Online supplement for Lim et al., DOI: 10.1176/appi.ps.202000473

Supplemental Appendix 1. Sample search

MEDLINE search: (care manag*[tiab] OR "Case Management"[Mesh] OR case manag*[tiab] OR care coordinat*[tiab] OR case coordinat*[tiab] OR patient coordinat*[tiab] OR care facilitat*[tiab] OR patient facilitat*[tiab] OR care navigat*[tiab] OR patient navigat*[tiab] OR health coach*[tiab] OR care partner*[tiab]) AND ("Bipolar and Related Disorders"[Mesh] OR "Schizophrenia Spectrum and Other Psychotic Disorders"[Mesh] OR schizophreni*[tiab] OR schizophreniform[tiab] OR schizoaffective[tiab] OR bipolar[tiab] OR serious mental illness*[tiab] OR seriously mentally ill[tiab])

Supplemental Appendix 2. Quality assessment: Methodology

- 1. Representativeness: 1 point for a multi-center study, screening in at least 90% schizophrenia/schizoaffective/schizophreniform or bipolar disorder, and addressing a general outpatient population; 0 point if a single-center study, screening <90% schizophrenia or bipolar disorder, or otherwise limited to a sub-population.
- 2. Response bias: 1 point for comparability established between respondents and non-respondents, or a response rate of at least 90%; 0 point for lack of comparability established and a response rate of <90%, or response data not reported.
- 3. Appropriateness of design: 1 point for a randomized study with clear randomization protocol; 0 point if not meeting the above criteria.
- 4. Ascertainment of exposure and non-contamination: 1 point for explicit evidence of complete exposure to intervention, documentation of contamination rate, and at least 80% non-contaminated intervention completion; 0 point if no explicit documentation of exposure completion or contamination rate or <80% intervention completion.
- 5. Planned follow-up duration: 1 point for a follow-up duration of at least 1 year; 0 point if less than 1 year.
- 6. Follow-up rate: 1 point for either a) a follow-up completion rate of at least 80%, if the longest follow-up duration is <1 year, or b) a 1-year follow-up rate of at least 80% across all participants; 0 point otherwise.
- 7. Outcome assessment: Assessed for each category of outcome assessed by the study; total score for this domain is average of the below, excluding categories that are not applicable.

 Psychiatric symptoms: 1 point for use of at least one well-described or validated tool (i.e., described in a peer-reviewed journal); 0 point for a poorly described or non-validated tool.

General medical health: 1 point for use of at least one well-described or validated tool (i.e., described in a peer-reviewed journal); 0 point for a poorly described or non-validated tool.

Mental QOL: 1 point for use of at least one well-described or validated tool (i.e., described in a peer-reviewed journal); 0 point for a poorly described or non-validated tool.

Physical QOL: 1 point for use of at least one well-described or validated tool (i.e., described in a peer-reviewed journal); 0 point for a poorly described or non-validated tool.

Global QOL: 1 point for use of at least one well-described or validated tool (i.e., described in a peer-reviewed journal); 0 point for a poorly described or non-validated tool.

Patient satisfaction: 1 point for use of at least one well-described or validated tool (i.e., described in a peer-reviewed journal); 0 point for a poorly described or non-validated tool.

Cost: 1 point for a clearly defined and holistic cost metric inclusive of the cost of the intervention; 0 point for a poorly defined metric or a metric not inclusive of the cost of the intervention.

Acute care utilization: 1 point for use of total inpatient days, number of inpatient hospitalizations, or number of emergency department visits, from a comprehensive regional/national database; 0 point otherwise.

Supplemental Table 1. Study, subject, intervention, and control characteristics

Study	Study design	# sites	Country	Setting	N for study	% Schizophrenia	% Bipolar	% serious mental illness unspecified	% Non-serious mental illness	% Female	Average age
Bjorkman 2002				Urban community setting in							
(28)	RCT	1	Sweden	Sweden	77	71%	0%	0%	29%	53%	37.1
Chatterjee 2014				Three districts in India with							
(21)	RCT	3	India	rural and urban populations	282	100%	0%	0%	0%	47%	36.0
				Central and northern regions of							
				Israel; public system of							
Gelkopf 2016				psychiatric rehabilitation							
(29)	RCT	Multiple	Israel	services	1729	45%	0%	0%	55%	40%	N/A
				Two community-based mental							
Kilbourne 2012				health outpatient programs in							
(20)	RCT	2	U.S.	southeastern Michigan	65	0%	100%	0%	0%	60%	45.3

				Veterans Affairs mental health							
				outpatient clinic in southeastern							
				Michigan and primary care							
Kilbourne 2013			United	outpatient clinic in northern							
(30)	RCT	2	States	Ohio	118	3%	97%	0%	0%	17%	52.8
				Six communities across central							
				and southern Israel; initiated							
Litchenberg				implemented by Israel's							
2008 (31)	RCT	20	Israel	Ministry of Health	217	73%	0%	0%	27%	41%	N/A
				Four psychiatric centers in Iran,							
				urban setting; implemented by							
Malakouti 2016				Mental Health Bureau and							
(32)	RCT	4	Iran	Iranian Ministry of Health	121	35%	65%	0%	0%	43%	38.6
Marshall 1995 /											
Gray 1997 (33,				Oxford, recruiting homeless							
34)	RCT	Multiple	UK	individuals	80	74%	0%	0%	26%	15%	N/A

				University psychiatric inpatient							
				services across five urban and							
Puschner 2011				rural catchment areas in							
(35)	RCT	5	Germany	Germany	491	59%	0%	0%	41%	48%	41.3
				Four group-model behavioral							
Simon 2005 /				health clinics in managed care							
Simon 2006 (36,			United	organization in Washington							
37)	RCT	4	States	State	441	0%	100%	0%	0%	68%	44.2
Speyer 2016 /											
Jakobsen 2017				Two major Danish cities,							
(38, 39)	RCT	2	Denmark	Aarhus and Copenhagen	290	100%	0%	0%	0%	56%	39.0
				Urban community setting in							
Varga 2018 (40)	RCT	2	Hungary	Pécs, Hungary	49	100%	0%	0%	0%	49%	38.6
Alonso Suarez	Time-series			Three community mental health							
2011 (41)	analysis	3	Spain	services in three districts of	250	100%	0%	0%	0%	36%	34

				Spain (Alcalá, Torrejón,							
				Fuencarral)							
				Two healthcare sectors of							
Balsera Gomez	Time-series			Catalonia, Spain (Gavà and							
2002 (42)	analysis	Multiple	Spain	Sants-Montjuic)	30	90%	0%	0%	10%	40%	40
Bjorkman 2000 /											
Bjorkman 2007	Time-series			Ten urban community settings							
(43, 44)	analysis	10	Sweden	in Sweden	176	72%	0%	0%	28%	47%	41
								ects			
								subje			
Cabassa 2016	Time-series			Public outpatient mental health				ity of			
(45)	analysis	1	U.S.	clinic in Manhattan	34			Majority of subjects		68%	54.1
				Outpatient system in Jonction							
Huguelet 1997	Time-series		Switzerla	area of University of Geneva							
(46)	analysis	1	nd	Department of Psychiatry	59	86%	0%	0%	14%	25%	35

Karper 2008	Prospective			Homeless shelter with substance							
(47)	cohort	1	U.S.	use treatment in Pennsylvania	75	17%	37%	0%	45%	0%	38.7
				Two clinics in Bexar County,							
				Texas; one clinic served as							
				intervention site, other clinic							
				served as control; recruitment							
Maples 2012				from two private and one state							
(48)	Non-RCT	2	U.S.	hospital	670	0%	0%	100%	0%	40%	37.0
				Ten adult mental health centers							
				in Barcelona, Spain; program							
Mas-Exposito	Prospective			set up by Catalan Health							
2015 (49)	cohort	10	Spain	Department	163	100%	0%	0%	0%	32%	41.7
Sendra-				Mental health center and							
Gutierrez 2013	Retrospective			hospital in Segovia, Spain, with							
(50)	cohort	1	Spain	rural and urban population	92	100%	0%	0%	0%	35%	48.7

				Two clinics in rural area of		ects					
				KwaZulu-Natal, near Ulundi,		Majority of subjects					
				South Africa; one clinic served		ority o					
				as source of intervention group,		Majo					
			South	another clinic served as source							
Uys 1996 (51)	Non-RCT	1	Africa	of control group	41					44%	N/A
Franklin 1987				Catchment area of a community							
(52)	RCT	1	U.S.	mental health center in Texas	417	56%	0%	0%	44%	51%	N/A
Goering 1988	Prospective			Toronto metropolitan area,							
(53)	cohort	4	Canada	psychiatric aftercare	184	77%	0%	0%	23%	57%	N/A
				Private non-for-profit mental							
Macias 1997	Prospective			health agency for Medicaid							
(54)	cohort	1	U.S.	enrollees in Salt Lake City	97	60%	0%	0%	40%	45%	40
	Retrospective										
Parks 2010 (55)	cohort	Multiple	U.S.	Missouri Medicaid program	6061	100%	0%	0%	0%	N/A	N/A

				4 catchment areas in the							
Rossler 1992	Retrospective			German federal state of Baden-							
(56)	cohort	4	Germany	Württemberg	324	59%	0%	0%	41%	55%	N/A
				Discharge from transitional							
Tomita 2012 /				residences on grounds of							
2014 / 2015				psychiatric hospital in NYC							
(57–59)	RCT	2	U.S.	metropolitan area	150	96%	0%	0%	4%	29%	37.5

Study	Intervention: Clinician vs. Non- Clinician	Intervention explicitly involves social service coordination (Y/N)	Intervention explicitly involves direct care provision (Y/N)	Care manager is embedded within outpatient psychiatric team (Y/N)	Intervention explicitly involves medical/physical health component (Y/N)	Intervention: caseload (number of patients per care manager FTE)	Duration of intervention: planned (in months)	Control
Bjorkman 2002 (28)	Clinician	Y	N	N	N	8.3	36	Psychiatric services including outpatient, inpatient, and daycare facilities

Chatterjee 2014								Facility-based care provided by specialist mental
(21)	Clinician	Y	Y	N	N	N/A	12	health practitioners, including psychiatrists
Gelkopf 2016								Psychiatric Rehabilitation Services, provided by
(29)	Clinician	Y	Y	N	N	N/A	20	trained mental health professionals
								Community-based mental health outpatient care
Kilbourne 2012								plus monthly mailings on wellness topics and
(20)	Clinician	N	Y	N	Y	N/A	6	referral to off-site primary care services
								Standard mental healthcare and medical
								treatment plus regular mailings regarding
								wellness topics and provision of practice
Kilbourne 2013								guideline information to general medical and
(30)	Clinician	N	Y	N	Y	29	12	mental health providers at beginning of study
								Standard mental health care, including monthly
								meeting with psychiatrist, meeting every 2 weeks
Litchenberg								with nurse, and access to a social worker as
2008 (31)	Clinician	Y	Y	Y	N	30	12	needed

Malakouti 2016								Care by family and outpatient clinic, typically
(32)	Clinician	N	Y	N	N	20	12	medication prescription by psychiatrist
Marshall 1995 /								
Gray 1997 (33,								Any assistance subjects had been receiving prior
34)	N/A	Y	N	N	N	N/A	14	to randomization
Puschner 2011								
(35)	N/A	N	N	N	N	N/A	3	Treatment as usual in outpatient services
Simon 2005 /								
Simon 2006 (36,								Usual care at group-model behavioral health
37)	Clinician	N	Y	N	N	95	24	clinic
Speyer 2016 /								
Jakobsen 2017								Usual care with general practitioner and
(38, 39)	Clinician	N	Y	N	Y	35	12	secondary mental health services
								Antipsychotic psychopharmacology and monthly
Varga 2018 (40)	N/A	N	N	N	N	N/A	6	consultations with psychiatrist

Alonso Suarez								Multidisciplinary care including psychiatrist,
2011 (41)	Clinician	Y	Y	Y	N	32.5	48	psychologist, nurse, social worker
Balsera Gomez								Mental health services in two sectors of
2002 (42)	N/A	Y	N	N	N	15	12	Catalonia
Bjorkman 2000								
/ Bjorkman								
2007 (43, 44)	Clinician	Y	N	N	N	5.7	72	Psychiatric services in Sweden
Cabassa 2016								
(45)	Clinician	N	Y	N	Y	14.5	12	Public outpatient mental health clinic care
Huguelet 1997								Outpatient care through University of Geneva
(46)	Clinician	Y	Y	Y	N	17	12	Department of Psychiatry
								Substance abuse treatment through Allentown
								Rescue Mission shelter and outpatient care
Karper 2008								through Lehigh Valley Hospital Department of
(47)	Clinician	N	N	N	N	N/A	12	Psychiatry

Maples 2012	Clinician and							Outpatient mental health care at Center for
(48)	non-clinician	N	Y	Y	N	N/A	6	Health Care Services clinic
Mas-Exposito								
2015 (49)	Clinician	N	Y	Y	N	N/A	12	Adult mental health center care
Sendra-								
Gutierrez 2013								Outpatient care in the Mental Health Center
(50)	Clinician	Y	Y	N/A	N	N/A	24	"Antonio Machado"
Uys 1996 (51)	Clinician	Y	Y	Y	N	8	6	Outpatient mental health clinic
Franklin 1987	Clinician and							Care at a community mental health center in
(52)	non-clinician	Y	N	N	N	30	12	Texas
								Matched by sex, hospital setting, number of
Goering 1988	Clinician and							previous admissions, diagnosis, employment
(53)	non-clinician	Y	N	N	N	17.5	24	status
Macias 1997								Inpatient and outpatient care, as well as clinic
(54)	Clinician	Y	N	N	N	16	9	and off-site services

								Population not receiving case management
Parks 2010 (55)	Non-clinician	Y	Y	N	N	N/A	12	program
Rossler 1992								Well-developed psychiatric care system with
(56)	Clinician	Y	Y	N	N	10.1	6	general practitioners and psychiatrists
Tomita 2012 /								Discharge planning services and access to
2014 / 2015								psychiatric treatment while in residential setting;
(57–59)	Non-clinician	Y	N	N	N	N/A	9	usual community-based services

Supplemental Table 2. Qualitative summary of outcomes by study (+I: intervention cohort favored; +C: control cohort favored; NS: no significant difference)

Study	Study design	Psychiatric symptoms	Physical QOL	Mental QOL	Global QOL	Patient satisfaction	Healthcare costs	Inpatient hospitalizations	Inpatient days	Emergency department visits
Bjorkman 2002 (28)	RCT	NS			NS	+I			NS	
Chatterjee 2014 (21)	RCT	+I					+C			
Gelkopf 2016 (29)	RCT	NS			+I					
Kilbourne 2012 (20)	RCT	NS	NS	NS						NS
Kilbourne 2013 (30)	RCT	NS	NS	NS						
Litchenberg 2008 (31)	RCT							NS	NS	
Malakouti 2016 (32)	RCT	+I		+I		+I				
Marshall 1995 / Gray 1997 (33,										
34)	RCT	NS			NS		+C			
Puschner 2011 (35)	RCT	NS			NS			NS	NS	

Simon 2005 / Simon 2006 (36,									
37)	RCT	NS						NS	
Speyer 2016 / Jakobsen 2017									
(38, 39)	RCT	+I			NS				
Varga 2018 (40)	RCT	NS							
	Time-series								
Alonso Suarez 2011 (41)	analysis						+I	+I	NS
	Time-series								
Balsera Gomez 2002 (42)	analysis	+I					+I	NS	
Bjorkman 2000 / Bjorkman	Time-series								
2007 (43, 44)	analysis	+I	+C	+I	+I		+I	+I	
	Time-series								
Cabassa 2016 (45)	analysis		NS	NS					

	Time-series								
Huguelet 1997 (46)	analysis	+I							
	Prospective								
Karper 2008 (47)	cohort	NS							
Maples 2012 (48)	Non-RCT							+C	NS
	Prospective								
Mas-Exposito 2015 (49)	cohort		NS	NS	NS		NS	NS	NS
	Retrospective								
Sendra-Gutierrez 2013 (50)	cohort						NS		
Uys 1996 (51)	Non-RCT	NS							
Franklin 1987 (52)	RCT					NS	NS	NS	NS
	Prospective								
Goering 1988 (53)	cohort						NS		
	Prospective								
Macias 1997 (54)	cohort	NS							

	Retrospective						
Parks 2010 (55)	cohort			NS			
	Retrospective						
Rossler 1992 (56)	cohort				NS		
Tomita 2012 / 2014 / 2015 (57–							
59)	RCT					NS	

Supplemental Table 3. Scales used

	Psychiatric				Patient
Study	symptoms	Mental QOL	Physical QOL	Global QOL	satisfaction
					Swedish
					Institute for
					Health
					Services
				Lancashire	Development
	Symptom			Quality of Life	patient
Bjorkman	Checklist-90			Profile	satisfaction
2002 (28)	(SCL-90)			(LQOLP)	(SPRI)
	Positive and				
	Negative				
Chatterjee	Syndrome				
2014 (21)	Scale (PANSS)				
				Modified	
				Manchester	
				Short	
	Colorado			Assessment of	
Gelkopf 2016	Symptom			Quality of Life	
(29)	Index (CSI)			(MANSA)	

	Internal State		12-item Short		
	Scale (ISS) -	12-item Short	Form (SF-12) -		
Kilbourne	Manic	Form (SF-12) -	Physical		
2012 (20)	Symptoms	Mental Health	Health		
	Internal State		12-item Short		
	Scale (ISS) -	12-item Short	Form (SF-12) -		
Kilbourne	Manic	Form (SF-12) -	Physical		
2013 (30)	Symptoms	Mental Health	Health		
Litchenberg					
2008 (31)					
	Positive and				Client
	Negative	36-item Short			Questionnaire
Malakouti	Syndrome	Form (SF-36) -			Satisfaction
2016 (32)	Scale (PANSS)	Mental Health			(CQS)
Marshall 1995					
/ Gray 1997	Manchester			The Quality of	
(33, 34)	Scale			Life Interview	
				Manchester	
	Brief			Short	
	Psychiatric			Assessment of	
Puschner 2011	Rating Scale			Quality of Life	
(35)	(BPRS)			(MANSA)	

	6-point		
	Psychiatric		
Simon 2005 /	Status Rating		
Simon 2006	(PSR) for		
(36, 37)	Mania		
	Scale for	Manchester	
	Assessment of	Short	
Speyer 2016 /	Positive	Assessment of	
Jakobsen 2017	Symptoms	Quality of Life	
(38, 39)	(SAPS)	(MANSA)	
	Positive and		
	Negative		
Varga 2018	Syndrome		
(40)	Scale (PANSS)		

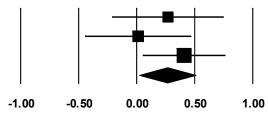
Supplemental Figure 2. Meta-analysis

Psychiatric symptoms

Study	Effect size (95% CI)	p-value					
Bjorkman 2002 (28)	0.04 (-0.47, 0.54)	0.89		l			
Chatterjee 2014 (21)	0.29 (0.03, 0.55)	0.03				■	
Gelkopf 2016 (29)	-0.08 (-0.19, 0.03)	0.15		-			
Kilbourne 2012 (20)	-0.20 (-0.68, 0.28)	0.42				-	
Kilbourne 2013 (30)	0.41 (-0.06, 0.87)	0.09			+		-
Malakouti 2016 (32)	0.64 (0.27, 1.00)	0.001					
Marshall 1995 (33) / Gray 1997 (34)	-0.12 (-0.58, 0.34)	0.60			-	-	
Puschner 2011 (35)	0.13 (-0.08, 0.33)	0.23			+=	-	
Simon 2005 (36) / Simon 2006 (37)	0.08 (-0.12, 0.29)	0.43			-	-	
Speyer 2016 (38) / Jakobsen 2017 (39)	0.25 (0.01, 0.48)	0.04				⊢ —	
Varga 2018 (40)	0.43 (-0.13, 0.98)	0.14			_		
Meta-analysis (I-squared=63.4; Q=27.3; p=0.002)	0.15 (0.01, 0.30)	0.03				-	
			-1.00	-0.50	0.00	0.50	1.00
				Favors Control	Fav	ors Interventi	on

Mental QOL

Study	Effect size (95% CI)	p-value
Kilbourne 2012 (20)	0.27 (-0.21, 0.75)	0.27
Kilbourne 2013 (30)	0.01 (-0.45, 0.47)	0.96
Malakouti 2016 (32)	0.41 (0.05, 0.77)	0.03
Meta-analysis (I-squared=0.0; Q=1.8; p=0.41)	0.26 (0.02, 0.51)	0.04

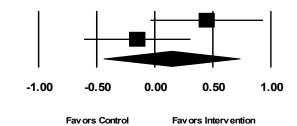


Favors Intervention

Favors Control

Physical QOL

Study	Effect size (95% CI)	p-value
Kilbourne 2012 (20)	0.45 (-0.04, 0.94)	0.07
Kilbourne 2013 (30)	-0.15 (-0.61, 0.31)	0.52
Meta-analysis (I-squared=67.4; Q=3.1; p=0.08)	0.14 (-0.44, 0.73)	0.63



Global QOL

Study	Effect size (95% CI)	p-value		_			
Bjorkman 2002 (28)	-0.15 (-0.64, 0.34)	0.56		-	_		
Gelkopf 2016 (29)	0.19 (0.08, 0.30)	0.001			-		
Marshall 1995 (33) / Gray 1997 (34)	0.11 (-0.39, 0.61)	0.66			 -		
Puschner 2011 (35)	0.11 (-0.10, 0.32)	0.29			+-		
Speyer 2016 (38) / Jakobsen 2017 (39)	0.00 (-0.23, 0.23)	1.00			-		
Meta-analysis (I-squared=0.0; Q=3.5; p=0.48)	0.13 (0.05, 0.22)	0.002			•		
		-1	.00 -0	.50	0.00	0.50	1.00
			Fav or s	Control	Favors Intervention		on

Patient satisfaction

Study	Effect size (95% CI)	p-value					
Bjorkman 2002 (28)	0.75 (0.23, 1.27)	0.005			-		\mapsto
Malakouti 2016 (32)	1.01 (0.63, 1.38)	<0.001				-	\rightarrow
Meta-analysis (I-squared=0.0; Q=0.6; p=0.43)	0.92 (0.61, 1.22)	<0.001					
			-1.00	-0.50	0.00	0.50	1.00
			F	av ors Control	Fav	ors Interventi	on

Healthcare costs

Study	Effect size (95% CI)	p-value					
Chatterjee 2014 (21)	-0.66 (-0.93, -0.39)	< 0.001	1 -				
Marshall 1995 (33) / Gray 1997 (34)	-1.55 (-2.11, -0.98)	< 0.001	k				
Meta-analysis (I-squared=87.1; Q=7.7; p=0.005)	-1.07 (-1.93, -0.20)	0.02	k				
			-1.00	-0.50	0.00	0.50	1.00
				Fav ors Control		Favors Intervention	í

Number of inpatient psychiatric hospitalizations

Study	Effect size (95% CI)	p-value					
Litchenberg 2008 (31)	0.13 (-0.14, 0.40)	0.34			+-		
Puschner 2011 (35)	0.03 (-0.19, 0.25)	0.78					
Meta-analysis (I-squared=0.0; Q=0.3; p=0.58)	0.07 (-0.10, 0.24)	0.41					
			-1.00	-0.50	0.00	0.50	1.00
				Favors Control	Fav	vors Interven	tion

Number of inpatient psychiatric hospital days

Study	Effect size (95% CI)	p-value	_	_	_	_	
Bjorkman 2002 (28)	0.37 (-0.08, 0.82)	0.10			+	-	-
Litchenberg 2008 (31)	0.24 (-0.03, 0.51)	0.08			+		
Puschner 2011 (35)	0.15 (-0.07, 0.37)	0.18			+=	-	
Simon 2005 (36) / Simon 2006 (37)	0.07 (-0.15, 0.28)	0.54					
Meta-analysis (I-squared=0.0; Q=1.9; p=0.59)	0.16 (0.03, 0.29)	0.02				·	
			-1.00	-0.50	0.00	0.50	1.00
				Favors Control	Fav	ors Intervent	ion

Supplemental Table 4. Quality assessment: Results

Study	1. Representativeness	2. Response bias	3. Appropriateness of design	4. Exposure and non-contamination	5. Planned follow-up	6. Follow-up rate	7. Outcomes assessment	Psychiatric symptoms	Mental QOL	Physical QOL	Global QOL	Patient satisfaction	Cost	Acute care utilization	Total score
Bjorkman															
2002 (28)	0	0	1	0	1	0	1	1			1	1		1	3
Chatterjee															
2014 (21)	1	0	1	0	1	1	1	1					1		5
Gelkopf															
2016 (29)	0	0	1	1	1	1	1	1			1				5
Kilbourne															
2012 (20)	1	1	1	0	1	1	1	1	1	1				1	6
Kilbourne															
2013 (30)	0	0	1	0	1	0	1	1	1	1					3
Litchenberg	5														
2008 (31)	0	0	1	0	1	1	1							1	4
Malakouti															
2016 (32)	1	0	1	0	1	1	1	1	1			1			5

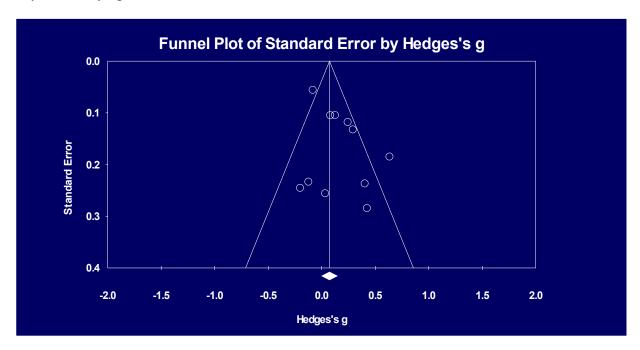
Marshall													
1995 / Gray													
1997 (33,													
34)	0	0	1	0	1	0	1	1	 	1	 1		3
Puschner													
2011 (35)	0	0	1	0	1	0	1	1	 	1	 	1	3
Simon													
2005 /													
Simon													
2006 (36,													
37)	1	1	1	0	1	0	1	1	 		 	1	5
Speyer													
2016 /													
Jakobsen													
2017 (38,													
39)	1	1	1	0	1	1	1	1	 	1	 		6
Varga 2018													
(40)	1	0	0	0	0	1	1	1	 		 		3
Alonso													
Suarez													
2011 (41)	1	0	0	0	1	1	1		 		 	1	4

Balsera														
Gomez														
2002 (42)	1	0	0	0	1	1	1	1				 	1	4
Bjorkman														
2000 /														
Bjorkman														
2007 (43,														
44)	0	0	0	0	1	0	1	1	1	1	1	 	1	2
Cabassa														
2016 (45)	0	0	0	0	1	1	1		1	1		 		3
Huguelet														
1997 (46)	0	0	0	0	1	1	1	1				 		3
Karper														
2008 (47)	0	0	0	0	1	0	1	1				 		2
Maples														
2012 (48)	0	0	0	0	1	1	1					 	1	3
Mas-														
Exposito														
2015 (49)	1	0	0	0	1	1	1		1	1	1	 	1	4
Sendra-														
Gutierrez														
2013 (50)	0	0	0	0	1	1	0					 	0	2

Uys 1996												
(51)	0	0	0	0	0	0	1	1	 	 	 	1
Franklin												
1987 (52)	0	0	1	0	1	0	0		 	 	 	2
Goering												
1988 (53)	0	0	0	0	1	1	0		 	 	 	2
Macias												
1997 (54)	0	0	0	0	0	0	0		 	 	 	0
Parks 2010												
(55)	1	0	0	0	1	0	0		 	 	 	2
Rossler												
1992 (56)	0	0	0	1	1	1	0		 	 	 	3
Tomita												
2012 / 2014												
/ 2015 (57–												
59)	0	0	1	0	1	0	0		 	 	 	2

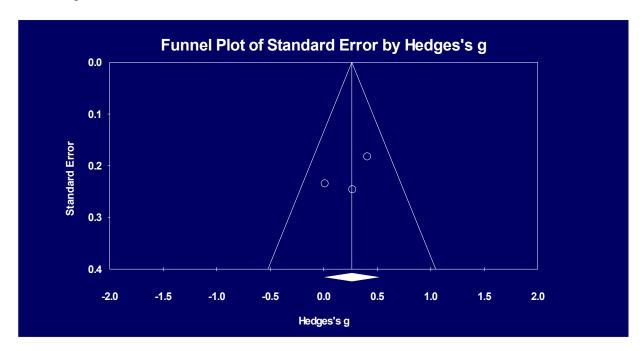
Supplemental Figure 3. Forest plots and Egger test

Psychiatric symptoms



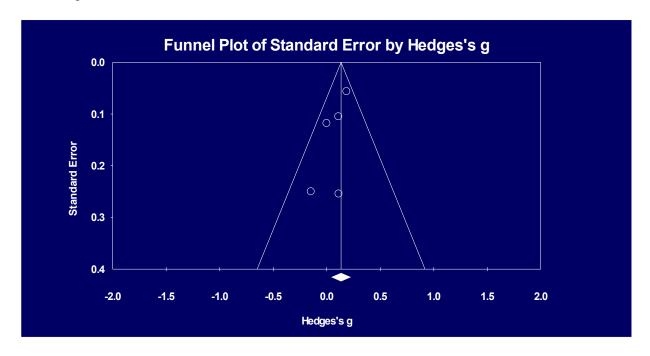
Intercept (95% CI): 1.71 (-0.32, 3.74); p=0.09

Mental QOL



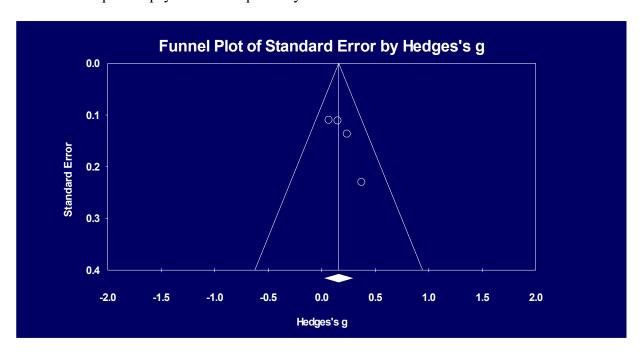
Intercept (95% CI): -4.18 (-53.52, 45.16); p=0.48

Global QOL



Intercept (95% CI): -1.30 (-3.21, 0.61); p=0.12

Number of inpatient psychiatric hospital days



Intercept (95% CI): 2.41 (-1.75, 6.56); p=0.13