# Appendix A

## PubMed Search

Search run on June 27th, 2014

Search		Items Found
Query		05.404
#1	Search "alcohol-related disorders" [MeSH]	95491
#2	Search "alcoholism" [MeSH]	65900
#3	Search "alcohol drinking" [Mesh]	50301
#4	Search "alcohol depend*"	9200
#5	Search "alcohol misuse"	1524
#6	Search "alcohol addiction*"	863
#7	Search "alcohol abuse"	13410
#8	Search "problem drink*"	2379
#9	Search "alcohol consumption"	28120
#10	Search "harmful alcohol*"	291
#11	Search "hazardous alcohol*"	342
#12	Search "risky alcohol*"	219
#13	Search "harmful drink*"	312
#14	Search "hazardous drink*"	680
#15	Search "risky drink*"	384
#16	Search "((drinking[tiab] OR drinker[tiab] OR	27661
	drinkers[tiab] AND alcohol[tiab]))"	
#17	Search (#1 or #2 or #3 or #4 or #5 or #6 or #7 or	155363
	#8 or #9 or #10 or #11 or #12 or #13 or #14 or #15	
	or #16(	
#18	Search (((patient[tiab] OR client[tiab] OR user[tiab])	372447
	AND (centred[tiab] OR centred[tiab] OR	
	focus*[tiab] OR perspective[tiab] OR	
	empower*[tiab] OR orient*[tiab] OR 1ontrol*[tiab]	
	OR decision[tiab] OR participation[tiab] OR	
	tailor*[tiab] OR control*[tiab] OR adapt*[tiab] OR	
	prefer*[tiab])))	
#19	Search "shared-decision making"	2478
#20	Search ((motivational AND (intervention OR	3334
	interviewing)))	
#21	Search "brief intervention"	1551
#22	Search ("as needed" OR "as-needed")	5302
#23	Search "treatment options"[tiab]"	36818
#24	"Search (#18 or #19 or #20 or #21 or #22 or #23)	414623
#25	Search ((#17 AND #24))	3841
#26	Search (#17 AND #24) Filters: Clinical trials;	632
	Humans; Adults; English	

Search Query		Items found
#1	TITLE-ABS-KEY (alcohol-related-	5579
	disorders)	
#2	TITLE-ABS-KEY (alcoholism)	109243
#3	TITLE-ABS-KEY (alcohol drinking)	70343
#4	TITLE-ABS-KEY (alcohol depend*)	81403
#5	TITLE-ABS-KEY (alcohol misuse)	4420
#6	TITLE-ABS-KEY (alcohol addict*)	22394
#7	TITLE-ABS-KEY (alcohol abuse*)	54401
#8	TITLE-ABS-KEY (problem drinking)	19837
#9	TITLE-ABS-KEY ((hazardous OR	6177
	harmful OR risky) AND drink*)	
#10	TITLE-ABS-KEY (drinking OR drinker	72405
	OR drinkers ) AND (alcohol))	
#11	#1 or #2 or #3 or #4 or #5 or #6 or #7	246903
	or #8 or #9 or #10	
#12	TITLE-ABS-KEY ((patient OR client	2755491
	OR user) AND ( centred OR centred	
	OR focus* OR perspective OR	
	empower* OR orient* OR 2ontrol* OR	
	decision OR participation OR tailor*	
	OR invol* OR adapt* OR prefer*))	
#13	TITLE-ABS-KEY (shared decision-	8314
	making)	
#14	TITLE-ABS-KEY (motivational AND	5398
	(intervention OR interviewing))	
#15	TITLE-ABS-KEY (brief intervention)	15369
#16	TITLE-ABS-KEY ((as needed) OR (as-	761674
	needed))	
#17	TITLE-ABS-KEY (treatment options)	158754
#18	#12 OR #13 OR #14 OR #15 OR #16	3517333
	OR #17	
#19	#11 AND #18	36595
#20	#19 AND (LIMIT-TO (DOCTYPE "ar"))	28977
#21	#20 AND (LIMIT-TO(LANGUAGE	26412
	"English"))	
#22	#21 AND (LIMIT-	23491
	TO(SUBJAREA,"MEDI) OR LIMIT-	
	TO(SUBJAREA, "PSYCH"))	
#23	TITLE-ABS-KEY (random OR rct OR	776353
	trial OR randomised controlled trial OR	
	randomized controlled trial)	
#24	#22 and #23	3312

## Search on Cochrane Library Search run on August 6<sup>th</sup>, 2014

August 0", 2014	Itama faund
	Items found
[mh "Alaahal Balatad Digardara"]	3527
•	
l <b>b</b>	2403
	2437
	4704
	225
	1473
	1180
	1400
'	2788
	2240
	577
harmful drink*	255
(drinking:ti or drinking:ab or drinker:ti or drinker:ab or drinkers:ti or drinkers:ab) and (alcohol:ti or alcohol:ab) risky drink*	2920
	202
hazardous drink*	218
#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15	11105
((patient or client or user) and (centered or centred or focus* or perspective or empower* or orient* or 3ontrol* or decision or participation or tailor* or invol* or adapt* or prefer*))	450830
shared decision-making	685
(motivational and (intervention or interviewing))	2026
brief intervention	18815
	44723
treatment options	12267
	463827
	6532
	341670
#24 and #25	4542
Restrict to Trials	3104
	(drinking:ti or drinking:ab or drinker:ti or drinker:ab or drinkers:ti or drinkers:ab) and (alcohol:ti or alcohol:ab) risky drink* risky drink* hazardous drink* #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 ((patient or client or user) and (centered or centred or focus* or perspective or empower* or orient* or 3ontrol* or decision or participation or tailor* or invol* or adapt* or prefer*)) shared decision-making (motivational and (intervention or interviewing)) brief intervention (as needed) or (as-needed) treatment options #17 or #18 or #19 or #20 or #21 or #22 #16 and #23 adult or adults or [mh adult] #24 and #25

# Appendix B

## **Excluded Studies**

Author and year	Reason
Adamson 2005(1)	Other drugs, psychiatric diagnoses present
Anderson 2002 (2)	Sample selection
Andreasson 2002 (3)	Elements of CBT in the intervention
Baer 2001 (4)	Not clearly adult population
Ball 2007 (5)	Other substances involved besides alcohol
Ball 2007(5)	Alcohol dependent excluded, daily computerized monitoring
	system used (might have confounded the true PCC effect)
Beckham 2007(6)	Patients with psychiatric comorbidities included
Bewick 2008(7)	Intervention not clearly PCC
Bewick 2013(8)	Intervention not clearly PCC
Blondell 2011(9)	Exclusively inpatients
Blow 2010(10)	Effectiveness analysis ongoing
Boon 2011(11)	Although the online intervention had elements of PCC,
	patients were told a cover story to reduce the risk of
D : 0000(40)	response bias stemming from social desirability
Borsari 2000(12)	Not valid outcomes reported
Carroll 2006(13)	Group therapy, groups not homogeneous in the treatments they receive
Carroll 2009(14)	Multiple substances involved
Collins 2005(15)	Outcomes and Intervention not clearly PCC
Córdoba 1998(16)	Intervention not clearly PCC
Cunningham 2012(17)	Elements not PCC in the intervention
Cunningham 2012(18)	Intervention not clearly PCC
Davidson 2004(19)	Intervention not PCC
Delrahim-Howlett	Intervention not clearly PCC
2011(20)	
Dent 2008(21)	Intervention not clearly PCC
Ekman 2011(22)	Intervention not clearly PCC
Feldstein 2009(23)	Follow up time
Field 2010a(24)	Results separated per ethnicity
Field 2010b(25)	Results separated per alcohol dependence present or not
	(no direct comparison between TAU+ and BMI).
Fingfeld-Connet 2009(26)	Intervention not exclusively PCC
Fingfeld-Connet 2008(27)	Intervention not exclusively PCC
Fleming 2010(28)	Intervention not clearly PCC
Fleming 2004(29)	Intervention not clearly PCC
Forsberg 2000(30)	Intervention not clearly PCC
Gentilello 1999(31)	Patients not aware of the true study aim
Goodall 2008(32)	Results not reported (only significance)
Grønbaek 2007(33)	Intervention not PCC
Gordon 2003(34)	Study design
Hansen 2012(35)	Intervention not clearly PCC (only personalized normative feedback)
Hendershot 2010(18)	Follow up time 1 month

Hermansson 2010(36)	Intervention not clearly PCC
Hester 2005(37)	Study design
Kulesza 2013(38)	Follow up time 4 weeks
Kypri 2009(39)	Patients blind to the true nature of the study
Kypri 2008(40)	Intervention not clearly PCC
Larimer 2007(41)	Feedback automatically prepared by a computer
Longabaugh 2008(42)	Study design
Longabaugh 2000(42)	Study design
Manwell 2000(43)	Intervention not clearly PCC
Marlatt 1998(44)	Outcomes reported
Martens 2010 (45)	Intervention not clearly PCC
McCrady 2011(46)	Outcomes reported
Michaud 2013(47)	Patients were recruited during a mandatory occupational medicine visit
Miller 1993(48)	Inclusion criteria not reported. Small sample size
Moore 2010(49)	Intervention not clearly PCC ( although it states the use of
, ,	MI techniques, the description is not clearly consistent with
	MI)
Murphy 2010(50)	Follow up time 1 month
Neto 2008(51)	Intervention not PCC
Neumann 2006(52)	Cover information used
Ockene 1999(53)	Cluster randomized
Pal 2007(54)	Sociocultural context
Pengpid 2013(55)	Intervention not only PCC
Postel 2010(56)	Intervention based also on CBT
Reiff-Hekkin 2010(57)	Cluster-randomized
Rodríguez-Martos	Language restriction. Motivational intervention not described
2005(58)	
Romo 2009(59)	Inpatients
Roudsari 2009(60)	Outcomes reported
Rubio 2010(61)	Intervention not clearly PCC
Rubio 2002(62)	No placebo matching, not clearly PCC
Saitz 2013(63)	Alcohol plus other drugs
Schaus 2009 (64)	Elements of CBT in the intervention
Suffoletto 2012(65)	Intervention not clearly PCC
Tomson 1998(66)	Intervention not clearly PCC
Trinks 2010(67)	Intervention not clearly PCC
Turrisi 2009 (68)	Study design
Van den Brink 2014	Psychiatric diagnoses present
(69)	
Wallace 2011(70)	Intervention not exclusively PCC
York 2012(71)	Cover story, study design, follow up times, type of
	intervention
WHO Brief	Intervention not clearly PCC
Intervention Study	
Group 1996(72)	
Wood 2007(73)	Outcomes reported
Wild 2007(74)	Intervention not clearly PCC

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# Appendix C Quality assessment

# **Individual Study Quality**

Study	Power calculation	Randomisation adequate	Allocation concealment adequate	Adjusted for baseline characteristics	Participants blinded	Outcome assessors blinded	Drop outs	ITT analysis used
Aalto 2000	Χ	Χ	Χ	Χ	N.A.	?		
Aalto 2001	Х	Х	X	X	N.A.	?	<b>V</b>	<b>√</b>
Allen 2011	V	V	V	V	N.A.	?	V	√
Bazargan-Hejazi 2005	X	V	X	V	N.A.	V	<b>V</b>	?
Beich 2007	<b>√</b>	Χ	?	?	N.A.	Χ	<b>√</b>	
Bischof 2008	√	<b>V</b>	V	Х	N.A.	V	V	<b>√</b>
Brown 2007	V	V	?	V	N.A.	$\sqrt{}$	V	
Brown 2010	V	V	V	Х	N.A.	<b>V</b>	V	<b>V</b>
Carey 2006	Х	?	?	V	N.A.	?	V	?
Chang 2011	X	<b>√</b>	?	<b>√</b>	N.A.	?	<b>V</b>	<b>√</b>
Cherpitel 2010	Χ	?	?	<b>√</b>	N.A.	<b>√</b>	<b>V</b>	?
Curry 2003	?	?	?	<b>√</b>	N.A.	<b>√</b>		
D'Onofrio 2008	$\sqrt{}$	<b>V</b>	$\sqrt{}$	$\sqrt{}$	N.A.	$\sqrt{}$	$\sqrt{}$	V
D'Onofrio 2012	$\sqrt{}$	Χ	$\sqrt{}$	$\sqrt{}$	N.A.	$\sqrt{}$	V	$\sqrt{}$
Daeppen 2007	V	<b>√</b>	<b>√</b>	V	N.A.	<b>V</b>	<b>V</b>	<b>√</b>
Daeppen 2011	Х	<b>√</b>	V	V	N.A.	?	V	?
Emmen 2005	Х	V	V	V	N.A.	Х	V	<b>√</b>
Gaume 2011	X	<b>√</b>	Χ	<b>√</b>	N.A.	<b>√</b>		?
Gual 2013	1	<del>\</del>	<del>√</del>	<b>√</b>	√	Ž	V	· \
	,	,	,	,		,	,	
Hansen 2011	√	√	√	<b>√</b>	N.A.	√	<b>√</b>	<b>√</b>
Heinala 2001	Х	?	?	Χ	٧	?	Χ	?
Hermansson 2010	Х	V	X	V	N.A.	?	<b>V</b>	V
Karhuvaara 2007		?	<b>√</b>	V	√	<b>√</b>	<b>√</b>	
Kranzler 2009	X	?	?	<u>√</u>	√	√	1	?

Lee 2011	Χ	?	?	Х	N.A.		$\sqrt{}$	?
Longabaugh	Χ	?		?	N.A.		$\sqrt{}$	?
2001								
Maisto 2001	Χ	V			N.A.	?	V	V
Mann 2013		V	√		$\sqrt{}$		V	$\sqrt{}$
Mello 2013	Χ	?	?		N.A		$\sqrt{}$	$\sqrt{}$
Monti 2007	Χ	$\sqrt{}$	Χ	$\sqrt{}$	N.A.		$\sqrt{}$	$\sqrt{}$
Murphy 2004	Χ	?	?	Χ	N.A.	?	$\sqrt{}$	?
Murphy 2001	Χ	?	?	$\sqrt{}$	N.A.	?	$\sqrt{}$	?
Noknoy 2010		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	N.A.		$\sqrt{}$	?
Project MATCH		$\sqrt{}$	?	$\sqrt{}$	N.A.	?	$\sqrt{}$	$\sqrt{}$
1997								
Sellman 2001	Χ	?	?	Χ	N.A.		$\sqrt{}$	?
Senft 1997		?	?	Χ	N.A.		$\sqrt{}$	$\sqrt{}$
Shakeshaft 2002	Χ	V	?	Χ	N.A.	?	V	Χ
Soderstrom 2007	Χ	?	?	Χ	N.A.	V	V	V
Sommers 2013		V	<b>√</b>		N.A.	1	V	$\sqrt{}$
UKATT 2005				√	N.A.			

<sup>\*</sup>Key:  $\sqrt{\ }$  = Judged as adequate; X = Judged as inadequate; ? = Unclear; N.A. = not assessed.

\*Power calculation judged adequate if sample size calculation is done before recruitment. Randomisation judged adequate if a truly random component used in the process (e.g., random numbers table, coin tossing, shuffling envelopes). Allocation concealment judged adequate if participants and investigators enrolling patients not able to foresee assignment thanks to a concealment method (e.g., central allocation with phone or web service, sequentially numbered drug containers of identical appearance, sequentially numbered, opaque, sealed envelopes). Adjustment for baseline characteristics considered adequate if regression models used to take into account baseline data. Participants blinded judged adequate if blinding of participants is reported. Outcome assessors blinded judged adequate if blinding of key study personnel, especially those assessing outcome, is reported. Drop outs explained judged adequate if corresponding numbers are reported. ITT analysis judged adequate if statistical results are obtained using an intention to treat approach.

### Study quality characteristics of all included studies

	Power	Randomization	Allocation	Adjusted	Outcome	Drop	ITT
	calculation		concealment	analysis	assessors	outs	analysis
					blinded	explained	
Correct; n	17	23 (57.5%)	18 (45%)	26 (65%)	27	39	26 (65%)
(%)	(42.5%)				(67.5%)	(97.5%)	
Incorrect:	22 (55%)	4 (10%)	6 (15%)	12 (30%)	2 (5%)	1 (2.5%)	1 (2.5%)
n(%)							
Unclear:	1 (2.5%)	13 (32.5%)	16 (40%)	2 (5%)	11	0	13
n(%)					(27.5%)		(32.5%)

Appendix D			
Section/topic	#	Checklist item	Reported on page #
TITLE	·		
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT	•		
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	4
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	5
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	6
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	6
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Appendix A
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	8
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	7

Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	7
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	8
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	8
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I²) for each meta-analysis.	8
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	8
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	Fig 1
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	Table 1- 4,appendi x D
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	Page 10, appendix C
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	Figures
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	10-11
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	Appendix C
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	

DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	12-13
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	13-14
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	14-15
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	15