

## **Supplementary Appendix**

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to:

### **The Prevalence of Depression in General Hospital Inpatients: A Systematic Review and Meta-Analysis of Interview Based Studies**

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## Search Strategy: MEDLINE

- 1 prevalence/
- 2 incidence/
- 3 prevalen\*.ti,ab.
- 4 inciden\*.ti,ab.
- 5 frequen\*.ti,ab.
- 6 rate\*.ti,ab.
- 7 occurr\*.ti,ab.
- 8 1 or 2 or 3 or 4 or 5 or 6 or 7
- 9 Hospitals, District/
- 10 Hospitals, General/
- 11 Tertiary Care Centers/
- 12 exp Hospitals, Teaching/
- 13 "district hospital\*".ti,ab.
- 14 "general hospital\*".ti,ab.
- 15 "tertiary hospital\*".ti,ab.
- 16 "teaching hospital\*".ti,ab.
- 17 "medical centre\*".ti,ab.
- 18 "medical center\*".ti,ab.
- 19 "general medical".ti,ab.
- 20 (ward\* adj4 patient\*).ti,ab.
- 21 (hospital\* adj4 patient\*).ti,ab.
- 22 Inpatients/
- 23 in\$patient\*.ti,ab.
- 24 Hospitalization/
- 25 Hospital Units/
- 26 Patient Admission/
- 27 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26
- 28 Depression/
- 29 depression.ti,ab.
- 30 exp Depressive Disorder/
- 31 (depress\$3 and (symptom\$ or mood)).ti,ab.
- 32 Depression, Postpartum/
- 33 (depressi\$ adj3 disorder\$).tw.
- 34 (depressi\$ adj3 symptom\$).tw.
- 35 Mental Disorders/di, ep [Diagnosis, Epidemiology]
- 36 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35
- 37 8 and 27 and 36

## Search strategy: Embase

- 1 prevalence/
- 2 incidence/
- 3 prevalen\*.ti,ab.
- 4 inciden\*.ti,ab.
- 5 frequen\*.ti,ab.
- 6 rate\*.ti,ab.
- 7 occurr\*.ti,ab.
- 8 1 or 2 or 3 or 4 or 5 or 6 or 7
- 9 public hospital/
- 10 general hospital/
- 11 tertiary care center/
- 12 exp teaching hospital/
- 13 "district hospital\*".ti,ab.
- 14 "general hospital\*".ti,ab.
- 15 "tertiary hospital\*".ti,ab.
- 16 "teaching hospital\*".ti,ab.
- 17 "medical centre\*".ti,ab.
- 18 "medical center\*".ti,ab.
- 19 "general medical".ti,ab.
- 20 (ward adj4 patient\*).ti,ab.
- 21 (hospital\* adj4 patient\*).ti,ab.
- 22 hospital patient/
- 23 in\$patient\*.ti,ab.
- 24 hospitalization/
- 25 "hospital subdivisions and components"/
- 26 hospital admission/
- 27 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26
- 28 exp depression/
- 29 depression.ti,ab.
- 30 (depress\$3 and (symptom\$ or mood)).ti,ab.
- 31 puerperal depression/
- 32 (depressi\$ adj3 disorder\$).tw.
- 33 (depressi\$ adj3 symptom\$).tw.
- 34 mental disease/di, ep [Diagnosis, Epidemiology]
- 35 28 or 29 or 30 or 31 or 32 or 33 or 34
- 36 8 and 27 and 35

## Search strategy: PsycINFO

- 1 epidemiology/
- 2 prevalen\*.ti,ab.
- 3 inciden\*.ti,ab.
- 4 frequen\*.ti,ab.
- 5 rate\*.ti,ab.
- 6 occurr\*.ti,ab.
- 7 1 or 2 or 3 or 4 or 5 or 6
- 8 exp Major Depression/
- 9 Atypical Depression/
- 10 (depress\$ adj3 (patient\$ or symptom\$ or disorder\$)).ti,ab.
- 11 "depression (emotion)"/
- 12 (depressi\$ adj3 disorder\$).tw.
- 13 (depressi\$ adj3 symptom\$).tw.
- 14 depression.ti,ab.
- 15 Mental Disorders/
- 16 exp Mental Disorders due to General Medical Conditions/
- 17 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16
- 18 "district hospital\*".ti,ab.
- 19 "general hospital\*".ti,ab.
- 20 "tertiary hospital\*".ti,ab.
- 21 "teaching hospital\*".ti,ab.
- 22 "medical centre\*".ti,ab.
- 23 "medical center\*".ti,ab.
- 24 "general medical".ti,ab.
- 25 (ward\* adj4 patient\*).ti,ab.
- 26 (hospital\* adj4 patient\*).ti,ab.
- 27 exp Hospitalized Patients/
- 28 in\$patient\*.ti,ab.
- 29 exp Hospitalization/
- 30 exp Hospital Admission/
- 31 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30
- 32 7 and 17 and 31

### Studies carried out in specific groups of general hospital inpatients

Study	Clinical characteristics	Sample size	Age	% female	Depression interview (interviewer)	Caseness definition	Depression prevalence (%)
Aghanwa 2002 (Nigeria <sup>1</sup> )	Inpatients in a gastroenterology unit in a university hospital with a diagnosis of liver cirrhosis	31	Age (mean, SD): 44.3, 13.1	38.7%	Present State Examination (not stated)	Depressive episode (ICD-10)	22.6
Alexander 1993 (India <sup>1</sup> )	Inpatients in an oncology unit with a primary diagnosis of cancer	60	Age (mean, SD) 53.2, 13.9	40%	Clinical interview (psychiatrist)	Major depression (DSM-III-R)	13
Annagur 2013 (Turkey <sup>2</sup> )	Pregnant women in an inpatient obstetric clinic with a diagnosis of hyperemesis gravidarum, aged 20-40	47	Age (mean, SD) 27.38, 5.27	100%	Structured Clinical Interview for DSM-IV (psychiatrist)	Major depression (DSM-IV)	14.9

Arnold 1996 (USA <sup>3</sup> )	Inpatients in a 24-hour video/EEG monitoring unit in a university hospital who had a seizure during admission	Diagnosis of psychogenic seizures: 14  Diagnosis of epileptic seizures: 27	Age (mean): Diagnosis of psychogenic seizures: 33 Diagnosis of epileptic seizures: 35	Diagnosis of psychogenic seizures: 64% Diagnosis of epileptic seizures: 48%	Structured Clinical Interview for DSM-III-R (psychiatrist)	Major depression (DSM-III-R)	Diagnosis of psychogenic seizures: 21  Diagnosis of epileptic seizures: 18
Atesci 2004 (Turkey <sup>2</sup> )	Inpatients in gynaecology, oncology, medical and surgical wards in a university hospital with a diagnosis of cancer (post-chemotherapy)	117	Age (mean, SD): 53.7, 14.2	51.3%	Structured Clinical Interview for DSM-IV (psychiatrist)	Major depression (DSM-IV)	13.7
Baubet 2011 (France <sup>3</sup> )	Inpatients in internal medicine departments with a diagnosis of systemic sclerosis, hospitalised for ≥1 day	49	Age (median, IQR) 53, 44-60 <sup>a</sup>	86% <sup>a</sup>	Mini International Neuropsychiatric Interview (psychiatrist)	Major depression (DSM-IV)	28
Blomstedt 1996 (Finland <sup>3</sup> )	Inpatients in a department of neurosurgery in a university hospital admitted for surgical removal of acoustic neuroma (pre-operative)	27	Age (median, range) 49, 17-64	55.6%*	Clinical interview (psychiatrist)	Major depression (DSM-III-R)	7.4*

Blumel 2005 (Chile <sup>3</sup> )	Inpatients in a general hospital with a diagnosis of acute myocardial infarction, hospitalised for ≥5 days	47	Age (mean, SD) 59.8, 9.5	31.9	Composite International Diagnostic Interview (trained interviewer)	Major depression (DSM-IV)	6.4
Dogar 2008 (Pakistan <sup>1</sup> )	Inpatients in a cardiac unit in a tertiary care hospital	100	Age (mean, SD): 52.2, 11.12	40%	Clinical interview (not stated)	Depressive disorder (DSM-IV)	52
Dyster-Aas 2008 (Sweden <sup>3</sup> )	Inpatients in a national burns unit in a university hospital with ≥5% burns or hospitalised for >1 day	73	Age (mean, SD, range) 43.4, 15.6, 19-89	27.4*	Structured Clinical Interview for DSM-IV (psychiatrist or trained interviewer)	Major depression (DSM-IV)	16
Fritzsche 2003 (Germany <sup>3</sup> )	Inpatients in a general haematological oncology ward, and bone marrow transplantation unit in a university hospital, hospitalised for ≥48hrs	72	Age (mean, SD, range) 48.32, 5.39, 19-87.	46%	Diagnostic Interview for Psychiatric Disorders – short version (trained interviewer)	Depressive episode (ICD-10)	6

Hardman 1989 (UK <sup>3</sup> )	Inpatients in a medical oncology unit	126	Age (mean): 46.1	43%*	Standardised Psychiatric Interview (psychiatrist)	Depression (ICD-9)	3.2*
Heeren 1985 (Netherlands <sup>3</sup> )	Inpatients in an endocrinology department in a university hospital, aged ≥65 years	87	41.4% aged 65-74  54.0% aged 75-84  4.6% aged 85-94	64.4%*	Clinical interview (psychiatrist)	Major depression (DSM-III)	6.9*
Kishi 1994 (USA <sup>3</sup> )	Inpatients in a spinal cord injury unit with a diagnosis of spinal cord injury	60	Age (median): Major depression: 23 Minor depression: 23 No mood disorder: 29	13.3%	Modified Present State Exam (not stated)	Major depression (DSM-III)	21.7
Kugaya 2000 (Japan <sup>3</sup> )	Inpatients in a national cancer centre with a new diagnosis of squamous cell carcinoma of the head or neck	107	Age (mean, SD): 61.0, 11.8	24%	Structured Clinical Interview for DSM-III-R (psychiatrist)	Major depression (DSM-III-R, excluded physical symptoms when clearly due to cancer)	3.7



Lykouras 1996 (Greece <sup>3</sup> )	Inpatients in a neurology department in a university hospital	107	Age (mean): 43.7	53%*	Structured Clinical Interview for DSM-III-R (psychiatrist)	Major depression (DSM-III-R)	15
Madianos 2001 (Greece <sup>3</sup> )	Inpatients in a burns unit in a general hospital	45	Age (mean, SD): Males: 40.1, 13.5 Females: 52.6, 20.9	44.4*	Structured Clinical Interview for DSM-III-R (psychiatrist)	Major depression (DSM-III-R)	4.4
Ng 1995 (Singapore <sup>3</sup> )	Inpatients in a tertiary rehabilitation centre of a government hospital with a diagnosis of stroke	52	Age (mean): 60	44%	Clinical interview (authors)	Depressive illness (DSM-III-R)	55.8*
O'Riordan 1989 (Ireland <sup>3</sup> )	Inpatients in an acute medical geriatric assessment ward	111	Age (mean, range): 80, 66-98	66.6%	Stage 1: Geriatric Depression Scale (cut-off ≥8) Stage 2: Clinical interview (psychiatrist)	Major depression (DSM-III)	4.5

Palmu 2010, 2011 (Finland <sup>3</sup> )	Inpatients in a national burns unit in a university hospital	107	Age (mean, SD): 45.4, 16.4	29.9%	Structured Clinical Interview for DSM-IVTR (psychiatrist)	Major depression (DSM-IV-TR)	3.7
Petrak 2003 (Germany <sup>3</sup> )	Inpatients in inpatient clinics with newly diagnosed type 1 diabetes aged 17-40	313	Age (mean, SD): 28.2, 6.3	37.7%	Diagnostic Interview for Mental Disorders short version (psychologist)	Major depression (DSM-IV)	5.8
Prieto 2002 (Spain <sup>3</sup> )	Inpatients in a stem cell transplant unit with haematological malignancy hospitalised for first stem cell transplant	220	Age (mean, range): 38.0, 16-65	41%	Structured psychiatric interview (psychiatrist)	Major depression (DSM-IV, exclusive approach <sup>a</sup> )	8.2
Regvat 2011 (Slovenia <sup>3</sup> )	Inpatients in a department of pulmonary diseases in a university hospital with a diagnosis of COPD exacerbation	50	Age (mean, SD): 2.4, 8.4	30%*	Structured Clinical Interview for PRIME- MD (anxiety and mood disorders section) (doctor)	Major depression (DSM-III-R)	6
Singer 2013 (Germany <sup>3</sup> )	Inpatients in inpatient clinics with a diagnosis of cancer treated with curative intent, aged ≤55	502	33.9% aged <45  66.1% aged 44-55	46.6%	Structured Clinical Interview for DSM-IV (trained interviewer)	Major depression (DSM-IV)	6.2

Snyder 1992 (USA <sup>3</sup> )	Inpatients in medical wards and a specialised AIDS unit in a university hospital with a diagnosis of AIDS	42	Age (mean, SD): 36.4, 9.9	23.8%*	Structured Clinical Interview for DSM-III-R (psychiatrist)	Major depression (DSM-III-R)	2.4*
Starkstein 1988 (USA <sup>3</sup> )	Inpatients in a university hospital admitted with strokes of the posterior circulation (PC) territory or middle cerebral artery (MCA) territory	79	Age (mean, SD): PC: 59.7, 12.1 MCA: 60.4, 13.5	PC: 30% MCA: 42%	Modified Present State Examination (not stated)	Major depression (DSM-III)	19.0*
Turner 2011 (Italy <sup>3</sup> )	Inpatients in a video/EEG monitoring unit in a university hospital with epilepsy and/or psychogenic non-epileptic seizures (PNES) who had a seizure during admission	53	Age (mean, SD): Epilepsy group: 37.3, SD=10.5  PNES group: 40.2, 14.5  Epilepsy associated with PNES: 39.2, 12.8	64%*	Structured Clinical Interview for DSM-IVTR (not stated)	Major depression (DSM-IV-TR)	7.5*
Yellowlees 1987 (Australia <sup>3</sup> )	Inpatients in a respiratory unit with chronic airflow obstruction <sup>b</sup> , aged ≥40 years and with ≥1 previous hospital admission caused by respiratory disease	50	Age (mean, SD, range) 65, 9.9, 40-81	36%*	Clinical interview (psychiatrist)	Major depression (DSM-III)	12

Zhao 2014 (China <sup>2</sup> )	Inpatients in an oncology ward in a university hospital with a diagnosis of cancer	460	Age (mean, SD, range) 59.4, 12.0, 20-99	50.9%	Mini International Neuropsychiatric Interview (psychiatrist)	Major depression (DSM-IV)	12.6
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DSM=Diagnostic and Statistical Manual of Mental Disorders, ICD=International Classification of Diseases, VA=Veterans Affairs. \*Calculated using data from paper. <sup>1</sup> Lower-middle income country, <sup>2</sup>Upper-middle income country, <sup>3</sup>High income country (World Bank classification). <sup>a</sup> Excluded anorexia and fatigue and required 4 of 7 symptoms for diagnosis. <sup>b</sup> Chronic bronchitis, emphysema or chronic asthma with a significant irreversible component.

**Map of countries where the studies were done**



Explorations of heterogeneity in studies of general medical and surgical inpatients included in the review

Figure A1: Scatter plot of depression prevalence in each study against year of study publication

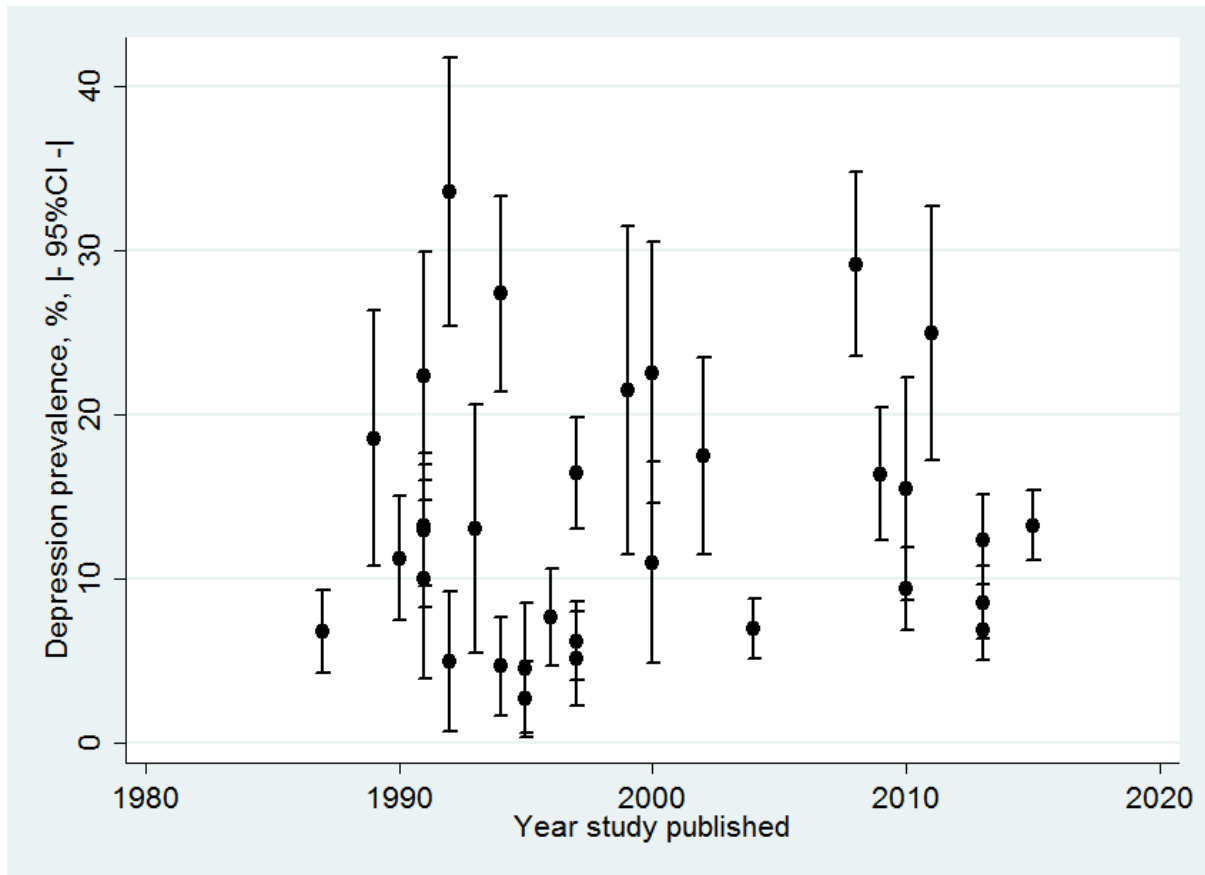


Figure A2: Scatter plot of depression prevalence in each study against sample size

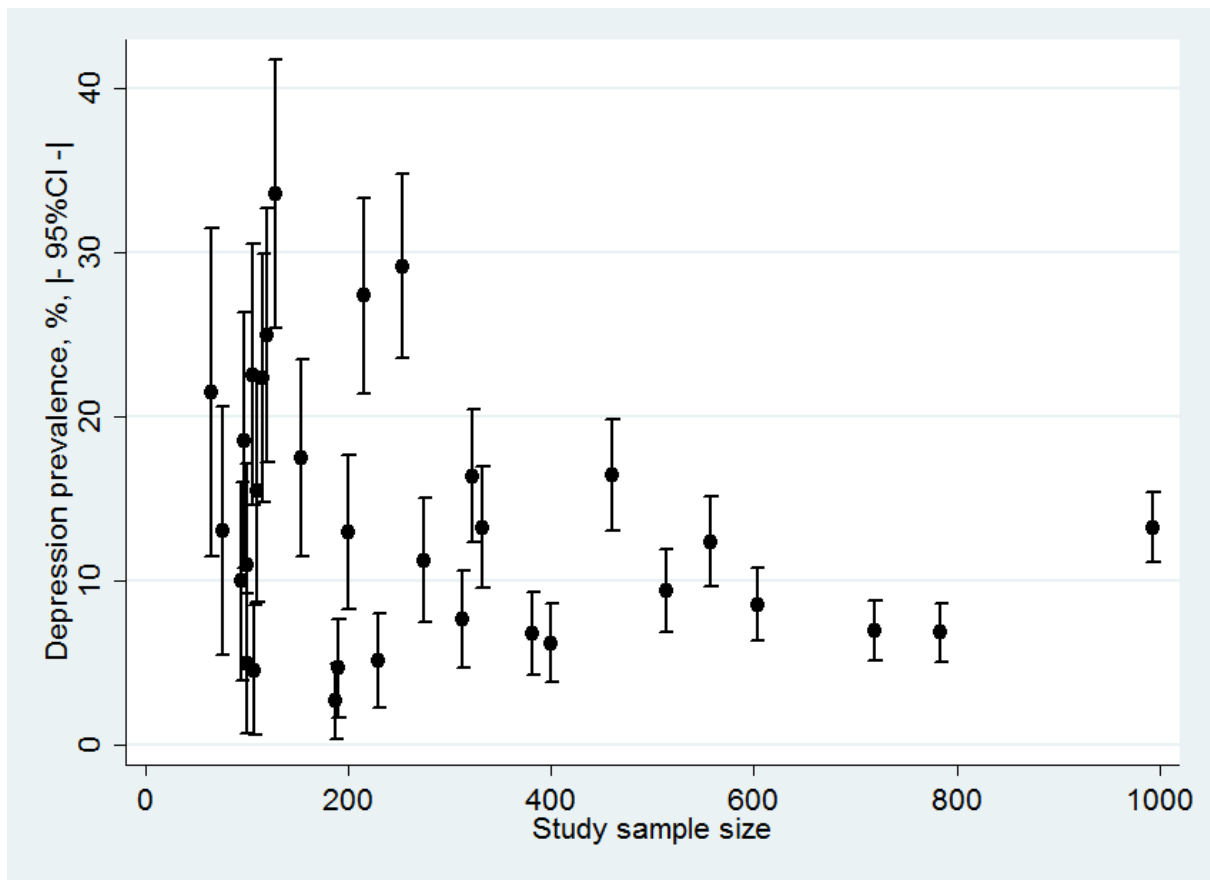


Figure A3: Scatter plot of depression prevalence in each study against average participant age

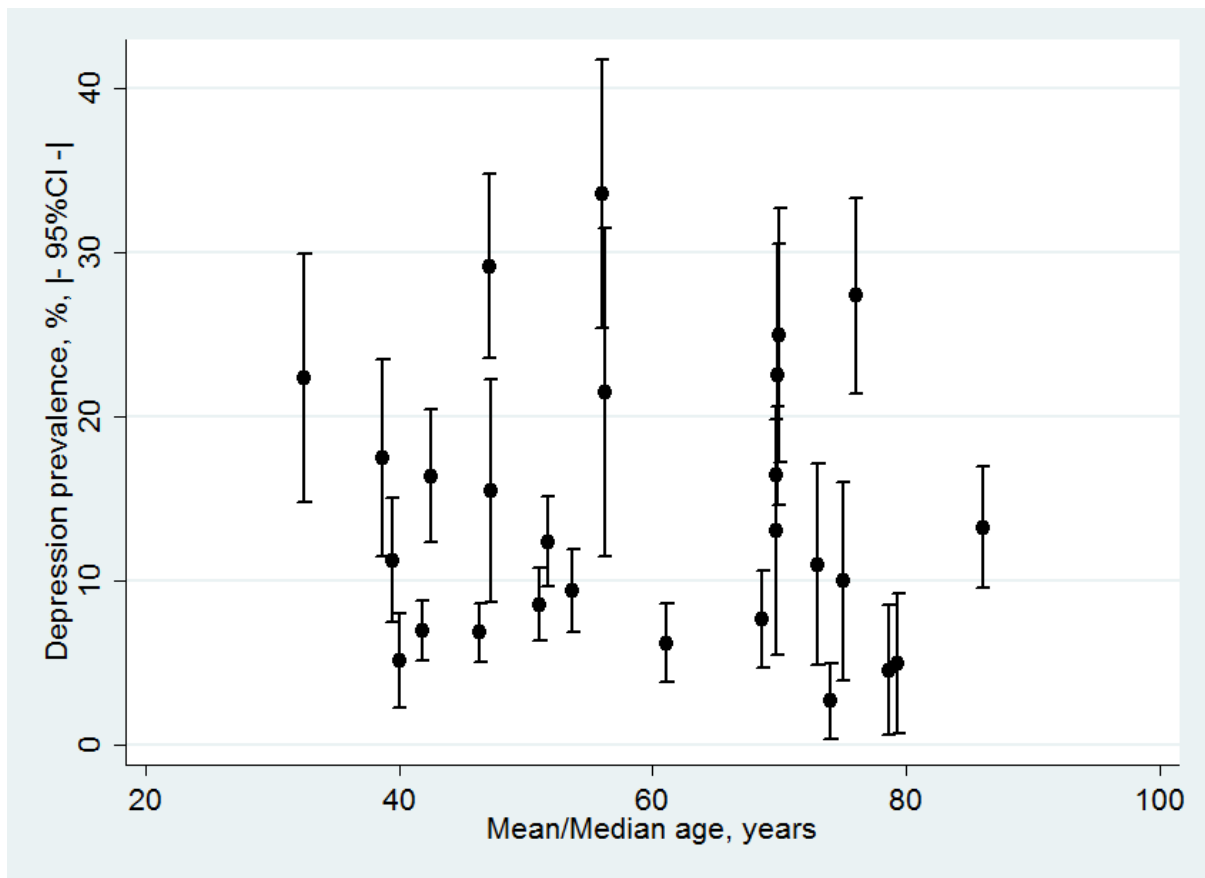
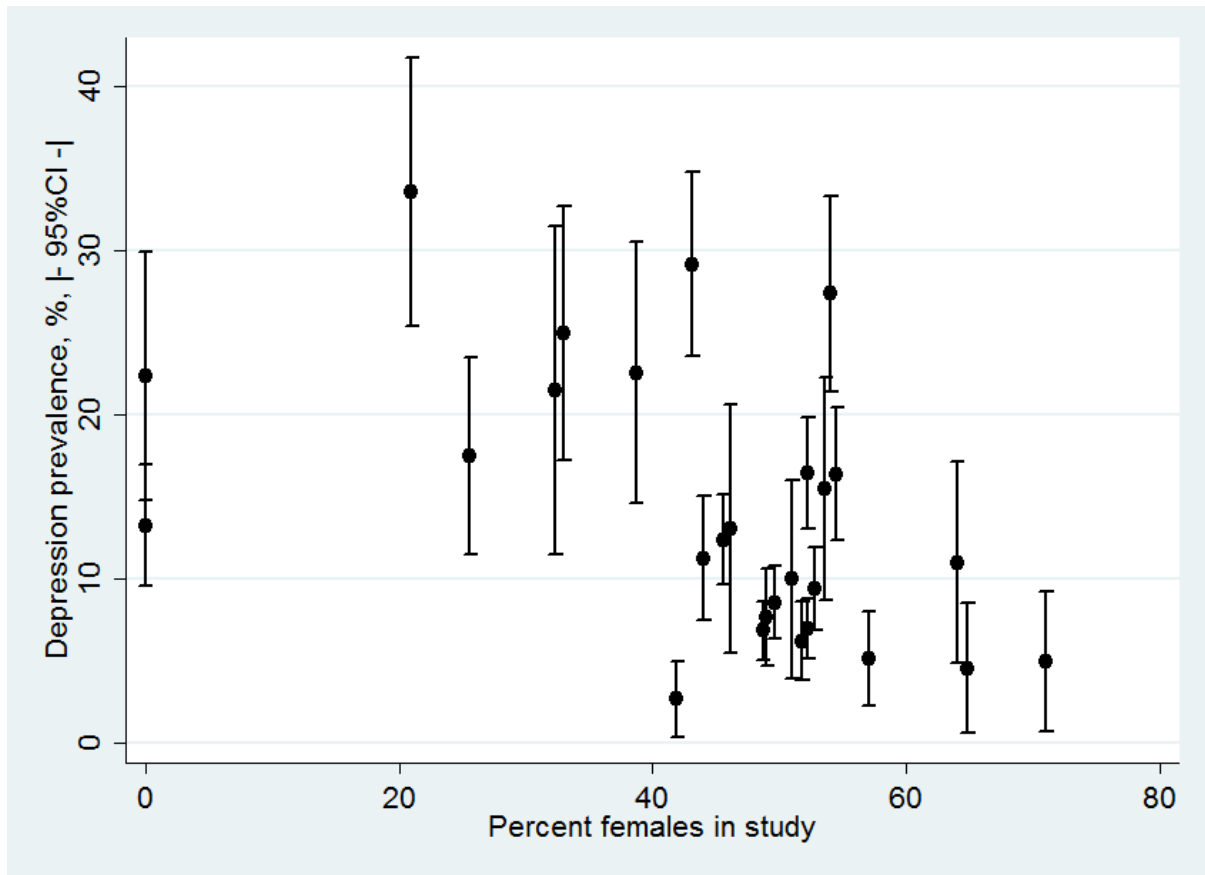
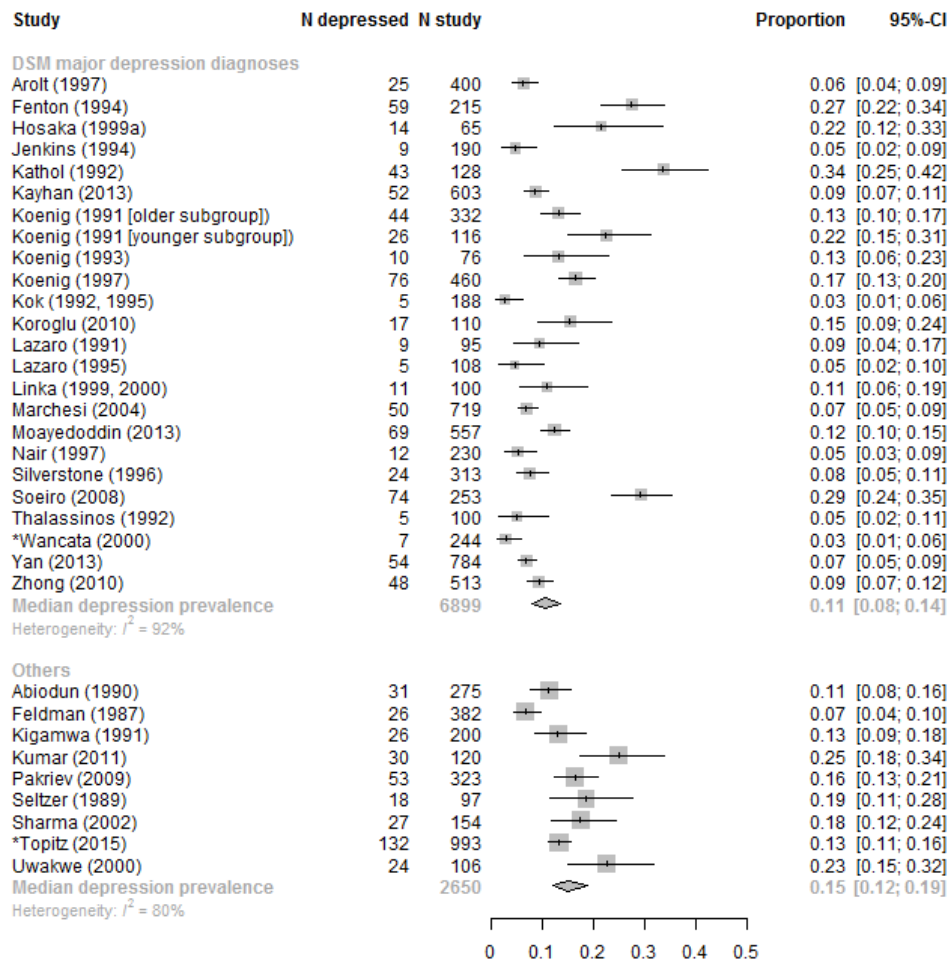




Figure A4: Scatter plot of depression prevalence in each study against percentage of female participants

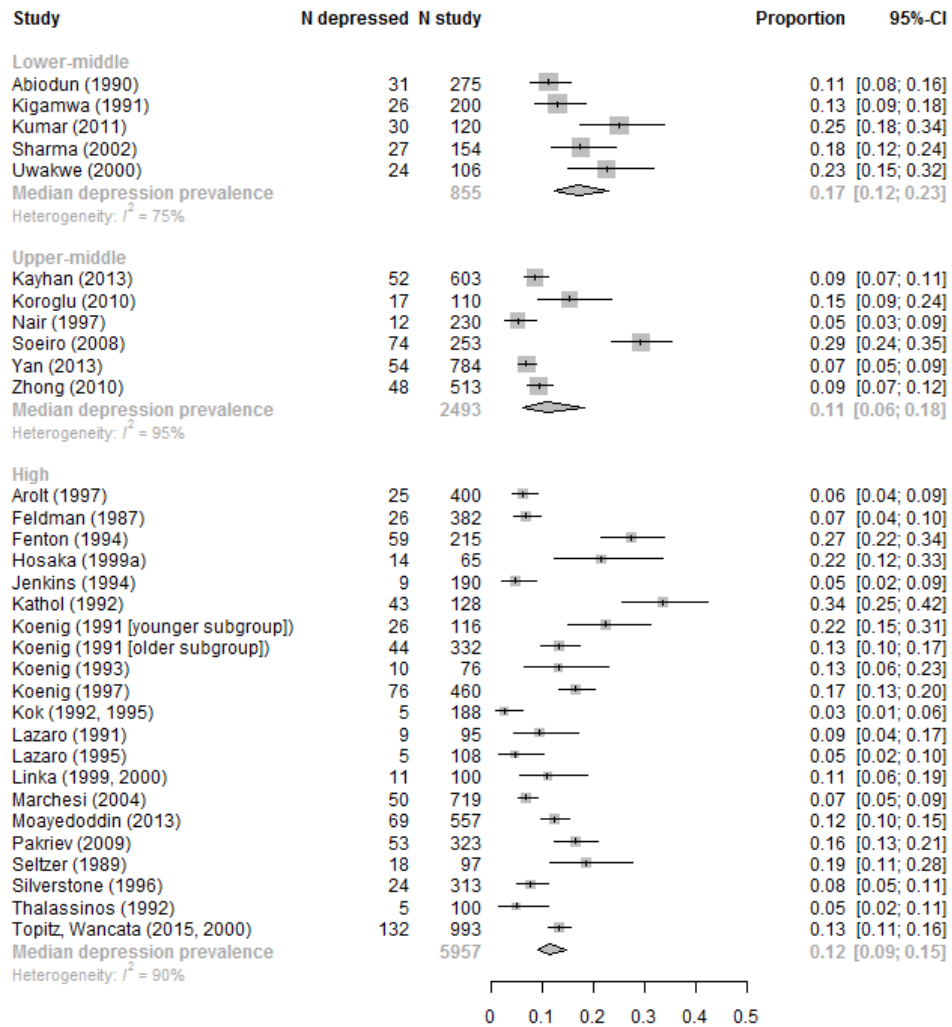


**Figure A5: Forest plot of depression prevalence in each study grouped by use of DSM major depression versus other diagnostic criteria for depression**



\*Wancata (2000) refers to a subgroup of Topitz (2015)

**Figure A8: Forest plot of depression prevalence in each study included in the review grouped by national income of the country where the study took place**



## Quality assessment of relevant studies

Study	Consecutive or Random Sample	Caseness Clearly Defined	Data available on ≥70% eligible participants
Aben 2003(Aben <i>et al.</i> , 2003)	Yes	Yes	No
Abidi 2003(Abidi and Gadit, 2003)	Yes	Yes	Unknown
Abiodun 1990(Abiodun and Ogunremi, 1990)	Yes	Yes	Yes
Aghanwa 2002(Aghanwa and Ndububa, 2002)	Yes	Yes	Yes
Agrell 1994(Agrell and Dehlin, 1994)	Yes	Yes	No
Alexander 1993(Alexander <i>et al.</i> , 1993)	Yes	Yes	Yes
Alexander 1994(Alexander <i>et al.</i> , 1994)	Unknown	Yes	Yes
Ames 1994(Ames <i>et al.</i> , 1994)	No	Yes	Unknown
Annagur 2013(Annagür <i>et al.</i> , 2013)	Yes	Yes	Yes
Aoki 1995(Aoki, 1995)	Yes	Yes	Unknown
Arnold 1996(Arnold and Privitera, 1996)	Yes	Yes	Yes
Arolt 1996(Arolt and Driessen, 1996)	Yes	Yes	Yes
Arolt 1997(Arolt <i>et al.</i> , 1997)	Yes	Yes	Yes
Atesci 2000(Atesci <i>et al.</i> , 2000)	Yes	Yes	Unknown
Atesci 2004(Atesci <i>et al.</i> , 2004)	Yes	Yes	Yes
Aydin 2001(Aydin and Ulusahin, 2001)	Yes	Yes	Unknown
Baubet 2011(Baubet <i>et al.</i> , 2011)	Yes	Yes	Yes
Bickel 1993(Bickel <i>et al.</i> , 1993)	Unknown	Unknown	Yes
Blomstedt 1996(Blomstedt <i>et al.</i> , 1996)	Yes	Yes	Yes
Blumel 2005(Blumel <i>et al.</i> , 2005)	Yes	Yes	Yes
Boerner 1999(Boerner and Kapfhammer, 1999)	Yes	Yes	Unknown
Boizonave 2003(Boizonave and de Barros, 2003)	Unknown	Yes	Unknown
Booth 1998(Booth <i>et al.</i> , 1998)	Yes	Yes	Unknown

Botega 1995(Botega <i>et al.</i> , 1995)	Yes	No	Yes
Brandon 2008(Brandon <i>et al.</i> , 2008)	Yes	Yes	Unknown
Bridges 1984(Bridges and Goldberg, 1984)	Yes	No	Yes
Bryant 2009(Bryant <i>et al.</i> , 2009)	Yes	No	Yes
Bunevicius 2005(Bunevicius <i>et al.</i> , 2005)	Unknown	Yes	Unknown
Burn 1993(Burn <i>et al.</i> , 1993)	Yes	Yes	No
Cheah 1980(Ceah and Beard, 1980)	Yes	No	Yes
Chochinov 1994(Chochinov <i>et al.</i> , 1994)	Yes	Yes	Unknown
Cigognini 2006(Cigognini and Furlanetto, 2006)	Yes	Yes	Unknown
Cooper 1987(Cooper, 1987)	Unknown	No	Yes
Coskun 2005(Coskun <i>et al.</i> , 2005)	Unknown	Yes	Unknown
Costa 2006(Costa <i>et al.</i> , 2006)	Yes	Yes	Unknown
Dicker 2011(Dicker <i>et al.</i> , 2011)	Unknown	Yes	No
Dogar 2008(Dogar <i>et al.</i> , 2008)	Yes	Yes	Yes
Dos Santos 1991(dos Santos <i>et al.</i> , 1991)	Unknown	Yes	Unknown
Driessen 1996(Driessen <i>et al.</i> , 1996)	Yes	Yes	Unknown
Dyster-Aas 2008(Dyster-Aas <i>et al.</i> , 2008)	Yes	Yes	Yes
Elliott 1996(Elliott <i>et al.</i> , 1996)	Unknown	Yes	Unknown
Evans 1986(Evans <i>et al.</i> , 1986)	Yes	Yes	No
Fava 1984(Fava <i>et al.</i> , 1984)	Yes	Yes	Unknown
Fava 1985(Fava <i>et al.</i> , 1985)	Yes	Yes	Unknown
Fedoroff 1991(Fedoroff <i>et al.</i> , 1991)	Yes	Yes	Unknown
Feldman 1987(Feldman <i>et al.</i> , 1987)	Yes	Yes	Yes
Fenton 1994(Fenton <i>et al.</i> , 1994)	Yes	Yes	Yes
Forkmann 2011(Forkmann <i>et al.</i> , 2011)	Yes	Yes	Unknown
Forrester 1992(Forrester <i>et al.</i> , 1992)	Yes	Yes	No

Freedland 1991(Freedland <i>et al.</i> , 1991)	Unknown	Yes	Unknown
Freedland 2003(Freedland <i>et al.</i> , 2003)	Yes	Yes	No
Fritzsche 2003(Fritzsche <i>et al.</i> , 2003)	Yes	Yes	Yes
Fullerton 1981(Fullerton <i>et al.</i> , 1981)	Yes	No	Yes
Gascon 2012(Gascon <i>et al.</i> , 2012)	Unknown	Unknown	Unknown
Ge 2008(Ge <i>et al.</i> , 2008)	Yes	Yes	Unknown
Giles Gordon 1992(Giles Gordon <i>et al.</i> , 1992)	Yes	No	Yes
Gonzalez 1996(Gonzalez <i>et al.</i> , 1996)	Unknown	Yes	No
Hansen 2001(Hansen <i>et al.</i> , 2001)	Yes	Yes	No
Hardman 1989(Hardman <i>et al.</i> , 1989)	Yes	Yes	Yes
Harter 2000(Harter <i>et al.</i> , 2000)	Yes	Yes	Unknown
Harter 2002a(Harter <i>et al.</i> , 2002a)	Yes	Yes	Unknown
Harter 2002b(Harter <i>et al.</i> , 2002b)	Yes	Yes	Unknown
Hedayati 2004(Hedayati <i>et al.</i> , 2004)	Unknown	Yes	Unknown
Heeren 1985(Heeren and Rooymans, 1985)	Yes	Yes	Yes
Hengeveld 1987(Hengeveld <i>et al.</i> , 1987)	No	Yes	Yes
Hosaka 1994a(Hosaka <i>et al.</i> , 1994a)	Unknown	Yes	Unknown
Hosaka 1994b(Hosaka <i>et al.</i> , 1994b)	Unknown	Yes	Unknown
Hosaka 1999a(Hosaka <i>et al.</i> , 1999a)	Yes	Yes	Yes
Hosaka 1999b(Hosaka <i>et al.</i> , 1999b)	Unknown	Yes	Unknown
Jenkins 1994(Jenkins <i>et al.</i> , 1994)	Yes	Yes	Yes
Jiang 2001(Jiang <i>et al.</i> , 2001)	Unknown	Yes	Unknown
John 2013(John, 2013)	Unknown	Yes	Unknown
Kathol 1992(Kathol and Wenzel, 1992)	Yes	Yes	Yes
Kayhan 2013(Kayhan <i>et al.</i> , 2013)	Yes	Yes	Yes

Keller 2004(Keller <i>et al.</i> , 2004)	Yes	Yes	No
Kheirabadi 2012(Kheirabadi <i>et al.</i> , 2012)	Unknown	Yes	Yes
Kigamwa 1991(Kigamwa, 1991)	Yes	Yes	Yes
Kishi 1994(Kishi <i>et al.</i> , 1994)	Yes	Yes	Yes
Koenig 1991(Koenig <i>et al.</i> , 1991)	Yes	Yes	Yes
Koenig 1993(Koenig <i>et al.</i> , 1993)	Yes	Yes	Yes
Koenig 1997(Koenig <i>et al.</i> , 1997)	Yes	Yes	Yes
Koenig 1998(Koenig, 1998)	Yes	Yes	Unknown
Kok 1992(Kok <i>et al.</i> , 1992)	Yes	Yes	Yes
Kok 1995(Kok <i>et al.</i> , 1995)	Yes	Yes	Yes
Koruglu 2010(Koroglu and Tural, 2010)	Yes	Yes	Yes
Krauss 2006(Krauss <i>et al.</i> , 2006)	Yes	Yes	No
Krautgartner 2006(Krautgartner <i>et al.</i> , 2006)	Yes	Yes	No
Kugaya 2000(Kugaya <i>et al.</i> , 2000)	Yes	Yes	Yes
Kuhn 1989(Kuhn <i>et al.</i> , 1989)	Yes	Yes	No
Kumar 2011(Kumar <i>et al.</i> , 2011)	Yes	Yes	Yes
Lazaro 1991(Lazaro <i>et al.</i> , 1991)	Yes	Yes	Yes
Lazaro 1995(Lazaro <i>et al.</i> , 1995)	Yes	Yes	Yes
Leung 1992(Leung <i>et al.</i> , 1992)	Yes	Yes	No
Linka 1999(Linka <i>et al.</i> , 1999)	Yes	Yes	Yes
Linka 2000(Linka <i>et al.</i> , 2000)	Yes	Yes	Yes
Lykouras 1996(Lykouras <i>et al.</i> , 1996)	Yes	Yes	Yes
Madianos 2001(Madianos <i>et al.</i> , 2001)	Yes	Yes	Yes
Marchesi 2004(Marchesi <i>et al.</i> , 2004)	Yes	Yes	Yes
Martin 1977(Martin <i>et al.</i> , 1977)	Yes	No	Yes
Martucci 1999(Martucci <i>et al.</i> , 1999)	Yes	Yes	No

McCaffrey 2007(McCaffrey <i>et al.</i> , 2007)	Unknown	Yes	No
Meroni 2013(Meroni <i>et al.</i> , 2013)	Yes	Yes	Unknown
Michopoulos 2010(Michopoulos <i>et al.</i> , 2010)	Yes	Yes	Unknown
Moayedoddin 2013(Moayedoddin <i>et al.</i> , 2013)	Yes	Yes	Yes
Mohammed 2014(Mohammed <i>et al.</i> , 2014)	No	Unknown	Yes
Mohapatra 2005(Mohapatra <i>et al.</i> , 2005)	Yes	Yes	Unknown
Nair 1997(Nair and Pillay, 1997)	Yes	Yes	Yes
Nakasujja 2007(Nakasujja <i>et al.</i> , 2007)	Yes	Yes	Unknown
Ng 1995(Ng <i>et al.</i> , 1995)	Yes	Yes	Yes
Nikolić 2010(Nikolic <i>et al.</i> , 2010)	Unknown	Yes	Unknown
Nishioka 1990(Nishioka <i>et al.</i> , 1990)	Unknown	Yes	Unknown
O'Riordan 1989(O'Riordan <i>et al.</i> , 1989)	Yes	Yes	Yes
Owen 2004(Owen, 2004)	Unknown	Yes	Unknown
Pakriev 2009(Pakriev <i>et al.</i> , 2009)	Yes	Yes	Yes
Palmu 2010(Palmu <i>et al.</i> , 2010)	Yes	Yes	Yes
Palmu 2011(Palmu <i>et al.</i> , 2011)	Yes	Yes	Yes
Paradiso 1998(Paradiso and Robinson, 1998)	Yes	Yes	Unknown
Petrak 2003(Petrak <i>et al.</i> , 2003)	Yes	Yes	Yes
Picardi 2005(Picardi <i>et al.</i> , 2005)	Unknown	Yes	Yes
Placidi 1998(Placidi <i>et al.</i> , 1998)	Yes	Yes	Unknown
Plumb 1981(Plumb and Holland, 1981)	Unknown	No	Unknown
Prallet 1990(Prallet <i>et al.</i> , 1990)	Yes	No	Yes
Prieto 2002(Prieto <i>et al.</i> , 2002)	Yes	Yes	Yes



Purohit 1978(Purohit <i>et al.</i> , 1978)	Unknown	No	Yes
Radat 1996(Radat <i>et al.</i> , 1996)	Unknown	Yes	Unknown
Radat 1999(Radat <i>et al.</i> , 1999)	Yes	Yes	Unknown
Ramsay 1991(Ramsay <i>et al.</i> , 1991)	Unknown	No	Yes
Regvat 2011(Regvat <i>et al.</i> , 2011)	Yes	Yes	Yes
Rentsch 2007(Rentsch <i>et al.</i> , 2007)	Yes	Yes	No
Rukundo 2013(Rukundo <i>et al.</i> , 2013)	Unknown	Yes	Unknown
Scevola 2013(Scevola <i>et al.</i> , 2013)	Unknown	Yes	Unknown
Schleifer 1989(Schleifer and Macari-Hinson, 1989)	Yes	Yes	No
Schottke 2001(Schottke <i>et al.</i> , 2001)	Unknown	Yes	Unknown
Seltzer 1989(Seltzer, 1989)	Yes	Yes	Yes
Sharma 2002(Sharma <i>et al.</i> , 2002)	Yes	Yes	Yes
Silverstone 1996(Silverstone, 1996)	Yes	Yes	Yes
Singer 2007(Singer <i>et al.</i> , 2007)	Yes	Yes	No
Singer 2013(Singer <i>et al.</i> , 2013)	Yes	Yes	Yes
Snyder 1992(Snyder <i>et al.</i> , 1992)	Yes	Yes	Yes
Soeiro 2008(Soeiro <i>et al.</i> , 2008)	Yes	Yes	Yes
Starkstein 1988(Starkstein <i>et al.</i> , 1988)	Yes	Yes	Yes
Tan 2014(Tan <i>et al.</i> , 2014)	Yes	Yes	Unknown
Tanaka 1998(Tanaka <i>et al.</i> , 1998)	No	Yes	Yes
Tang 2002(Tang <i>et al.</i> , 2002)	Yes	Yes	Unknown
Thalassinos 1992(Thalassinos <i>et al.</i> , 1992)	Yes	Yes	Yes
Thiagayson 2013(Thiagayson <i>et al.</i> , 2013)	No	Yes	Yes
Topitz 2015(Topitz <i>et al.</i> , 2015)	Yes	Yes	Yes
Turner 2011(Turner <i>et al.</i> , 2011)	Yes	Yes	Yes

Turrina 2001(Turrina <i>et al.</i> , 2001)	Yes	Yes	Unknown
Uwakwe 2000(Uwakwe, 2000)	Yes	Yes	Yes
Vaeroy 2003(Vaeroy <i>et al.</i> , 2003)	No	Yes	Yes
Vogele 2008(Vogele and von Leupoldt, 2008)	Unknown	Yes	Unknown
Wancata 2000(Wancata <i>et al.</i> , 2000)	Yes	Yes	Yes
Yan 2013(Yan <i>et al.</i> , 2013)	Yes	Yes	Yes
Yellowlees 1987(Yellowlees <i>et al.</i> , 1987)	Yes	Yes	Yes
Zhao 2014(Zhao <i>et al.</i> , 2014)	Yes	Yes	Yes
Zhong 2010(Zhong <i>et al.</i> , 2010)	Yes	Yes	Yes
Zielinska 2014(Zielinska and Durlik, 2014)	Unknown	No	Unknown

## References for relevant studies

- Aben, I., Verhey, F., Strik, J., Lousberg, R., Lodder, J. & Honig, A.** (2003). A comparative study into the one year cumulative incidence of depression after stroke and myocardial infarction. *Journal of Neurology, Neurosurgery & Psychiatry* **74**, 581-585.
- Abidi, M. A. & Gadit, A. A.** (2003). Liaison psychiatry and referral rates among hospitalized patients. *Journal of the College of Physicians & Surgeons - Pakistan* **13**, 274-276.
- Abiodun, O. A. & Ogunremi, O. O.** (1990). Psychiatric morbidity in medical and surgical wards of a Nigerian general hospital. *Journal of Psychosomatic Research* **34**, 409-414.
- Aghanwa, H. S. & Ndububa, D.** (2002). Specific psychiatric morbidity in liver cirrhosis in a Nigerian general hospital setting. *General Hospital Psychiatry* **24**, 436-441.
- Agrell, B. & Dehlin, O.** (1994). Depression in stroke patients with left and right hemisphere lesions. A study in geriatric rehabilitation in-patients. *Aging-Clinical & Experimental Research* **6**, 49-56.
- Alexander, P., Prabhu, S., Krishnamoorthy, E. & Halkatti, P.** (1994). Mental disorders in patients with noncardiac chest pain. *Acta Psychiatrica Scandinavica* **89**, 291-293.
- Alexander, P. J., Dinesh, N. & Vidyasagar, M.** (1993). Psychiatric morbidity among cancer patients and its relationship with awareness of illness and expectations about treatment outcome. *Acta Oncologica* **32**, 623-626.
- Ames, D., Flynn, E. & Harrigan, S.** (1994). Prevalence of psychiatric disorders among inpatients of an acute geriatric hospital. *Australasian Journal on Ageing* **13**, 8-11.
- Annagür, B. B., Tazegül, A. & Gündüz, S.** (2013). Do psychiatric disorders continue during pregnancy in women with hyperemesis gravidarum: a prospective study. *General Hospital Psychiatry* **35**, 492-496.
- Aoki, T.** (1995). Psychiatric evaluation of physical rehabilitation patients. *General Hospital Psychiatry* **17**, 440-443.
- Arnold, L. M. & Privitera, M. D.** (1996). Psychopathology and trauma in epileptic and psychogenic seizure patients. *Psychosomatics* **37**, 438-443.
- Arolt, V. & Driessen, M.** (1996). Alcoholism and psychiatric comorbidity in general hospital inpatients. *General Hospital Psychiatry* **18**, 271-277.
- Arolt, V., Driessen, M. & Dilling, H.** (1997). The Lubeck General Hospital Study. I: Prevalence of psychiatric disorders in medical and surgical inpatients. *International Journal of Psychiatry in Clinical Practice* **1**, 207-216.
- Atesci, F. C., Baltarli, B., Oguzhanoglu, N. K., Karadag, F., Ozdel, O. & Karagoz, N.** (2004). Psychiatric morbidity among cancer patients and awareness of illness. *Supportive Care In Cancer* **12**, 161-7.
- Atesci, F. C., Karadag, F. & Oguzhanoglu, N. K.** (2000). The distribution of psychiatric disorders among inpatients in an university hospital. *Anadolu Psikiyatri Dergisi* **1**, 148-156.
- Aydin, I. O. & Ulusahin, A.** (2001). Depression, anxiety comorbidity, and disability in tuberculosis and chronic obstructive pulmonary disease patients: applicability of GHQ-12. *General Hospital Psychiatry* **23**, 77-83.
- Baubet, T., Ranque, B., Taïeb, O., Bérezné, A., Bricou, O., Mehallel, S., Moroni, C., Belin, C., Pagnoux, C. & Moro, M.-R.** (2011). Mood and anxiety disorders in systemic sclerosis patients. *La Presse Médicale* **40**, e111-e119.
- Bickel, H., Cooper, B. & Wancata, J.** (1993). Psychiatric disorders among elderly general hospital patients: Frequency and long-term outcome. *Nervenarzt* **64**, 53-61.

- Blomstedt, G. C., Katila, H., Henriksson, M., Ekholm, A., Jaaskelainen, J. E. & Pyykko, I.** (1996). Depression after surgery for acoustic neuroma. *Journal of Neurology, Neurosurgery & Psychiatry* **61**, 403-406.
- Blumel, M. B., Gibbons, F. A., Kanacri, C. A., Kerrigan, B. N. & Florenzano, U. R.** (2005). Depressive symptoms after an acute myocardial infarction. *Revista Medica de Chile* **133**, 1021-1027.
- Boerner, R. & Kapfhammer, H.** (1999). Psychopathological changes and cognitive impairment in encephalomyelitis disseminata. *European Archives of Psychiatry and Clinical Neuroscience* **249**, 96-102.
- Boizonave, L. F. & de Barros, T. M.** (2003). Anxiety and Depression: Psychological Reactions In General Hospital Patients. *Aletheia* **17-18**, 135-143.
- Booth, B. M., Blow, F. C. & Loveland Cook, C. A.** (1998). Functional impairment and co-occurring psychiatric disorders in medically hospitalized men. *Archives of Internal Medicine* **158**, 1551-1559.
- Botega, N. J., Bio, M. R., Zomignani, M. A., Garcia Jr, C. & Pereira, W. A.** (1995). Mood disorders among inpatients in ambulatory and validation of the anxiety and depression scale HAD. [Portuguese]. *Revista de saude publica* **29**, 355-363.
- Brandon, A. R., Trivedi, M. H., Hynan, L. S., Miltenberger, P. D., Labat, D. B., Rifkin, J. B. & Stringer, C.** (2008). Prenatal depression in women hospitalized for obstetric risk. *Journal of Clinical Psychiatry* **69**, 635-643.
- Bridges, K. W. & Goldberg, D. P.** (1984). Psychiatric illness in inpatients with neurological disorders: patients' views on discussion of emotional problems with neurologists. *British Medical Journal Clinical Research Ed.* **289**, 656-658.
- Bryant, C., Jackson, H. & Ames, D.** (2009). Depression and anxiety in medically unwell older adults: prevalence and short-term course. *International Psychogeriatrics* **21**, 754-763.
- Bunevicius, R., Velickiene, D. & Prange Jr., A. J.** (2005). Mood and anxiety disorders in women with treated hyperthyroidism and ophthalmopathy caused by Graves' disease. *General Hospital Psychiatry* **27**, 133-139.
- Burn, W. K., Davies, K. N., McKenzie, F. R., Brothwell, J. A. & Wattis, J. P.** (1993). The prevalence of psychiatric illness in acute geriatric admissions. *International Journal of Geriatric Psychiatry* **8**, 171-174.
- Cheah, K. C. & Beard, O. W.** (1980). Psychiatric findings in the population of a geriatric evaluation unit: implications. *Journal of the American Geriatrics Society* **28**, 153-156.
- Chochinov, H. M., Wilson, K. G., Enns, M. & Lander, S.** (1994). Prevalence of depression in the terminally ill: effects of diagnostic criteria and symptom threshold judgments. *The American Journal of Psychiatry* **151**, 537.
- Cigognini, M. A. & Furlanetto, L. M.** (2006). Diagnosis and pharmacological treatment of depressive disorders in a general hospital. *Revista Brasileira de Psiquiatria* **28**, 97-103.
- Cooper, B.** (1987). Psychiatric disorders among elderly patients admitted to hospital medical wards. *Journal of the Royal Society of Medicine* **80**, 13-16.
- Coskun, B. K., Atmaca, M., Saral, Y. & Coskun, N.** (2005). Prevalence of psychological factors in chronic dermatoses. *International Journal of Psychiatry in Clinical Practice* **9**, 52-54.
- Costa, A., Peppe, A., Carlesimo, G., Pasqualetti, P. & Caltagirone, C.** (2006). Alexithymia in Parkinson's disease is related to severity of depressive symptoms. *European Journal of Neurology* **13**, 836-841.

- Dicker, R. A., Mah, J., Lopez, D., Tran, C., Reidy, R., Moore, M., Kreniske, P., Crane, I., Knudson, M. M., Li, M., Menza, R., Shuway, M. & Alvidrez, J.** (2011). Screening for mental illness in a trauma center: rooting out a risk factor for unintentional injury. *Journal of Trauma-Injury Infection & Critical Care* **70**, 1337-1344.
- Dogar, I. A., Khawaja, I. S., Azeem, M. W., Awan, H., Ayub, A., Iqbal, J. & Thuras, P.** (2008). Prevalence and risk factors for depression and anxiety in hospitalized cardiac patients in pakistan. *Psychiatry* **5**, 38-41.
- dos Santos, M. J., Pimentel, P., Monteiro, J. M., Cardoso, G., de Oliveira, J. J., Almiro, M., Santos, J. M. & de Lacerda, J. M.** (1991). Psychiatric disorders in hospitalized patients with hematologic neoplasms. *Acta Medica Portuguesa* **4**, 5-8.
- Driessen, M., Arolt, V., John, U., Veltrup, C. & Dilling, H.** (1996). Psychiatric comorbidity in hospitalized alcoholics after detoxification treatment. *European Addiction Research* **2**, 17-23.
- Dyster-Aas, J., Willebrand, M., Wikehult, B., Gerdin, B. & Ekselius, L.** (2008). Major depression and posttraumatic stress disorder symptoms following severe burn injury in relation to lifetime psychiatric morbidity. *Journal of Trauma - Injury, Infection and Critical Care* **64**, 1349-1356.
- Elliott, A. J., Pages, K. P., Russo, J., Wilson, L. G. & Roy-Byrne, P. P.** (1996). A profile of medically serious suicide attempts. *Journal of Clinical Psychiatry* **57**, 567-571.
- Evans, D. L., McCartney, C. F., Nemeroff, C. B., Raft, D., Quade, D., Golden, R. N., Haggerty Jr., J. J., Holmes, V., Simon, J. S., Droba, M. & al., e.** (1986). Depression in women treated for gynecological cancer: clinical and neuroendocrine assessment. *American Journal of Psychiatry* **143**, 447-452.
- Fava, G. A., Trombini, G., Barbara, L., Bernardi, M., Grandi, S., Callegari, C. & Miglioli, M.** (1985). Depression and gastrointestinal illness: the joint use of biological and clinical criteria. *American Journal of Gastroenterology* **80**, 195-199.
- Fava, G. A., Trombini, G., Grandi, S., Bernardi, M., Evangelisti, L. P., Santarsiero, G. & Orlandi, C.** (1984). Depression and anxiety associated with secondary amenorrhea. *Psychosomatics: Journal of Consultation and Liaison Psychiatry* **25**, 905-908.
- Fedoroff, J. P., Starkstein, S. E., Parikh, R. M., Price, T. R. & Robinson, R. G.** (1991). Are depressive symptoms nonspecific in patients with acute stroke? *American Journal of Psychiatry* **148**, 1172-1176.
- Feldman, E., Mayou, R. & Hawton, K.** (1987). Psychiatric disorder in medical in-patients. *Quarterly Journal of Medicine* **63**, 405-412.
- Fenton, F. R., Cole, M. G., Engelsmann, F. & Mansouri, I.** (1994). Depression in older medical inpatients. *International Journal of Geriatric Psychiatry* **9**, 279-284.
- Forkmann, T., Norra, C., Wirtz, M., Vehren, T., Volz-Sidiropoulou, E., Westhofen, M., Gauggel, S. & Boecker, M.** (2011). Prevalence and psychopathological characteristics of depression in consecutive otorhinolaryngologic inpatients. *BioMed Central Ear, Nose & Throat Disorders* **11**, 7.
- Forrester, A. W., Lipsey, J. R., Teitelbaum, M. L., DePaulo, J., Andrzejewski, P. L. & Robinson, R. G.** (1992). Depression following myocardial infarction. *International Journal of Psychiatry in Medicine* **22**, 33-46.
- Freedland, K. E., Carney, R. M., Rich, M. W., Caracciolo, A. & al., e.** (1991). Depression in elderly patients with congestive heart failure. *Journal of Geriatric Psychiatry* **24**, 59-71.

- Freedland, K. E., Rich, M. W., Skala, J. A., Carney, R. M., Davila-Roman, V. G. & Jaffe, A. S.** (2003). Prevalence of depression in hospitalized patients with congestive heart failure. *Psychosomatic Medicine* **65**, 119-128.
- Fritzsche, K., Struss, Y., Stein, B. & Spahn, C.** (2003). Psychosomatic liaison service in hematological oncology: need for psychotherapeutic interventions and their realization. *Hematological Oncology* **21**, 83-89.
- Fullerton, D. T., Harvey, R. F., Klein, M. H. & Howell, T.** (1981). Psychiatric disorders in patients with spinal cord injuries. *Archives of General Psychiatry* **38**, 1369-1371.
- Gascon, M. R., Ribeiro, C. M., Bueno, L. M., Benute, G. R., Lucia, M. C., Rivitti, E. A. & Festa Neto, C.** (2012). Prevalence of depression and anxiety disorders in hospitalized patients at the dermatology clinical ward of a university hospital. *Anais Brasileiros de Dermatologia* **87**, 403-407.
- Ge, H. M., Liu, L. F. & Han, J. B.** (2008). Study on depressive disorder and related factors in surgical inpatients. *Zhonghua wai ke za zhi [Chinese journal of surgery]* **46**, 362-365.
- Giles Gordon, E., Franco Fernandez, M. D., Sanmartin Roche, A., Masse Garcia, P., Guija Villa, J., Giner Ubago, J. & al., e.** (1992). Psychiatric disorders among hospitalized geriatric patients: Usefulness of several scales. *Anales de Psiquiatria* **10**, 89-95.
- Gonzalez, M. B., Snyderman, T. B., Colket, J. T., Arias, R. M., Jiang, J. W., O'Connor, C. M. & Krishnan, K. R.** (1996). Depression in patients with coronary artery disease. *Depression* **4**, 57-62.
- Hansen, M. S., Fink, P., Frydenberg, M., Oxhoj, M.-L., Sondergaard, L. & Munk-Jorgensen, P.** (2001). Mental disorders among internal medical inpatients: Prevalence, detection, and treatment status. *Journal of Psychosomatic Research* **50**, 199-204.
- Hardman, A., Maguire, P. & Crowther, D.** (1989). The recognition of psychiatric morbidity on a medical oncology ward. *Journal of Psychosomatic Research* **33**, 235-239.
- Harter, M., Baumeister, H., Reuter, K., Wunsch, A. & Bengel, J.** (2002a). Epidemiology of comorbid mental disorders in rehabilitees with musculoskeletal and cardiovascular diseases. *Rehabilitation* **41**, 367-374.
- Harter, M., Reuter, K., Schretzmann, B., Hasenburg, A., Aschenbrenner, A. & Weis, J.** (2000). Comorbid mental disorders in cancer patients in acute care and rehabilitation treatment. *Rehabilitation* **39**, 317-323.
- Harter, M., Reuter, K., Weisser, B., Schretzmann, B., Aschenbrenner, A., Bengel, J., Harter, M., Reuter, K., Weisser, B., Schretzmann, B., Aschenbrenner, A. & Bengel, J.** (2002b). A descriptive study of psychiatric disorders and psychosocial burden in rehabilitation patients with musculoskeletal diseases. *Archives of Physical Medicine and Rehabilitation* **83**, 461-468.
- Hedayati, S. S., Jiang, W., O'Connor, C. M., Kuchibhatla, M., Krishnan, K. R., Cuffe, M. S., Blazing, M. A. & Szczech, L. A.** (2004). The association between depression and chronic kidney disease and mortality among patients hospitalized with congestive heart failure. *American Journal of Kidney Diseases* **44**, 207-215.
- Heeren, T. J. & Rooymans, H. G.** (1985). [Psychiatric disorders in elderly hospitalized patients: prevalence and recognition]. *Tijdschrift voor Gerontologie en Geriatrie* **16**, 53-59.
- Hengeveld, M. W., Ancion, F. A. J. M. & Rooijmans, H. G. M.** (1987). Prevalence and recognition of depressive disorders in general medical inpatients. *International Journal of Psychiatry in Medicine* **17**, 341-349.
- Hosaka, T., Aoki, T. & Ichikawa, Y.** (1994a). Emotional states of patients with hematological malignancies: preliminary study. *Japanese Journal of Clinical Oncology* **24**, 186-190.

**Hosaka, T., Aoki, T., Watanabe, T. & Ishida, A.** (1994b). Psychiatric evaluation of rehabilitation patients. *Tokai Journal of Experimental & Clinical Medicine* **19**, 7-11.

**Hosaka, T., Aoki, T., Watanabe, T., Okuyama, T. & Kurosawa, H.** (1999a). Comorbidity of depression among physically ill patients and its effect on the length of hospital stay. *Psychiatry & Clinical Neurosciences* **53**, 491-495.

**Hosaka, T., Awazu, H., Fukunishi, I., Okuyama, T. & Wogan, J.** (1999b). Disclosure of true diagnosis in Japanese cancer patients. *General Hospital Psychiatry* **21**, 209-213.

**Jenkins, P., Jamil, N., Taylor, B. & Hughes, L.** (1994). Why don't surgeons refer to psychiatrists? Psychological morbidity in acute surgical admissions. *New Trends in Experimental & Clinical Psychiatry* **10**, 93-95.

**Jiang, W., Alexander, J., Christopher, E., Kuchibhatla, M., Gauden, L. H., Cuffe, M. S., Blazing, M. A., Davenport, C., Califf, R. M., Krishnan, R. R. & O'Connor, C. M.** (2001). Relationship of depression to increased risk of mortality and rehospitalization in patients with congestive heart failure. *Archives of Internal Medicine* **161**, 1849-1856.

**John, S.** (2013). Prevalence and pattern of psychiatric morbidity and health related quality of life in patients with ischemic heart disease in a tertiary care hospital. *Indian Journal of Psychiatry* **55**, 353-359.

**Kathol, R. G. & Wenzel, R. P.** (1992). Natural history of symptoms of depression and anxiety during inpatient treatment on general medicine wards. *Journal of General Internal Medicine* **7**, 287-293.

**Kayhan, F., Cicek, E., Uguz, F., Karababa, I. F. & Kucur, R.** (2013). Mood and anxiety disorders among inpatients of a university hospital in Turkey. *General Hospital Psychiatry* **35**, 417-422.

**Keller, M., Sommerfeldt, S., Fischer, C., Knight, L., Riesbeck, M., Lowe, B., Herfarth, C. & Lehnert, T.** (2004). Recognition of distress and psychiatric morbidity in cancer patients: A multi-method approach. *Annals of Oncology* **15**, 1243-1249.

**Kheirabadi, G. R., Hashemi, S. J., Akbaripour, S., Salehi, M. & Maracy, M. R.** (2012). Risk factors of suicide reattempt in patients admitted to khorshid hospital, Isfahan, iran, 2009. *Iranian Journal of Epidemiology* **8**, 39-46.

**Kigamwa, A.** (1991). Psychiatric morbidity and referral rate among medical in-patients at Kenyatta National Hospital. *East African Medical Journal* **68**, 383-388.

**Kishi, Y., Robinson, R. G. & Forrester, A. W.** (1994). Prospective longitudinal study of depression following spinal cord injury. *Journal of Neuropsychiatry and Clinical Neurosciences* **6**, 237-237.

**Koenig, H. G.** (1998). Depression in hospitalized older patients with congestive heart failure. *General Hospital Psychiatry* **20**, 29-43.

**Koenig, H. G., George, L. K., Peterson, B. L. & Pieper, C. F.** (1997). Depression in medically ill hospitalized older adults: prevalence, characteristics, and course of symptoms according to six diagnostic schemes. *American Journal of Psychiatry* **154**, 1376-1383.

**Koenig, H. G., Meador, K. G., Shelp, F., Goli, V., Cohen, H. J. & Blazer, D. G.** (1991). Major depressive disorder in hospitalized medically ill patients: an examination of young and elderly male veterans. *Journal of the American Geriatrics Society* **39**, 881-890.

**Koenig, H. G., O'Connor, C. M., Guarisco, S. A., Zabel, K. & Ford, S. M.** (1993). Depressive disorder in older medical inpatients on general medicine and cardiology services at a university teaching hospital. *The American Journal of Geriatric Psychiatry* **1**, 197-210.

- Kok, R. M., Heeren, T. J., Drenth, E. C., Janzing, J. G. & de Wildt, A. G.** (1992). [Psychiatric disorders in elderly patients admitted in a general hospital]. *Nederlands Tijdschrift voor Geneeskunde* **136**, 1913-1917.
- Kok, R. M., Heeren, T. J., Hooijer, C., Dinkgreve, M. A. & Rooijmans, H. G.** (1995). The prevalence of depression in elderly medical inpatients. *Journal of Affective Disorders* **33**, 77-82.
- Koroglu, G. & Tural, U.** (2010). The prevalence of comorbid psychiatric disorders among inpatients with medical illness and their effects on quality of life and functioning. *Yeni Symposium: psikiyatri, noroloji ve davranis bilimleri dergisi* **48**, 54-62.
- Krauss, O., Ernst, J., Kauschke, M., Stolzenburg, J. U., Weissflog, G. & Schwarz, R.** (2006). Patients after prostatectomy. Psychiatric comorbidity, need for psychooncological treatment and quality of life. *Urologe (Ausz. A)* **45**, 482-488.
- Krautgartner, M., Alexandrowicz, R., Benda, N. & Wancata, J.** (2006). Need and utilization of psychiatric consultation services among general hospital inpatients. *Social Psychiatry & Psychiatric Epidemiology* **41**, 294-301.
- Kugaya, A., Akechi, T., Okuyama, T., Nakano, T., Mikami, I., Okamura, H. & Uchitomi, Y.** (2000). Prevalence, predictive factors, and screening for psychological distress in patients with newly diagnosed head and neck cancer. *Cancer* **88**, 2817-23.
- Kuhn, W. F., Bell, R. A., Netscher, R. E., Seligson, D. & Kuhn, S. J.** (1989). Psychiatric assessment of leg fracture patients: A pilot study. *International Journal of Psychiatry in Medicine* **19**, 145-154.
- Kumar, K. L., Kar, S., Reddy, C. M. P. K. & Babu, R. S.** (2011). Psychiatric co-morbidity in geriatric in patients. *Indian Journal of Psychiatry* **1**, S41.
- Lazaro, L., de Pablo, J., Nieto, E., Vieta, E., Vilalta, J. & Cirera, E.** (1991). Psychiatric morbidity in elderly patients admitted to a general hospital. A day-prevalence study. *Medicina Clinica* **97**, 206-210.
- Lazaro, L., Marcos, T. & Valdes, M.** (1995). Affective disorders, social support, and health status in geriatric patients in a general hospital. *General Hospital Psychiatry* **17**, 299-304.
- Leung, C. M., Chan, K. K. & Cheng, K. K.** (1992). Psychiatric morbidity in a general medical ward. Hong Kong's experience. *General Hospital Psychiatry* **14**, 196-200.
- Linka, E., Bartko, G., Agardi, T. & Kemeny, K.** (1999). Dementia and depression in elderly population of a medical department. *Psychiatria Hungarica* **14**, 39-45.
- Linka, E., Bartko, G., Agardi, T. & Kemeny, K.** (2000). Dementia and depression in elderly medical inpatients. *International Psychogeriatrics* **12**, 67-75.
- Lykouras, L., Adrachta, D., Kalfakis, N., Oulis, P., Voulgari, A., Christodoulou, G., Papageorgiou, C. & Stefanis, C.** (1996). GHQ-28 as an aid to detect mental disorders in neurological inpatients. *Acta Psychiatrica Scandinavica* **93**, 212-216.
- Madianos, M. G., Papaghelis, M., Ioannovich, J. & Dafni, R.** (2001). Psychiatric disorders in burn patients: a follow-up study. *Psychotherapy and psychosomatics* **70**, 30-37.
- Marchesi, C., Brusamonti, E., Borghi, C., Giannini, A., Di Ruvo, R., Minneo, F., Quarantelli, C. & Maggini, C.** (2004). Anxiety and depressive disorders in an emergency department ward of a general hospital: a control study. *Emergency Medicine Journal* **21**, 175-179.
- Martin, R. L., Roberts, W. V., Clayton, P. J. & Wetzell, R.** (1977). Psychiatric illness and non-cancer hysterectomy. *Diseases of the Nervous System* **38**, 974-980.
- Martucci, M., Balestrieri, M., Bisoffi, G., Bonizzato, P., Covre, M. G., Cunico, L., De Francesco, M., Marinoni, M. G., Mosciaro, C., Piccinelli, M., Vaccari, L. & Tansella, M.**



- (1999). Evaluating psychiatric morbidity in a general hospital: a two-phase epidemiological survey. *Psychological Medicine* **29**, 823-832.
- McCaffrey, J. C., Weitzner, M., Kamboukas, D., Haselhuhn, G., LaMonde, L. & Booth-Jones, M.** (2007). Alcoholism, depression, and abnormal cognition in head and neck cancer: A pilot study. *Otolaryngology - Head and Neck Surgery* **136**, 92-97.
- Meroni, R., Beghi, E., Beghi, M., Brambilla, G., Cerri, C., Perin, C., Peroni, F. & Cornaggia, C. M.** (2013). Psychiatric disorders in patients suffering from an acute cerebrovascular accident or traumatic injury, and their effects on rehabilitation: an observational study. *European journal of physical & rehabilitation medicine*. **49**, 31-39.
- Michopoulos, I., Douzenis, A., Goumellis, R., Christodoulou, C., Kalkavoura, C., Michalopoulou, P. G., Fineti, K., Liakakos, T., Kanellakopoulou, K. & Lykouras, L.** (2010). Major depression in elderly medical inpatients in Greece, prevalence and identification. *Aging Clinical and Experimental Research* **22**, 148-151.
- Moayedoddin, B., Rubovszky, G., Mammana, L., Jeannot, E., Sartori, M., Garin, N., Andreoli, A., Canuto, A. & Perrier, A.** (2013). Prevalence and clinical characteristics of the DSM IV major depression among general internal medicine patients. *European Journal of Internal Medicine* **24**, 763-766.
- Mohammed, A., Said, J. M., Wakil, M. A., Rabbebe, I. B., Sheikh, T. & Agunbiade, S.** (2014). Unrecognized psychiatric disorders among adult patients admitted into a general hospital in Maiduguri, Northeastern Nigeria. *The Pan African medical journal* **19**.
- Mohapatra, P. K., Kar, N., Kar, G. C. & Behera, M.** (2005). Effectiveness of sertraline in treatment of depression in a consecutive sample of patients with acute myocardial infarction: Six month prospective study on outcome. *Clinical Practice and Epidemiology in Mental Health* **1**.
- Nair, M. G. & Pillay, S. S.** (1997). Psychiatric disorder in a South African general hospital. Prevalence in medical, surgical, and gynecological wards. *General Hospital Psychiatry* **19**, 144-148.
- Nakasujja, N., Musisi, S., Walugembe, J. & Wallace, D.** (2007). Psychiatric disorders among the elderly on non-psychiatric wards in an African setting. *International Psychogeriatrics* **19**, 691-704.
- Ng, K., Chan, K. & Straughan, P.** (1995). A study of post-stroke depression in a rehabilitative center. *Acta Psychiatrica Scandinavica* **92**, 75-79.
- Nikolic, G., Miljovic, S., Stojkovic, A., Manojlovic, S., Ciric, Z., Zikic, O. & Vucurevic, M.** (2010). Influence of psychological and coronary parameters on coronary patient rehospitalization. *Srpski Arhiv Za Celokupno Lekarstvo* **138**, 154-161.
- Nishioka, Y., Nishizono, M. & Yamamoto, J.** (1990). The distribution of mental illness found by DIS (Diagnostic Interview Schedule) among internal and orthopedic patients. *Japanese Journal of Psychiatry & Neurology* **44**, 33-54.
- O'Riordan, T. G., Hayes, J. P., Shelley, R., O'Neill, D., Walsh, J. & Coakley, D.** (1989). The prevalence of depression in an acute geriatric medical assessment unit. *International Journal of Geriatric Psychiatry* **4**, 17-21.
- Owen, A. E.** (2004). Evaluation of differences in depression, defensiveness, social support, and coping between acute and chronic chd patients hospitalized for myocardial infarction or unstable angina. *Dissertation Abstracts International: Section B: The Sciences and Engineering* **65**, 2644.
- Pakriev, S., Kovalev, J. & Mozhaev, M.** (2009). Prevalence of depression in a general hospital in Izhevsk, Russia. *Nordic Journal of Psychiatry* **63**, 469-474.

- Palmu, R., Suominen, K., Vuola, J. & Isometsa, E.** (2010). Mental disorders among acute burn patients. *Burns* **36**, 1072-1079.
- Palmu, R., Suominen, K., Vuola, J. & Isometsa, E.** (2011). Mental disorders after burn injury: a prospective study. *Burns* **37**, 601-609.
- Paradiso, S. & Robinson, R. G.** (1998). Gender differences in poststroke depression. *The Journal of neuropsychiatry and clinical neurosciences* **10**, 41-47.
- Petrak, F., Hardt, J., Wittchen, H. U., Kulzer, B., Hirsch, A., Hentzelt, F., Borck, K., Jacobi, F., Egle, U. T. & Hoffmann, S. O.** (2003). Prevalence of psychiatric disorders in an onset cohort of adults with type 1 diabetes. *Diabetes/Metabolism Research and Reviews* **19**, 216-222.
- Picardi, A., Pasquini, P., Abeni, D., Fassone, G., Mazzotti, E. & Fava, G. A.** (2005). Psychosomatic assessment of skin diseases in clinical practice. *Psychotherapy & Psychosomatics* **74**, 315-322.
- Placidi, G. P. A., Boldrini, M., Patronelli, A., Flore, E., Chiovato, L., Perugi, G. & Marazziti, D.** (1998). Prevalence of psychiatric disorders in thyroid diseased patients. *Neuropsychobiology* **38**, 222-225.
- Plumb, M. & Holland, J.** (1981). Comparative studies of psychological function in patients with advanced cancer. II. Interviewer-rated current and past psychological symptoms. *Psychosomatic Medicine* **43**, 243-254.
- Prallet, J. P., Ravella, P., Gelas, P. & Bouletreau, P.** (1990). Sleep and psychological disorders in intensive care units. *Agressologie* **31**, 727-728.
- Prieto, J. M., Blanch, J., Atala, J., Carreras, E., Rovira, M., Cirera, E. & Gasto, C.** (2002). Psychiatric morbidity and impact on hospital length of stay among hematologic cancer patients receiving stem-cell transplantation. *Journal of Clinical Oncology* **20**, 1907-1917.
- Purohit, D. R., Purohit, S. D. & Dhariwal, M. L.** (1978). Incidence of depression in hospitalized T.B. patients. *Indian Journal of Tuberculosis* **25**, 147-151.
- Radat, F., Sakh, D., Lutz, G., el Amrani, M., Ferreri, M. & Bousser, M. G.** (1999). Psychiatric comorbidity is related to headache induced by chronic substance use in migraineurs. *Headache* **39**, 477-480.
- Radat, F., Saks, D., Lutz, G., Demesse, D. & Ferreri, M.** (1996). Psychiatric disorders prevalence among migrainous patients hospitalized for analgesic withdrawal. *Annales Medico-Psychologiques* **154**, 327-330.
- Ramsay, R., Wright, P., Katz, A., Bielawska, C. & Katona, C.** (1991). The detection of psychiatric morbidity and its effects on outcome in acute elderly medical admissions. *International Journal of Geriatric Psychiatry* **6**, 861-866.
- Regvat, J., Zmitek, A., Vegnuti, M., Kosnik, M. & Suskovic, S.** (2011). Anxiety and depression during hospital treatment of exacerbation of chronic obstructive pulmonary disease. *Journal of International Medical Research* **39**, 1028-1038.
- Rentsch, D., Dumont, P., Borgacci, S., Carballeira, Y., deTonnac, N., Archinard, M. & Andreoli, A.** (2007). Prevalence and treatment of depression in a hospital department of internal medicine. *General Hospital Psychiatry* **29**, 25-31.
- Rukundo, G. Z., Muisi, S. & Nakasujja, N.** (2013). Psychiatric morbidity among physically ill patients in a Ugandan regional referral hospital. *African Health Sciences* **13**, 87-93.
- Scevola, L., Teitelbaum, J., Oddo, S., Centurion, E., Loidl, C. F., Kochen, S. & L, D. D.** (2013). Psychiatric disorders in patients with psychogenic nonepileptic seizures and drug-resistant epilepsy: A study of an Argentine population. *Epilepsy and Behavior* **29**, 155-160.
- Schleifer, S. J. & Macari-Hinson, M. M.** (1989). The nature and course of depression following myocardial infarction. *Archives of internal medicine* **149**, 1785-1789.

- Schottke, H., Springer, U., Grimsehl, A., Lutje, D., Loew, M., Wetzig, L., Brandes, U., Schluter, S. & Wiedl, K. H.** (2001). Prevalences and lifetime prevalences of affective disorders and anxiety disorders after stroke. *Zeitschrift fur Neuropsychologie* **12**, 256-263.
- Seltzer, A.** (1989). Prevalence, detection and referral of psychiatric morbidity in general medical patients. *Journal of the Royal Society of Medicine* **82**, 410-412.
- Sharma, P., Avasthi, A., Chakrabarti, S. & Varma, S.** (2002). Depression among hospitalised medically ill patients: a two-stage screening study. *Journal of Affective Disorders* **70**, 205-209.
- Silverstone, P. H.** (1996). Prevalence of psychiatric disorders in medical inpatients. *Journal of Nervous & Mental Disease* **184**, 43-51.
- Singer, S., Bringmann, H., Hauss, J., Kortmann, R. D., Kohler, U., Krauss, O. & Schwarz, R.** (2007). Prevalence of concomitant psychiatric disorders and the desire for psychosocial help in patients with malignant tumors in an acute hospital. *Deutsche Medizinische Wochenschrift* **132**, 2071-2076.
- Singer, S., Szalai, C., Briest, S., Brown, A., Dietz, A., Einenkel, J., Jonas, S., Konnopka, A., Papsdorf, K., Langanke, D., Lobner, M., Schiefke, F., Stolzenburg, J., Weimann, A., Wirtz, H., Konig, H. & Riedel-Heller, S.** (2013). Co-morbid mental health conditions in cancer patients at working age-Prevalence, risk profiles, and care uptake. *Psycho-Oncology* **22**, 2291-2297.
- Snyder, S., Reyner, A., Schmeidler, J., Bogursky, E., Gomez, H. & Strain, J. J.** (1992). Prevalence of mental disorders in newly admitted medical inpatients with AIDS. *Psychosomatics* **33**, 166-170.
- Soeiro, R. E., Colombo, E. S., Ferreira, M. H. F., Guimaraes, P. S. A., Botega, N. J. & Dalgalarondo, P.** (2008). Religion and psychiatric disorders in patients admitted to a university general hospital. *Cadernos de Saude Publica* **24**, 793-799.
- Starkstein, S. E., Robinson, R. G., Berthier, M. L. & Price, T. R.** (1988). Depressive disorders following posterior circulation as compared with middle cerebral artery infarcts. *Brain* **111**, 375-387.
- Tan, S. M., Beck, K. R., Li, H., Lim, E. C., Krishna, L. K., Shian Ming, T., Beck, K. R., Huihua, L., Eng Choon Leslie, L. & Lalit Kumar Radha, K.** (2014). Depression and anxiety in cancer patients in a Tertiary General Hospital in Singapore. *Asian Journal of Psychiatry* **8**, 33-37.
- Tanaka, K., Yonekura, Y., Mine, S., Kanekura, T., Kira, I., Yatomi, K. & Kakigae, Y.** (1998). Psychiatric morbidity in patients with gynecologic cancer: Its nature, prevalence and the risk factors. *Seishin Igaku (Clinical Psychiatry)* **40**, 1193-1199.
- Tang, W.-K., Ungvari, G. S., Chiu, H. F., Sze, K.-H., Woo, J. & Kay, R.** (2002). Psychiatric morbidity in first time stroke patients in Hong Kong: a pilot study in a rehabilitation unit. *Australian & New Zealand Journal of Psychiatry* **36**, 544-549.
- Thalassinos, M., Masson, C., Rouillon, F., Vinceneux, P. & Lemperiere, T.** (1992). Mental disorders in elderly hospitalized patients. Epidemiological study in an internal medicine department. *Presse Medicale* **21**, 929-933.
- Thiagayson, P., Krishnaswamy, G., Lim, M. L., Sung, S. C., Haley, C. L., Fung, D. S., Allen Jr., J. C. & Chen, H.** (2013). Depression and anxiety in Singaporean high-risk pregnancies - prevalence and screening. *General Hospital Psychiatry* **35**, 112-116.
- Topitz, A., Benda, N., Saumer, G., Friedrich, F., Konig, D., Soulier, N. & Freidl, M.** (2015). Prevalence and recognition of depression among inpatients of non-psychiatric hospital departments. *Neuropsychiatry* **29**, 63-70.

- Turner, K., Piazzini, A., Chiesa, V., Barbieri, V., Vignoli, A., Gardella, E., Tisi, G., Scarone, S., Canevini, M. P. & Gambini, O.** (2011). Patients with epilepsy and patients with psychogenic non-epileptic seizures: video-EEG, clinical and neuropsychological evaluation. *Seizure* **20**, 706-710.
- Turrina, C., Fiorazzo, A., Turano, A., Cacciani, P., Regini, C., Castelli, F. & Sacchetti, E.** (2001). Depressive disorders and personality variables in HIV positive and negative intravenous drug-users. *Journal of Affective Disorders* **65**, 45-53.
- Uwakwe, R.** (2000). Psychiatric morbidity in elderly patients admitted to non-psychiatric wards in a general/teaching hospital in Nigeria. *International Journal of Geriatric Psychiatry* **15**, 346-354.
- Vaeroy, H., Juell, M. & Hoivik, B.** (2003). Prevalence of depression among general hospital surgical inpatients. *Nordic Journal of Psychiatry* **57**, 13-16.
- Vogele, C. & von Leupoldt, A.** (2008). Mental disorders in chronic obstructive pulmonary disease (COPD). *Respiratory Medicine* **102**, 764-773.
- Wancata, J., Meise, U. & Sachs, G.** (2000). Prevalence of psychiatric disorders in elderly inpatients of medical and surgical departments. *Psychiatrische Praxis* **27**, 170-5.
- Yan, Z. Y., Gu, M. J., Zhong, B. L., Wang, C., Tang, H. L., Ling, Y. Q., Yu, X. W. & Li, M. Q.** (2013). Prevalence, risk factors and recognition rates of depressive disorders among inpatients of tertiary general hospitals in Shanghai, China. *Journal of Psychosomatic Research* **75**, 65-71.
- Yellowlees, P. M., Alpers, J., Bowden, J., Bryant, G. & Ruffin, R.** (1987). Psychiatric morbidity in patients with chronic airflow obstruction. *Medical Journal of Australia* **146**, 305-307.
- Zhao, L., Li, X., Zhang, Z., Song, C., Guo, C., Zhang, Y., Li, L., Lu, G., Zheng, G., Wang, K., Pei, W. & Han, L.** (2014). Prevalence, correlates and recognition of depression in Chinese inpatients with cancer. *General Hospital Psychiatry* **36**, 477-482.
- Zhong, B.-l., Chen, H.-h., Zhang, J.-f., Xu, H.-m., Zhou, C., Yang, F., Song, J., Tang, J., Xu, Y., Zhang, S., Zhang, Y. & Zhou, L.** (2010). Prevalence, correlates and recognition of depression among inpatients of general hospitals in Wuhan, China. *General Hospital Psychiatry* **32**, 268-275.
- Zielinska, D. & Durlik, M.** (2014). A clinical psychologist's perspective of mental disorders in patients of 70 years of age or more, who underwent digestive tract cancer surgeries. *Przegląd Gastroenterologiczny* **9**, 99-104.