Exit interviews to reduce turnover amongst healthcare professionals (Review)

Flint A, Webster J

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in The Cochrane Library 2013, Issue 3

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Exit interviews to reduce turnover amongst healthcare professionals (Review)
Exit interviews to reduce turnover amongst healthcare professionals

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Editorial group: Cochrane Effective Practice and Organisation of Care Group.

Publication status and date: New search for studies and content updated (no change to conclusions), published in Issue 3, 2013.

Review content assessed as up-to-date: 9 December 2012.

Citation: Flint A, Webster J. Exit interviews to reduce turnover amongst healthcare professionals. Cochrane Database of Systematic Reviews 2013, Issue 3. Art. No.: CD006620. DOI: 10.1002/14651858.CD006620.pub3.

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ABSTRACT

Background

Exit interviews are widely used in healthcare organisations to identify reasons for staff attrition, yet their usefulness in limiting turnover is unclear.

Objectives

To determine the effectiveness of various exit interview strategies in decreasing turnover rates amongst healthcare professionals.

Search methods

We searched the Cochrane EPOC Group Specialised Register; Cochrane Central Register of Controlled Trials (CENTRAL), Issue 11, 2012; MEDLINE, Ovid (1950- ); EMBASE, Ovid (1947- ); CINAHL, EbsoHost (1980- ), and PsycINFO, OVID (1806-) between October 31 and November 6, 2012. We also screened the reference lists of included studies and relevant reviews; and searched trial registries for planned and on-going trials. We did not restrict searches by language or publication date.

Selection criteria

Randomised controlled trials, controlled clinical trials, controlled before-after studies and interrupted time series studies comparing turnover rates between healthcare professionals who had undergone one form of exit interview with another form of exit interview or with no interview.

Data collection and analysis

Two review authors independently assessed trial quality and extracted data.

Main results

The original search identified 1560 citations, of which we considered 19 potentially relevant. The two authors independently reviewed the abstracts of these studies and retrieved the full texts of eight studies. We excluded all eight following independent assessment; they were either interviews, commentaries on how to do an exit interview or descriptive studies about reasons for leaving. We found no trials that matched our inclusion criteria. For this first update, we screened 2220 citations and identified no new trials.
Authors’ conclusions

Evidence about the effectiveness of exit interviews to reduce turnover is currently not available. However, exit interviews may provide useful information about the work environment which, in turn, may be useful in the development of interventions to reduce turnover.

Plain Language Summary

Exit interviews to reduce turnover

In many healthcare organisations, exit interviews are conducted to try to understand why staff are leaving the facility. These interviews may be held before the individual leaves or after they have left the organisation; they may be face-to-face interviews or conducted by telephone. The main purpose of the exit interview is to reduce the number of people who leave, by fixing problems that may be identified during the exit interview process. This review sought to determine if the exit interview was useful in achieving this purpose. However, after a wide search, no studies answering the question were found. Further research in this area is needed.

Background

Description of condition

Turnover is defined as “the process whereby staff resign from the organization or transfer within the hospital environment” (Bland Jones 1990). It is a problem that affects all organisations and has become a focus of healthcare institutions because of high replacement costs. In Wise 1993, this phenomenon is defined as an erosion of human resources within an organisation resulting in an increase in the cost of doing business. Unfortunately, when health care is involved the end result of turnover can impact on patient care and clinical outcomes. Turnover has been a focus of interest for organisations since the early 1900s (Corton 1986). It can be viewed as beneficial to an organisation to a certain degree, stopping it from becoming stagnant and non-productive (Weisman 1981). Tai et al suggest that in any organisation, trying to retain staff and keep turnover rates at an acceptable level is beneficial. In healthcare facilities turnover rates range between 10.1% and 50% (Tai 1998), however rates between 15% and 20% annually are considered acceptable to prevent an organisation becoming stagnant (Capko 2001).

Description of intervention

Exit interviews are conducted in many organisations to elicit reasons for employee turnover (Leahey 1991). The practice dates back over half a century (Melcher 1955; Moran 1956) and takes the form of either a formal or informal verbal interchange, conducted at a point between the time of resignation and the employee’s last working day; a written questionnaire, completed either before or after leaving the organisation; or a combination of both approaches. The exit interview can be defined as “a widely used tool for gathering information from separating employees” (Giacalone 2003, p.398). An excellent summation of the process is “that the scope of inquiry is not simply why employees quit their jobs, but the impact of the total work environment on those who chose to stay” (Drost 1987, p.104). Although there is argument for and against the exit interview, it remains a recommended component of the exiting process. Well accepted reasons for conducting such interviews include: attempting to change the person’s mind about leaving; using the interview as part of an ‘image management’ exercise (Lefkowitz 1969); documenting specific reasons for the resignation so that managers can use the information to improve the service (Erickson 1996; Leahey 1991; Neidermeyer 1987); and, more recently, to ‘trend’ reasons for turnover (Erickson 1996). An exit interview also provides organisational feedback about unethical or bad behaviour and information about current practices, working conditions, management and training programmes (Drost 1987; Giacalone 2003; Jackson 2002; Jurkiewicz 2001). In ideal circumstances the employee is interviewed by someone other than the line manager; information is then gathered and analysed and fed back to managers and executives in a timely manner. Although the exit interview is widely used, the validity of the approach has been questioned (Jurkiewicz 2001; Lefkowitz 1969). There are often inconsistencies in the way the interview is managed, and it may be conducted by people who are unskilled in interview techniques. The exercise is costly and information may not be analysed and fed back in a timely manner, or may be disregarded completely. More importantly, the information elicited may not be accurate. For example, departing employees may wish
to leave a good impression to improve chances of a positive future reference or re-employment (Hinrichs 1971; Yourman 1965). They may feel intimidated about discussing the true reason for leaving, especially if conflict is involved and the interview is conducted well before the person’s departure date; or they may feel that disclosing their real reason is a waste of time, based on previous experience with the service (Yourman 1965).

How the intervention might work

The intervention under consideration in this review is the exit interview and the primary outcome is staff turnover. In theory, the exit interview reduces turnover by alerting management about organisational deficits or problems that may be amenable to quality improvement activities. Responding to concerns raised during the exit interview provides the organisation with a reputation of caring, which may, in turn, contribute to staff retention.

Why it is important to do this review?

There is a worldwide shortage of healthcare professionals (WHO 2006), so many strategies have been utilised in an attempt to reduce this phenomena, the exit interview being just one of them. This review is timely and important because retaining healthcare professionals has become a priority for most countries around the world. To understand the organisational environment, the manager must be aware of the tools available to assist them in trying to reduce turnover and retain staff. The exit interview is one such tool, but whether it is effective in reducing turnover or the number of healthcare professionals who leave the profession is still disputed.

OBJECTIVES

To determine the effectiveness of various exit interview strategies in decreasing turnover rates amongst healthcare professionals working in healthcare organisations.

To address these objectives we planned the following comparisons.

1. Exit interviews compared to no exit interview.

2. We also planned to explore the effects of the following characteristics of the intervention on the magnitude of the effect across studies: method of delivery (face-to-face, telephone, self-complied, electronic or postal).

3. Depending on the number and quality of studies found we also planned to explore the effects of the following characteristics of the intervention on the magnitude of the effect across studies:
   i) the timing of the interview in relation to the healthcare professional’s resignation;
   ii) the person who carries out the interview in relation to the employee’s immediate work environment; and
   iii) the location of the interview in relation to the employee’s work environment.

METHODS

Criteria for considering studies for this review

Types of studies
Randomised controlled trials, controlled clinical trials, controlled before-after studies and interrupted time series studies comparing turnover rates between healthcare professionals who had undergone one form of exit interview with another form of exit interview or with no interview. We planned to include studies published in all languages.

Types of participants
Healthcare professionals (including medical, nursing and allied health) who have undergone any type of exit interview from a healthcare organisation.

Types of interventions
Any form of exit interview undertaken at the voluntary cessation of employment or at a prescribed time following departure from the organisation was eligible. These could be a face-to-face exit interview, a telephone exit interview, a self-completed exit interview survey, electronic exit interview survey and mailed exit interview survey.

Types of outcome measures

Primary outcome
- Turnover rate (defined as the proportion of the population that leaves the organisation in any given year or over the period of the study).
Secondary outcomes

- Organisational change as a result of the exit interview process (for example, evidence of policy change).
- Cost incurred as a result of voluntary cessation of an employee (for example, productivity losses incurred when the new employee is training and orientating, or any other costs reported by the author).
- Absenteeism (days of sickness absence during the study period. Sickness absence may be extracted from the employee attendance records, or may be self-reported).
- Organisational job satisfaction measured by any validated job satisfaction instrument.

Changes in rates of absenteeism and organisational job satisfaction may be secondary to any organisational change, developed in response to exit interview information.

Search methods for identification of studies

Electronic searches

The search strategy for this update was revised by the EPOC Trials Search Co-ordinator (TSC), M. Fiander, to broaden the scope of the search and to implement a new (post-2008) EPOC Methodological Filter and validated Cochrane Randomised Controlled Trial Filter. The updated searches identified 1240 unique citations (1263 gross less 43 duplicates); since the search strategy was changed, searches were run retrospectively - from database start date to October 2012 using the following databases.

- Cochrane Central Register of Controlled Trials (CENTRAL), Issue 11, 2012 [Nov 6, 2012]
- MEDLINE, 1946-, In-Process and other non-indexed citations, OvidSP [Nov 2, 2012]
- EMBASE, 1947 - , OvidSP [Nov 2, 2012]
- EPOC Group, Specialised Register, Reference Manager
- CINAHL (Cumulative Index to Nursing and Allied Health Literature), 1980- , EbscoHost [Nov 6, 2012]
- PsycINFO, 1806-October <Week 5 2012> [October 31, 2012]

We used two methodological search filters to limit retrieval to appropriate study designs: the Cochrane Highly Sensitive Search Strategy (sensitivity- and precision-maximizing version, 2008 revision) to identify randomised trials (Lefebvre 2011); and an EPOC methodology filter to identify non-randomised controlled trial designs. See Appendix 1 for strategies used for this update, Appendix 2 for methodological filters and Appendix 3 for search strategies used in the original review.

Searching other resources

Trial Registries

We searched the following trial registries for the phrase exit interview:

The ISRCTN (International Standard Randomised Controlled Trial Number) Register http://www.controlled-trials.com/isrctn/ [accessed 7 December 2012]
ClinicalTrials.gov http://clinicaltrials.gov/ [accessed 7 December 2012]

We handsearched those high-yield journals and conference proceedings which had not already been handsearched on behalf of The Cochrane Collaboration. We checked the reference lists of all papers and relevant reviews identified. We contacted authors of relevant papers regarding any further published or unpublished work. We also searched the Internet for non-peer reviewed reports (e.g. professional organisations and governmental agencies) using the phrase exit interview.

Data collection and analysis

Selection of studies

Both review authors independently screened all titles and abstracts identified through the search strategies to assess which studies met the inclusion criteria. We retrieved and assessed full-text copies of all papers that were potentially relevant for inclusion and methodological quality. Any disagreement was resolved by discussion between the review authors.

Data extraction and management

We had planned to extract the following data where available (to be extracted by one author and checked by the second review author):

- details of trial/study (first author, year of publication, journal, publication status, period);
- setting and country of study;
- source of funding;
- inclusion and exclusion criteria;
- baseline characteristics of participants (age, sex);
- number of participants in each arm of the trial;
- description of intervention (type, duration);
- type of control intervention (type, duration);
- primary and secondary outcomes (by group);
- design/methodological quality data as per risk of bias criteria;
- unit of randomisation (where relevant);
- unit of analysis; and
• results and primary statistical analysis.

Assessment of risk of bias in included studies
Two review authors were to assess study risk of bias independently using the Cochrane Collaboration tool (Higgins 2011). This tool addresses six specific domains: sequence generation, allocation concealment, blinding, incomplete outcome data, selective outcome reporting and other issues (e.g. baseline imbalances). See Appendix 4 for details of the criteria on which judgements would have been based.

Measures of treatment effect

Primary analyses
We planned to base primary analyses on consideration of dichotomous outcome measures (for example, the proportion of healthcare professionals leaving). When studies reported more than one measure for each endpoint, we planned to extract the primary measure (as defined by the authors of the study) or the median measure identified. We planned to present the results for all comparisons using a standard method of presentation where possible. For comparisons of randomised controlled trials and other designs, such as controlled clinical trials and controlled before-after studies we planned to report separately for each design:

• median effect across included study;
• inter-quartile ranges of effect size across included studies; and
• range effect sizes across included studies.

We planned to report individual tables comparing effect sizes of interventions grouped according to EPOC taxonomy (structural, professional and organisational) (EPOC 2002). Where appropriate, we would have used the standard statistical methods of The Cochrane Collaboration for pooling of data from randomised and quasi-randomised controlled trials. For categorical and continuous data, we would have calculated the risk ratio (RR) and weighted mean difference (WMD) respectively with 95% confidence intervals (CIs). We would have used a random-effects model to take into account the heterogeneity of the various studies.

Secondary analyses
No secondary analyses were possible.

Methods of re-analysis
No re-analysis was possible.

Unit of analysis issues
There were no unit of analysis issues.

Dealing with missing data
If outcome data had remained missing despite our attempts to obtain complete outcome data from authors, we would have performed an available-case analysis, based on the numbers of participants for whom outcome data were known. If standard deviations were missing, we would have imputed them from other studies or, where possible, computed them from standard errors using the formula SD = SE x √N, where these were available (Higgins 2011).

Assessment of heterogeneity
We would have assessed heterogeneity using tables and bubble plots comparing effect sizes of studies grouped according to potential effect modifiers (timing of the interview, person carrying out the interview and location of the interview). A bubble plot graphically presents the relationship between the outcome of each study and a given effect modifier with the use of regression lines. Each study is represented by a bubble; the size of the bubble represents a study characteristic, often the size and quality of the study (Higgins 2002).

Assessment of reporting biases
We would have assessed reporting bias using the guidelines in the Cochrane Handbook for Systematic Reviews of Interventions (Sterne 2011).

Data synthesis
Where appropriate, we would have pooled the results of comparable trials and reported the pooled estimate together with its 95% CI. We planned to conduct a narrative review of eligible studies if statistical synthesis of data from more than one study was not possible or considered inappropriate.

Subgroup analysis and investigation of heterogeneity
We planned to analyse potential sources of heterogeneity using the following subgroup analysis: concealment of allocation (adequate versus not reported).

Sensitivity analysis
We planned to undertake sensitivity analysis to explore the effect of excluding studies where concealment of allocation was unclear.
RESULTS

Description of studies
See: Characteristics of excluded studies.
We found no trials meeting the inclusion criteria.

Results of the search
The initial search identified 1560 citations of which we considered 19 potentially relevant. We independently reviewed the abstracts of these studies and retrieved the full texts of eight studies. We excluded all eight following independent assessment; they were either interviews, commentaries on how to do an exit interview or descriptive studies about reasons for leaving. For this update, we identified 1220 new citations. We found no trials that matched our inclusion criteria.

Included studies
No trials were included.

Excluded studies
The table Characteristics of excluded studies contains reasons for excluding eight potentially useful studies.

Risk of bias in included studies
No studies were included.

Allocation
No studies were included.

Blinding
No studies were included.

Incomplete outcome data
No studies were included.

Selective reporting
No studies were included.

Other potential sources of bias
No other source of bias.

Effects of interventions
The searches did not identify any randomised controlled trials eligible for inclusion in this review, nor were we able to identify any ongoing trials.

DISCUSSION

Despite the large number of published articles about exit interviews, we have been unable to identify any trials or other high quality studies that have assessed the value of exit interviews to reduce turnover amongst healthcare professionals. We found some anecdotal accounts of reductions in turnover after the introduction of exit interviews, but no data were provided to substantiate these statements (Hawkins 2003). This is disappointing in view of the widespread nature of the practice.

Costs associated with replacing staff may be considerable and have been extensively studied (Mukamel 2009). It therefore seems intuitively sensible to question staff about their reasons for leaving, if this results in organisational changes that lead to lower turnover rates. However, the effectiveness of exit interviews remains unknown, as does the most appropriate method for conducting such interviews.

This review has identified an important gap in turnover research. There is an urgent need for high quality studies to provide managers with evidence to guide decisions about approaches to exit interviews.

Summary of main results
We found no trials meeting the inclusion criteria.

Overall completeness and applicability of evidence
The review is complete, based on the evidence available.

Quality of the evidence
No randomised controlled trials were available.

Potential biases in the review process
We do not believe there were any biases in the review process. We conducted a careful literature search and none of the authors have any conflict of interest.
Agreements and disagreements with other studies or reviews

We were unable to compare results from this review with any other studies or reviews.

AUTHORS’ CONCLUSIONS

Implications for practice

Evidence for the effectiveness of exit interviews to reduce turnover is currently not available. Consequently, a range of uncertainties remain about the practice.

Implications for research

Rigorous studies, designed to compare exit interview strategies, are required to inform decisions about healthcare interventions to reduce turnover. Any future trials should include participants from a variety of healthcare settings (e.g. acute, aged care, community), compare interviewers (line managers or independent) and involve interventions such as in-depth interviews, phone interviews or paper-based surveys administered before the person leaves the organisation; and interviews, either by phone or face-to-face, or paper-based surveys after the person leaves the organisation. These interventions may be compared with each other or with no planned exit interview strategy. The inclusion of formal, planned economic analyses in any future trial would be very useful to healthcare administrators.

We acknowledge that trials linking exit interview strategies directly with turnover may be complex. Outcomes may be influenced by a variety of interventions which emerge from exit interview data. Consequently, it may be useful to undertake studies that evaluate the impact of exit interviews on intermediate and final outcomes, such as sick leave absence or measures of organisational culture, using an interrupted time series approach, in line with evaluations of other complex interventions. Any such interventions would need to be clearly documented and defined.

ACKNOWLEDGEMENTS

We gratefully acknowledge the EPOC editors and reviewers for their support and useful comments throughout the development of this review, and the Trials Search Co-ordinator for assistance in developing the search strategy.

REFERENCES

References to studies excluded from this review

Fottler 1995 [published data only]

Hawkins 2003 [published data only]

Kelly 1988 [published data only]

Melcher 1955 [published data only]

Moran 1956 [published data only]

Morrell 2007 [published data only]

Webster 2009 [published data only]

Weisman 1981 [published data only]

Additional references

Bland Jones 1990

Capko 2001

Cotton 1986
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Drost 1987

EPOC 2002

Erickson 1996

Giacalone 2003

Higgins 2002

Higgins 2011

Hinrichs 1971
Hinrichs JR. Employees going and coming: the exit interview. Personnel 1971;January/February:30–5.

Jackson 2002

Jurkiewicz 2001

Leahy 1991

Lefebvre 2011

Lefkowitz 1969

Mukamel 2009

Neidermeyer 1987

Sterne 2011

Tai 1998

WHO 2006

Wise 1993

Yourman 1965
Yourman J. An alternative to the exit interview. Personnel 1965;July/August:51–5.

* Indicates the major publication for the study
## CHARACTERISTICS OF STUDIES

### Characteristics of excluded studies [ordered by study ID]

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APPENDICES

Appendix 1. Search strategies 2012

**Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) <1946 to Present>**

1 exp Health Personnel/ or exp Health Occupations/ or Health Manpower/ or (physician? or general practitioner? or general practic$ or gp or nurse$ or dentist$ or pharmacy$ or paramedic$ or physiotherapy$ or physical therap$ or hospitalist? or medical technici? or medical technologist? or laboratory technici? or laboratory technologist? or occupational therap$).tw. (1911333)
2 Job Satisfaction/ or "Attitude of Health Personnel"/ or Personnel Turnover/ or ((staff or employee or personnel) adj turnover).tw. or attrition.tw. (107357)
3 Interviews as Topic/ or exit interview?.tw. or ((staff or employee or personnel) adj feedback).tw. (37405)
4 1 and 2 and 3 (2081)
5 13 (exit interview? not (exit interview? adj10 (patient? or customer? or client? or student? or participant2))).ti,ab. and (employment or employee? or ((staff$ or nurse or nurses or nursing or physician? or clinician? or doctor? or practitioner? or RN or GP) adj2 (attrition or retention)) or turnover).ti,ab,hw. (39)
6 14 (exit policy or exit policies or termination interview? or separation interview?).ti,ab. (8)
7 15 (or/13-14)(44)
8 RCT Filter = (754560)
9 39 EPOC MEthodological Filter version 2.4 used in 2012 = (1912451)
10 40 EPOC filter used in 2008 original review = (3154284)
11 (or/4,15 AND 18) [RCT Results = 43]
12 (or/4,15 and 39) [EPOC Filter 2.4 (2012) Results= 912]
13 (or/4,15 AND 40) [EPOC Filter (2008) Results = 284]

**Embase Classic+Embase <1947 to 2012 November 05>**

1 exp health care personnel/ (818592)
2 exp medical profession/ or exp nursing as a profession/ or exp nursing career/ or exp paramedical profession/ (26290)
3 paramedical personnel.ti,ab. (1040)
4 ((health adj3 professional) or (health adj3 professionals) or (healthcare adj3 professional) or (healthcare adj3 professionals)).ti,ab. (60861)
5 ((health adj3 paraprofessional) or (health adj3 paraprofessionals) or (healthcare adj3 paraprofessional) or (healthcare adj3 paraprofessionals)).ti,ab. (76)
6 or/1-5 (866438)
7 exp job satisfaction/ (20263)
8 exp health personnel attitude/ (121613)
9 exp healthcare personnel management/ or personnel management/ (48753)
10 (turnover or attrition).ti,ab. (92561)
11 or/7-10 (270240)
12 exp interview/ (124716)
13 (exit interview or exit interviews).ti,ab. (503)
14 (employee feedback or staff feedback).ti,ab. (107)
15 ((feedback adj3 organisation) or (feedback adj3 organization) or (feedback adj3 organisations) or (feedback adj3 organizations) or (feedback adj3 organisational) or (feedback adj3 organizational)).ti,ab. (109)
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6 health personnel/ or exp allied health personnel/ or exp medical personnel/ or exp mental health personnel/ or counselors/ or home care personnel/ (98144)
7 or/5-6 (103537)
8 and/1,4,7 (9)
9 limit 8 to yr="1860 - 2009" (8)
10 8 and (18$ or 19$ or 200$ or "2010901").up. [Identifies citations added to database up to Sept 1-2010] (8)
11 9 or 10 [Results identified up to Sept 2010] (8)
12 8 not 11 [Results for Nov 5, 2012 update search] (1)

CINAHL, EbscoHost, 1980-

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<td>(MH “Job Interviews”)</td>
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<td>18</td>
<td>(MH “Employment Termination”)</td>
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<td>19</td>
<td>TI “exit interviews” OR AB “exit interviews”</td>
<td>104</td>
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<td>20</td>
<td>TI ((employee feedback” or “staff feedback”) OR AB (“employee feedback” or “staff feedback”)</td>
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<tr>
<td>21</td>
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<td>40</td>
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<tr>
<td>22</td>
<td>S17 or S18 or S19 or S20 or S21</td>
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<td>23</td>
<td>S22 and S16 and S7</td>
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<td>24</td>
<td>S23</td>
<td>204</td>
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<tr>
<td>25</td>
<td>S23 not S24</td>
<td>52</td>
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<td>26</td>
<td>(TI ((exit interview? not (exit interview? N10 (patient? or customer? or client? or student? or participant?))) ) OR AB ((exit interview? not (exit interview? N10 (patient? or customer? or client? or student? or participant?))) ) ) AND (TI ((employment or employee? or ((staff* or nurse or nurses or nursing or physician? or clinician? or doctor? or practitioner? or RN or GP) N2 (attrition or retention)) or...</td>
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Appendix 2. Search filters

Cochrane RCT Filter 6.4.d Sens/Precision Maximizing, used in 2012 [MEDLINE]
16 (randomized controlled trial or controlled clinical trial).pt. or randomized.ab. or placebo.ab. or clinical trials as topic.sh. or randomly.ab. or trial.ti. (816489)
17 exp animals/ not humans.sh. (3799732)
18 16 not 17 (754560)

EPOC Filter 2.4, used in 2012 [MEDLINE]
19 intervention?.ti. or (intervention? adj6 (clinician? or collaborat$ or community or complex or complex or DESIGN$ or doctor? or educational or family doctor? or family physician? or family practitioner? or financial or GP or general practice? or hospital? or impact? or improv$ or individuali?e? or individuali?ing or interdisciplin$ or multicomponent or multi-component or multidisciplin$ or multi-disciplin$ or multifaceti? or multi-faceti? or multimodal$ or multi-modal$ or personali?e? or personali?ing or pharmacies or pharmacist? or pharmacy
or physician? or practitioner? or prescriber? or prescription? or primary care or professional? or provider? or regulatory or regulatory or tailor$ or target$ or team$ or usual care).ab. (136617)
20 (pre-intervention? or preintervention? or “pre intervention?” or post-intervention? or postintervention? or “post intervention?”).ti,ab.
[added 2.4] (7946)
21 (hospital$ or patient?).hw. and (study or studies or care or health$ or practitioner? or provider? or physician? or nurse? or nursing or doctor?).ti,hw. (667647)
22 demonstration project?.ti,ab. (1790)
23 (pre-post or “pre test$” or pretest$ or posttest$ or “post test$” or (pre adj5 post)).ti,ab. (55909)
24 (pre-workshop or post-workshop or (before adj3 workshop) or (after adj3 workshop)).ti,ab. (510)
25 trial.ti. or ((study adj3 aim?) or “our study”).ab. (530502)
26 (before adj10 (after or during)).ti,ab. (326569)
27 (“quasi-experiment$” or quasieperiment$ or “quasi random$” or quasirandom$ or “quasi control$” or quasicontrol$ or ((quasi$ or experimental) adj3 (method$ or study or trial or design$))).ti,ab,hw. (91812)
28 (“time series” adj2 interrupt$).ti,ab,hw. (784)
29 (time points adj3 (over or multiple or three or four or five or six or seven or eight or nine or ten or eleven or twelve or month$ or hour? or day? or “more than”).ti,ab. (7432)
30 pilot.ti. (34085)
31 Pilot project/ (74131)
32 (clinical trial or controlled clinical trial or multicenter study).pt. (593081)
33 (multicentre or multicenter or multi-centre or multi-center).ti. (25174)
34 random$ti,ab. or controlled.ti. (666896)
35 (control adj3 (area or cohort? or compare? or condition or design or group? or intervention? or participant? or study)).ab. not (controlled clinical trial or randomized controlled trial).pt. (362491)
36 “comment on”.cm. or review.ti,pt. or randomized controlled trial.ti. (2686775)
37 (rat or rats or cow or cows or chicken? or horse or horses or mice or mouse or bovine or animal?).ti. (1286132)
38 exp animals/ not humans.sh. (3799732)
39 (or/19-35) not (or/36-38) [EPOC Methods Filter 2.4 Medline] (1912451)

EPOC Filter, used in 2008 [MEDLINE]
17 Randomized Controlled Trial.pt. (247715)
18 random$.tw. (395118)
19 control$.tw. (1609905)
20 intervention$.tw. (276149)
21 evalua$.tw. (1276609)
22 or/17-21 (3016872)
23 16 and 22 (389)
24 animal/ (4175942)
25 human/ (10063227)
26 24 not (24 and 25) (3154284)

RCT Filter, used in 2012 [EMBASE]
24 controlled clinical trial/ or controlled study/ or randomized controlled trial/ [EM] (3977116)
25 (book or conference paper or editorial or letter or review).pt. not randomized controlled trial/ [Per BMJ Clinical Evidence filter] (3834480)
26 (random sampl$ or random digit$ or random effect$ or random survey or random regression).ti,ab. not randomized controlled trial/ [Per BMJ Clinical Evidence filter] (47318)
27 (animal$ not human$).sh,hw. (3770394)
28 24 not (or/25-27) [Trial filter per BMJ CLinical Evidence] (2609939)

Exit interviews to reduce turnover amongst healthcare professionals (Review)
Copyright © 2013 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.
EPOC Filter 2.4, used in 2012 [EMBASE]

29 intervention?.ti. or (intervention? adj6 (clinician? or collaborat$ or community or complex or DESIGNS or doctor? or educational or family doctor? or family physician? or family practitioner? or financial or GP or general practice? or hospital? or impact? or improv$ or individuali? or individuali?ng or interdisciplin$ or multicomponent or multi-component or multidisciplin$ or multi-disciplin$ or multifacet$ or multi-facet$ or multimodal$ or multi-modal$ or personali?e? or personali?ing or pharmacies or pharmacist? or pharmacy or physician? or practitioner? or prescrib$ or prescription? or primary care or professional$ or provider? or regulatory or regulatory or tailor$ or target$ or team$ or usual care)).ab. (175478)
30 (pre-intervention? or preintervention? or “pre intervention?” or post-intervention? or postintervention? or “post intervention?”).ti,ab. [added 2.4] (10263)
31 (hospital$ or patient?).hw. and (study or studies or care or health$ or practitioner? or provider? or physician? or nurse? or nursing or doctor?).ti,hw. (1446058)
32 demonstration project?.ti,ab. (2222)
33 (pre-post or “pre test$” or pretest$ or posttest$ or “post test$” or (pre adj5 post)).ti,ab. (80475)
34 (pre-workshop or post-workshop or (before adj3 workshop) or (after adj3 workshop)).ti,ab. (682)
35 trial.ti. or ((study adj3 aim?) or “our study”).ab. (726079)
36 (before adj10 (after or during)).ti,ab. (439257)
37 (time points adj3 (over or multiple or three or four or five or six or seven or eight or nine or ten or eleven or twelve or month$ or hour? or day? or “more than”)).ab. (9915)
38 pilot.ti. (44167)
39 (multicentre or multicenter or multi-centre or multi-center).ti. (34511)
40 random$.ti,ab. or controlled.ti. (841341)
41 review.ti. (286195)
42 “experimental design/ or *pilot study/ or quasi experimental study/ (5351)
43 (“quasi-experiment$” or quasisexperiment$ or “quasi random$” or quasirandom$ or “quasi control$” or quasicontrol$ or ((quasi$ or experimental) adj3 (method$ or study or trial or design$))).ti,ab. (119948)
45 (“time series” adj2 interrupt$).ti,ab. (911)
46 (or/29-40,43-45) not (or/41-42) [EPOC Methods Filter 2.4 EMBASE] (2982542)

CINAHL EPOC Filter 2012

<p>| S63 | S39 or S40 or S41 or S42 or S43 or S44 or S45 or S46 or S47 or S48 or S49 or S50 or S51 or S52 or S53 or S54 or S55 or S56 or S57 or S58 or S59 or S60 or S61 or S62 | 379,243 |
| S62 | TI ((time points n3 over) or (time points n3 multiple) or (time points n3 three) or (time points n3 four) or (time points n3 five) or (time points n3 six) or (time points n3 seven) or (time points n3 eight) or (time points n3 nine) or (time points n3 ten) or (time points n3 eleven) or (time points n3 twelve) or (time points n3 month*) or (time points n3 hour*) or (time points n3 day*) or (time points n3 ”more than” ) ) or AB ( (time points n3 over) or (time points n3 multiple) or (time points n3 three) or (time points n3 four) or (time points n3 five) or (time points n3 six) or (time points n3 seven) or (time points n3 eight) or (time points n3 nine) or (time points n3 ten) or (time points n3 eleven) or (time points n3 twelve) or (time points n3 month*) or (time points n3 hour*) or (time points n3 day*) or (time points n3 ”more than” ) ) | 1,347 |</p>
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<td>36,648</td>
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(Continued)

| S54  | TI (collaborativ* or collaboration* or tailored or personalised or personalized) or AB (collaborativ* or collaboration* or tailored or personalised or personalized) | 33,761 |
| S53  | TI pilot | 10,293 |
| S52  | (MH "Pilot Studies") | 26,572 |
| S51  | AB "before-and-after" | 15,296 |
| S50  | AB time series | 1,570 |
| S49  | TI time series | 218 |
| S48  | AB (before* n10 during or before n10 after) or AU (before* n10 during or before n10 after) | 29,013 |
| S47  | TI (time point*) or (period* n4 interrupted) or (period* n4 multiple) or (period* n4 time) or (period* n4 various) or (period* n4 varying) or (period* n4 week*) or (period* n4 month*) or (period* n4 year*) | 44,180 |
| S46  | TI ((quasi-experiment* or quasi-experiment* or quasi-random* or quasirandom* or quasi-control* or quasicontrol* or quasi* W3 method* or quasi* W3 study or quasi* W3 studies or quasi* W3 trial or quasi* W3 design* or experimental W3 method* or experimental W3 study or experimental W3 studies or experimental W3 trial or experimental W3 design*)) or AB ((quasi-experiment* or quasi-experiment* or quasirandom* or quasirandom* or quasi-control* or quasicontrol* or quasi* W3 method* or quasi* W3 study or quasi* W3 studies or quasi* W3 trial or quasi* W3 design* or experimental W3 method* or experimental W3 study or experimental W3 studies or experimental W3 trial or experimental W3 design*)) | 10,891 |
| S45  | TI pre w7 post or AB pre w7 post | 8,019 |
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<td>S41</td>
<td>TI ( pre-test* or pretest* or posttest* or post-test* ) or AB ( pre-test* or pretest* or posttest* or &quot;post test*&quot; ) OR TI ( preimplement*&quot; or pre-implement&quot;) or AB ( pre-implement* or preimplement* )</td>
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**CINAHL Trial Filter 2012**

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<td>S34</td>
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Cochrane Library (Issue 4 2007)
Search conducted 01/11/07 (12 results)

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<td>MeSH descriptor Health Manpower</td>
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<td>#5</td>
<td>(health* near/3 professional*)</td>
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#14 MeSH descriptor Interviews, this term only

#15 (exit interview*):ab or (exit interview*):ti

#16 (feedback near/3 organisation*) or (feedback near/3 organization*)

#17 "employee feedback" or "staff feedback"

#18 (#14 OR #15 OR #16 OR #17)

#19 (#6 AND #13 AND #18)

---

**OVID Medline (1950 - October week 4)**

Search conducted 01/11/07

1 exp Health Personnel/
2 exp Health Occupations/
3 Health Manpower/
4 paramedical personnel.mp. [mp=title, original title, abstract, name of substance word, subject heading word]
5 health$ adj3 (professional$ or paraprofessional$)
6 1 or 2 or 3 or 4 or 5
7 Job Satisfaction/
8 "job satisfaction".ab,ti.
9 "Attitude of Health Personnel"/
10 Personnel Turnover/
11 turnover.mp.
12 attrition.ab,ti.
13 7 or 8 or 9 or 10 or 11 or 12
14 Interviews/
15 "exit interview$".mp. [mp=title, original title, abstract, name of substance word, subject heading word]
16 (feedback adj3 (organisation$ or organization$)).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
17 "employee feedback".mp. [mp=title, original title, abstract, name of substance word, subject heading word]
18 "staff feedback".mp. [mp=title, original title, abstract, name of substance word, subject heading word]
19 14 or 15 or 16 or 17 or 18
20 6 and 13 and 19 (1078)

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**CINAHL via EbscoHost**

Search conducted 01/11/07
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<td>feedback N3 organisation* or feedback N3 organization*</td>
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<td>“employee feedback” or “staff feedback”</td>
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<td>S19</td>
<td>“exit interviews”</td>
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<tr>
<td>S18</td>
<td>(MH “Employment Termination”)</td>
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<tr>
<td>S17</td>
<td>(MH “Job Interviews+”)</td>
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<td>(S15 or S14 or S13 or S12 or S11 or S10 or S9 or S8)</td>
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<td>S9</td>
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<td>(MH “Health Personnel+”)</td>
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PsycInfo (CSA) (1806 - present)
Search conducted 1/11/07

((KW=((feedback within 3 organisation*)) or (feedback within 3 organization*))) or (KW=(exit interview*) or (staff feedback*) or (employee feedback*)) or (DE=(interviews” or “job applicant interviews”)) and ((TI=(attrition or turnover) or AB=(attrition or turnover)) or (DE=“employee turnover”) or (DE=“work attitudes toward”) or (DE=(employee attitudes” or “job satisfaction”)) and (“paramedical personnel”) or ((DE=(“health personnel” or “allied health personnel” or “occupational therapists” or “physical therapists” or “psychiatric aides” or “speech therapists” or “medical personnel” or “dentists” or “military medical personnel” or “nurses” or “psychiatric nurses” or “public health service nurses” or “school nurses” or “optometrists” or “pharmacists” or “physicians” or “family physicians” or “general practitioners” or “gynecologists” or “internists” or “neurologists” or “obstetricians” or “pathologists” or “pediatricians” or “psychiatrists” or “surgeons” or “psychiatric hospital staff” or “mental health personnel” or “clinical psychologists” or “psychiatric social workers” or “psychotherapists” or “hypnotherapists” or “psychoanalysts” or “school psychologists”)) or ((health* within 3 professional*) or (health* within 3 paraprofessional*))

Embase.com 1974 - present
Search conducted 02/11/07

#1. ‘health care personnel'/exp
#2. ‘medical profession'/exp OR ‘nursing as a profession'/exp
    OR ‘nursing career'/exp OR ‘paramedical profession'/exp
#3. ‘paramedical personnel':ab,ti
#4. ‘health *3 professional':ab,ti OR ‘health *3 professionals':ab,ti
    OR ‘healthcare *3 professional':ab,ti OR ‘healthcare *3 professionals':ab,ti
#5. ‘health *3 paraprofessional':ab,ti OR ‘health *3 paraprofessionals':ab,ti OR ‘healthcare *3 paraprofessional':ab,ti OR ‘healthcare *3 paraprofessionals':ab,ti
#6. #1 OR #2 OR #3 OR #4 OR #5
#7. ‘job satisfaction'/exp
#8. ‘health personnel attitude'/exp
#9. ‘health care personnel management'/exp OR ‘personnel management'/de
#10. turnover:ab,ti OR attrition:ab,ti
#11. #7 OR #8 OR #9 OR #10
#12. ‘interview'/exp
#13. ‘exit interview':ab,ti OR ‘exit interviews':ab,ti
#14. ‘employee feedback':ab,ti OR ‘staff feedback':ab,ti
#15. ‘feedback *3 organisation':ab,ti,ab,ti OR ‘feedback *3 organization':ab,ti,ab,ti OR ‘feedback *3 organisations':ab,ti,ab,ti OR ‘feedback *3 organizations':ab,ti,ab,ti
    OR ‘feedback *3 organisational':ab,ti OR ‘feedback *3 organizational':ab,ti
#16. ‘organisational *3 feedback':ab,ti OR ‘organizational *3 feedback':ab,ti
#17. #12 OR #13 OR #14 OR #16 OR #17
#18. #6 AND #11 AND #18
#19. #6 AND #11 AND #18 AND [humans]/lim AND [embase]/lim
Appendix 4. Criteria for judging sources of bias

1. Was the allocation sequence randomly generated?
   Yes, low risk of bias.
   A random (unpredictable) assignment sequence. Examples of adequate methods of sequence generation are computer-generated random sequence, coin toss (for studies with two groups), rolling a dice (for studies with two or more groups), drawing of balls of different colours, dealing previously shuffled cards.
   No, high risk of bias.
   - Quasi-randomised approach: examples of inadequate methods are alternation, birth date, social insurance/security number, date in which they are invited to participate in the study, and hospital registration number.
   - Non-random approaches: allocation by judgement of the clinician; by preference of the participant; based on the results of a laboratory test or a series of tests; by availability of the intervention.
   Unclear.
   Insufficient information about the sequence generation process to permit judgement.

2. Was the treatment allocation adequately concealed?
   Yes, low risk of bias.
   Assignment must be generated independently by a person not responsible for determining the eligibility of the participants. This person has no information about the persons included in the trial and has no influence on the assignment sequence or on the decision about whether the person is eligible to enter the trial. Examples of adequate methods of allocation concealment are: central allocation, including telephone, web-based and pharmacy-controlled randomisation; sequentially numbered drug containers of identical appearance; sequentially numbered, opaque, sealed envelopes.
   No, high risk of bias.
   Examples of inadequate methods of allocation concealment are: alternate medical record numbers; unsealed envelopes; date of birth; case record number; alternation or rotation; an open list of random numbers any information in the study that indicated that investigators or participants could influence the intervention group.
   Unclear.
   Randomisation stated but no information on method of allocation used is available.

3. Was knowledge of the allocated interventions adequately prevented during the study?
   Yes, low risk of bias.
   The treatment and control groups are indistinguishable for the participants or if the participant was described as blinded and the method of blinding was described.
   No, high risk of bias.
   Blinding of study participants attempted, but likely that the blinding could have been broken; participants were not blinded, and the non-blinding of others likely to introduce bias.
   Unclear.
   Insufficient information to permit judgement of 'yes' or 'no'.
   Was the care provider blinded to the intervention?
   Yes, low risk of bias.
   The treatment and control groups are indistinguishable for the care/treatment providers or if the care provider was described as blinded and the method of blinding was described.
   No, high risk of bias.
   Blinding of care/treatment providers attempted, but likely that the blinding could have been broken; care/treatment providers were not blinded, and the non-blinding of others likely to introduce bias.
   Unclear.
   Insufficient information to permit judgement of 'yes' or 'no'.
   Was the outcome assessor blinded to the intervention?
   Yes, low risk of bias.
Adequacy of blinding should be assessed for the primary outcomes. The outcome assessor was described as blinded and the method of blinding was described.
No, high risk of bias.
No blinding or incomplete blinding, and the outcome or outcome measurement is likely to be influenced by lack of blinding.
Unclear.
Insufficient information to permit judgement of 'yes' or 'no'.

4. Were incomplete outcome data adequately addressed?
Was the drop-out rate described and acceptable?
The number of participants who were included in the study but did not complete the observation period or were not included in the analysis must be described and reasons given.
Yes, low risk of bias.
- If the percentage of withdrawals and drop-outs does not exceed 20% for short-term follow up and 30% for long-term follow up and does not lead to substantial bias (NB. these percentages are arbitrary, not supported by literature).
- No missing outcome data.
- Reasons for missing outcome data unlikely to be related to true outcome (for survival data, censoring unlikely to be introducing bias).
- Missing outcome data balanced in numbers across intervention groups, with similar reasons for missing data across groups.
- Missing data have been imputed using appropriate methods.
No, high risk of bias.
Reason for missing outcome data likely to be related to true outcome, with either imbalance in numbers or reasons for missing data across intervention groups.
Unclear.
Insufficient reporting of attrition/exclusions to permit judgement of 'yes' or 'no'.

Were all randomised participants analysed in the group to which they were allocated? (intention to treat (ITT) analysis)
Yes, low risk of bias.
Specifically reported by authors that ITT was undertaken and this was confirmed on study assessment, or not stated but evident from study assessment that all randomised participants are reported/analysed in the group they were allocated to for the most important time point of outcome measurement (minus missing values) irrespective of non-compliance and co-interventions.
No, high risk of bias.
- Lack of ITT confirmed on study assessment (patients who were randomised were not included in the analysis because they did not receive the study intervention, they withdrew from the study or were not included because of protocol violation) regardless of whether ITT reported or not.
- ‘As-treated’ analysis done with substantial departure of the intervention received from that assigned at randomisation; potentially inappropriate application of simple imputation.
Unclear.
Described as ITT analysis, but unable to confirm on study assessment, or not reported and unable to confirm by study assessment.

5. Are reports of the study free of suggestion of selective outcome reporting?
Yes, low risk of bias.
If all the results from all prespecified outcomes have been adequately reported in the published report of the trial. This information is either obtained by comparing the protocol and the final trial report, or in the absence of the protocol, assessing that the published report includes enough information to make this judgment. Alternatively a judgement could be made if the trial report lists the outcomes of interest in the methods of the trial and then reports all these outcomes in the results section of the trial report.
No, high risk of bias.
- Not all of the study’s prespecified primary outcomes have been reported.
- One or more primary outcomes is reported using measurements, analysis methods or subsets of the data (e.g. subscales) that were not prespecified.
- One or more reported primary outcomes were not prespecified (unless clear justification for their reporting is provided, such as an unexpected adverse effect).
- One or more outcomes of interest in the review are reported incompletely so that they cannot be entered in a meta-analysis.
- The study report fails to include results for a key outcome that would be expected to have been reported for such a study.
Unclear.
Insufficient information to permit judgement of 'yes' or 'no'.

6. Other sources of potential bias
Yes, low risk of bias.
The study appeared to be free of other sources of bias.
No, high risk of bias.
There is at least one important risk of bias. For example the study:
• used an inappropriate study design;
• was stopped early due to some data-dependent process;
• had extreme baseline imbalances; or
• has been claimed to be fraudulent.

Unclear.
There may be a risk of bias but there is insufficient information to permit judgement of whether other risks of bias exist.

WHAT'S NEW
Last assessed as up-to-date: 9 December 2012.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Description</th>
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<tbody>
<tr>
<td>22 February 2013</td>
<td>New search has been performed</td>
<td>Searches updated in November 2012</td>
</tr>
<tr>
<td>22 February 2013</td>
<td>New citation required but conclusions have not changed</td>
<td>No new studies were identified in this update. Our conclusions remain unchanged</td>
</tr>
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HISTORY
Review first published: Issue 1, 2011

<table>
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<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>21 December 2009</td>
<td>Amended</td>
<td>Converted to new review format</td>
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</table>
CONTRIBUTIONS OF AUTHORS
Anndrea L Flint (ALF) and Joan Webster (JW) prepared the protocol. JW conducted the searches for the first update. ALF and JW applied the inclusion criteria. ALF prepared the report and JW commented on and edited it. JW responded to reviewers comments.

DECLARATIONS OF INTEREST
JW and ALF authored one of the excluded studies.

DIFFERENCES BETWEEN PROTOCOL AND REVIEW
A number of secondary outcomes were removed. They were related to reasons for leaving (e.g. stress) rather than useful organisational outcome measures.

NOTES
To improve clarity the title has been changed from 'The use of the exit interview to reduce turnover amongst healthcare professionals' to 'Exit interviews to reduce turnover amongst healthcare professionals'.

INDEX TERMS
Medical Subject Headings (MeSH)
*Allied Health Personnel; *Interviews as Topic; *Medical Staff; *Nursing Staff; *Personnel Turnover

MeSH check words
Humans