

SYSTEMATIC REVIEW PROTOCOL

Effective Interventions to Improve nurses' Job Satisfaction in Mental Healthcare Settings.

By

Rajinikanth Maruthu

Dublin South East Mental Health Services

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SYSTEMATIC REVIEW PROTOCOL

Title: Effective Interventions to Improve nurses' Job Satisfaction in Mental Healthcare Settings.

Background

Mental illness is the leading cause of years lived with disability (YLDs) worldwide, contributing to 32.4% of YLDs globally and 13% of years of life adjusted for disability. Mental health services strive to provide a safe and high-quality service by developing various strategies. Mental health nurses occupy the greatest percentage of the workforce in mental health settings. There have been substantial issues in resourcing and retaining nurses in the field of mental health nursing (Butryn et al. 2017; Jansen and Venter 2015). High nurse turnover (Hauck et al. 2011) is one of the main contributors to the current nursing shortage, and work dissatisfaction is the primary cause of this (Lautizi et al. 2009).

Due to these difficulties and work stress, mental health nursing is regarded as a challenging career on a global scale (Abdalahim 2013; Tuvesson and Eklund 2017). Compared to other healthcare professionals, mental health nurses are more susceptible to stressful conditions (Rössler 2012; Volpe et al. 2014; Pekurinen et al. 2017); as a result, the risk of job burnout increases when they are constantly dealing with powerful emotions like anger, pity, and fear (Van Dusseldorp et al. 2011). The impact of these experiences on the health of mental health nurses include burnout, low job satisfaction, poor work performance, poor quality of life, stress, post-traumatic disorder, exiting the profession (Fahy and Moran 2018), fear, guilt, anxiety, disturbed sleep patterns, depression, and poor subjective health (Lanctot and Guay 2014; Pekurinan et al. 2017).

Job satisfaction refers to how one feels about their job and its primary elements (Cicolini et al. 2014). Job satisfaction and workplace factors both influence nursing retention (Coomber and Barriball 2007; Cicolini et al. 2014). From a workforce analysis of the author's mental health service during the previous five years, there has been a substantial turnover of nursing staff. The human resources department's summary revealed that the majority of them expressed job

dissatisfaction due to frequent workplace violence (Hamaideh, 2012; Volpe et al. 2014), aggressive or suicidal patients, challenging relationships and interactions with other professionals, heavy workloads and administrative responsibilities, a lack of resources, inappropriate referrals, a lack of positive feedback, low pay, a poor work environment, and a lack of supervision (Hamaideh, 2012; Volpe et al., 2014). To address this the Senior nurse managers consulted with experts from different fields and the human resources team and sought their input. This resulted in the idea of developing effective initiatives to improve job satisfaction which was one of their key recommendations.

Job satisfaction is crucial for the health and well-being of professionals as well as for the formation of high-quality therapeutic relationships that guarantee patients' recovery (Mohr et al., 2011; Fleury and Grenier 2017). As the delivery of high-quality patient care is determined by how actively an organisation nurtures the nurses' satisfaction, nursing science research should take into account how measures that noticeably increase the quality of care impact both patients and nurses (Aiken et al., 2012). The literature that is now accessible has identified a number of factors that affect job satisfaction, including working conditions, interaction, relationships with patients, co-workers, and managers, the work itself, workload, compensation, possibilities for self-growth and promotion, personal success opportunities, positive reinforcements, power and responsibility/autonomy, job security, and leadership styles (Lu et al. 2012).

The review's findings will yield evidence of effective interventions, demonstrate methods to improve the job satisfaction of nurses in mental health settings, and may also help establish a welcoming and fulfilling work environment for nurses. This could help in retaining nursing in the profession. In creating innovative and practical employee strategies to improve job satisfaction, senior nurse managers will be able to minimize the turnover of nurses in the profession. Good working conditions for nurses are a crucial component of reducing turnover, thus managers need to create the necessary strategic plans to ensure this. A positive workplace significantly impacts retirement-related parameters, including job satisfaction, commitment (Cicolini et al. 2014), and nurse retention (Medina 2016). This review

may help direct mental health nurse managers' strategies for creating and preserving a positive work environment that improves job satisfaction.

Review Question

“What are the most effective interventions to improve job satisfaction of nurses in mental health settings?”

Table 1: Elements of Evidence-Based Practice question and the description

Elements	Description
Population	Nurses in mental health settings
Intervention	Interventions/Strategies
Comparator	No comparator
Outcome	Job satisfaction

The review

The main aim of this review is to synthesise the best evidence for the most effective interventions to improve job satisfaction for nurses in mental health settings. The objectives to achieve this aim are: to explore various interventions that improve job satisfaction; to review and assess the effectiveness of the interventions; and to synthesise the evidence for the most effective interventions to improve job satisfaction.

Methodology

Search strategy

The following databases will all be thoroughly searched: MEDLINE, EMBASE, Scopus, CINAHL, PsychINFO, ERIC, the Cochrane Library, the Cochrane Central Register of Controlled Trials, and SwetWise. MeSH phrases and free-text words pertaining to intervention, strategies, job satisfaction, nurses, and mental health settings will be included in the search terms. The databases will save the search histories, and the reviews will be fully documented with the date of access, the search terms used, and the number of results for later retrieval.

Table 2: Search Query

Search Number	CINAHL search terms
S1	Intervention OR Interventions OR Strateg* OR Method* OR Technique*
S2	Job satisfaction OR Work satisfaction OR Employee satisfaction
S43	Nurse* OR Nursing Staff
S4	(mental health services or mental healthcare or psychiatric services) OR (psychiatric nursing or mental health nursing) OR Psychiatry*
S5	S1 AND S2 AND S3 AND S4
S6	AB (S1 AND S2 AND S3 AND S4) OR TI (S1 AND S2 AND S3 AND S4)

Conference proceedings and abstracts will strengthen the review since they differ systematically from fully published studies (Scherer and Saldanha 2019). Therefore, academic institutions and libraries will be used. The first authors will be contacted if more information on completed and available studies is required. Additional publications will be obtained using a snowballing strategy. Following the collection of titles and abstracts from the internet, possible abstracts will be filed separately after being thoroughly examined by specialists, academic institutions, and libraries. Through appropriate communication, pertinent studies will be collected from the fundamental sources as needed. The appropriateness of the references found during the search will be evaluated using a specially constructed eligibility form (Appendix 1). The review's goals, inclusion and exclusion criteria, and eligibility form serve as its foundation. Additionally, the study supervisor will independently assess the studies' eligibility.

Inclusion criteria

Peer-reviewed qualitative research, mixed-method studies, experimental and quasi-experimental studies on interventions that impacts nurses' job satisfaction, and empirical studies published in English will all be covered in the review. The studies that were released between January 2012 and December 2022 will be taken into consideration for inclusion to maintain the work's currency and provide a comprehensive view of the activities that improves nurses' job satisfaction in mental health settings.

Exclusion Criteria

Editorials, letters, conceptual papers, and opinion pieces that are not based on empirical research will not be accepted. Additionally omitted will be duplicate texts and content that has been published in a language other than English.

Data Extraction

My colleague and I will individually extract data from acceptable studies into customized data extraction forms (Appendix 2 and 3), populating it with variables related to the research population and the relevant phenomena. The third reviewer

will perform double-checking and verification of the extracted articles. For the quantitative research, a data extraction form will be created based on a sample provided by Jüni et al. (2001) (Appendix 2). For qualitative research, the author will develop and employ a data extraction form based on the form used by Robertson et al. (2014) (Appendix 3). Only category- or theme-level evidence from the findings or results section of the included papers will be extracted due to the inherent problems in defining what constitutes findings in qualitative research (Glenton et al. 2013). The author will use clear explanations and accurate information to apply the data extraction form together as a team of three. On the generated data extraction forms, a pilot study will be carried out to find any missing or unnecessary data. The ideas from the other two data extractors will also be taken into account if any changes to the data extraction form are required following piloting. If the form needs significant adjustments, another piloting will be conducted. We will decide together as a group how to combine the data from the many reports into a unified report. The first author's name, the publication year, the period of the data collection, and the country where the study was carried out are among the study characteristics that will be extracted. From the included studies, study design, study population, sampling procedures, information on randomization, sample size, allocation concealment, intervention, data collection procedures, outcomes, and research setting will be extracted.

If a search of the literature reveals that no studies have incorporated interventions to support the job satisfaction of mental health nurses, then it would be assumed that the research on interventions to improve job satisfaction of nurses in any setting provides pertinent information, to ascertain what should be included in the interventions to improve job satisfaction of nurses. If there is a difference of opinion between the two of us about data extraction, we shall approach the third person and seek him/her's opinion. Any disagreements will be settled by discussion among the three reviewers. The tools chosen were created primarily for systematic reviews. The findings will enable us to assess whether the research conforms to the criteria for papers reporting on both quantitative and qualitative studies. Using a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram, we will describe the search methodology and study selection procedure (Moher et al. 2009).

Quality Assessment

During the data synthesis, a quality evaluation will be performed on each retrieved article that is eligible for inclusion. Quality indicators for reviewing quantitative research are developed using the Cochrane Handbook's Risk of Bias Assessment Tool (Higgins et al. 2011) (Appendix-4), and for qualitative studies, the Joanna Briggs Institute's Critical Appraisal Checklist (Appendix-5) will be used. Individual reviews of the chosen studies' quality will be conducted by two reviewers. When there is a discrepancy between our assessments, we will seek clarification from another review expert. We will mark the response as "yes" if the criteria are properly applied, described, and acknowledged as the study's main author. It will be listed as "unclear" if it is not explained in a report or if information cannot be obtained. If it is determined that the study's application of the criteria was improper, "No" will be assigned to the answer. The study's authors will be contacted for additional information if it shows that the primary sources were not properly recorded. The research's strengths and shortcomings will all be noted as they will be useful in analysing the findings. Each study can be categorized as Low-risk bias (all criteria are met), High-risk bias (when one or more criteria are not met), Uncertain risk of bias or Moderate risk of bias (when one or more criteria are unclear) for quantitative studies. Additionally, for qualitative studies, the reviewer will explain why the study was included or excluded.

Data synthesis

For quantitative studies

A PRISMA study flow diagram will be used to compile the search results. According to the study design, studies will be divided into categories, and the characteristics of each study within each category will be summarized using frequencies and percentages for categorical variables, means and standard deviations, or medians and interquartile ranges for continuous variables, depending on the distribution of the data. To report the study variables, we will create the necessary tables.

For qualitative studies

Data analysis and synthesis will be conducted using the thematic framework analysis methodology. Thematic synthesis can be beneficial in cases when the evidence is mostly descriptive and will help us better understand the difficulties in synthesizing the data to determine whether the chosen interventions have an impact on job satisfaction. To synthesize the qualitative data, we will go through five stages of the framework synthesis process: familiarization with the data; identification of theme framework; indexing; charting; and mapping and interpretation.

The dissemination strategy for review results

The outcomes of this systematic review protocol will be disclosed in accordance with the PRISMA statement and guidelines. A wide range of stakeholders will be informed of the systematic review's findings. It is anticipated that the planned review will give managers of mental health nurses information about different interventions and help them develop plans for improving mental health nurses' job satisfaction. The senior management team, nurse managers, and nurses in mental healthcare settings can all appreciate the significance of this review. This review's findings will be helpful help organise search projects, supporting legislators and nurse educators, and advising nursing administrators.

Conclusion

To create a supportive and satisfying work environment for nurses, which in turn could promote nurse retention within the organization, it may be helpful to investigate the impact of interventions on nurses' work environments and understand the relationship between selected interventions and job satisfaction (Cicolini 2014). The outcomes of this review will show how the strategies can increase mental health nurses' job satisfaction levels and how they can help nurse administrators reduce workplace stress and increase productivity. As already stated, mental health nursing has a high degree of stress, and this review can greatly contribute to reducing these phenomena.

References

Abdalahim, A.A., 2013. Asem Ahmed Abdalahim. *Stress*, 7(4).

Aiken, L.H., Sermeus, W., Van den Heede, K., Sloane, D.M., Busse, R., McKee, M., Bruyneel, L., Rafferty, A.M., Griffiths, P., Moreno-Casbas, M.T. and Tishelman, C., 2012. Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *Bmj*, 344.

Butryn, T., Bryant, L., Marchionni, C. and Sholevar, F., 2017. The shortage of psychiatrists and other mental health providers: causes, current state, and potential solutions. *International Journal of Academic Medicine*, 3(1), p.5.

Cicolini, G., Comparcini, D. and Simonetti, V., 2014. Workplace empowerment and nurses' job satisfaction: a systematic literature review. *Journal of nursing management*, 22(7), pp.855-871.

Coomber, B. and Barriball, K.L., 2007. Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: a review of the research literature. *International journal of nursing studies*, 44(2), pp.297-314.

Fahy, G. and Moran, L., 2018. Who supports the psychiatric nurse? A qualitative study of the social supports that affect how psychiatric nurses cope with workplace risks and stressors. *Irish Journal of Sociology*, 26(3), pp.244-266.

Fleury, M.J., Grenier, G. and Bamvita, J.M., 2017. Job satisfaction among mental healthcare professionals: The respective contributions of professional characteristics, team attributes, team processes, and team emergent states. *SAGE Open Medicine*, 5, p.2050312117745222.

Glenton, C., Colvin, C.J., Carlsen, B., Swartz, A., Lewin, S., Noyes, J. and Rashidian, A., 2013. Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: a qualitative evidence synthesis. *Cochrane Database of Systematic Reviews*, (10).

Hamaideh, S.H., 2012. Gender differences in stressors and reactions to stressors among Jordanian university students. *International Journal of Social Psychiatry*, 58(1), pp.26-33.

Hauck, A., QUINN GRIFFIN, M.T. and Fitzpatrick, J.J., 2011. Structural empowerment and anticipated turnover among critical care nurses. *Journal of nursing management*, 19(2), pp.269-276.

Higgins, J.P., Altman, D.G., Gøtzsche, P.C., Jüni, P., Moher, D., Oxman, A.D., Savović, J., Schulz, K.F., Weeks, L. and Sterne, J.A., 2011. The Cochrane Collaboration's tool for assessing risk of bias in randomised trials. *Bmj, BMJ*.

Jansen, R. and Venter, I., 2015. Psychiatric nursing: An unpopular choice. *Journal of Psychiatric and Mental Health Nursing*, 22(2), pp.142-148.

Jüni, P., Altman, D.G. and Egger, M., 2001. Assessing the quality of controlled clinical trials. *Bmj*, 323(7303), pp.42-46.

Lanctôt, N. and Guay, S., 2014. The aftermath of workplace violence among healthcare workers: A systematic literature review of the consequences. *Aggression and violent behaviour*, 19(5), pp.492-501.

Lautizi, M., Laschinger, H.K. and Ravazzolo, S., 2009. Workplace empowerment, job satisfaction and job stress among Italian mental health nurses: An exploratory study. *Journal of nursing management*, 17(4), pp.446-452.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G. and PRISMA Group*, 2009. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of internal medicine*, 151(4), pp.264-269.

Mohr, D.C., Young, G.J., Meterko, M., Stolzmann, K.L. and White, B., 2011. Job satisfaction of primary care team members and quality of care. *American Journal of Medical Quality*, 26(1), pp.18-25.

Pekurinen, V., Willman, L., Virtanen, M., Kivimäki, M., Vahtera, J. and Välimäki, M., 2017. Patient aggression and the wellbeing of nurses: a cross-sectional

survey study in psychiatric and non-psychiatric settings. *International journal of environmental research and public health*, 14(10), p.1245.

Robertson, A., Mullan, B. and Todd, J., 2014. A qualitative exploration of experiences of overweight young and older adults. An application of the integrated behaviour model. *Appetite*, 75, pp.157-164.

Rössler, W., 2012. Stress, burnout, and job dissatisfaction in mental health workers. *European archives of psychiatry and clinical neuroscience*, 262(2), pp.65-69.

Scherer, R.W. and Saldanha, I.J., 2019. How should systematic reviewers handle conference abstracts? A view from the trenches. *Systematic reviews*, 8(1), pp.1-6.

Turesson, H. and Eklund, M., 2017. Nursing staff stress and individual characteristics in relation to the ward atmosphere in psychiatric in-patient wards. *Issues in mental health nursing*, 38(9), pp.726-732.

Van Dusseldorp, L.R., van Meijel, B.K. and Derksen, J.J., 2011. Emotional intelligence of mental health nurses. *Journal of clinical nursing*, 20(3-4), pp.555-562.

Volpe, U., Luciano, M., Palumbo, C., Sampogna, G., Del Vecchio, V. and Fiorillo, A., 2014. Risk of burnout among early career mental health professionals. *Journal of psychiatric and mental health nursing*, 21(9), pp.774-781.

Lu, H., Barriball, K.L., Zhang, X. and While, A.E., 2012. Job satisfaction among hospital nurses revisited: a systematic review. *International journal of nursing studies*, 49(8), pp.1017-1038.

Appendix-1
Study Eligibility Form

Name of the author extracting Data: _____

Date of form completed: _____

Study ID: _____

Title:

Language of the study:

Year of publication:

Are there other articles on the same study? : Yes / No /Unclear

Study Eligibility

Components	Please Circle appropriate one	Source(page number in report)
<p><u>Type of Study</u></p> <ul style="list-style-type: none"> - RCT - Quasi RCT - Qualitative study - Mixed method study 	<p>Yes, No, Unclear</p> <p>Yes, No, Unclear</p> <p>Yes, No, Unclear</p> <p>Yes, No, Unclear</p>	
<p><u>Participants</u></p> <ul style="list-style-type: none"> • Were the participant’s nurses • Were the participants employed in mental health setting? 	<p>Yes, No, Unclear</p> <p>Yes, No, Unclear</p>	
<p><u>Interventions</u></p> <ul style="list-style-type: none"> • Was there specific interventions/strategies discussed or used? 	<p>Yes, No, Unclear</p>	
<p><u>Outcome</u></p> <ul style="list-style-type: none"> ➤ Level of job satisfaction of the nurses reported ➤ Is there any other concepts compared and reported? 	<p>Yes, No, Unclear</p> <p>Yes, No, Unclear</p>	

Conclusion

- **Included**
- **Excluded**
Excluded should be listed in the excluded table
- More information needed before inclusion decision (specify):

Record for tables

Appendix-2

Quantitative studies - Study Selection, Quality Assessment & Data Extraction Form

Name of the reviewer : _____

Name of author extracting data : _____

Date of form completed : _____

Article / Journal / Magazine : _____

Available type : Abstract / Full article / Other review reports

If any other resource, Specify : _____

Year of the study conducted : _____

Nation of the study conducted : _____

Study ID:

Title		
Study ID		
Are there other articles on the same study?	Yes, Unclear, No	If yes, Study ID: _____

Sources of Key Information

Electronic Database	
Unpublished source	
Personal Communication	

Study eligibility

Setting : Clinical / Community

Study Method: Experimental / Quasi-Experimental

If any relevant method, specify: _____

Participant characteristics						
Variables	Intervention groups			Control Group		
	n (%)	M	SD	n (%)	M	SD
Age (in years)						
Gender (Male / Female)						
Marital Status (Single / Married / Divorced / Widowed)						
Education (Secondary / College / Graduate School)						
Years of experience						
Speciality (General Nurse / Psychiatry Nurse)						
Other						

Tools Used for assessing the level of job satisfaction

Trial characteristics		
Country / Countries		
Name of the interventions		
<i>Description</i>	Job satisfaction	<i>Any other concept</i>
Other details available in the report:		

The Cochrane Collaboration's tool for assessing the risk of bias

Domain	Description	Reviewer's Judgement State Yes / Unclear / No
Sequence generation		
Allocation concealment		
Blinding of - Participants - Administrator - outcome assessor		
Incomplete outcome data - Job satisfaction - Any other concepts		
Selective outcome reporting		
Other sources of bias		

Quality classification

A. All criteria met (Low-risk bias)	B. 1 or more criteria unclear (Moderate risk bias)	C. 1 or more criteria not applied (High-risk bias)
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Data extraction

Out Comes	Reported in the paper (circle)
Level of job satisfaction	Yes / No
Intervention(s)	Yes / No
Nurses	Yes / No
Mental Health setting	Yes / No
Any other outcome concept	Yes / No

For Continuous Data						
Code of paper	Outcomes	Intervention group		Control group		Details, if the outcome is only described in the text
		n	Mean (SD)	N	Mean (SD)	
	Level of Job satisfaction					
	Any other outcome concept					

For Dichotomous data

Code of paper	Outcomes	Intervention group (n) n = number of participants, not number of events	Control group (n) n = number of participants, not number of events
	Level of job satisfaction		

Other information relevant to the results

First author	Journal / Conference	Year of publication
Give a list of contact names and details for unpublished data		

References to other trials

Appendix-3

Qualitative studies - Study Selection, Quality Assessment & Data Extraction Form

1. Bibliographic Information	
Article title	
Extracted by	
Checked by	
Type of publication, date and page number. If it's a journal article, add the title of the journal	
Country of setting	
2. Researcher details	
Authors and affiliations	
Gender of researchers who collect the qualitative data	
The academic discipline of authors	
3. Aims and methods	
Study aims	
Research questions	
Theoretical and epistemological perspectives underpinning the qualitative research	
Theoretical perspective underpinning the intervention	
Qualitative methods used	
Data analysis technique and procedure	
4. Findings	
(a) Themes	
Which key themes are stated to have emerged from the qualitative research?	
(b) Engagement	
How the participants volunteered to the study?	Notes:

	<p>Summary:</p> <p>Participant quotes:</p> <p>Author statements:</p>
(C) Intervention	
Characteristics of the intervention	
Timing of the intervention (When, how often, for how long)	
Who delivers the intervention?	
Focus of the programme	
Results	
Demographic information	
Dropout rate	
Gender breakdown	
(D) Intervention process	
Are communication processes referred to in the protocol?	Notes:
Was any specific training provided as part of the intervention?	<p>Notes:</p> <p>Summary:</p> <p>Participant quotes:</p> <p>Author statements:</p>

Is fidelity protocol mentioned?	
What are the participants' perceptions of the communication process?	Notes: Summary: Participant quotes: Author statements:
(E) Central research questions derived from quantitative review to guide data extraction	
How are participants consulted in the design of the intervention? Should also include which literature is consulted to aid the conception of the design? Was the literature gender specific?	Notes: Summary: Participant quotes: Author statements:
5. Area and Context	
Rationale for setting choice	
Meaning attributed to where the intervention is delivered	
Perceptions about the venue and area of setting	
What else is going on at the time of the intervention?	

Does the setting potentially exclude/ target populations?	
Are there any wider media, cultural, political or contextual factors that might be influencing the intervention?	
6. Quality	
(A) Sample	
Sample size	
Sample characteristics	
Sample selection process	
Sample inclusion and exclusion criteria	
(B) Reflexivity	
Evidence of researcher reflexivity	
(C) Ethics	
Evidence of attention to ethical issues	
(D) General	
Are the findings adequately supported by the data presented?	
Is there potential for a 'charisma effect' in this study?	
Any other quality issues not covered above?	

Appendix-4

Quality Indicators Based on

Cochrane Handbook's Risk of Bias Assessment Tool

Study quality will be determined by

1. Adequate sequence generation and allocation concealment
 - Low Risk Bias: Randomization process may be any of the following such as lots method, dice throwing, minimization, tossing coin, cards shuffling or envelopes, random number table referring and computer based random generator. Conceal allocation method can be central allocation (telephone or web based), sequentially numbered containers or envelopes.
 - High risk bias: Non-random techniques such as sequence by odd or even date of birth, based on date of admission and hospital or record number. Other non-random approaches may be purposive allocation by therapist, participant and intervention. Conceal allocation based on open random allocation, inappropriate envelope numbering method, alternation or rotation and other unconcealed techniques.
 - Moderate risk bias: Insufficient or unclear information about randomization and allocation concealment.
2. Was the study free from any other potential bias?
3. Were all incomplete outcome data adequately addressed?
4. Was the study free of suggesting a selective outcome reporting?
5. Was the blinding technique appropriately applied or not?

Appendix-5

JBI Critical Appraisal Checklist for Qualitative Research

Reviewer _____ Date _____

	Author _____	Year _____	Record Number _____			
			Yes	No	Unclear	Not applicable
1.	Is there congruity between the stated philosophical perspective and the research methodology?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Is there congruity between the research methodology and the research question or objectives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Is there congruity between the research methodology and the methods used to collect data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.	Is there congruity between the research methodology and the representation and analysis of data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	Is there congruity between the research methodology and the interpretation of results?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.	Is there a statement locating the researcher culturally or theoretically?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.	Is the influence of the researcher on the research, and vice-versa, addressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.	Are participants, and their voices, adequately represented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.	Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10.	Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Overall appraisal: Include Exclude Seek further info

Comments (Including reason for exclusion)
