, to ascertain the extent of validity of the test, and it can be seen in Table (3):

Table 4.3. The correlation coefficients between the SCL-90 dimensions and the overall grade of the test

No	The Dimensions	correlation coefficients	Significance level
1	somatization	0.76	Statistical significance
2	obsessive compulsive	0.85	Statistical significance
3	interpersonal sensitivity	0.90	Statistical significance
4	depression	0.85	Statistical significance
5	anxiety	0.92	Statistical significance
6	hostility	0.79	Statistical significance
7	phobic anxiety	0.82	Statistical significance
8	paranoid ideation	0.88	Statistical significance
9	psychoticism	0.88	Statistical significance

Table 4.3. indicates that the SCL-90 dimensions associated with a strong correlations coefficients and it function at statistical significant level of less than 0.01, and where the correlation coefficients of the SCL-90 dimensions range (0.76 - 0.92) and this indicates that the SCL-90 test has a high validity factor .

Since the SCL-90 test consists of nine dimensions, so it have been a coefficient link between paragraphs of each item of the nine SCL-90 items and the total degree for each item yet all alone which can be seen in the following tables .

Table 4.4. Correlation coefficients between symptoms of the somatization dimension and the total degree of the dimension

Item	Symptoms of the somatization dimension	Correlation coefficient	The significance level
1	Headaches	0.54	Significant at 0.01
4	Faintness or dizziness	0.61	Significant at 0.01
12	Pains in heart or chest	0.68	Significant at 0.01
27	Pains in lower back	0.59	Significant at 0.01
40	Nausea or upset stomach	0.58	Significant at 0.01
42	Soreness of muscles	0.55	Significant at 0.01
48	Trouble getting your breath	0.72	Significant at 0.01
49	Hot or cold spells	0.72	Significant at 0.01
52	Numbness or tingling in part of the body	0.54	Significant at 0.01
53	Lump in your throat	0.23	Not statistically significant
56	Feeling weak in parts of your body	0.57	Significant at 0.01
58	Heavy feeling in your arms or legs	0.57	Significant at 0.01

Table 4.4. shows that the symptoms of the somatization dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.54-0.72), which indicates that the somatization dimension and its symptoms have a high validity factor ,except the symptom item 53 which is not statically significant so it should be deleted from the dimension .

Table 4.5. Correlation coefficients between symptoms of the obsessive compulsive dimension and the total degree of the dimension .

Item	Symptoms of the obsessive compulsive dimension	Correlation coefficient	The significance level
3	Repeated unpleasant thoughts	0.63	Significant at 0.01
9	Trouble remembering things	0.66	Significant at 0.01
10	Worried about sloppiness or carelessness	0.63	Significant at 0.01
28	Feeling blocked in getting things done	0.65	Significant at 0.01
38	Having to do things very slowly to ensure correctness	0.41	Significant at 0.01
45	Having to check and double-check what you do	0.76	Significant at 0.01
46	Difficulty making decisions	0.66	Significant at 0.01
51	Your mind going blank	0.60	Significant at 0.01
65	Having to repeat the same actions, such as touching, counting, washing	0.79	Not significant at 0.01

Table 4.5. shows that the symptoms of the obsessive compulsive dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.41-0.79), which indicates that the obsessive compulsive dimension and its symptoms have a high validity factor ,except the symptom item 65 which is not statically significant so it should be deleted from the dimension. .

Table 4.6. Correlation coefficients between symptoms of the interpersonal sensitivity dimension and the total degree of the dimension .

Item	Symptoms of the interpersonal sensitivity dimension	Correlation coefficient	The significance level
6	Feeling critical of others Feeling uncomfortable about eating or drinking in public	0.69	Significant at 0.01
21	Feeling shy or uneasy with the opposite sex	0.69	Significant at 0.01
34	Your feelings being easily hurt	0.52	Significant at 0.01
36	Feeling others do not understand you or are unsympathetic	0.74	Significant at 0.01
37	Feeling that people are unfriendly or dislike you	0.64	Significant at 0.01
41	Feeling inferior to others	0.61	Significant at 0.01
61	Feeling uneasy when people are watching or talking about you	0.56	Significant at 0.01
69	Feeling very self-conscious with others	0.61	Significant at 0.01
73	Feeling uncomfortable about eating or drinking in public	0.37	significant at 0.01

Table 4.6. showed that the symptoms of the interpersonal sensitivity dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.37-0.74), which indicates that the interpersonal sensitivity dimension and its symptoms have a high validity factor .

Table 4.7. Correlation coefficients between symptoms of the depression dimension and the total degree of the dimension .

Item	Symptoms of the depression dimension	Correlation coefficient	The significance level
5	Loss of sexual interest or pleasure	0.37	Significant at 0.01
14	Feeling low in energy or slowed down	0.53	Significant at 0.01
15	Thoughts of ending your life	0.36	Significant at 0.01
20	Crying easily	0.51	Significant at 0.01
22	Feelings of being trapped or caught	0.59	Significant at 0.01
26	Blaming yourself for things	0.56	Significant at 0.01
29	Feeling lonely	0.79	Significant at 0.01
30	Feeling blue	0.73	Significant at 0.01
31	Worrying too much about things	0.37	Significant at 0.01
32	Feeling no interest in things	0.52	significant at 0.01
54	Feeling hopeless about the future	0.61	Significant at 0.01
71	Feeling everything is an effort	0.58	Significant at 0.01
79	Feelings of worthlessness	0.48	Significant at 0.01

Table 4.7. showed that the symptoms of the depression dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.36-0.79), which indicates that the depression dimension and its symptoms have a high validity factor .

Table 4.8. Correlation coefficients between symptoms of the anxiety dimension and the total degree of the dimension .

Item	Symptoms of the anxiety dimension	Correlation coefficient	The significance level
2	Nervousness or shaking inside	0.56	Significant at 0.01
17	Trembling	0.62	Significant at 0.01
23	Suddenly scared for no reason	0.33	Not significant at 0.01
33	Feeling fearful	0.53	significant at 0.01
39	Heart pounding or racing	0.33	Not significant at 0.01
57	Feeling tense or keyed up	0.70	Significant at 0.01
72	Spells of terror or panic	0.63	Significant at 0.01
78	Feeling so restless you couldn't sit still	0.51	Significant at 0.01
80	The feeling that something bad is going to happen to you	0.59	Significant at 0.01
86	Thoughts or images of a frightening nature	0.45	significant at 0.01

Table 4.8. showed that the symptoms of the anxiety dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.45-0.70), which indicates that the anxiety dimension and its symptoms have a high validity factor , except the symptoms items 23 and 39 which are not statically significant so it could delete from the dimension .

Table 4.9. Correlation coefficients between symptoms of the hostility dimension and the total degree of the dimension .

Item	Symptoms of the hostility dimension	Correlation coefficient	The significance level
11	Feeling easily annoyed or irritated	0.61	Significant at 0.01
24	Temper outbursts that you could not control	0.60	Significant at 0.01
63	Having urges to beat, injure or harm someone	0.80	significant at 0.01
67	Having urges to break or smash things	0.79	significant at 0.01
74	Getting into frequent arguments	0.51	significant at 0.01
81	Shouting or throwing things	0.75	Significant at 0.01

Table 4. 9. showed that the symptoms of the hostility dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.51-0.80), which indicates that the hostility dimension and its symptoms have a high validity factor .

Table 4.10. Correlation coefficients between symptoms of the phobic anxiety dimension and the total degree of the dimension .

Item	Symptoms of the phobic anxiety dimension	Correlation coefficient	The significance level
3	Feeling afraid in open spaces or on the street	0.72	Significant at 0.01
25	Feeling afraid to get out of your house alone	0.76	Significant at 0.01
47	Feeling away to travel on buses, subways or trains	0.48	significant at 0.01
50	Having to avoid certain things, places or activities because they frighten you	0.40	significant at 0.01
70	Feeling uneasy in crowds, such as shopping or at a movie	0.71	significant at 0.01
75	Feeling nervous when you are left alone	0.61	Significant at 0.01
82	Feeling afraid you will faint in public	0.61	

Table 4.10. showed that the symptoms of the phobic anxiety dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.40-0.76), which indicates that the phobic anxiety dimension and its symptoms have a high validity factor .

Table 4.11. Correlation coefficients between symptoms of the paranoid ideation dimension and the total degree of the dimension .

Item	Symptoms of the paranoid ideation dimension	Correlation coefficient	The significance level
8	Feeling others are to blame for most of your troubles	0.69	Significant at 0.01
18	Feeling that most people cannot be trusted	0.76	Significant at 0.01
43	Feeling you are watched or talked about by others	0.52	significant at 0.01
68	Having ideas or beliefs that others do not share	0.48	significant at 0.01
76	Others not giving you proper credit for your achievements	0.70	significant at 0.01
83	Feeling that people will take advantage of you if you let them	0.67	Significant at 0.01

Table 4.11. showed that the symptoms of the paranoid ideation dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.52-0.76), which indicates that the paranoid ideation dimension and its symptoms have a high validity factor .

Table 4.12. Correlation coefficients between symptoms of the psychoticism dimension and the total degree of the dimension .

Item	Symptoms of the psychoticism	Correlation coefficient	The significance level
7	The idea that someone else can control your thoughts	0.66	Significant at 0.01
16	Hearing voices that other people do not hear	0.53	Significant at 0.01
35	Other people being aware of your private thoughts	0.61	significant at 0.01
62	Having thoughts that are not your own	0.73	significant at 0.01
77	Feeling lonely when you are with people	0.66	significant at 0.01
84	Having thoughts about sex that bother you a lot	0.56	Significant at 0.01
85	The idea that you should be punished for your sins	0.62	Significant at 0.01
87	The idea that something serious is wrong with your body	0.65	Significant at 0.01
88	Never feeling close to another person	0.41	Significant at 0.01
90	The idea that something is wrong with your mind	0.33	Not significant at 0,01

Table 4.12. showed that the symptoms of the psychoticism dimension have a strong correlation coefficient and statistically significant at less than 0.01, whereas the correlation coefficient range between (0.41-0.73), which indicates that the psychoticism dimension and its symptoms have a high validity factor , except the symptom item 90 which are not statically significant so it should be deleted from the dimension .

4.8. Statistical methods

In our study we used Descriptive Statistics, Correlation Coefficient "Pearson", T-Test , One Way ANNOVA and medians . Data were entered and analyzed on SPSS .

4.9. Citation and Referencing Method

The researcher used the alphabetical method for citing the reference . The literature obtained from El Shifa hospital library , Islamic university library and from EL Wafa medical rehabilitation hospital library and internet resources including electronic books. The literature review in this research was from medical journals ,WHO publications ,and internet resources .

4.10. The Study barriers

- Difficulties in getting the references and books in this field were one of the most barriers that face us during our work.
- There is shortage in the information related to the injury characteristics such as severity of the injury and the degree of impairment and disability causing by the injury
- Incomplete archive system about the injury resulting due to Israeli aggression in Palestinian ministry of health .
- In spite of the big number of injured Palestinians there is very few studies that studied the physical injury resulting from EAI and its burdens on injured individuals.
- Difficulties to reach to the injured individuals during the study time as result of transportation difficulties resulting from complete Israeli siege on Gaza Strip and cut of car fuels mainly solar and the natural gas .
- Repeated cut of electricity , some times it was come only 6 hours each 24 hours as a result of Israeli Siege to Gaza Strip .

Chapter (5)

RESULTS

This chapter describes and shows the results of the present study including descriptive information related to injury characteristics and results related to the study questions and results related to the study hypothesis

5.1. First questions : What are the characteristics of Al Aqsa intifada physical injury ?

This part discusses characteristics of the injury that the individuals of the sample exposed to it including : site of the injury and nature of the injury, also it includes causes of the injury in terms of weapon used and another information related to the injury and recovery from it as will be seen in the following :

5.1.1. The injury in the face region and the nature of the injury :

The results showed that 33.3% of respondents were injured in the face region ,46% of them the nature of their injury was multiple wounded,13% was burns and 27% was eye injury lead to low or loss vision. see table 5.13. for more details

Table 5.13. The number of the respondents who exposed to the face injury and the nature of the injury

The face injury	N	%
Yes	100	33.3
No	200	66.7
The nature of the injury		
Multiple wounded	46	46.0
Burns	13	13.0
Fracture in the jaw and the teeth	9	9.0
Eye injury lead to low or loss vision	27	27.0
Other injury	5	5.0

5.1.2. The injury in the neck region and the nature of the injury :

The results also showed that 14,3% of respondents were injured in the neck region .79,1% of them the nature of their injury was multiple wounded and 20,9 % was burns. see table 5.14. for more details

Table 5.14. The number of the respondents who exposed to the neck injury and the nature of the injury.

The neck injury	N	%
Yes	43	14.3
No	257	85.7
The nature of the injury		
Multiple wounded	34	79.1
Burns	9	20.9

5.1.3. The injury in the chest region and the nature of the injury

The results showed that 29.7% of the respondents were injured in the chest region. 48,3% of them the nature of their injury was multiple wounded , 7,9 % was burns, 14,6% was lung injury, 5,6 % was spinal cord injury , 10.1% was fracture of the ribs of the chest and 13,5% was blood vascular injuries . see table 5.15. for more details

Table 5.15. The number of the respondents who exposed to the chest injury and the nature of the injury

The chest injury	N	%
Yes	89	29.7
No	211	70.3
The nature of the injury		
Multiple wounded	43	48.3
Burns	7	7.9
Lung injury	13	14.6
Spinal cord injury	5	5.6
Fracture of the chest ribs	9	10.1
Blood vascular injury	12	13.5

5.1.4. The injury in the back region and the nature of the injury

The results showed that 28,3% of the respondents were injured in the back region. 68,2% of them the nature of their injury was multiple wounded , 12,9 % was burns, 12,9% was fracture in the back vertebrae and 5,9 % was spinal cord injury . see table 5.16. for more details

Table 5.16. The number of the respondents who exposed to the back injury and the nature of the injury

The back injury	N	%
Yes	85	28.3
No	215	71.7
The nature of the injury		
Multiple wounded	58	68.2
Burns	11	12.9
Spinal cord injury	5	5.9
Fractures in the back vertebrae	11	12.9

5.1.5. The injury in the abdomen region and the nature of the injury

The results showed that 31,3% of the respondents were injured in the abdomen region. 53,2% of them the nature of their injury was multiple wounded , 6,4 % was burns, 8,5% was blood vascular injury and 31,9 % was injury of the organs of the digestive system . see table 5.17. for more details

Table 5.17. The number of the respondents who exposed to the abdomen injury and the nature of the injury

The abdomen injury	N	%
Yes	94	31.3
No	206	68.7
The nature of the injury		
Multiple wounded	50	53.2
Burns	6	6.4
Blood vascular injury	8	8.5
Injury of the digestive system	30	31.9

5.1.6. The injury in the pelvic region and the nature of the injury

The results showed that 16,7 % of the respondents were injured in the pelvic region. 40 % of them the nature of their injury was multiple wounded , 18 % was sexual organs injury, 26 % was different fractures and 16 % was blood vascular injury. see table 5.18. for more details

Table 5.18. The number of the respondents who exposed to the pelvic injury and the nature of the injury

The pelvic injury	N	%
Yes	50	16.7
No	250	83.3
The nature of the injury		
Multiple wounded	20	40.0
Sexual organs injury	9	18.0
Different fractures	13	26.0
Blood vascular injury	8	16.0

5.1.7. The injury in the extremities region and the nature of the injury

The results showed that 74 % of the respondents were injured in the extremities , 21,6 % of them the nature of their injury was multiple wounded , 3,6 % was burn injury, 21,6 % was different fractures , 27,9 was nerve injury, 8,6 % was blood vascular injury and 16,7 % was amputation . see table 5.19. for more details

Table 5.19. The number of the respondents who exposed to the extremities injury and the nature of the injury

The extremities injury	N	%
Yes	222	74.0
No	78	26.0
The nature of the injury		
Multiple wounded	48	21.6
Burns	8	3.6
Different fractures	48	21.6
Nerve injury	62	27.9
Blood vascular injury	19	8.6
Amputation	37	16.7

5.1.8. The injury in multiple body parts and the nature of the injury

The results showed that 60 % of the respondents were injured in more than one body region . 58,3 % of them the nature of their injury was multiple wounded , 9,4 % was burn injury and 24,4 % was different fractures. see table 5.20. for more details

Table 5.20. The number of the respondents who exposed to more than one body region and the nature of the injury

The injury in more than one body region	N	%
Yes	180	60.0
No	120	40.0
The nature of the injury		
Multiple wounded	105	58.3
Burns	17	9.4
Different fractures	44	24.4
Others	14	7.8

5.1.9.causes of the injury in terms of the type of weapon used

The results showed that 34.3% of the respondents were injured as a result of explosion of missile fragments resulting from aerial bombardment , while 29% were a result of the explosion fragments of artillery shells, and 36.7% were a result of bullet.

Table 5.21. The causes of the injury in terms of the type of weapon used

Causes of the injury	N	%
Explosion of missile Fragments resulting from aerial bombardment	103	34.3
Explosion fragments of artillery shells	87	29.0
bullet.	110	36.7
Information related to the injury		
Remaining fragments in the body	167	55.7
Complete healing from the injury	50	16.7
Suffer from pain due to the injury	258	86.0

It was also noted that 55.7% of respondents have fragments of weapons in their bodies , and only 16.7% of respondents have recovered from the injury, and 86% of them still suffer from pain caused by their injuries .

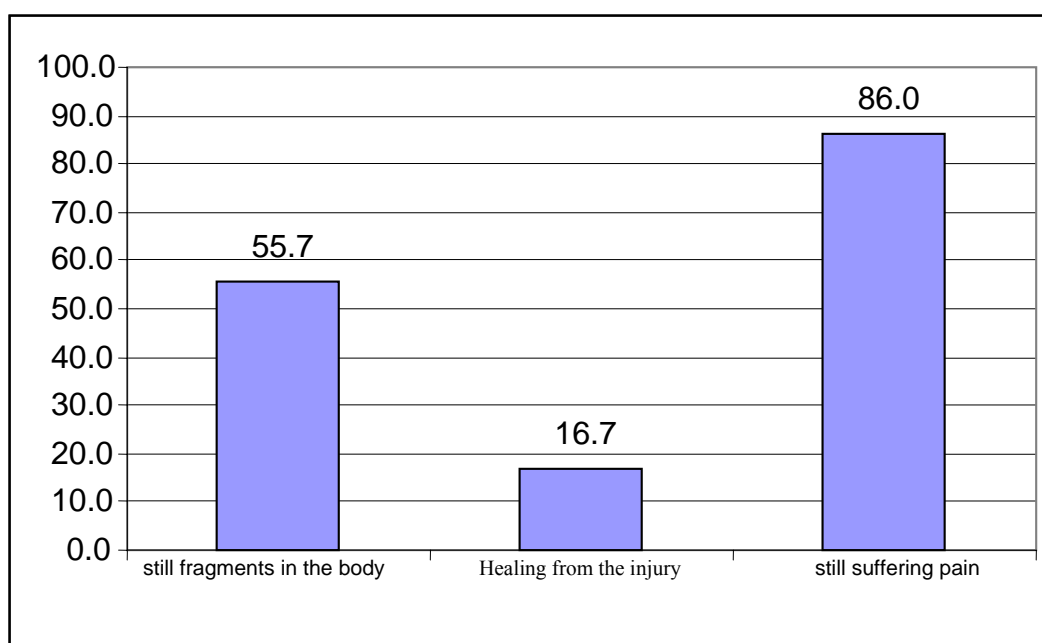


Figure 5.1. Descriptive information of respondents have a remaining fragments in the body, complete healing from the injury ,and still suffering pain after the injury

5.2. Second question : What is the psychological impact of experiencing physical injury resulting from EL-Aqsa Intifada events on injured Palestinian adults?

To identify the most important psychological symptoms in adults injured Palestinians , the researcher calculated arithmetic averages, standard deviations and the relative weight of each dimension of the SCL-90 scale dimensions that demonstrates through table 5.22.

Table 5.22. Arithmetic averages, Standard deviations and the Relative weight of the psychological symptoms of the injured individuals .

No	The psychological symptoms	The number of items	The total score	arithmetic averages	standard deviations	relative weight %
1	somatization	10	40	15.6	8.42	39.0
2	obsessive compulsive	9	36	12.0	6.77	33.2
3	interpersonal sensitivity	9	36	11.7	6.98	32.5
4	depression	13	52	16.6	10.06	32.0
5	anxiety	8	32	9.9	6.02	30.9
6	hostility	6	24	7.3	5.26	30.3
7	Paranoid ideation	6	24	7.1	4.87	29.5
8	phobic anxiety	7	28	7.3	5.50	26.2
9	Psychoticism	9	36	9.0	6.44	25.1

The relative weight calculated by dividing the arithmetic averages for each dimension on the total degree for each dimension then multiplied the outcome by 100 .By the results shown in the table above results showed that more psychological symptoms which injured individuals suffer from it were somatization with relative weight of 39%, followed by obsessive-compulsive with relative weight of 33.2% , interpersonal sensitivity with relative weight of 32.5% , 32% had depression, and 30.9% for anxiety , and 30.3% for hostility, 29.5% for paranoid ideation , 26.2%, for phobic anxiety and finally 25.1% for psychoticism., and it can be seen in the following format.

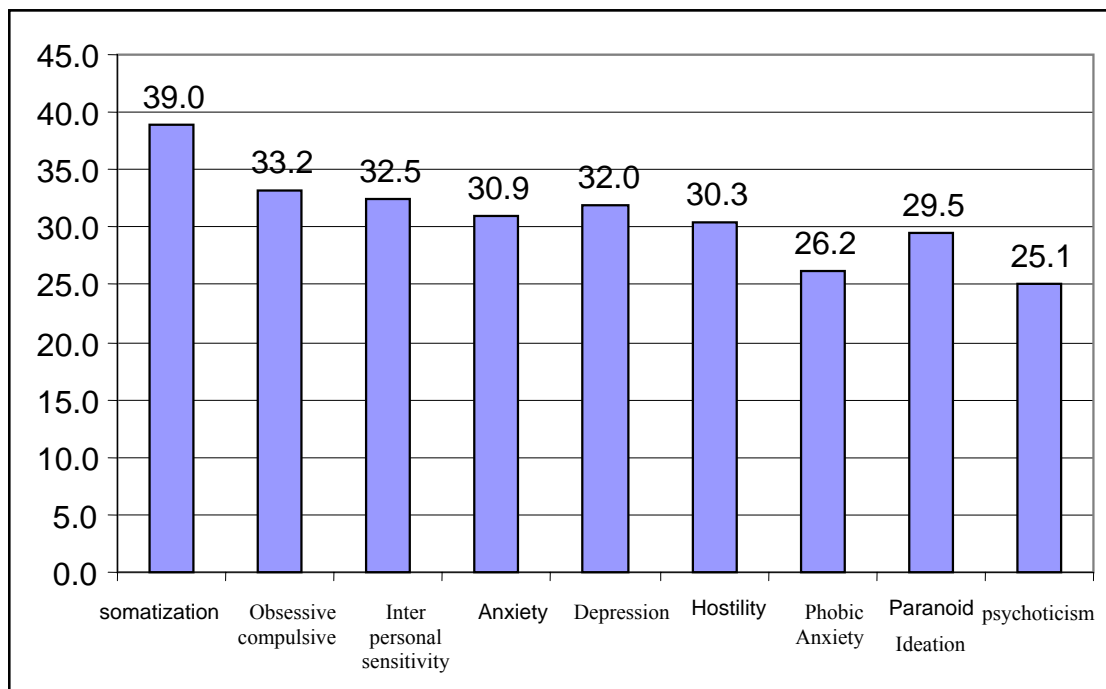


Figure 5.2. shows the degree of suffering of the respondents from the psychiatric symptoms.

5. 3. Thirdly : The results related to the research hypothesizes

5.3.1.The results related to the first hypothesis , which reads as follows

"There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to age variable."

To verify the validity of the first hypothesis ,the researcher calculated the correlation coefficient, "Pearson" between the degree of psychological symptoms and age. Table 5. 23. shows the results related to this hypothesis .

Table 5.23. Correlation coefficient (r) between the degrees of psychological symptoms and age of the injured Palestinians

No	The psychological symptoms	correlation coefficient, "Pearson"	The significance level
1	somatization	0.19	**0.001
2	obsessive compulsive	0.09	// 0.11
3	interpersonal sensitivity	-0.02	// 0.73
4	anxiety	0.05	// 0.34
5	depression	0.02	// 0.71
6	hostility	-0.07	// 0.20
7	phobic anxiety	0.03	// 0.56
8	Paranoid ideation	-0.04	// 0.44
9	psychoticism	-0.04	// 0.46
		**P<0.01	*P<0.05 // P>0.05

Table 5.23. clarified the following

- There is a poor direct correlation that is statistically significant between the grades of somatization and age .($r = 0.19$, $p\text{-value} < 0.05$), and this indicates that the somatization symptoms increased with age increasing among the injured Palestinian adults and vice versa .
- As according to the other psychological symptoms it had observed no statistical relationship between the age factor and the psychological symptoms each separately as the following : obsessive compulsive, interpersonal sensitivity, Anxiety , depression , hostility, phobic anxiety, Paranoid ideation and psychoticism.

5.3.2. The results related to the second hypothesis , which reads as follows:

"There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to gender variable (male and female) ."

To verify the validity of the second hypothesis ,the researcher used T- test (Independent -Sample T-Test) for two independent sample to compare between the average of male degrees and the average of female degrees proportion to the psychological symptoms as describes in the following table 5.24.

Table 5.24. T- test results of comparing between the averages of male degrees and average of female degrees proportion to the psychological symptoms .

psychological symptoms	sex	N	M	STD	t	P-value
somatization	Male	264	15.4	8.0	-1.03	//0.31
	Female	35	17.0	10.9		
obsessive compulsive	Male	265	11.7	6.6	-1.88	//0.06
	Female	35	14.0	7.7		
interpersonal sensitivity	Male	265	11.6	6.8	-1.03	//0.30
	Female	35	12.9	7.9		
Anxiety	Male	265	9.7	5.9	-1.72	//0.09
	Female	35	11.5	6.6		
Depression	Male	265	16.3	9.8	-1.60	//0.11
	Female	35	19.2	11.7		
Hostility	Male	265	7.2	5.3	-0.86	//0.39
	Female	35	8.0	5.3		
phobic anxiety	Male	265	7.1	5.3	-2.30	*0.02
	Female	35	9.3	6.6		
Paranoid ideation	Male	265	7.1	4.9	-0.09	//0.93
	Female	35	7.1	5.0		
Psychoticism	Male	264	8.8	6.2	-1.71	//0.09
	Female	35	10.8	7.8	????	???

****P<0.01**

***P<0.05**

// P>0.05

Table 5.24. showed the following :

- There is substantial differences with statistical significant between the average of males degrees and the average of females degrees in symptom of phobic anxiety . The differences was for females that indicates females suffer from phobic anxiety than males, where the average of male degrees was 7,1 and with standard deviation 5,3 whereas the average of females degrees was 9,3 and with standard deviation equal 6,6.
- Whereas it hadn't observed any substantial differences with statistical significant between males and females related to the following psychological symptoms (somatization, obsessive compulsive, interpersonal sensitivity, Anxiety , depression , hostility, Paranoid ideation and psychoticism).

5.3.3. The results related to the third hypothesis , which reads as follows

"There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to marital status variable ."

To verify the validity of the third hypothesis ,the researcher used One- Way-ANOVA test to study the differences among the married ,non married , and divorced injured Palestinians .As describes in the following table 5.25.

Table 5.25. t- Test results of comparing between the averages of married degrees and average of non married degrees according to the psychological symptoms .

The psychological symptoms	Marital status	N	M	STD	t	P-value
Somatization	Single	152	15.0	7.8	-1.35	//0.18
	Married	147	16.3	9.0		
Obsessive compulsive	Single	152	11.8	6.1	-0.42	//0.67
	Married	148	12.1	7.4		
Interpersonal hostility	Single	152	12.1	6.6	0.96	//0.34
	Married	148	11.3	7.4		
Anxiety	Single	152	9.8	5.3	-0.19	//0.85
	Married	148	10.0	6.7		
Depression	Single	152	16.6	9.3	0.01	//0.99
	Married	148	16.6	10.8		
Hostility	Single	152	7.6	5.2	1.03	//0.30
	Married	148	7.0	5.3		
Phobic anxiety	Single	152	7.1	4.7	-0.77	//0.44
	Married	148	7.6	6.2		
Paranoid ideation	Single	152	7.3	4.7	0.78	//0.44
	Married	148	6.9	5.1		
Psychosis	Single	152	9.5	5.9	1.20	//0.23
	Married	148	8.6	6.9		

// P>0.05

*P<0.05

**P<0.01

The results were showed in table 5.25. shown that there was no statistically significant differences among injured married ,non-married and divorced for the following psychological symptoms (somatization, obsessive compulsive, interpersonal sensitivity, Anxiety , depression , hostility, Paranoid ideation , phobic anxiety and psychoticism). This indicates that the marital status didn't have any effect on the degree of suffering of injured individuals from the psychological symptoms. Thus, the hypothesis has been fully achieved .

5.3.4. The results related to the fourth hypothesis , which reads as follows:

"There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to educational level variable ."

To verify the validity of the fourth hypothesis the researcher used One Way ANNOVA test to study the differences between the educational levels of the injured Palestinians .The following table shows the results related to this hypothesis.

Table 5. 26. One Way ANNOVA Test Analysis between the educational levels of the injured Palestinians for the psychological symptoms

psychological symptoms	Source variance	Sum of Squares	df	Mean Square	F	Sig.
Somatization	Between Groups	859.6	2	429.8	6.3	**0.001
	Within Groups	20276.2	296	68.5		
	Total	21135.8	298			
Obsessive compulsive	Between Groups	1321.9	2	661.0	15.9	**0.001
	Within Groups	12375.6	297	41.7		
	Total	13697.5	299			
interpersonal sensitivity	Between Groups	1173.2	2	586.6	13.0	**0.001
	Within Groups	13406.5	297	45.1		
	Total	14579.8	299			
Anxiety	Between Groups	1129.7	2	564.9	17.3	**0.001
	Within Groups	9713.3	297	32.7		
	Total	10843.0	299			
Depression	Between Groups	3641.3	2	1820.7	20.3	**0.001
	Within Groups	26633.4	297	89.7		
	Total	30274.7	299			
Hostility	Between Groups	740.2	2	370.1	14.6	**0.001
	Within Groups	7528.7	297	25.3		
	Total	8268.9	299			
Phobic anxiety	Between Groups	825.7	2	412.8	14.9	**0.001
	Within Groups	8212.3	297	27.7		
	Total	9037.9	299			
Paranoid ideation	Between Groups	532.6	2	266.3	12.1	**0.001
	Within Groups	6553.8	297	22.1		
	Total	7086.4	299			
Psychoticism	Between Groups	968.7	2	484.3	12.6	**0.001
	Within Groups	11379.1	296	38.44298		
	Total	12347.79	298			

The results in table 5.26. showed that there is substantial statistical significant differences between the educational levels of the injured Palestinians for the following psychological symptoms (somatization, obsessive compulsive,

interpersonal sensitivity, Anxiety , depression , hostility, Paranoid ideation , phobic anxiety and psychoticism).And through the LSD test for after comparisons of the homogeneity of variance, it show a statistically significant difference between individuals who obtained preparatory degree or less, and secondary degree and university certificate and above for psychological symptoms . It was found that the average levels of the individuals obtaining university degree or above was lower than the average levels of the individuals who obtained preparatory certificate and less and high school certificate, and this shows that individuals holding advanced degrees suffer from psychological symptoms less than individuals obtaining the certificate of least , So it is clear that the educational level have an obvious effect on the psychological symptoms among the injured Palestinians, and this results show in the table 5.27.

Table 5.27. shows the results of LSD test for dimensional comparison in the psychological symptoms related to educational level

The psychological symptom	Educational level	N	Mean	The Group		
				Preparatory and less	High school	University and above
Somatization	Preparatory and less	101	17.3	-	0.18	**0.001
	High school	132	15.8		-	**0.01
	University and above	66	12.7			-
Obsessive Compulsive	Preparatory and less	102	13.9	-	0.06	**0.001
	High school	132	12.3		-	**0.001
	University and above	66	8.2			-
interpersonal sensitivity	Preparatory and less	102	13.5	-	0.1	**0.001
	High school	132	12.1		-	**0.001
	University and above	66	8.2			-
Anxiety	Preparatory and less	102	11.8	-	*0.03	**0.001
	High school	132	10.2		-	**0.001
	University and above	66	6.5			-
Depression	Preparatory and less	102	20.1	-	**0.01	**0.001
	High school	132	16.9		-	**0.001
	University and above	66	10.6			-
Hostility	Preparatory and less	102	8.6	-	0.17	**0.001
	High school	132	7.7		-	**0.001
	University and above	66	4.4			-
Phobic anxiety	Preparatory and less	102	8.9	-	0.06	**0.001
	High school	132	7.6		-	**0.001
	University and above	66	4.4			-
Paranoid Ideation	Preparatory and less	102	8.3	-	0.12	**0.001
	High school	132	7.3		-	**0.001
	University and above	66	4.7			-
Psychoticism	Preparatory and less	102	10.1	-	0.75	**0.001
	High school	131	9.9		-	**0.001
	University and above	66	5.7			-

**P<0.01

*P<0.05

// P>0.05

5.3.5. The results related to the fifth hypothesis , which reads as follows:

"There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to occupation ."

To verify the validity of the fifth hypothesis the researcher used One Way ANNOVA test to study the differences between the occupation type among the injured Palestinians .The following table shows the results related to this hypothesis.

Table 5.28. One Way ANNOVA test analysis between the type of work to the injured Palestinians in the psychological symptoms

The psychological symptoms	Source variance	Sum of Squares	df	Mean Square	F	Sig.
Somatization	Between Groups	2058.8	4	514.7	7.9	**0.001
	Within Groups	19077.0	294	64.9		
	Total	21135.8	298			
Obsessive Compulsive	Between Groups	1662.2	4	415.6	10.2	**0.001
	Within Groups	12035.3	295	40.8		
	Total	13697.5	299			
interpersonal sensitivity	Between Groups	1320.9	4	330.2	7.3	**0.001
	Within Groups	13258.9	295	44.9		
	Total	14579.8	299			
Anxiety	Between Groups	1537.3	4	384.3	12.2	**0.001
	Within Groups	9305.7	295	31.5		
	Total	10843.0	299			
Depression	Between Groups	4573.4	4	1143.3	13.1	**0.001
	Within Groups	25701.3	295	87.1		
	Total	30274.7	299			
Hostility	Between Groups	592.2	4	148.1	5.7	**0.001
	Within Groups	7676.7	295	26.0		
	Total	8268.9	299			
Phobic anxiety	Between Groups	900.4	4	225.1	8.2	**0.001
	Within Groups	8137.6	295	27.6		
	Total	9037.9	299			
Paranoid Ideation	Between Groups	570.7	4	142.7	6.5	**0.001
	Within Groups	6515.7	295	22.1		
	Total	7086.4	299			
Psychoticism	Between Groups	1116.8	4	279.2	7.3	**0.001
	Within Groups	11231.0	294	38.2		
	Total	12347.8	298			

Table 5.28. shows the following :

- There is substantial statistical significant differences between type of occupation of the injured Palestinians for the somatization symptoms .And through the LSD test for dimensional comparisons of the homogeneity of variance, it shows a statistically

significant difference between the employees ,the students, the workers, unemployed people, and housewives in the somatization symptoms . It was found that the average grades of employees and students less than workers and unemployed workers and housewives, and this indicates that employees and students suffer from somatization symptoms less than workers and unemployed workers and housewives. While it was noted that there is no differences between workers and the unemployed worker and housewives, and this indicates that the type of occupation has a clear impact on somatization symptoms between the injured Palestinians .

- There is substantial statistical significant differences between type of occupation of the injured Palestinians for the depression symptoms .And through the LSD test for dimensional comparisons of the homogeneity of variance, it shows a statistically significant difference between the employees ,the students, the workers, unemployed people, and housewives for depression symptoms . It was found that the average grades of employees and students less than workers ,unemployed workers and housewives, and this indicates that employees and students suffer from depression symptoms less than workers , unemployed workers and housewives. While it was noted that there is no differences between workers , unemployed worker and housewives, and this indicates that the type of occupation has a clear impact on depression symptoms between the injured Palestinians .

- There is substantial statistical significant differences between type of occupation of the injured Palestinians for the following psychological symptoms (Obsessive compulsive, interpersonal sensitivity, Anxiety , hostility, phobic anxiety, Paranoid ideation and psychoticism) .And through the LSD test for dimensional comparisons of the homogeneity of variance, it shows a statistically significant difference between the employees ,the students, the workers, unemployed people, and housewives for the previous psychological symptoms . It was founded that the average grades of employees and students less than workers ,unemployed workers and housewives, and this indicates that employees and students suffer from the previous symptoms less than workers , unemployed workers and housewives. And this indicates that the type of occupation has a clear impact on the previous psychological symptoms between the injured Palestinians .

Table 5.29. shows the results of LSD test for dimensional comparison in the psychological symptoms related to type of occupation

psychological symptoms	Type of occupation	Mean	The Group				
			employees	Workers	Students	Unemployed	Housewives
Somatization	Employees	12.5	1	0.01	0.54	0.001	0.001
	Workers	17.6		1	0.03	0.78	0.12
	Students	13.4			1	0.001	0.001
	Unemployed	17.1				1	0.02
	Housewives	21.4					1
Obsessive Compulsive	Employees	8.2	1	0.001	0.02	0.001	0.001
	Workers	15.1		1	0.001	0.26	0.93
	Students	10.7			1	0.001	0.001
	Unemployed	13.4				1	0.21
	Housewives	15.3					1
interpersonal sensitivity	Employees	8.3	1	0.06	0.03	0.001	0.001
	Workers	11.5		1	0.71	0.21	0.09
	Students	10.8			1	0.01	0.01
	Unemployed	13.4				1	0.36
	Housewives	14.8					1
Anxiety	Employees	6.2	1	0.01	0.01	0.001	0.001
	Workers	11.7		1	0.02	0.99	0.56
	Students	8.6			1	0.001	0.001
	Unemployed	11.7				1	0.46
	Housewives	12.7					1
Depression	Employees	10.3	1	0.01	0.001	0.001	0.001
	Workers	17.6		1	0.2	0.32	0.08
	Students	14.7			1	0.001	0.001
	Unemployed	19.7				1	0.2
	Housewives	22.4					1
Hostility	Employees	4.8	1	0.001	0.001	0.001	0.001
	Workers	9.1		1	0.08	0.36	0.93
	Students	7.0			1	0.14	0.09
	Unemployed	8.1				1	0.42
	Housewives	9.0					1
Phobic anxiety	Employees	4.7	1	0.001	0.08	0.001	0.001
	Workers	8.8		1	0.06	0.76	0.29
	Students	6.3			1	0.001	0.001
	Unemployed	8.4				1	0.09
	Housewives	10.5					1
Paranoid ideation	Employees	4.6	1	0.01	0.01	0.001	0.001
	Workers	7.7		1	0.36	0.66	0.68
	Students	6.7			1	0.03	0.15
	Unemployed	8.2				1	0.92
	Housewives	8.3					1
Psychoticism	Employees	5.6	1	0.01	0.01	0.001	0.001
	Workers	10.5		1	0.19	0.82	0.33
	Students	8.5			1	0.07	0.01
	Unemployed	10.1				1	0.13
	Housewives	12.3					1

****P<0.01**

***P<0.05**

// P>0.05

5.3.6. The results related to the sixth hypothesis , which reads as follows:

"There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to time of the injury variable ."

To verify the validity of the sixth hypothesis , the researcher founded the correlation coefficient " Pearson" between the grades of psychological symptoms and the time of the injury .The following table shows the results related to this hypothesis.

Table 5.30. Correlation coefficient Factor (r) between the grades of psychological symptoms and the time of the injury

The psychological symptoms	correlation coefficient "pearson"	The significance level
Somatization	0.08	//0.18
Obsessive compulsive	0.11	*0.05
Interpersonal sensitivity	0.13	*0.03
Anxiety	0.15	**0.01
Depression	0.15	**0.01
Hostility	0.11	*0.05
Phobic anxiety	0.12	*0.04
Paranoid Ideation	0.10	//0.10
Psychoticism	0.12	*0.04
**P<0.01 *P<0.05 // P>0.05		

It is founded that ,there is a poor, direct statistical significant correlation between grades of obsessive compulsive and duration of the injury ($r= 0.11$, $p\text{-value}<0.05$). And this shows that the greater the duration of the injury ,more the injured Palestinians suffering from obsessive compulsive symptoms and vice versa .

It is founded that ,there is a poor, direct statistical significant correlation between grades of interpersonal sensitivity and duration of the injury ($r= 0.13$, $p\text{-value}<0.05$). And this shows that the greater the duration of the injury ,more the injured Palestinians suffering from interpersonal sensitivity symptoms and vice versa .

It is founded that ,there is a poor, direct statistical significant correlation between grades of anxiety and duration of the injury ($r= 0.15$, $p\text{-value}<0.05$). And this shows that the greater the duration of the injury ,more the injured Palestinians suffering from anxiety symptoms and vice versa .

It is founded that ,there is a poor, direct statistical significant correlation between grades of depression and duration of the injury ($r= 0.15$, $p\text{-value}<0.05$). And this shows that the greater the duration of the injury ,more the injured Palestinians suffering from depression symptoms and vice versa .

It is founded that ,there is a poor, direct statistical significant correlation between grades of hostility and duration of the injury ($r= 0.11$, $p\text{-value}<0.05$). And this shows that the greater the duration of the injury ,more the injured Palestinians suffering from hostility symptoms and vice versa .

It is founded that ,there is a poor, direct statistical significant correlation between grades of phobic anxiety and duration of the injury ($r= 0.12$, $p\text{-value}<0.05$). And this shows that the greater the duration of the injury ,more the injured Palestinians suffering from phobic anxiety symptoms and vice versa .

It is founded that ,there is a poor, direct statistical significant correlation between grades of Psychoticism and duration of the injury ($r= 0.12$, $p\text{-value}<0.05$). And this shows that the greater the duration of the injury ,more the injured Palestinians suffering from Psychoticism symptoms and vice versa .

Whereas there is no significant statistical relationship between the duration of the injury and somatization and paranoid ideation .

5.3.7. The results related to the seventh hypothesis , which reads as follows:

"There is statistical significant effect in the independent variables of the site of the injury that includes (the face region, the neck region, the chest region, the back region, the abdomen region ,the pelvic region ,the extremities region and in multiple body parts) on the dependent variables (nine psychological symptoms). "

To verify this , it was used the multiple regression analysis in the regressive way to examine the impact of the following independent variables(the face region, the neck region, the chest region, the back region, the abdomen region ,the pelvic region ,the extremities region and in multiple body parts) on the nine psychological symptoms. As well as to determine the relative importance of independent variables on the psychological symptoms, and it can be seen in the following table :

Table 5.31. The Results of the multi-linear regression analysis in the regression way between the psychological symptoms and the site of the injury

Dependent variables	Independent variables	B	Std. Error	t	P-value
Somatization	The constant	13.48	0.76	17.8	**0.001
	Multiple body parts	3.52	0.98	3.6	**0.001
	R ²	0.20			
	F-test (1,297)	**13.0			
Interpersonal sensitivity	The constant	11.58	0.54	21.6	**0.001
	Face region	2.04	0.86	2.3	*0.02
	Abdomen region	-1.74	0.88	-1.9	*0.05
	R ²	0.16			
	F-test (1,297)	*4.0			
Hostility	The constant	7.00	0.33	21.4	**0.001
	Neck region	1.98	0.86	2.3	*0.02
	R ²	0.13			
	F-test (1,298)	*5.2			
Phobic anxiety	The constant	7.05	0.34	20.7	**0.001
	Neck region	2.04	0.90	2.2	*0.02
	R ²	0.13			
	F-test (1,298)	*5.3			

** P<0.01

*P<0.05

The somatization symptoms and the site of the injury

Through out the analysis of multi-linear regression results ,it is shown that the injury in multiple body part variable is the one variable that affects the somatization symptoms. It was found that the value of "F" are significant ($F = 13.0$, $P < 0.001$), and this indicates that the site of the injury variable in multiple body parts injury has impact on the somatization symptoms. Also The multiple body part injury variable was explained as independent variable 20% from the total variance for the somatization symptoms, While it was noted that there is no impact of the other independent variables on somatization, and from the table above it can formulate a decline equation that help in prediction of degrees of somatization symptoms by knowing the multiple body part injury as in the following picture:

$\text{Somatization} = 13.48 + 3.52 (\text{injury in multiple body part regions})$. The previous equation showed that as an increasing of multiple body part region injury one degree led to the suffering of the injured Palestinians from the somatization by 3.52 degree and vice versa.

The interpersonal sensitivity and the site of the injury :

Through out the analysis of multi-linear regression results ,it is shown that the injury in the face and abdomen region variables are the only two variables that have an effect on the interpersonal sensitivity symptoms. It was found that the value of "F" are statistical significant ($F = 4.0$, $P < 0.001$). The two variables together was explained as independent variables 16% from the total variance for the interpersonal sensitivity. While it was noted that there is no impact of the other independent variables on interpersonal sensitivity, and from the table above it can formulate a decline equation that help in prediction of degrees of interpersonal sensitivity symptoms by knowing the site of the injury in face and abdomen regions as in the following picture:

$\text{interpersonal sensitivity} = 11.58 + 20.4 (\text{the face region}) - 1.74 (\text{the abdomen region})$.

OF the previous equation showed that whenever an increasing of injury in face region one degree led to the suffering of the injured Palestinians from the interpersonal sensitivity by 20,4 degrees and vice versa. Whereas it noted that whenever an increasing of injury in abdomen region one degree led to lowering the suffering of the injured Palestinians from the interpersonal sensitivity by 1,74 degree and vice versa.

The hostility and the site of the injury :

Through out the analysis of multi-linear regression results ,it is shown that the injury in the neck region variable is the only variable that have an effect on the hostility . It was found that the value of "F" are statistical significant ($F = 5.2$, $P < 0.001$). Also the neck region injury variable was explained as independent variable 13% from the total variance for the hostility symptom. While it was noted that there is no impact of the other independent variables on hostility symptom , and from the table above it can formulate a decline equation that help in prediction of degrees of hostility symptom by knowing the site of the injury in neck region as in the following picture: $\text{Hostility} = 7.0 + 1.98 (\text{the neck region})$.

OF the previous equation showed that whenever an increasing of injury in neck region one degree led to the suffering of the injured Palestinians from the hostility by 1,98 degree and vice versa.

Phobic anxiety and the site of the injury :

Through out the analysis of multi-linear regression results ,it is shown that the injury in the neck region variable is the only variable that have an effect on the phobic anxiety . It was found that the value of "F" are statistical significant ($F = 5.3$, $P < 0.001$). Also the neck region injury variable was explained as independent variable 13% from the total variance for the phobic anxiety symptom. While it was noted that there is no impact of the other independent variables on phobic anxiety symptom , and from the table above it can formulate a decline equation that help in prediction of degrees of phobic anxiety symptom by knowing the site of the injury in neck region as in the following : $\text{Phobic anxiety} = 7.05 + 2.04 (\text{the neck region})$

OF the previous equation showed that whenever an increasing of injury in neck region one degree led to the suffering of the injured Palestinians from the phobic anxiety by 20,04 degrees and vice versa.

The psychological symptoms (obsessive Compulsive, Anxiety, Depression, paranoid ideation ,and Psychoticism) and the site of the injury .

Through out the analysis of multi-linear regression results ,it is shown that there is no effect of the independent variables that represented in the following site of the injury (the face, the neck, the chest, the back, the abdomen, pelvis, and multiple body parts) on the following psychological symptoms (obsessive Compulsive, Anxiety, Depression, paranoid ideation ,and Psychoticism).

5.3.8. The results related to the eighth hypothesis , which reads as follows:

"There is no statistical significant differences in the psychological symptoms among injured Palestinians adults related to nature of the injury ."

To verify the validity of the eight hypothesis , the researcher used One Way ANNOVA test to study the differences in the nature of the injury between the injured Palestinians .The following table shows the results related to this hypothesis .

Table 5. 32. One direction variance analysis between the nature of the injury to the injured individuals in the psychological symptoms

The psychological symptoms	The nature of the injury							
	Face region	Neck region	Chest region	Back region	Abdomen region	Pelvic region	Extremities region	Multiple body part
	F -test	F -test	F -test	F -test	F -test	F -test	F -test	F -test
Somatization	0.50	0.51	1.17	0.49	0.67	0.83	**4.62	1.24
Obsessive compulsive	0.72	0.12	1.42	0.73	0.32	0.98	1.78	2.39
Interpersonal sensitivity	2.23	0.28	**4.08	2.75	0.21	1.68	1.47	1.00
Anxiety	2.25	0.02	*2.44	2.48	0.66	0.57	1.61	1.31
Depression	0.92	0.16	**4.21	2.68	0.51	0.51	1.51	1.06
Hostility	0.87	0.14	1.31	0.99	0.96	0.67	1.83	0.58
Phobic anxiety	1.07	0.24	2.27	1.78	0.08	1.49	1.08	1.29
Paranoid ideation	0.68	0.31	1.99	1.75	0.42	1.01	2.26	0.38
Psychoticism	1.39	0.11	1.65	0.89	0.28	0.73	0.86	2.30

****P<0.01**

***P<0.05**

Table 5.32. shows the following

There are a substantial differences statistically significant between the nature of the injury in the chest region for the following symptoms (interpersonal sensitivity, anxiety and depression),and through out LSD test of dimensional comparison for homogeneity of the variance, it showed that there is a statically significant differences between the nature of the injury categories for the following symptoms (interpersonal sensitivity, anxiety and depression),it was found that the average degree of the injured who were injured in the spinal cord were greater than the average of degree of the injured individuals which the nature of their injuries was as the following (multiple wounded ,burns, lung injury ,fractures in the ribs of the chest).And this indicates that the injured individuals with spinal cord injury suffered from the interpersonal sensitivity, anxiety and depression symptoms more than the injured individuals with other injuries include (multiple wounded ,burns ,fractures of the ribs of the chest) ,while it was noted that the absence of differences between other nature of the injury categories .

There are a substantial differences statistically significant between the site of the injury in the extremities region for the somatization symptom ,and through out LSD test of dimensional comparison for homogeneity of the variance, it showed that there is a statically significant differences between the type of the injury categories for the somatization symptom, it was found that the average degree of the injured individuals who suffered from multiple fractures and the individuals who suffer from blood vascular injury was greater than the average degree of the injured individuals who suffer from multiple wounded , injured individuals who suffer from burns , injured individuals who suffer from nerve injury and injured individuals who suffer from amputation .

Also it was noted that the absence of a statistically significant differences between the nature of the injury in the following sites (face region, neck region , back region , abdomen region , pelvis region , and multiple body parts injury) for the following psychological symptoms (somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety , hostility, phobic anxiety, paranoid ideation and Psychoticism). This indicates that the nature of the injury at the following sites (face, neck, back, abdomen, pelvic, extremities and multiple body parts) did not have an impact on the degree of suffering from the nine psychological symptoms .

There are a substantial differences statistically significant between the site of the injury in the extremities region for the somatization symptom ,and through out LSD test of dimensional comparison for homogeneity of the variance, it showed that there is a statically significant differences between the type of the injury categories for the somatization symptom, it was found that the average degree of the injured individuals who suffered from multiple fractures and the individuals who suffer from blood vascular injury was greater than the average degree of the injured individuals who suffer from multiple wounded , injured individuals who suffer from burns , injured individuals who suffer from nerve injury and injured individuals who suffer from amputation .

Also it was noted that the absence of a statistically significant differences between the nature of the injury in the following sites (face region, neck region , back region , abdomen region , pelvis region , and multiple body parts injury) for the following psychological symptoms (somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety , hostility, phobic anxiety, paranoid ideation and Psychoticism). This indicates that the nature of the injury at the following sites (face, neck, back, abdomen, pelvic, extremities and multiple body parts) did not have an impact on the degree of suffering from the nine psychological symptoms .

Chapter (6)

DISCUSSION

6.1. Discussion

This study describes the psychological impact of the physical injury resulting from the Al-Aqsa intifada events on the Palestinian injured adults in Gaza Strip, as well as to delineate factors having an effect on the development of psychological symptoms among the injured. To our knowledge this is the first study in Gaza Strip that assesses the psychological impact of the intifada physical injury. It is expected from this study to increase knowledge in the field of psychological sequels of physical injury, and to be as a source for information to conduct additional studies in this field.

Studying the psychological impact of different physical injuries has been given more attention and increase day after day. Physical injury considered one of the leading causes of death and disability worldwide especially among adult people (WHO,2004). Causes of physical injury differ from country to another for example in the united states and in many other countries road traffic accidents are considered the most common injuries but in our country the injury resulting from the continuing Israeli aggression is the most common injury in Palestinian society especially among young people (PHIC,2006).

The main purpose of our study is to assess the psychological impact of exposure to physical injuries resulting from the Israeli aggression on Gaza strip during the AL Aqsa intifada events and to determine factors that may increase the risk of developing psychological symptoms after the injury. There are many studies that investigated the presence of psychological problems after exposure to different physical injuries.

Wang et al (2005) made a study aimed to investigate and follow-up relationships between post-traumatic stress disorder, anxiety, depression and quality of life in patients after traffic-related injuries.

Sutherland et al (2006), made a study aimed to investigate the relationship between physical and psychological recovery in victims of musculoskeletal trauma.

Read et al (2004), made a study aimed to investigate life-altering outcomes after lower extremity injuries sustained in motor vehicle crashes

Kennedy and Rogers (2000), made a study aimed to examine the prevalence of anxiety and depression in a sample of patients with a spinal cord injury (SCI).

Cansever et al (2003), study aimed to compare the prevalence of depression among traumatic and surgical amputees .

Kapidzić Duraković et al 2006, made a study aimed to investigate the relations of physical trauma and psychological changes at persons with lower extremities amputations and determined factors which influence those changes .

Graham et al 2006, made a study aimed to benchmark the psychological state and physical rehabilitation of patients who have sustained limb loss as a result of terrorist activity in Northern Ireland.

James et al 2007, made a prospective cohort study aimed to assess the psychological distress among survivors with major burn injury .

Ulrich Schnyder et al 2001, made a study aimed to assess the prevalence of posttraumatic stress disorder PTSD and symptoms of depression and anxiety in severely injured accident victims 1 year post trauma and to predict psychiatric morbidity .

Shalev et al 2006 ,De Jong et al ,2001 and Amir and Sol,1999 discussed in their studies the psychological impact of exposure to traumatic events including war related violence and injury in conflict areas .

In our country Qouta and EL Sarraj 2003, studied the psychological trauma mainly among the Palestinian children resulting from different forms of violence such as home bombardment .In the West Bank Vivian Khamis 2006 , made a study to assess the prevalence of PTSD among Palestinians who sustained serious bodily injuries during the second intifada .

Also through out this study we identified the characteristics of the second intifada injury including its nature and types , the presence of shrapnel in the body, the resulting pain and the cure from it . Descriptive design was used which considers one of the most study designs that used in the field of the psychology.

A simple random sample of 300 individuals from both sexes were selected from injured Palestinians who sustained serious bodily injuries , aged 18 years or older ,living in Gaza Strip and who registered in Support of the Families of the Injured and the Martyrs Institution. The complex nature of the second intifada physical injury made it difficult to select the sample from the individuals who exposed to one type of injury for example amputation or musculoskeletal fractures that let us include many types of injury in most body parts and we exclude head injuries such as brain injuries . this agree with Holbrook et al (2005), who examined multiple outcomes after major trauma including psychological status among trauma survivors and he excluded severe traumatic brain injury or spinal cord injury. Also it agrees with Schnyder et al (2000), who studied early psychological reactions to life threatening injuries ,and he selected the sample of his study from severely injured accident victims and he excluded patients with severe head injuries.

Most of the sample was from men 83.3% (n=265) whereas women 11.7 (n=35) that don't interfere with the ministry of health statistic data (2006), that reported men more likely to injured than women , and from beginning of AL Aqsa intifada in 28/9/2000 until the end of 2006, the percentage of injured men was 88,9% , whereas women 11,1 % .

The study instrument include the demographic data, simple questionnaire that describes the injury characteristics and the SCL-90 psychometric scale to measure the nine psychometric symptoms including depression ,anxiety, somatization, obsessive compulsive ,interpersonal sensitivity ,hostility ,phobic anxiety ,paranoid ideation and psychoticism, that agrees with Kapidzić Duraković et al (2006) ,who investigated the relations of physical trauma and psychological changes at persons with lower extremities amputations .

In our study we collected and analyzed injury data regarding the site of the injured body regions, nature of the injury, causes of the injury (the weapons used), pain, healing from the injury and time of the injury. Our findings showed that the most commonly injured body regions were the limbs (74.0 %) and multiple body parts regions injury (60.0%). The face injury was (33,3 %), abdomen injury was (31.3%). Chest injury was (29,7 %), back injury was (28,3%), pelvic injury was (16.7%) and finally (14.3%) of cases was neck injury. Fragments and explosives (63,3 %) were the most common cause of injury. (34.3%) of the respondents were injured as a result of explosion of missile fragments resulting from aerial bombardment, while (29%) were injured as a result of the explosion fragments of artillery shells. Bullets accounted (36.7%), and (7 %) for other weapons. In all body sites the most common nature of injury was multiple wounded in all body sites except the limbs region that the nerve injury was the most and it accounted 27,9%.

The high proportion of using of explosive and fragmented weapons led to appearance of high proportion of multiple body part injury in more than one body regions (60.0%) where the shrapnel spread in the body affect more than one body region. This results don't interfere with other results in this study that showed that (55.7%) of respondents still having a fragments of weapons in their bodies. This agree with Sheffy et al (2006), who made study aimed mainly to compare terror-related injuries caused by secondary fragments (SF) from explosive devices with terror-related penetrating injuries caused by gunshot wounds. His results revealed that more than 40% of SF victims were injured in three or more body regions, as opposed to < 10% in gunshot-wound victims. Use of imaging modalities and intensive care units was considerably higher for SF victims. Terror victims suffering from SF wounds have more complex, widespread, and severe injuries than victims suffering from gunshot wounds. In our study we can't determine the severity and complexity of the injury because the shortage in the information related to severity of the injury.

The results of our study showed that more psychological symptoms which injured individuals suffer from it were somatization with relative weight of (39%), followed by obsessive-compulsive with relative weight of (33.2%), interpersonal sensitivity with relative weight of (32.5%), (32%) had depression, and (30.9%) for anxiety, and (30.3%) for hostility, (29.5%) for paranoid ideation, (26.2%) for phobic anxiety and finally (25.1%) for psychotics. This results agree with the results of many studies that founded that exposure to physical injury contribute in developing of different psychological problems and disorders. The results of Holbrook et al 2005, showed that high rates of acute stress disorder which severely affect quality of life outcomes, related to female sex and mechanism of injury in adolescents. Sutherland et al 2006, founded that post traumatic disturbance correlated strongly with functional outcome in victims of musculoskeletal trauma. Mc Carthy 2003, founded that of the 569 patients with severe lower injury, 48% of them screened positive for a likely psychological disorder at three months after the injury and three months after the injury and remained high (42%) at 24 months. 1/5 of the patients reported sever phobic anxiety and /or depression after 2 years of the injury. Cansever et al 2003, founded that depression is a common clinical condition among amputees, Kapidzic et al 2006, reported that persons with lower extremities amputation have considerably more expressed sensitivity, anxiety, hostility and paranoid ideation. James et al 2007 results showed that there is significant in hospital psychological distress occurred in 34% of patients survivors with major burn injury. Holtslag et al 2007, founded that type of injury especially lesions of traumatic brain and spinal cord and extremity injuries was a predictor of both psychosocial and physical functioning problems after more than one year among large and unselective group of severely injured patients.

According to the results the factors associated with a likely psychological problems include age, educational levels, gender, occupation, time since the injury, injury characteristics include the site and the nature of the injury. It is founded that there is a poor direct statically significant relationship between somatization symptom and age ($r=0.19$, $p \text{ value} < 0.05$), that means somatization symptom increased with age increased, this agree with the results of Krause et al, 2000 study that showed that aging factors were modestly positively correlated with depression among patients with spinal cord injury. But disagree with McCarthy et al 2003, results who reported that factors associated with a likely psychological disorder among patients with severe lower injury included younger age.

Regarding to gender variable our results indicated that females suffer from phobic anxiety than males. Whereas it hadn't observed any substantial differences with statistical significant between males and females related to the following psychological symptoms (somatization, obsessive compulsive, interpersonal sensitivity, Anxiety, depression, hostility, Paranoid ideation and psychoticism). This results agreed with results of many studies that proved that women are more vulnerable to have psychological problems after exposure to traumatic events and physical injury such as Qouta et al, 2003; Punamaki et al 2005; Holbrook et al 1993; Schnyder et al 2000, and Van loey et al 2003.

Our results also showed that the educational level have an obvious effect on the psychological symptoms among the injured Palestinians. Individuals holding high educational level suffer from psychological symptoms less than individuals obtaining low educational level. This agree with results of Cansever et al 2003, study who founded that depression was associated with educational level among the surgical amputee group, and with Sciveletto et al 1997, who reported that after spinal cord injury some characteristics were significantly associated with a higher risk of developing psychological distress including low educational level.

Also the results show that the nine psychological symptoms correlate strongly with type of occupation variable as the following : employees and students suffer from the psychological symptoms less than workers ,unemployed workers and housewives ,and this indicates that the type of occupation has a clear impact on the nine psychological symptoms among the injured Palestinians adults .

Regarding the duration of the injury variable we founded that ,there is a modesty direct statistical significant correlation between grades of the psychological symptoms and duration of the injury except somatization and paranoid ideation). And this shows that the greater the duration of the injury ,more the injured Palestinians suffering from Psychoticism symptoms and vice versa .This results agree with Criag et al 1994, results that revealed that there was no significant improvement in anxiety and depression scores in the SCI patients 2 years post injury .

Many researchers studied the relation of the injury characteristics such as site of injury in different body regions, mechanism of the injury ,severity of the injury, causes of the injury , and nature of the injury with the psychological problems after physical injury . We analyzed the site of injury and nature of the injury variables and founded that the psychological symptoms vary according to site and nature of the injury for example the injury in the face and abdomen region variables are the only two variables that have an effect on the interpersonal sensitivity symptoms , the injury in the neck region variable is the only variable that have an effect on the hostility. There are a substantial differences statistically significant between the site of the injury in the chest region for the following symptoms (interpersonal sensitivity, anxiety and depression), and there are a substantial differences statistically significant between the site of the injury in the extremities region for the somatization symptom.

The study results agree with UI Rich Schneider et al 2001 , Kapidzic2006 ,and Holstlag 2007, who studied injury characteristics variables and founded that severity of injury, level of injury and type of injury contributed significantly to psychological problems among injured patients including posttraumatic stress disorder ,anxiety and depression . But disagree with Craig et al1994 ,and Will brand 2004, who reported that injury characteristics including level of injury is not related to long term psychological problems post injury.

Older age variable modestly related to somatization symptom but not to another remaining psychological symptoms . Female gender is strongly related to phobic anxiety but there was no statically significant differences between men and women in the remaining psychological symptoms . There is substantial statistical significant differences between the educational levels and type of occupation of the injured Palestinians for the nine psychological symptoms (somatization, obsessive compulsive,

Chapter (7)

CONCLUSION & RECOMMENDATIONS

7.1. Conclusion Remarks

From the following study we can conclude the following :

1. Among the injured Palestinian adults who were injured during the second intifada events the most commonly injured body regions were the limbs (74.0 %) and multiple body parts regions injury (60.0%). The face injury was (33 ,3 %), abdomen injury was (31.3 %),chest injury was (29,7 %), back injury was (28, 3%), pelvic injury was (16.7%),and finally(14.3%) of cases was neck injury.
2. Fragments and explosives as a result of explosion of missile fragments resulting from aerial bombardment and artillery shells were the most common cause of injury (63,3 %). (34.3%). Whereas the Bullets accounted (36.7%), and(7 %) for other weapons.
3. The physical injury resulting from second Palestinian intifada uprising has a significant impact on the psychological wellbeing of the injured Palestinian adults in Gaza Strip. The most psychological symptoms which injured individuals suffer from it was Somatization with relative weight of (39%), followed by obsessive-compulsive (33.2%) , interpersonal sensitivity with relative weight of (32.5%) , depression with relative weight of (32%) , anxiety with relative weight of (30.9%) , and hostility with relative weight of (30.3. %) , paranoid ideation with relative weight of (29.5%) , phobic anxiety with relative weight of (26.2%) and finally psychotics with relative weight (25.1%) .
4. These psychological symptoms significantly related to the following factors (older age, female gender ,low educational level, type of occupation, time since injury, site of the injury and nature of the injury) ,but not related to marital status variable as the following :

Older age had higher rate of somatization symptom .According to the gender variable females suffer from phobic anxiety than males . Low educational level and type of occupation factors have a significant effect on the nine psychological symptoms .

According to the time factor ; the greater the duration of the injury ,more the injured Palestinians suffering from obsessive compulsive, hostility, anxiety, depression, psychotism, phobic anxiety and interpersonal sensitivity symptoms

Regarding to the site of the injury variable the injury in multiple body part variable is the one variable that affects the somatization symptoms, whereas the injury in the face and abdomen region variables are the only two variables that have an effect on the interpersonal sensitivity symptoms , the injury in the neck region variable is the only variable that have an effect on the phobic anxiety. The nature of the injury including spinal cord injury in the chest region related to interpersonal sensitivity, anxiety and depression symptoms , whereas the nature of the injury in the extremities region included multiple fracture and blood vascular were related to somatization symptom .

7.2. Recommendation

- psychological aspect of physical injury should be given more attention and considered in all stages of trauma care intervention including rehabilitation to decrease the psychological suffering of the injured people and to prevent developing of the psychological disorders.
- Assessment system of physical injury should be developed to give more accurate information about the injury characteristics including nature and severity of injury and the degree of impairment and disability that may resulting from the injury.
- Introducing of Psychotherapy and psychological support to injured people is essential to success of the intervention process including the rehabilitation .
- More additional researches should be implemented in studying the psychological impact of physical injury resulting from the continuous Israeli aggression on Palestinian people .
- More additional researches should be implemented to identify characteristics of the physical injury resulting from Israeli aggression on Palestinian people .

REFERENCES

References

- Alean, A.I., John, R., Graham and Mahmud, A. Sehwal (2004), " Mental Health and Violence/trauma in Palestine: Implications for Helping Professional Practice , *Journal of Comparative Family Studies*, Vol. 35.
- American Psychiatric Association (1995),: Diagnostic and Statistical Manual of Mental Health .
- Amir, M. and Solo, O. (1999), "Psychological impact and prevalence of traumatic events in a student sample in Israel: the effect of multiple traumatic events and physical injury", *Journal of Traumatic Stress* 12(1): 139-54.
- Amy, A.I., Christopher Peterson and David Ubelhor (1999), " War-Related Trauma and Symptoms of Posttraumatic Stress Disorder Among Adult Kosovar Refugees" ,*Journal of Traumatic Stress* , 15,2: 157-160.
- Baker, A. and Shalhoub-Kevorkian, N. (1999), " effects of political and military traumas on children : The Palestinian case ",*Clinical psychological Review*, 19,8:935-550 .
- Brett, J.F., Brief, A.P., Burke, M.J., George, J.M. and Webster, J., (1990) " Negative affectivity and the reporting of stressful events", *Health Psychology* , 9, 57-68.
- Brom, D., Klebber, R. J. and Defares, P.B. (1989), " Brief psychotherapy for post traumatic stress disorders ", *Journal of Consulting and Clinical Psychology* , 57,5: 607-612.
- Bromely, I. (2002), "Tetraplegia and Paraplegia , Aguide for physiotherapists ,5th Ed , Churchill Livingstone ,London.
- Caffo, E. and Belaise, C. (2003), " Psychological aspects of traumatic injury in children and adolescents ", *Child and adolescence psychiatric clinics of North America Journal*, 12,3: 493-535 .
- Cansever, A., Uzun, O., Yildiz, C., Ates, A. and Atesalp, A.S. (2003), " Depression in men with traumatic lower part amputation: a comparison to men with surgical lower part amputation ", *Military Medicine*, 168,2: 106-9.
- Craig, A.R., Hancock, K.M. and Dickson, H.G. (1994), " A longitudinal investigation into anxiety and depression in the first 2 years following a spinal cord injury", *Journal of Paraplegia*, 32,10: 675-9.
- Craig , A.R., Hancock, K.M. and Dickson, H.G. (1994), ".Spinal cord injury: a search for determinants of depression two years after the event" ,*The British Journal of Clinical Psychology /The British Psychological Society*,33, 2: 221-30.

Daaleman, T.P. and VandeCreek, L. ,(2000), "Placing religion and spirituality in end-of-life care [commentary]", *The journal of the American Medical Association* , 284: 2514-2517.

David W. Krueger (1984) : Emotional Rehabilitation of Physical Trauma and Disability ,Springer ,London.

David Skinner, Peter Driskoll and Richard Earlam : ABC of Major Trauma ,(1996), second Edition, BMJ publishing group, London .

Deborah Lang staff (2000) : Trauma Care : A team Approach ,(2000),

De Jong, J.T., komproe, I.H., Van Ommeren, M., El Massri, M., Araya, M., Khaled, N., Van De Put, W. and Somasundaram, D. (2001), "Lifetime events and posttraumatic stress disorder in 4 post conflict settings", *JAMA*, 286,5: 555-62.

Disorders, 4th Ed. (1995), Washington, DC: American Psychiatric Association .

Ellison, C.G. (1991), "Religious involvement and subjective well-being ", *Journal of Health and Social Behavior* , 32: 80-99.

Freidman, S.B., Chodoff, P., Mason, J. and Hamburg, D.A. (1963), "Behavioral observations on parents anticipating the death of a child", *Journal of Pediatrics* , 32: 610-625.

Gartner, R. (1990), "The victims of homicide: a temporal and cross national Comparison", *American Sociological Review*, 55: 92–106.

Giacaman , R., Saab, H., Viet Nguyen-Gillham, Abdullah, A. and Nasser, G. (2004), " Palestinian Adolescents coping with trauma " Institute of Community and Public Health, Birzeit University ,Birzeit ,Palestine .

Graham, L. Parke, R.C., Paterson, M.C. and Stevenson M. (2006), " A study of the physical rehabilitation and psychological state of patients who sustained limb loss as a result of terrorist activity in Northern Ireland 1969-2003 ", *Journal of Disability and Rehabilitation*, 28,12: 797-801.

Hassed, C. (1999), " Spirituality and health [review]" , *Aust Fam Physician*, 28, 387-388.

Haim Gordon, Rivca Gordon and Taher Shriteh (2003) : Beyond Intifada: Narratives of Freedom Fighters in the Gaza Strip , Praeger Place of Publication : Westport.

Helen, L. : Willard and Spakman's Occupational Therapy 7th Ed (1988), Lippincott company, London.

Hobfoll, S.E., Canetti-Nisim, D. and Johnson, R.J. (2003), " Exposure to terrorism, stress-related mental health symptoms, and defensive coping among Jews and Arabs in Israel.", *Journal of Consulting and Clinical Psychology*, 74,2: 207-18.

Holbrook, T.L., Anderson, J.P., Sieber, W.J., Browner, D. and Hoyt, D.B. (1998), "Outcome after major trauma: discharge and 6-month follow-up results from the Trauma Recovery Project". *Journal of trauma* , 45,2: 315-23 .

Holbrook, T.L., Hoyt, D.B., Coimbra, R., Potenza, B., Sise, M. and Anderson, J.P. (2005), "High rates of acute stress disorder impact quality-of-life outcomes in injured adolescents: mechanism and gender predict acute stress disorder risk", *Journal of trauma* , 59(5): 1126-30 .

Holbrook, T.L. and Hoyt, D.B. (2004), " The impact of major trauma: quality-of-life outcomes are worse in women than in men, independent of mechanism and injury severity", *Journal of Trauma* , 56,2: 284-90.

Ibor J: Disasters and Mental Health , (2005), Wiley and sons, England.

Jon G. Allen: Coping with Trauma A guide To Self understanding, (1995), American Psychiatric Public .inc, USA.

James, A. Fauerbach, Jodi McKibben, O., Joseph Bienvenu, Gina Magyar-Russell, Michael, T., Smith, Radha Holavanahalli, David, R., Patterson, Shelley, A., Wiechman, Patricia Blakeney and Dennis Lezotte (2007), " Psychological Distress After Major Burn Injury " , *Journal of Psychosomatic Medicine*, 69: 473-482.

Jean Shaoul, (2006), " Israel used chemical weapons in Lebanon and Gaza " , *World Socialist Web site* , : <http://wsws.org/articles/2006/oct2006/isra-o24.shtml> .

Kapidžić-Duraković, S. Karabegović, A. Halilbegović, E. Čiškusić, A. Osmanović, N. and Kudumović, Z. (2006), " Check list of symptoms SCL-90-R at persons with extremities amputations", *Bosnian Journal of Basic Medical Sciences / Association of Basic Medical Sciences*, Feb;6,1: 58-61.

Kennedy, p. and Rogers, B.A. (2000), " Anxiety and depression after spinal cord injury: a longitudinal analysis ", *Archives of Physical Medicine and Rehabilitation*, 81,7: 932-7.

Krause, J.S., Kemp, B. and Coker, J. (2000), " Depression after spinal cord injury: relation to gender, ethnicity, aging, and socioeconomic indicators " , *Archives of Physical Medicine and Rehabilitation*, 81,8: 1099-109.

Larson, D.B. and Koenig, H.G. ,(2000) " Is God good for your health? the role of spirituality in medical care", *Cleveland Clinic journal of medicine* , 67,80-84.

Lavi, T. and Salamon, Z. (2005), " Palestinian youth of the Intifada: PTSD and future orientation ", *Journal of the American Academy of Child and Adolescents Psychiatry* , 44,11: 1176-83.

Lazarus, R. S., and Folkman, S. (1988) : Coping and adaptation , the hand book of behavioral medicine , W.D Gentry, New York. .

Leon, A., Henry, I., Philip, R., Muskin, Gary M. and Burlingame (2006): Psychological Effects of Catastrophic Disasters: Group Approaches to Treatment, Haworth Press. USA.

Lincoln, Andrew, E., Helmer, Drew, A., Schneiderman, Aaron, I. and Mian Li. (2006) , " War-Related Illness and Injury Study Centers: A Resource for Deployment-Related Health Concerns ", *Journal of Military Medicine* ".

Mandy Turner Arming the Occupation: Israel and the Arms Trade , Campaign Against Arms Trade: <http://www.caat.org.uk/publications/countries/israel-1002.php#conclusion> , June , 2002 .

Malt, U.F. and Olafsen, O.M. (1992), "Psychological appraisal and emotional response to physical injury: a clinical, phenomenological study of 109 adults", *Psychiatric Medicine Journal*, 10,3 : 117-34 .

Mark E. (1999) : The Use of Psychological Testing for Treatment Planning and Outcomes Assessment ,Lawrence Erlbaum.associates .

Marris, P. (1974) : Loss and Change, Pantheon books , New York.

Maslow, A.H.(1959) : Psychological data and value theory, Harper and Row, New York .

McCarthy, M.L., MacKenzie, E.J., Edwin, D., Bosse, M.J., Castillo, R.C. and Starr, A. (2003), " Psychological distress associated with severe lower-limb injury ", *The Journal of Bone and Joint Surgery* 85, 9: 1689-97.

Medicine .Net .Inc. 25/9/2005. last editorial Review , : <http://www.medterms.com/script/main/art.asp?articlekey=8171>

Melissa, L., McCarthy, M.S., Ellen, J., MacKenzie, David Edwin, Renan, C., Castillo, Adam Starr. (2003) , "Psychological Distress Associated with Severe Lower-Limb Injury", *The Journal of Bone and Joint Surgery*, 85: 1689-1697 .

Mollica, R.F., McInnes, K., Sarajlic, N., Lavelle, J., Sarajlic, I. and Massagli, M.P. (1999), " Disability associated with psychiatric comorbidity and health status in Bosnian refugees living in Croatia", *The Journal of The American Medical Association*, 4;282,5: 433-9.

Palestinian Ministry of Health ,state of Palestine .(2004) health conditions ,and assistance to the Arab population in the occupied arab territories including Palestine .

Palestinian Statistical Center (2007), Palestine .

Palmer, C.E. and Nobel, D.N. (1986), "Premature death: Dilemmas of infant mortality , *The Journal of Contemporary Social work* , 67: 332-339.

Palestinian Health information Center (2006), Palestinian Ministry of Health , Palestine .

Press T.V. (2008) ," 5,389 Palestinians dead in 2nd Intifada " , Sun, 28 Sep 2008 00:11:19 GMT
<http://www.presstv.ir/detail.aspx?id=70740§ionid=351020202>

Qouta, S. and Sarraj, E.E. (2004)," prevalence of PTSD among Palestinian children in Gaza Strip", *Arab Psyet Journal* , 2:8-13.

Qouta, S., El Sarraj, E. and Punamaki, R.-L (2003),"Prevalence and determinants of PTSD among Palestinian children exposed to military violence", *Journal of European child and Adolescent psychiatry*, 12,6 :265-272.

Qouta, S., Punamaki, R.L. and El Sarraj, E. (1995), "The relation between traumatic experiences activity and cognitive and emotional responses among Palestinian children", *International Journal of psychology*, 30: 289-230.

Quota, S., Punamika, R.L. and El Sarraj, E. (1997), " House demolition and mental health :Victims and Witnesses" ,*Journal of social distress and the homeless* , 6,3: 203-211.

Read, K.M., Kufera, J.A., Dischinger, P.C., Kerns, T.J., Ho, S.M., Burgess, A.R. and Burch, C.A. (2004), " Life-altering outcomes after lower extremity injury sustained in motor vehicle crashes " , *The Journal of Trauma*, 57,4: 815-23.

Rehabilitation International /UNICEF: Effects of Armed Conflict on Women and Children: Relief and Rehabilitation in War Situations, (1992).

Ramsay, R.W. and Noorbergen, R. (1981) : Living with Loss. William Morrow , New York.

Reza, A., Mercy, J.A. and Krug , E. (2001), "Epidemiology of violent deaths in the world , *British Medical Journal*, 7:104-111 .

Schilder, P. (1950) : The image and appearance of human body , International Universities Press , New York .

Shahid Athar (2003): Islamic Medicine , Islamic Medical Association of North America, USA.

Shelly, E. Taylor (1995):Health psychology , third Ed , McGraw-Hill Inc . USA .

Sheffy, N., Mintz, Y., Rivkind, A.L. and Shapira, S.C. (2006), " Terror-related injuries: a comparison of gunshot wounds versus secondary-fragments-induced injuries from explosives ", *Journal of the American Colleges of Surgeons*, 203,3: 297-303.

Schnyder, U., Morgeli, H., Nigg, C., Klaghofer, R., Renner, N. and Buddeberg, C. (2000), " Early psychological reactions to life-threatening injuries", *Journal of Critical care medicine*, 28,1: 86-92 .

Scivoletto, G., Petrelli, A., Di Lucente, L. and Castellano, V. (1997), " Psychological investigation of spinal cord injury patients" , *The Official Journal of the International Medical Society of Paraplegia*, 35,8: 516-20.

Shalev, A.Y., Tuval, R., Frenkiel- Fishman, S., Hadar, H. and Eths, S. (2006), " Psychological responses to continuous terror: a study of two communities in Israel ", *The American journal of psychiatry*, 163,4 :667-73.

Soberg, H.L., Bautz-Holter, E., Roise, O. and Finset, A. (2007), " Long-term multidimensional functional consequences of severe multiple injuries two years after trauma: a prospective longitudinal cohort study", *The Journal of Trauma*, 62,2: 461-70.

Sutherland, A.G., Alexander, D.A. and Hutchison (2006)," The mind does matter: Psychological and physical recovery after musculoskeletal injury " ,*The Journal of Trauma* , 61,6 :1408-14.

Susan Budassi Sheehy, Cindy Leduc and Jimmerson (1994) : Manual of Clinical Trauma Care. Second edition , Mosby –Year book .Inc. USA.

Tate, D. Forchheimer, M. Maynard, F. and Dijkers, M. (1994), " Predicting depression and psychological distress in persons with spinal cord injury based on indicators of handicap " , *American Journal of Physical Medicine and Rehabilitation /Association of Academic Physiatrists*, 73,3: 175-83.

Ulrich Schnyder, Hanspeter Moergeli , Otmar Trentz, Richard Klaghofer and Claus Buddeberg (2001), " Prediction of psychiatric morbidity in severely injured accident victims at one-year follow-up", *American Journal of Respiratory and Critical Care Medicine*, 164,4: 653-656.

Underwood-Gordon, L., Peters, D.J., Bijur, P. and Fuhrer M., (1997), " Roles of religiousness and spirituality in medical rehabilitation and the lives of persons with disabilities", *Journal of Physical Medical Rehabilitation* ,76: 255-257.

Van Loey, N.E. and Van Son, M.J. (2003), " Psychopathology and psychological problems in patients with burn scars: Epidemiology and management ", *American Journal of Clinical Dermatology*, 4,4: 245-72.

Virginia, D. Cardona, Patricia, D., Paula, J., Ann, M. and Susan, W. (1993) : Trauma nursing from resuscitation through rehabilitation , second Ed . Saunders, USA.

Wang, C.H., Tsay, S.L. and Bond A.E. (2005), " Post-traumatic stress disorder, depression, anxiety and quality of life in patients with traffic-related injuries " , *Journal of Advanced Nursing*, 52,1 :22-30.

Watson, D. and Clark, L.A. , (1984) " Negative affectivity :the disposition to experience aversive emotional states " , *Psychological Bulletin*, 96,465-490.

Wikipedia (2002):

http://www.reference.com/browse/wiki/Physical_trauma.wikipedia.U.S.

Willebrand, M., Andersson, G. and Ekselius L. (2004), " Prediction of psychological health after an accidental burn" , *The Journal of Trauma*, 57,2: 367-74.

World Health Organization (1994), Standard populations (worldand European),*World health statistics annual XIX*. Geneva.

World Health Organization (2004),Department of injuries and violence prevention ,Geneva.

المراجع العربية :

الطويل ، محمد (2005) "دراسة سيكومترية – إكلينيكية للبناء النفسي للأشخاص ذوي بعض الاضطرابات جسدية الشكل في محافظات قطاع غزة " رسالة دكتوراه ، كلية التربية ، جامعة الأقصى ، غزة، فلسطين .

ANNEXES

بسم الله الرحمن الرحيم
Annex-1

إقرار بالموافقة على المشاركة في دراسة علمية
Consent form , covering letter of study questionnaire

عنوان الدراسة/الأثر النفسي لإصابة انتفاضة الأقصى على الجرحى الفلسطينيين في قطاع غزة
The psychological Impact of The El-Aqsa Intifada Physical Injury on
Palestinian Injured Adults in Gaza Strip

أعزائي الجرحى الكرام

السلام عليكم ورحمة الله وبركاته

انه ليسعدني مشاركتكم في هذه الدراسة والتي تهدف بشكل رئيسي إلى معرفة الأثر النفسي للإصابات المختلفة الناتجة عن أحداث انتفاضة الأقصى على الجرحى الفلسطينيين في قطاع غزة ،مما سيساعد في تقديم الدعم النفسي اللازم للجرحى وإعانتهم على التغلب على الضغوطات النفسية التي قد تزيد من المعاناة وألم الإصابة .
نرجو منكم التكرم بتعبئة الاستبيان الخاص بالدراسة (مقياس SCL-90) والذي يقيس الأعراض النفسية التي يمكن أن تظهر نتيجة تعرض الإنسان لحدث صعب في حياته مثل الإصابة الجسدية . علما أن مدة تعبئة الاستبيان لا تتجاوز 30 دقيقة .
هذه الدراسة جزء من متطلبات ماجستير الصحة النفسية /علوم التأهيل المنعقد في كلية التربية -الجامعة الإسلامية - وهي من إعداد الدارسة / نهى إبراهيم حمودة وإشراف الدكتور/ سمير رمضان قوته .

نود أعلامكم أن مشاركتكم جزء رئيسي في إتمام هذه الدراسة كما أن لكم الحرية التامة في المشاركة أو عدم المشاركة،أو الانسحاب في أي وقت دون أن يسبب لكم ذلك أي نوع من العقوبة أو المساءلة أو حتى يحرّمكم من الاستفادة من هذه الدراسة .
إن جميع المعلومات التي سوف تقدمونها لنا ستكون سرية، ولن تستخدم إلا لأغراض البحث العلمي فقط ،كما إن الدراسة ليس فيها خطرا على صحة أو حياة المشاركين فيها.

نشكركم على حسن تعاونكم

Annex -2

Information related to the injured persons

Age :.....

Date of injury

Gender : 1- Male 2- Female

Marital status : 1- married 2- non married 3- divorced

Educational level : 1- Elementary 2- Preparatory 3- Secondary 4- University

Occupation Type : 1- employee 2- student 3- worker 5- housewife 6- unemployed

Governorate : 1-North 2- Gaza 3- Middle 4- Khanyonis 5- Rafah

Annex-3

Injury Description Tool in English

n

1- Are you injured in the face region ☐ ☐ Yes No

- If the answer yes determine the nature of your injury

☐ Multiple wounded ☐ Burns ☐ Fracture in teeth or jaw

☐ Eye injury lead to loss or low vision ☐ Others

2- Are you injured in the neck region ☐ ☐ Yes No

- If the answer yes determine the nature of your injury

☐ Multiple wounded ☐ Burns ☐ Fractures in the neck vertebrae

☐ Spinal cord injury ☐ Others

3- Are you injured in the chest region ☐ ☐ Yes No

- If the answer yes determine the nature of your injury

☐ Multiple wounded ☐ Burns ☐ lung injury

☐ Spinal cord injury ☐ fractures in the ribs

☐ Heart injury ☐ blood vascular injury

☐ Others.....

4- Are you injured in the back region ☐ ☐ Yes No

- If the answer yes determine the nature of your injury

☐ Multiple wounded ☐ Burns ☐ Fracture in back vertebrae
☐ Spinal cord injury Others ☐

5- Are you injured in the abdomen ☐ ☐ region Yes No

- If the answer yes determine the nature of your injury

☐ Multiple wounded ☐ Burns ☐ blood vascular injury (arteries and veins)
☐ Organs of digestive system ☐ Others.....

6- Are you injured in the pelvic region ☐ ☐ Yes No

- If the answer yes determine the nature of your injury

☐ Multiple wounded ☐ Burns ☐ injury of sexual organs
☐ Multiple fractures Others ☐

7- Are you injured in the limb region ☐ ☐ Yes No

- If the answer yes determine the nature of your injury

☐ Multiple wounded ☐ Burns ☐ Fracture
☐ Nerve injury ☐ amputation ☐ blood vascular injury (artery or veins)
☐ Others.....

8- Are you injured in multiple bodyparts ☐ Yes ☐ No

- If the answer yes determine the nature of your injury

☐ Multiple wounded ☐ Burns ☐ Fractures

☐ Others

9- what is the cause of your injury according the weapon used ?

☐ Fragments explosion resulting from aerial missiles

☐ Fragments explosion resulting from artillery missiles ☐ bullets

☐ Others

10- Are you have fragments of weapons in your ☐ body ☐ Yes No

11- Are you complete healed from the injury ☐ Yes ☐ No

12- Are you still suffer injury pain ☐ Yes ☐ No

**Annex-4-
SCL-90**

NO.	Questions	Never	Rarely	seldom	much	Usually
1	Headache	0	1	2	3	4
2	Nervousness or shaking inside	0	1	2	3	4
3	Repeated unpleasant thoughts	0	1	2	3	4
4	Faintness or dizziness	0	1	2	3	4
5	Loss of sexual interest or pleasure	0	1	2	3	4
6	Feeling critical of others Feeling uncomfortable about eating or drinking in public	0	1	2	3	4
7	The idea that someone else can control your thoughts	0	1	2	3	4
8	Feeling others are to blame for most of your troubles	0	1	2	3	4
9	Trouble remembering things	0	1	2	3	4
10	Worried about sloppiness or carelessness	0	1	2	3	4
11	Feeling easily annoyed or irritated	0	1	2	3	4
12	Pains in heart or chest	0	1	2	3	4
13	Feeling of fear in open places or streets	0	1	2	3	4
14	Feeling low in energy or slowed down	0	1	2	3	4
15	Thoughts of ending your life	0	1	2	3	4
16	Hearing voices that other people do not hear	0	1	2	3	4
17	Trembling	0	1	2	3	4
18	Feeling that most people cannot be trusted	0	1	2	3	4
19	Poor appetite	0	1	2	3	4
20	Crying easily	0	1	2	3	4
21	Feeling shy or uneasy with the opposite sex	0	1	2	3	4
22	Feelings of being trapped or caught	0	1	2	3	4
23	Suddenly scared for no reason	0	1	2	3	4
24	Temper outbursts that you could not control	0	1	2	3	4
25	Feeling afraid to get out of your house alone	0	1	2	3	4
26	Blaming yourself for things	0	1	2	3	4
27	Pains in lower back	0	1	2	3	4
28	Feeling blocked in getting things done	0	1	2	3	4
29	Feeling lonely	0	1	2	3	4
30	Feeling blue	0	1	2	3	4
31	Worrying too much about things	0	1	2	3	4
32	Feeling no interest in things	0	1	2	3	4
33	Feeling fearful	0	1	2	3	4
34	Your feelings being easily hurt	0	1	2	3	4
35	Other people being aware of your private thoughts	0	1	2	3	4
36	Feeling others do not understand you or are unsympathetic	0	1	2	3	4
37	Feeling that people are unfriendly or dislike you	0	1	2	3	4
38	Having to do things very slowly to ensure correctness	0	1	2	3	4
39	Heart pounding or racing	0	1	2	3	4
40	Nausea or upset stomach	0	1	2	3	4

41	Feeling inferior to others	0	1	2	3	4
42	Soreness of muscles	0	1	2	3	4
43	Feeling you are watched or talked about by others	0	1	2	3	4
44	Trouble falling asleep	0	1	2	3	4
45	Having to check and double-check what you do	0	1	2	3	4
46	Difficulty making decisions	0	1	2	3	4
47	Feeling away to travel on buses, subways or trains	0	1	2	3	4
48	Trouble getting your breath	0	1	2	3	4
49	Hot or cold spells	0	1	2	3	4
50	Having to avoid certain things, places or activities because they frighten you	0	1	2	3	4
51	Your mind going blank	0	1	2	3	4
52	Numbness or tingling in part of the body	0	1	2	3	4
53	Lump in your throat	0	1	2	3	4
54	Feeling hopeless about the future	0	1	2	3	4
55	Difficulty in concentration	0	1	2	3	4
56	Feeling weak in parts of your body	0	1	2	3	4
57	Feeling tense or keyed up	0	1	2	3	4
58	Heavy feeling in your arms or legs	0	1	2	3	4
59	Thoughts of death or dying	0	1	2	3	4
60	Overeating	0	1	2	3	4
61	Feeling uneasy when people are watching or talking about you	0	1	2	3	4
62	Having thoughts that are not your own	0	1	2	3	4
63	Having urges to beat, injure or harm someone	0	1	2	3	4
64	Awakening in the early morning	0	1	2	3	4
65	Having to repeat the same actions, such as touching, counting, washing	0	1	2	3	4
66	Sleep that is restless or disturbed	0	1	2	3	4
67	Having urges to break or smash things	0	1	2	3	4
68	Having ideas or beliefs that others do not share	0	1	2	3	4
69	Feeling very self-conscious with others	0	1	2	3	4
70	Feeling uneasy in crowds, such as shopping or at a movie	0	1	2	3	4
71	Feeling everything is an effort	0	1	2	3	4
72	Spells of terror or panic	0	1	2	3	4
73	Feeling uncomfortable about eating or drinking in public	0	1	2	3	4
74	Getting into frequent arguments	0	1	2	3	4
75	Feeling nervous when you are left alone	0	1	2	3	4
76	Others not giving you proper credit for your achievements	0	1	2	3	4
77	Feeling lonely when you are with people	0	1	2	3	4
78	Feeling so restless you couldn't sit still	0	1	2	3	4
79	Feelings of worthlessness	0	1	2	3	4
80	Difficulty to recognize on familiar things	0	1	2	3	4
81	Shouting or throwing things	0	1	2	3	4

82	Feeling afraid you will faint in public	0	1	2	3	4
83	Feeling that people will take advantage of you if you let them	0	1	2	3	4
84	Having thoughts about sex that bother you a lot	0	1	2	3	4
85	The idea that you should be punished for your sins	0	1	2	3	4
86	Feeling in inside forces that pay to do some thing	0	1	2	3	4
87	The feeling that something bad is going to happen to you	0	1	2	3	4
88	Never feeling close to another person	0	1	2	3	4
89	Feelings of Guilt	0	1	2	3	4
90	The idea that something is wrong with your mind	0	1	2	3	4

Annex -5-

معلومات خاصة بالجريح

العمر :

تاريخ الإصابة :

الجنس : 1- ذكر 2- أنثى

الحالة الاجتماعية: 1- متزوج 2- أعزب 3- مطلق

مستوى التعليم : 1- ابتدائي 2- إعدادي 3- ثانوي 4- جامعي 5 - دراسات عليا

العمل : 1- طالب 2- موظف 3- عامل 4 - ربة بيت 5- عاطل عن العمل

المحافظة : 1- الشمال 2- غزة 3- الوسطى 4- خانيونس 5- رفح

ملحق - 6 - أداة لوصف الإصابة

1- هل أصبت في منطقة الوجه
• إذا كانت الإجابة بنعم فحدد طبيعة الإصابة

نعم ☐ لا ☐

☐ جروح متعددة ☐ حروق ☐ كسر في الفك والأسنان
☐ إصابة عين أدت إلى فقد أو ضعف نظر ☐ أخرى.....

2- هل أصبت في منطقة الرقبة
• إذا كانت الإجابة بنعم فحدد طبيعة الإصابة

نعم ☐ لا ☐

☐ جروح متعددة ☐ حروق ☐ إصابة نخاع شوكي
☐ كسر في فقرات الرقبة ☐ أخرى.....

3- هل أصبت في منطقة الصدر
• إذا كانت الإجابة بنعم فحدد طبيعة الإصابة

نعم ☐ لا ☐

☐ جروح متعددة ☐ حروق ☐ إصابة في الرنتين
☐ إصابة نخاع شوكي كسر في ☐ ريش الصدر إصابة في ☐ القلب
☐ إصابة في الأوعية الدموية (شرايين وأوردة) ☐ أخرى.....

4- هل أصبت في منطقة الظهر
• إذا كانت الإجابة بنعم فحدد طبيعة الإصابة

نعم ☐ لا ☐

☐ جروح متعددة ☐ حروق ☐ إصابة نخاع شوكي
☐ كسر في فقرات الظهر ☐ أخرى.....

5- هل أصبت في منطقة البطن
• إذا كانت الإجابة بنعم فحدد طبيعة الإصابة

نعم ☐ لا ☐

☐ جروح متعددة ☐ حروق ☐ إصابة الأوعية الدموية (شرايين وأوردة)
☐ إصابة في أعضاء الجهاز الهضمي (كبد، معدة، الخ) ☐ أخرى.....

6- هل أصبت في منطقة الحوض ☐ نعم ☐ لا ☐
• إذا كانت الإجابة بنعم فحدد طبيعة الإصابة

☐ جروح متعددة ☐ حروق ☐ إصابة الأعضاء التناسلية
☐ كسور مختلفة ☐ إصابة أوعية دموية (شرايين، أوردة)
☐ أخرى

7- هل أصبت في منطقة الأطراف ☐ نعم ☐ لا ☐
• إذا كانت الإجابة بنعم فحدد طبيعة الإصابة

☐ جروح متعددة ☐ حروق ☐ كسور
☐ إصابة عصب ☐ إصابة في الأوعية الدموية (شرايين وأوردة)
☐ بتر ☐ أخرى

8- هل أصبت في أكثر من منطقة في جسمك ☐ نعم ☐ لا ☐
• إذا كانت الإجابة بنعم فحدد طبيعة الإصابة

☐ جروح متعددة ☐ حروق ☐ كسور
☐ أخرى

9- ما سبب إصابتك من حيث نوع السلاح المستخدم

☐ انفجار شظايا صاروخية من قصف طيران ☐ انفجار شظايا قذائف مدفعية (من دبابات)
☐ عيار ناري (رصاص) ☐ أخرى

10- هل يوجد شظايا أسلحة متبقية في جسمك ☐ نعم ☐ لا ☐

11- هل شفيت تماما من الإصابة ☐ نعم ☐ لا ☐

12- هل مازلت تعاني من ألم نتيجة إصابتك ☐ نعم ☐ لا ☐

ملحق -7-

SCL-90

تعليمات

يوجد أدناه قائمة بالمشاكل والشكاوى التي يتعرض لها الناس أحيانا. اقرأ كل منها بعناية واختر أحد الأوصاف المرقمة التي تشكل أفضل وصف لمدى ما سببته لك تلك المشكلة من إزعاج في الماضي بما في ذلك الوضع الراهن. ضع ذلك الرقم في المربع المفتوح على يمين المشكلة. لا تهمل أي بند، واكتب رقمك بوضوح. إذا غيرت رأيك، امح رقمك الأول تماما. اقرأ المثال أدناه قبل أن تبدأ، وإن كان لديك أي سؤال فاسأل الفني.

مثال: ما مدى معاناتك من أوجاع جسدية: الرد مثلا 3

يمكنك أن تختار

مطلقا	نادرا	أحيانا	كثيرا	دائما
0	1	2	3	4

مطلقا	نادرا	أحيانا	كثيرا	دائما	
0	1	2	3	4	1. الصداع
0	1	2	3	4	2. سرعة الانفعال والاضطراب الداخلي
0	1	2	3	4	3. وجود أفكار أو خواطر أو ألفاظ غير مرغوب فيها لا تفارق بالک
0	1	2	3	4	4. الشعور بالإعياء أو الاغماء أو الدوخة
0	1	2	3	4	5. أشعر بأن رغبتى وحياتى الجنسية غير طبيعية
0	1	2	3	4	6. الشعور بالحساسية تجاه الآخرين
0	1	2	3	4	7. الشعور بأن شخصا ما يستطيع السيطرة على أفكارك
0	1	2	3	4	8. القاء اللوم على الآخرين فى معظم متاعبك
0	1	2	3	4	9. الصعوبة فى تذكر الأشياء
0	1	2	3	4	10. الانشغال الزائد فيما يتعلق بالقذارة والاهمال
0	1	2	3	4	11. الشعور بسرعة المضايقة والاستثارة
0	1	2	3	4	12. آلام فى القلب أو الصدر
0	1	2	3	4	13. الشعور بالخوف فى الأماكن المفتوحة أو الشوارع
0	1	2	3	4	14. الشعور بالخمول أو قلة النشاط
0	1	2	3	4	15. التفكير فى انهاء حياتك

4	3	2	1	0	49. الاحساس بنوبات من البرودة والسخونة في جسمك
					50. الاضطرار إلى تجنب أشياء أو أفعال لأنها تسبب لك الاحساس بالخوف
4	3	2	1	0	51. الاحساس بأن ذهنك خالي من الأفكار
4	3	2	1	0	52. تمثيل أو شكشة في أجزاء من جسمك
4	3	2	1	0	53. الاحساس بأن شيئاً يقف في زورك (يسد زورك)
4	3	2	1	0	54. الشعور باليأس من المستقبل
4	3	2	1	0	55. صعوبة في التركيز
4	3	2	1	0	56. الشعور بالضعف في أجزاء من جسمك
4	3	2	1	0	57. الشعور بالتوتر أو أنك مشدود داخليا
4	3	2	1	0	58. الشعور بثقل في ذراعيك وأرجلك
4	3	2	1	0	59. التفكير في الموت
4	3	2	1	0	60. الإفراط في تناول الطعام
					61. الشعور باضطراب والضيق عندما يتحدث الناس عنك أو يراقبونك
4	3	2	1	0	62. الشعور بأن أفكارك ليست من صنعك
4	3	2	1	0	63. الشعور برغبة ملحة في ضرب أو جرح أو إيذاء شخص ما
4	3	2	1	0	64. الاستيقاظ من النوم مبكرا ولا أستطيع العودة الى النوم
4	3	2	1	0	65. تكرار نفس الأفعال مثل اللمس والعد والغسل
4	3	2	1	0	66. نوم مضطرب أو غير مريح
4	3	2	1	0	67. الشعور بدافع ملح لتكسير أو تخريب الأشياء
4	3	2	1	0	68. وجود أفكار أو معتقدات لا يشاركك فيها الآخرون
4	3	2	1	0	69. الشعور بالخجل والهيبة في وجود الآخرين
					70. الشعور بضيق في الأماكن المزدحمة كالسوق أو السينما
4	3	2	1	0	71. الشعور بأن كل شيء عناء في عناء (تعب في تعب)
4	3	2	1	0	72. نوبات من الفزع والذعر بدون سبب معقول
					73. الاحساس بالضيق عند تناول طعام أو شراب في مكان عام
4	3	2	1	0	74. الدخول في كثير من الجدل والمناقشات
مطلقا	نادرا	أحيانا	كثيرا	دائما	
4	3	2	1	0	75. الشعور بالعصبية عندما تكون بمفردك
					76. الشعور بأن الآخرين لا يعطونك ما تستحق من ثناء وتقدير على أعمالك وإنجازاتك
4	3	2	1	0	77. الشعور بالوحدة حتى في وجود الآخرين
4	3	2	1	0	78. الشعور بعدم الاستقرار لدرجة لا يمكنك من الجلوس هادئا في مكان

4	3	2	1	0	79. الشعور بأنك عديم الأهمية
4	3	2	1	0	80. أشعر بصعوبة فى التعرف على الأشياء المألوفة لى
					81. أشعر بالعصبية والتوتر لدرجة ابدأ بالصراخ وقذف الأشياء التى تقع فى يدى.
4	3	2	1	0	
4	3	2	1	0	82. الشعور بالخوف من الإغماء في الأماكن العامة
					83. الشعور بأن الناس سيأخذون فرصتك لو مكنتهم من ذلك
4	3	2	1	0	
4	3	2	1	0	84. أشعر بالتعب وعدم الراحة كلما فكرت فى الجنس
4	3	2	1	0	85. أفكار تسيطر عليك بأنك لا بد وأن تعاقب على ذنوبك
4	3	2	1	0	86. أشعر بوجود قوة داخلى تدفعنى للقيام بأعمال معينة
4	3	2	1	0	87. الاعتقاد بأن هناك شيئا خطيرا قد حل بجسمك
4	3	2	1	0	88. عدم الشعور بأنك قريب من أى انسان آخر
4	3	2	1	0	89. الشعور بالذنب
4	3	2	1	0	90. الشعور بأن هناك تغيرا غريبا قد طرأ على أفكارك

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



الجامعة الإسلامية - غزة
The Islamic University - Gaza

Ref. ج س غ / 35
Date 2008/07/14

الموضوع / تسهيل مهمة طالب ماجستير

**"the psychological Impact of the intifada physical injury among
Palestinian Adults"**

والله ولي التوفيق،،

عميد الدراسات العليا

د. مازن إسماعيل هنية

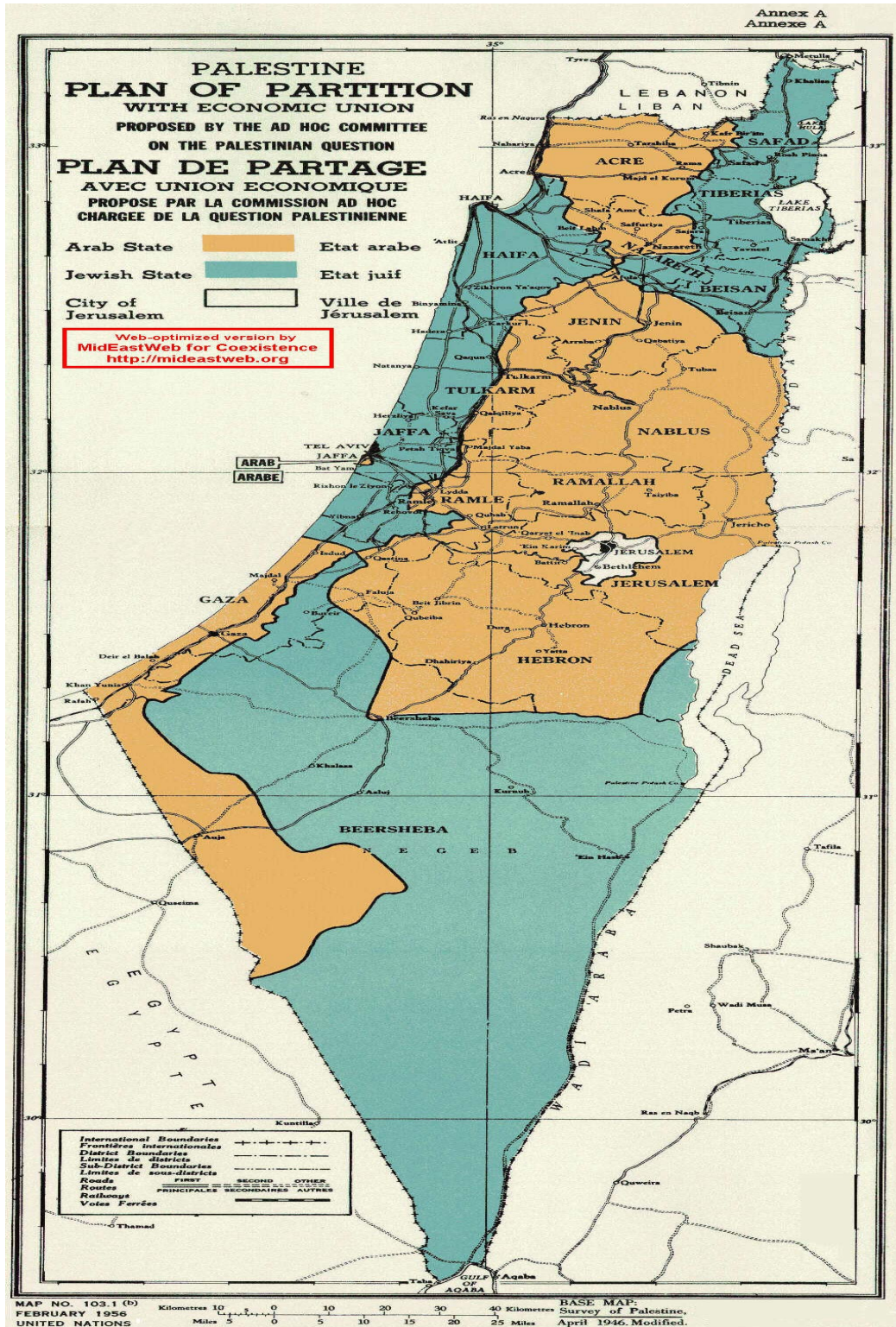


صورة إلى :-

لَعْمَلِ الْمَلِكِ

Annex -9-

Palestine Map



Annex -10- Gaza Strip Map

