10-45 Writing Up and Dissemination

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What are we trying to achieve?

- Explicit description of Review Methods
- Transparent presentation of Data
- Trustworthiness of Authors' Analysis and Conclusions
- Starting Point for Readers Own Observations

What is required?

- Conformity to Published Reporting Standards (e.g. PRISMA, formerly QUOROM)
- Use of Good Practice in Presentation (e.g. STARLITE for literature searches)
- Imaginative Use of Data Display

PRISMA

- **P**referred **R**eporting **I**tems for **S**ystematic Reviews and **M**eta-**A**nalyses.
- Evidence-based minimum set of items for reporting systematic reviews and meta-analyses.
- Aim of PRISMA Statement: to help authors improve reporting of systematic reviews and meta-analyses.
- Focus on randomized trials, but PRISMA also a basis for reporting systematic reviews of other types of research, particularly evaluations of interventions.
- May be useful for critical appraisal of published systematic reviews (not quality assessment instrument to gauge quality of a systematic review).

The PRISMA Statement

- Consists of 27-item checklist and four-phase flow diagram.
- Evolving document subject to periodic change as new evidence emerges.
- Update and expansion of now-out dated QUOROM Statement.
- Website (http://www.prisma-statement.org/) contains current definitive version of PRISMA Statement.

27-item Checklist (Items 1 & 2)

1. **Title**: Identify report as systematic review [meta-analysis, or both] *(? Qualitative Systematic Review/ Qualitative Meta-Synthesis/ Qualitative Evidence Synthesis?)*
2. **Abstract:** Provide 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.

27-item Checklist – Items 3 & 4

INTRODUCTION		
Rationale	3	**Describe rationale for review** in context of what is already known.
Objectives	4	**Provide explicit statement of questions being addressed** with reference to participants, interventions, comparisons, outcomes, and study design (PICOS). *(?SPICE?)*

27-Item Checklist (Items 5-8, Methods)

Protocol & registration	5	**Indicate if review protocol exists**, if and where it can be accessed (e.g., Web address), etc.
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.
Information sources	7	**Describe all information sources** (e.g., databases with dates, contact with authors to identify additional studies) in search and date last searched.
Search	8	Present **full electronic search strategy for at least one database**, including any limits used, such that it could be repeated.

27-item Checklist (Items 9-12, Methods)

Study selection	9	State **process for selecting studies** (i.e., screening, eligibility, included in systematic review).
Data collection process	10	Describe **method of data extraction** from reports and any processes for obtaining and confirming data from investigators.
Data items	11	List and **define all variables** *(?subject data/author data?/substantiated?)* for which data were sought and assumptions and simplifications made.
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies *(?Reflexivity?)*

27-item Checklist

Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.

ction/topic	#	Checklist item
sk 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).
ditional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.

27-item Checklist (Items 17-20, Results)

Study selection	17	**Numbers of studies screened**, assessed for eligibility, and included in review, with reasons for exclusions at each stage, ideally with **flow diagram**.
Study characteristics	18	For each study, **present characteristics for which data were extracted** and provide citations.
Risk of bias within studies	19	Present **data on risk of bias** of each study.
Results of individual studies	20	For all outcomes considered provide: (a) summary data (b) effect estimates and confidence intervals, ideally with a forest plot.

27-item Checklist (Items 21-23, Results)

Synthesis of results	21	**Present results of each meta-analysis** done, including confidence intervals and measures of consistency. *(?reciprocal translation, line-of-argument synthesis?)*
Risk of bias across studies	22	Present results of any **assessment of risk of bias across studies**.
Additional analysis	23	Give **results of additional analyses**, if done (?Disconfirming case analysis?)

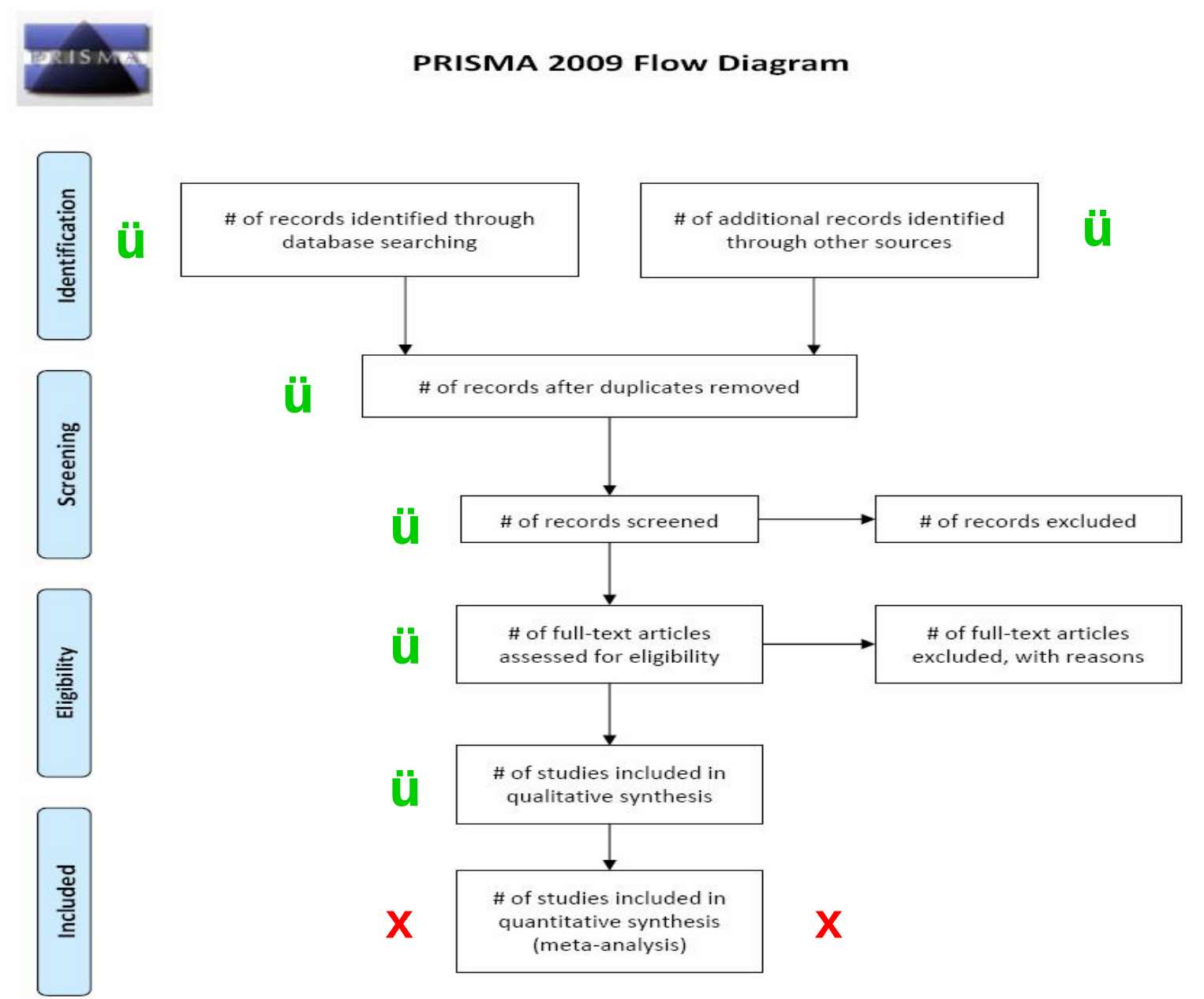
27-item Checklist (Items 24-26, Results)

Summary of evidence	24	**Summarize main findings including strength of evidence** for each main outcome (?theme?); consider **relevance to key groups** (e.g., healthcare providers, users, and policy makers).
Limitations	25	**Discuss limitations at study and outcome (?theme?) level** and at review-level (e.g., incomplete retrieval of identified research, reporting bias).
Conclusions	26	Provide a **general interpretation of results in context of other evidence**, and implications for future research

27-item Checklist (Item 27, 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.

Four-phase Flow Diagram



PRISMA – Explanation & Elaboration

- **PRISMA Explanation and Elaboration document** (http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1000100) explains and illustrates principles underlying PRISMA Statement.
- To be used in conjunction with PRISMA Statement.
- Part of broader effort, to improve reporting of different types of health research, and in turn to improve quality of research used in healthcare decision-making – EQUATOR Network

Equator Network (http://www.equator-network.org/)

What is STARLITE?

- STARLITE is a proposal for a framework for reporting the literature searching in systematic reviews and health technology assessments
- It is an acronym – STAndards for Reporting LITErature searches
- But it is also a mnemonic…….

STARLITE

S - Sampling Strategy
T - Type of Studies
A - Approaches
R - Range of Years (Start Date-End Date)
L - Limits
I - Inclusion and Exclusions
T - Terms Used
E - Electronic Sources

Why is STARLITE needed?

- No standard for reporting of literature searching
- Considerable variation in practice
- Decisions taken in searching impact on final review
- Poor searching introduces possibility of publication bias
- Several unilateral attempts to define best practice
- Existing best practice based on effectiveness reviews/HTAs
- PRISMA has very little detail relating to literature searching

Why is STARLITE needed?

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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.
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PRISMA items relating to literature searching

	Fully or Partially Present	**Absent**
Sampling Strategy	**43**	**0**
Type of Study	**7**	**36**
Approaches	**28**	**15**
Range of Years	**40**	**3**
Limits (e.g. English)	**43**	**0**
Inclusion and Exclusions	**8**	**35**
Terms Used	**27**	**16**
Electronic Sources	**40**	**3**

What is STARLITE not?

- Not yet a full standard – “Towards” – needs tighter specification of data elements and formats
- Not yet a consensual framework – Phase 1 was “literary warrant”, now requires Phase 2 “user warrant” and endorsement.

Good Practice?

Map 1: How the articles in the synthesis reference and

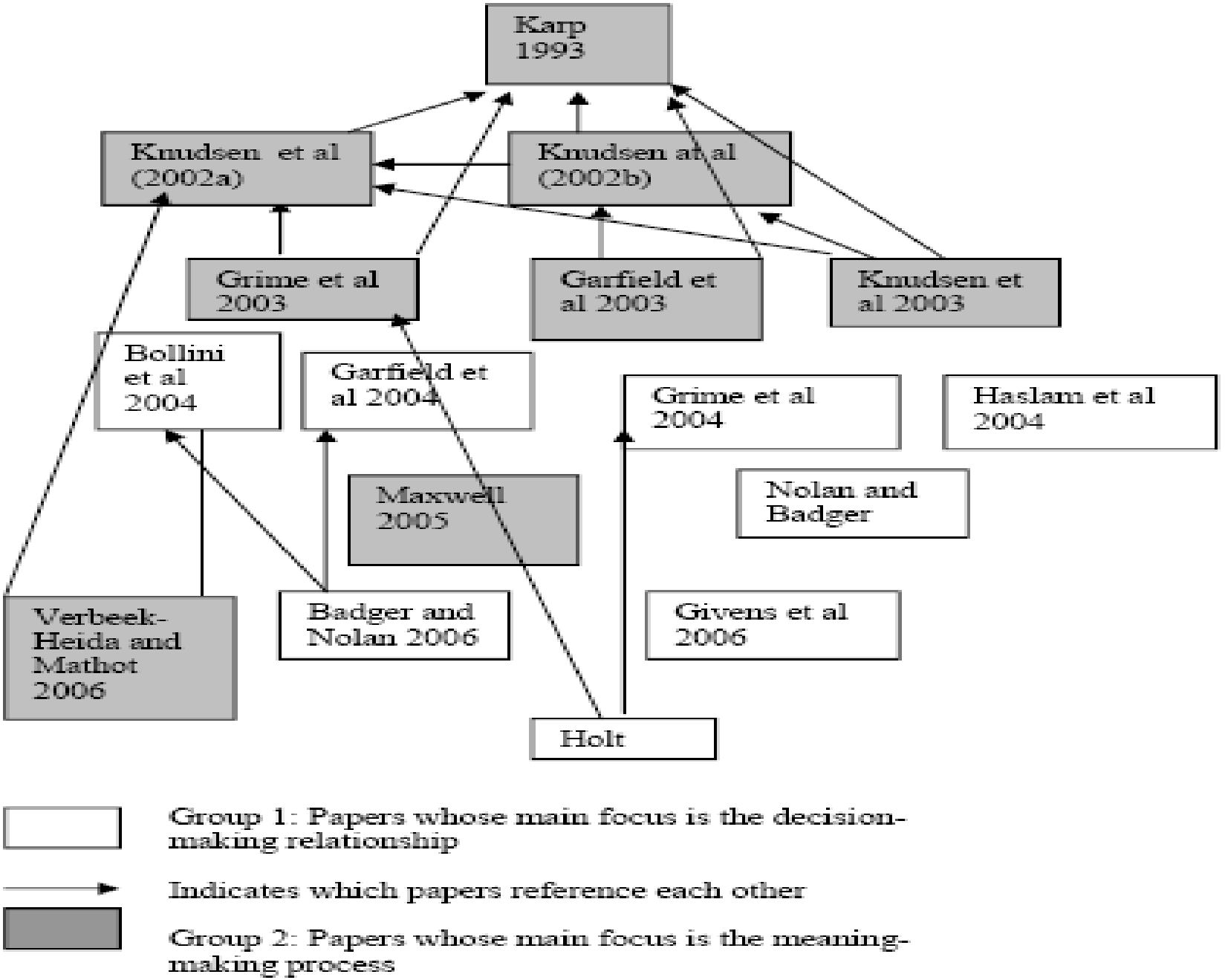

Table 5 – Showing translation of 2nd order constructs and their arrangement in temporal sequence

GROUPS of 2ND Order Constructs, arranged in temporal sequence	*2ND ORDER CONSTRUCTS*	*Summary definition (translation) of the 2nd order construct*	*Papers that include the 2nd order construct (Figures in bold are papers that received at least one 'KP' rating)*
1.Conditions for seeking help	Distressed and needing help	Recognition that something is seriously wrong, AND that self-help is not working and experience of distress is beyond rational explanation.	1, 2, 3, 4, 10, **11**, 12
	Duty to be well	Alignment with treatment goals to return to path of productive, self regulating citizenship.	2, 6, 9, **11**, **15**, 16
2.Triggers for help seeking	Role strain	Recognition that emotional state was effecting the functioning of relationships and ability to fulfil roles and take part in normal everyday social relationships .	2, 3, 4, 6, 10, 11
	Taking control	Feeling a loss of control and desiring to take back control	2, 3, 4, 12,
	Emotional strain	Felt guilt they had let themselves or others down. Feeling frustrated with self for 'failing' to cope, being 'weak'.	1, 2, 3, 6, 11, 12,
3. Barriers to accepting treatment	Stigma	Emotional disorders are perceived as 'stigmatised'. Resisting or rejecting antidepressants (AD) is a way of resisting categorisation as a mentally ill person.	1, 2, 3, 4, **5**, 6, 7, 11, 12, 13, 16
	Fear of addiction	Long term use was associated with addiction so it was important to know expected treatment length. Low dosage preferred for same reasons.	1, 2, 4, **5**, 8, **11**, 12,
	Threat to natural self	AD seen as unnatural and leading to "artificial unhappiness" that threatens "real" personality.	1, 2, 4, 11, 12
	General resistance to medicine taking	Does not normally take medicines, even aspirin, and keen to portray themselves in this way in order to frame AD use as last resort. (Also true for patients with substance abuse history).	1, 3, **11**, 14, 16
4.Paradox of biomedical model	AD Reduces stigma	Emotional illness conceived as physical deficiency of serotonin, so absolves individual of personal responsibility, over writing stereotype that depression results from personal weakness. Able to fulfil social roles and therefore "normalising".	1, 2, 3, 4, **5**, 6, 9, 11, 12, **15**,
	AD Doubles stigma	Prescription of AD experienced as a 'drastic event', making the discredited (unseen illness) discreditable (seen), therefore doubling existing stigma associated with depression. AD created sense of normalcy (through fulfilling roles) but reduced inner sense of normalcy because taking AD not seen as 'normal". Feared others' reactions.	1, 2, 3, 4, **5**, 6, 8, 9, **11**, **15**
5.Factors	Threshold of	Desperation to feel better stronger than resistance to AD. Swallowing first pill seen as "swallowing will" and	1, 11, 13

References

- Booth A. "Brimful of STARLITE": toward standards for reporting literature searches. *J Med Libr Assoc* 2006; 94(4):421-9, e205.
- Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, et al. 2009 The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. *PLoS Med* 6(7): e1000100. http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1000100
- Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097.