CHARACTERISTICS OF STUDIES

Characteristics of included studies *[ordered by study ID]*

Burns 2007

Methods	Randomised controlled trial
Participants	170 patients over 60 years old who have undergone surgery for hip fracture in orthopaedic units in Manchester, UK, in the previous 2 weeks and who were not depressed (scored 6 or less on the Geriatric Depression Scale (GDS)). 85 in the intervention group and 85 control. Mean age 81 years and 50% were female
Interventions	Up to 7 sessions of individual CBT delivered by an assistant psychologist, supervised by a clinical psychologist versus treatment as usual
Outcomes	Primary outcome (assessed at 6 weeks): • Depression: Hospital Anxiety and Depression Scale (HADS) Other outcomes assessed at 6 weeks, 3 and 6 months: • Fear of falling: Modified Falls Efficacy Scale • Pain: short form McGill pain questionnaire and the Wong-Baker pain rating scale • Mobility: Timed-Up-and-Go Test and the modified gait test
Notes	The trial had a separate arm for patients who scored over 6 on the GDS. As these patients had been screened for depression and the CBT was administered to treat rather than prevent depression, this arm of the trial was excluded from this review

Risk of bias

Item	Authors' judgement	Description
Adequate sequence generation?	Yes	Computer generated randomisation stratified by hospital, block size 4
Allocation concealment?	Yes	Independent central telephone randomisation scheme.
Incomplete outcome data addressed? All outcomes	Unclear	6-week follow up available for 75% of intervention group and 84% of treatment as usual group. No significant differences in baseline characteristics of those lost to follow up and those included 3-month follow up: 66.5% and 6-month follow up 64.7%
Free of selective reporting?	No	No reporting of questionnaires other than HADS and new measures not previously introduced. Non-significant effect estimates and many 6-month outcomes not reported

Burns 2007 (*Continued*)

Free of other bias?	No	1. Selection of non-depressed via the GDS may reduce effectiveness of intervention by restricting the sample to those at low risk of depression 2. Use of anti-depressants in intervention and treatment as usual groups questions validity of psychometrics and/or clinical judgement and creates commonality between groups thereby possibly reducing intervention effect size 3. Small sample size and lack of power for secondary outcomes
Intention to Treat analysis?	Yes	-
Blinding of outcome assessment?	Unclear	Insufficient information

Holmes 2007

Methods	Randomised controlled trial.
Participants	All patients admitted to 2 trauma centres in Melbourne, Australia, over an 18-month period, who were 18 years or older and had suffered a major physical trauma (defined as one or more of Injury Severity Score > 15; serious injury to 2 or more body systems; urgent surgery for non-limb injuries; or injuries requiring mechanical ventilation for > 24 hours) were eligible 90/146 eligible patients randomised (51 intervention, 39 control). Mean age 37 years, 69.3% male
Interventions	Interpersonal Counselling (IPC), from clinical psychologists with specific training in IPC. Mean number of sessions 5.9 (SD = 1.1). Treatment as usual comprised seeking help for psychological distress through primary care. On average the control group received an average of 22.6 hours of non-specific psychological support (physical and occupational) and saw a psychologist or psychiatrist for a mean of 0.8 hours
Outcomes	Outcomes assessed at 3 and 6 months: • Psychiatric diagnosis: Structured Clinical Interview for DSM IV (SCID) • Depression and anxiety: Beck Depression Inventory, Hospital Anxiety and Depression Scale • PTSD: Post-Traumatic Checklist • Alcohol use: Alcohol Use Disorders Identification Test • Pain: visual analogue pain scale Outcome assessed at 6 months: • Health related function: SF-36
Notes	The authors state that "The mean hours of specific psychological intervention (other than IPC) and non-specific therapy did not differ between the groups", the meaning of this is unclear, especially as regards the nature of other types of "specific psychological intervention" that were used as part of treatment as usual

Risk of bias

Holmes 2007 (*Continued*)

Item	Authors' judgement	Description
Adequate sequence generation?	Yes	Computer generated. Intervention allocated in a ratio of 5:4 in expectation of greater losses to follow up in intervention group
Allocation concealment?	Yes	Research officer made blinded selection from a box of sealed envelopes
Incomplete outcome data addressed? All outcomes	No	Differential losses to follow up may have affected results with only 53% (27/51) of intervention group completing IPC therapy and available for 6-month follow up compared to 80% (31/39) of the control group. No significant differences between those lost to follow up and those with complete follow up, and those who did and did not complete the intervention
Free of selective reporting?	Yes	-
Free of other bias?	No	1. The intervention group received less 'intervention time' in terms of psychological support than the control group (mean = 5.9 hours versus 22.6 hours) 2. Participants who commenced but failed to complete therapy had significantly higher alcohol use than those who completed 3. Low power due to small sample size and high rate of drop- out in intervention group
Intention to Treat analysis?	No	-
Blinding of outcome assessment?	Unclear	Psychiatric diagnosis (primary outcome) assessor blinded at 6 months follow-up. other outcomes not blinded

Pirente 2007

Methods	Randomised controlled trial.
Participants	171 patients admitted to 2 trauma centres in Cologne, Germany with at least 2 injuries with a combined Abbreviated Injury Scale score of >= 6, aged between 18 and 70 years, well orientated in time/person/location at time of contact. 171/184 eligible patients randomised (83 = intervention, 88 = control). Complete outcome data available for 92 patients (45 = intervention, 47 = control). 70.7% male, mean age 38 years
Interventions	CBT of up to 8 sessions given by a research psychologist trained in CBT with a maximum of 3 sessions per week. Compared to a treatment as usual group (standard hospital care without formal psychosocial intervention). Control groups told they would not receive CBT intervention

Outcomes	Primary outcome measured at discharge, and at 6 and 12 months: • Health Related Quality of Life (HLQOL) composite sum score comprised of parts of several questionnaires: Short Form Health Survey Questionnaire (SF-36); Symptom Check-list-90; Beck Depression Inventory (BDI); State-Trait Anxiety Inventory (STAI) and the social support questionnaire (F-SOZU) Secondary outcomes measured at discharge and at 6 and 12 months: • Depression and anxiety: BDI, SCL90-R and STAI
Notes	

Risk of bias

Item	**Authors' judgement**	**Description**
Adequate sequence generation?	Yes	Computer generated, stratified for hospital and for mild or no brain injury
Allocation concealment?	Yes	Central allocation.
Incomplete outcome data addressed? All outcomes	No	Substantial losses to follow up with complete outcome data only available for 92/171 patients randomised. Reasons for losses explained and no significant differences in demographic characteristics were found between those lost to follow up and those with complete follow up
Free of selective reporting?	No	Effect estimates for social aspects, pain and physical functioning not reported
Free of other bias?	Unclear	1. Levels of depression and anxiety at baseline were significantly higher for the intervention compared to the control group. Both intervention and control groups improved, but between group differences were not significant. It may be that the intervention is more effective in treating more severe psychological problems than is the control 2. Rationale for selection of composite HRQOL measure not given. Use of individual scales may be more valid
Intention to Treat analysis?	No	Analyses only performed on the 92 patients with complete data rather than on the 171 patients who were randomised
Blinding of outcome assessment?	Yes	Outcomes were assessed using a self-completion postal questionnaire

Turpin 2005

Methods	Randomised controlled trial.
Participants	291 patients 16 to 65 years old who attended Accident and Emergency (A&E) in Sheffield UK who had sustained an injury due to a road traffic accident, occupational injury or assault. 54 in intervention group (34 female, mean age 40), 46 in control group (36, female, mean age 37) Baseline data collected within 2 weeks of A&E admission after which patients were randomised
Interventions	Self-help information booklet (8 pages, 550 words) entitled to 'Response to Traumatic Injury', describing and normalising physiological, psychological and behavioural reactions to traumatic injury. Intervention group patients sent a self-help booklet within 6 to 8 weeks of attendance; control group sent letter without information booklet
Outcomes	Outcomes assessed at 3 and 6 months: • PTSD: Post-Traumatic Diagnostic Scale • Depression and anxiety: Hospital Anxiety and Depression Scale
Notes	There is no indication of what the control group were told, but it is stated that "control participants were offered a copy of the self-help booklet at the end of the study". Given that the intervention had no positive effect, but did have some negative effects, the rationale for offering the booklets is unclear

Risk of bias

Item	**Authors' judgement**	**Description**
Adequate sequence generation?	Yes	Random number tables.
Allocation concealment?	Yes	Masked independent investigator.
Incomplete outcome data addressed? All outcomes	No	Reasons for losses to follow up stated. Significant differences in baseline characteristics between responders and non-responders and in the demographic characteristics (age and sex) of those lost to follow up and those with complete data
Free of selective reporting?	Yes	-
Free of other bias?	No	1. There was a significantly higher proportion of assaults and occupational injuries in non-responders, and of road traffic accidents in responders 2. Non-responders were significantly younger and more likely to be male 3. Only 10% of those eligible agreed to participate (291/2818) 4. An administrative error required 66 of 291 participants who had completed baseline measures, to be removed from the analysis

Intention to Treat analysis?	Yes	Main results reported are not from the intention-to-treat analysis
Blinding of outcome assessment?	Yes	Outcomes were assessed using a self-completion postal questionnaire

Zatzick 2001

Methods	Randomised controlled trial.
Participants	34 road traffic accident or assault related injured patients admitted to a trauma centre in California USA aged between 14 and 65 years and English speaking. 16 in intervention group (8 female, mean age 35.3), 18 in control (33% female, mean age 32.5).
Interventions	Collaborative care intervention comprising a personally assigned trauma support specialist (1 of 2 psychiatrists or a clinical nurse specialist) who provided support to participants as inpatients and subsequently as outpatients during community rehabilitation. Their role was to facilitate patient-provider treatment planning, and to elicit and track patients post-traumatic concerns. In addition the intervention group received a brief psychoeducational intervention targeting PTSD and substance use. Trauma support specialists spent on average 91 minutes over 4 months with each patient. Control participants received treatment as usual
Outcomes	Primary outcomes measured at 1 and 4 months post-injury: • PTSD using a modified form of the Post-Traumatic Stress Disorder Checklist (PCL-C) • Depressive symptoms using a modified form of the Centre for Epidemiological Studies Depression Scale (CES-D) • At-risk drinking using a single question from the Addiction Severity Index (ASI) • Physical functioning using a modified form of the Physical Components Summary (PCS)
Notes	1. Pilot study. 2. Both the intervention and control participants demonstrated high levels of PTSD and depressive symptoms while in hospital 3. "There were difficulties in implementing the collaborative care principles of continuous case management and active sustained follow-up" and the success of doing so seems to have varied, with those without insurance receiving less integrated care

Risk of bias

Item	**Authors' judgement**	**Description**
Adequate sequence generation?	Yes	Computer generated algorithm using block randomisation with block size of 6
Allocation concealment?	Yes	Independent project co-ordinator conducted randomisation.

Zatzick 2001 (*Continued*)

Incomplete outcome data addressed? All outcomes	Yes	Reasons for losses to follow up stated. No significant differences between responders and non-responders
Free of selective reporting?	No	Effect estimates for at-risk drinking and functional limitations not reported (stated as non significant)
Free of other bias?	No	Inpatient length of stay was significantly longer for the intervention group than the control groups (10.6 versus 5.6 days). It is not stated that this was entered as a covariate in the analysis
Intention to Treat analysis?	Yes	-
Blinding of outcome assessment?	Yes	Research associates conducting follow-up outcome assessment interviews were blinded to intervention status

A&E = accident and emergency
CBT = cognitive behavioural therapy
GDS = Geriatric Depression Scale
HADS = Hospital Anxiety and Depression Scale
HRQOL = health-related quality of life
PTSD = post-traumatic stress disorder
SCID = Structured Clinical Interview for DSM IV

Characteristics of excluded studies *[ordered by study ID]*

Study	Reason for exclusion
Allen 1996	Treatment not prevention study as patients had not suffered from a recent injury
Andersson 2005	Not RCT (randomisation of 2 hospitals)
Bisson 2004	Treatment of PTSD
Bordow 1979	Not RCT (sequential allocation to groups). Same study as Porritt 1979.
Bryant 1998	Treatment of acute stress disorder
Bugg (in press)	Patients only selected for trial if suffering from acute stress disorder
Castillo 2002	Only around 20% of the patients have suffered an injury (patients in intensive care)
Christakou 2007	Treatment of ankle sprain, not prevention of disability arising from injury

(*Continued*)

Corey 1996	Complex intervention including physiotherapy, work conditioning and counselling. Unable to disaggregate effects of psychosocial component. Update of Mitchell 1994.
Craig 1998	Not RCT
Cramer 2007	Not RCT
Cupal 2001	Treatment of anterior cruciate ligament injuries
Drechsel-Schlund 2003	Patients only included in trial if at high risk of Post Traumatic Stress Disorder (PTSD)
Dunn 2003	Not RCT
Dunn 2004	Outcome is behaviour change (use of seat belts) rather than disability
Ehlers 2003	Treatment of PTSD
Evans 1998	Treatment rather than prevention of disability and cannot disaggregate those who suffered a traumatic injury from participants with other disabling conditions
Evans 2001	Update of Evans 1998 trial. Treatment rather than prevention of disability and cannot disaggregate those who suffered a traumatic injury from participants with other disabling conditions
Fauerbach 2002	Outcome is not disability but reduction in pain during dressing change for a burns wound
Fecteau 1999	Treatment of PTSD following a motor vehicle accident
Foa 1995	Not RCT
Fronek 2005	Participants have not suffered a traumatic physical injury (staff training intervention)
Girolami 2005	Not RCT
Hagglund 2007	Outcome is not disability but rate of re-injury
Hagsten 2006	Intervention is physiotherapy, not psychosocial
Hazard 2000	Participants have not suffered a traumatic physical injury
Jensen 2001	Patients have not suffered a recent injury and the intervention is complex and the psychosocial component cannot be disaggregated
Kennedy 2003	Not RCT (control group data taken from an existing database)
King 1999	Not RCT (matched controls)
Kwon 2006	Not RCT (controls and intervention group matched)

(*Continued*)

Latimer 2006	Patients have not suffered a recent injury
Lindstrom 1992	The intervention is complex and the psychosocial component cannot be disaggregated
McFarlane 2006	Outcome is not disability but prevention of domestic violence
Melnyk 2004	Unable to disaggregate those who suffered a traumatic injury from participants with other disabling conditions
Menzel 2006	Participants have not suffered a traumatic physical injury
Miller 1975	Not RCT (patient choice as to which group they were assigned)
Mitchell 1994	Complex intervention including physiotherapy, work conditioning and counselling. Unable to disaggregate effects of psychosocial component. First report of Corey 1996 study.
Moore 1983	Treatment of burn wounds rather than prevention of disability
Norman 2004	Patients have not suffered a recent injury (chronic pelvic pain)
Oliveira 2006	Not RCT (alternate allocation)
Ottosson 2007	The intervention is complex and the psychosocial component cannot be disaggregated
Pain 2007	The intervention is complex and the psychosocial component cannot be disaggregated
Phillips 2001	The intervention is complex and the psychosocial component cannot be disaggregated
Porritt 1979	Not RCT (sequential allocation). Same study as Bordow 1979
Ross 1996	Not RCT (alternate allocation)
Rotem-Lehrer 2007	Treatment of ankle sprain rather than prevention of disability
Rottkamp 1976	Intervention is physiotherapy rather than psychosocial
Rowland 2006	The intervention is complex and the psychosocial component cannot be disaggregated
Scholes 2007	Treatment rather than prevention as patients screened for acute stress disorder
Scholten-Peeters 2006	Treatment for the symptoms of whiplash
Sirles 1991	Participants have not suffered a traumatic physical injury
Smith 1984	Outcome is not disability but prevention of child abuse
Soderstrom 2007	Outcome is not disability but prevention of at-risk drinking

(*Continued*)

Söderlund 2007	Treatment for the symptoms of whiplash
Ventegodt 2004	The intervention is complex and the psychosocial component cannot be disaggregated
Vick 2001	Not RCT
Vick 2004	Not RCT
Wagner 2007	Treatment for PTSD and depression
Wise 2002	The intervention is complex and the psychosocial component cannot be disaggregated
Yates 2000	Not RCT
Zatzick 2004	Treatment of PTSD
Zemper 2003	The intervention is complex and the psychosocial component cannot be disaggregated. Not all patients suffered a recent physical injury

PTSD = post-traumatic stress disorder
RCT = randomised controlled trial

Characteristics of studies awaiting assessment *[ordered by study ID]*

Humphreys 2003

Methods	-
Participants	-
Interventions	-
Outcomes	-
Notes	Unable to locate study.

McKinlay 2003

Methods	-
Participants	-
Interventions	-
Outcomes	-

McKinlay 2003 (*Continued*)

Notes	Unable to locate study.

Tecic unpublished

Methods	RCT
Participants	113 severely injured trauma patients from 4 German trauma centres
Interventions	Short and long-term (up to 6 months post-discharge) psychotherapy compared to short-term (in hospital) psychotherapy
Outcomes	Depression, anxiety, PTSD
Notes	Unpublished study