BMJ Open Interprofessional education in the care of people diagnosed with dementia: protocol for a systematic review

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ABSTRACT

Introduction: Interprofessional education (IPE) offers a possible way to improve interprofessional collaboration and patient care. Current research addressing the effectiveness of IPE in dementia care is limited. A protocol is described for a systematic review to investigate the evidence for the influence of IPE on collaborative knowledge and skills; interprofessional practice and the delivery of dementia care.

Methods and analysis: We will search the following electronic databases: PubMed, EMBASE, The Cochrane Library, PsycINFO CINAHL, Applied Social Sciences Index and Abstracts (ASSIA), ERIC British Education Index (BEI) and the Healthcare Management Information Consortium (HMIC). Additional studies will be identified by manually searching relevant journals and the reference list of selected studies. The selection of the studies, data collection and quality appraisal will be performed independently by two reviewers. Data will be initially analysed through a narrative synthesis method. If a subset of data we analyse appears comparable, we will investigate the possibility of pooling such data via formal meta-analysis analytical techniques.

Ethics and dissemination: Ethics approval will not be required as this is a protocol for a systematic review. This systematic review aims to establish the effectiveness of IPE programmes on collaborative professional practice and the delivery of care for people with dementia. The findings of this systematic review may also identify specific gaps in the evidence informing a future agenda for research, policy and practice. It will be published in a peer-reviewed journal.

Trial registration number: PROSPERO CRD42014015075.

INTRODUCTION

Given current epidemiological patterns,¹ and as the diagnosis of dementia improves, the number of young and older adults diagnosed and treated for dementia-related conditions is projected to increase significantly.² Dementia diagnosis, treatment and carers' education are complex processes best achieved through collaboration among healthcare professions. Interprofessional education (IPE) offers a

Strengths and limitations of this study

- Since we followed reliable and commonly used/ well-tested methods to design this systematic review, our findings are likely to provide a comprehensive view of how interprofessional education is being used in dementia care—comparable with other scientific work.
- We will include a number of study designs including qualitative and quantitative research in order to provide information to help understand how these interventions may or may not be effective.
- Our systematic review is likely to have several limitations: (1) this is a comprehensive review of the current literature on interprofessional education and dementia care. However, it was limited to studies published in English; furthermore, literature on interprofessional education in dementia care might be limited and heterogeneous. Therefore, confounding and selection bias may occur; (2) to provide a current state of evidence, only studies published in the past 10 years were included in this review.

possible way to improve interprofessional collaboration and patient care.

Interprofessional education (IPE) has been defined as an activity that occurs when members of two or more professions (or students) learn with, from and about one another to improve collaboration and the quality of care.³ Earlier reviews have indicated that IPE can improve professional practice and health and social care outcomes in several fields such as child protection,³ delirium care⁴ diabetes care and domestic violence management.⁵

There is also some evidence for the potential effectiveness of IPE to improve collaborative knowledge and skills, interprofessional practice and the delivery of dementia care. For example, in a recent review Brody and Galvin⁶ found that interprofessional dementia education improved knowledge and

attitudes for qualified staff, and was considered likely to improve outcomes. However, studies focused on IPE programmes involving students and unlicensed professions (eg, nursing assistants) were not included. In addition studies were excluded if they focused on forms of dementia other than Alzheimer's, Lewy body, vascular, mixed or frontotemporal.⁶

Therefore, the present systematic review aims to add to the ongoing development of evidence for IPE in dementia care, with potentially relevant implications for policymakers, researchers and professionals involved in supporting people with dementias and their carers. The review will be based on the following specific questions:

- 1. What is the evidence that IPE for providers involved in dementia care has benefits for (a) patients' (health) outcomes; (b) family carers' (or caregivers as they are also known) outcomes; (c) providers' (including students) education; (d) organisational and delivery of dementia care?
- 2. Does the implementation of IPE improve collaborative knowledge, skills and interprofessional practice (eg, in terms of educational outcomes and practice)?
- 3. (a) What are the outcomes of IPE in dementia care? (b) How does the context influence the achievement of the outcomes?

METHODS AND ANALYSIS

Criteria for considering studies for this review

Inclusion criteria

Types of participants

- ▶ Health and social care providers—regulated and unregulated—involved in caring for people with dementia.
- ▶ Students involved in caring for people with dementia.

Types of interventions

IPE is defined as an activity that occurs when members or students of two or more professions (health and social care providers—regulated and unregulated care providers) learn interactively (with, from and about) one another to improve collaboration and the quality of care. Any IPE intervention—including classroom-based, practice-based, simulation and online IPE activities at both the prelicensure and postlicensure qualification education levels—either delivered alone or in combination with other interventions will be included.

Type of studies

Both quantitative and qualitative research designs will be included in the review. The studies included in the final review are likely to include:

- ► Randomised studies (including randomised Clinical Trials (RCTs) and cluster RCTs);
- ▶ Non-randomised controlled studies (including controlled clinical trials; controlled before-after and interrupted time series studies);

- ► Cohort Studies (including follow-up studies; longitudinal studies; prospective studies; and retrospective studies);
- ▶ Qualitative studies (including phenomenological studies; ethnographic studies; grounded theory studies; and action research studies);
- ▶ Mixed method studies.

Types of outcome measures

A model will be used to classify the outcomes reported in each included paper (see figure 1). The proposed model seeks evidence in relation to six levels of outcomes.³

Primary outcomes: Reported educational and/or organisational outcomes for professions—including acquisition of collaborative knowledge and skills related to dementia care and changes in service delivery (eg, organisational practice, effectiveness, efficiency).

Secondary outcomes: These will focus on any reported changes in healthcare outcomes for people with dementia (eg, quality of life, well-being, mortality/morbidity and disease progression; level 4b in the outcomes typology).

Exclusion criteria

Articles will be excluded for the following reasons, even if they fulfil one or more inclusion criteria:

- ► Studies that do not involve people with dementia as described in the inclusion criteria;
- ▶ Studies that do not evaluate any intervention as described in the inclusion criteria;
- ▶ Studies that do not report empirical findings;
- ➤ Studies that do not report objectively measured patient/staff or healthcare process outcomes;
- ➤ Systematic reviews, commentaries and non-peer-review articles. Furthermore, unpublished literature will be excluded from the review although they will be used as sources of potentially relevant studies.

Search methods for identification of studies

Relevant literature will be identified from systematic searches of electronic databases, manual searching and reference checking.

Electronic searches

PubMed—table 1

EMBASE—online supplementary file 1;

The Cochrane Library—online supplementary file 1;

PsycINFO—online supplementary file 1;

CINAHL—online supplementary file 1;

Applied Social Sciences Index and Abstracts (ASSIA)—online supplementary file 1;

ERIC—online supplementary file 1;

British Education Index (BEI)—online supplementary file 1:

Healthcare Management Information Consortium (HMIC)—online supplementary file 1.

		Learners' views on the learning experience, its
	Level 1	interprofessional nature, and its organisation, presentation,
	Reaction	content, teaching methods and aspects of the institutional
		organisation, e.g. time-tabling, materials, quality of teaching.
	Level 2a	These outcomes relate to changes in reciprocal attitudes or
	Modification of perceptions	perceptions between participant groups, towards people with
	& attitudes	dementia, their care and treatment.
Primary outcomes	Level 2b Acquisition of knowledge & skills	Including knowledge and skills linked to interprofessional collaboration. For knowledge, this relates for example to the acquisition of concepts, procedures and principles of interprofessional collaboration.
	Level 3 Behavioural change	Identifies individuals' transfer of interprofessional learning to their practice setting and their changed professional practice (e.g. support for change of behaviour in the workplace)
	Level 4a Change in organisational practice	Wider changes in the organization and delivery of care (e.g. Interprofessional collaboration and communication, teamwork and co-operative practice, costs to the health and/or social care service).
Secondary	Level 4b	Improvements in health or well-being of patients/carers (e.g. health status measures, disease severity measures, progression
outcomes	Benefits to patients/clients	of the disease, patient or family carers satisfaction, quality of life)
	from Hammick et al 2007. A best e h. 2007 Oct;29(8):735-51	vidence systematic review of interprofessional education: BEME Guide

Figure 1 Modified Kirkpatrick's model to classify interprofessional education (IPE) outcomes.

A PubMed search strategy has been developed according to the search questions, as well as the inclusion/exclusion criteria (see table 1). This has been converted to run on other databases (see online supplementary file 1). Results of electronic databases' searches will be limited to the past 10 years (from 2004 to 2014) and to articles written in English.

Other sources

Additional studies will be identified:

- ▶ Manual searching of three relevant journals (past 10 years; Journal of Interprofessional Care, International Psychogeriatrics; Dementia: The International Journal of Social Research and Practice). These journals have the highest numbers of published papers on IPE and dementia;
- ▶ Checking the reference lists of included studies;
- ▶ Checking the reference lists of pertinent studies;
- ► Consulting corresponding authors of key studies to identify any other relevant article.

Data collection

Selection of studies

The screening process will be conducted in three stages: (1) duplicate removal, (2) screening titles/abstracts; and (3) full-texts screening. A check-list will be developed to guide the screening process at each stage (see online supplementary file 2). The second

and third stage of the selection process will start with a pilot, aimed at ensuring the consistency among reviewers in applying the eligibility criteria.

Duplicate citations

The results of the literature search will be downloaded into an Excel spreadsheet. Article duplicates will be removed. Multiple publications from the same study population identified during full-text review will be screened for duplication of data.

Title and abstract screening

Two reviewers will independently screen all titles and abstracts. Any discrepancies will be resolved by a third reviewer. A copy of articles that appear to meet the inclusion criteria based on the title and abstract screen will be obtained for full-text review. Full-text copies of articles where it cannot be determined whether it is relevant on the basis of the title and abstract will also be obtained to determine eligibility based on full-text review.

Full-text screening

Full-paper manuscripts of any relevant titles/abstracts will be obtained where possible and will be independently scrutinised by two members of the review team with reasons for exclusion annotated and tracked. Any discrepancies will be resolved by a third reviewer. The primary reason for excluding studies will be if the article

Search #	Concept	Search String	Hits
	Interprofessional	((((((((((((((((((((((((((((((((((((((317 8
2	Education	professional-patient relations[MeSH Terms]) OR interprofessional Relations[MeSH Terms]) (((education, continuing[MeSH Terms]) OR education, graduate[MeSH Terms])) OR ((((education*[Title/Abstract])) OR trainin*[Title/Abstract]) OR learn*[Title/Abstract]) OR course*[Title/Abstract])	1 287 5
	Interprofessional education Dementia	Abstract]) #1 AND 2 (dement*[Title/Abstract]) OR (((((dementia[MeSH Terms]) OR Alzheimer Disease[MeSH Terms]) OR Frontotemporal Dementia[MeSH Terms]) OR Lewy Body Disease[MeSH	68 0 142 0
	Interprofessional education publications in dementia excluding editorials (published in the last 10 years; English)	Terms]) OR Dementia, Vascular[MeSH Terms]) #3 AND 4 ((comment[Publication Type]) OR letter[Publication Type]) OR editorial[Publication Type]	6 1 342 9

does not contain original data relevant to our eligibility

At this stage of the screening process, one member of the review team will independently scan the reference lists of the included studies and relevant reviews for references that were not identified from the database searches. Eligibility will be discussed with a second reviewer and the source of the citation tracked.

Data extraction and management Data extraction

Two reviewers will independently extract data for each included paper. Data to be extracted will include: study design, participant characteristics, description of the intervention and study findings. A form for data extraction will be piloted on five studies to refine the checklist and ensure that the data extraction tool captures all of the intricacies of both qualitative and quantitative designs.

References and data management

Excluded studies with reason for exclusion, as well as of the overall selection process will be recorded by means of an Excel spreadsheet. Hard copies of titles, abstracts and full texts to be reviewed at any stage of the screening process will be printed out, while the reviewers' assessments and their comments will be managed electronically via Excel spreadsheets. Study data will be extracted using standard forms and entered into Excel spreadsheets in tabular form. The flow of information through the different stages of the systematic review will be documented in a schematic (figure 2)—as recommended in the PRISMA statement on preferred reporting items for systematic reviews and meta-analyses.⁷

Assessment of risk of bias in included studies

Quality assessment will be undertaken independently by two members of the review team with discrepancies resolved by consensus or recourse to a third reviewer if necessary. There has been a long-standing controversy in the literature regarding critical appraisal of both quantitative and qualitative research studies due to the inherently different approaches taken to the collection, analysis and writing up of data. A search was conducted to identify the most suitable tools to assess the methodological quality of studies included in this review. Following this search, we selected the checklists for quantitative or qualitative studies of the Alberta Heritage Foundation for Medical Research. The broad nature of these quality assessment tools will allow a range of methodologies to be assessed. Both quantitative and

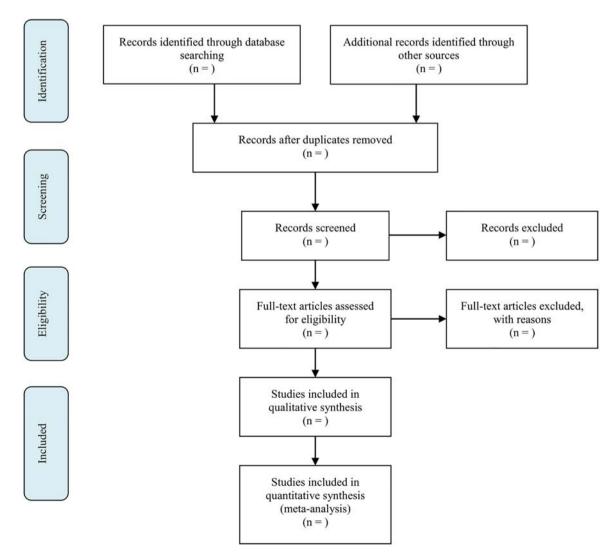


Figure 2 Flow diagram of systematic review.

qualitative studies will be scored depending on how fully they met all criteria (11 for quantitative studies, 10 for qualitative studies). If a criterion is not applicable, then it will be excluded from the score calculation. The proposed review will use the criteria recommended by the GRADE Working Group to assess the strength of the body of evidence across particular study outcomes.⁹

Strategy for data analysis

If a subset of data we analyse appears comparable, we will investigate the possibility of pooling such data via formal meta-analysis analytical techniques. Specifically, a random-effects model meta-analysis will be performed using by using RevMan 5.2.1, if there is no evidence of heterogeneity among studies in terms of design and measurement of outcomes.

Owing to the heterogeneity of the studies we expect to find, data will be initially analysed through a narrative synthesis method. For this purpose, the included studies will be grouped into outcome type using a modified Kirkpatrick's model to classify IPE outcomes (see figure 1ie, reaction, modification of perceptions and attitudes, acquisition of knowledge and skills, behavioural change, change in organisational practice, benefits to people with dementia and/or their carers); then subgrouped by IPE intervention content using as guidance the 3-P (Presage, Process and Product) framework and finally for target population characteristics. The 3-P (presage, process and product) model—proposed by Biggs¹⁰ elaborated in the context of IPE by Freeth and Reeves, 11 is a useful tool for describing and analysing IPE. Many reviews recently applied the 3-P model to the evaluation of IPE interventions.³ They found that the model was very useful to understand the links between factors that provide the context in which the learning experience is conducted, such as learners and teachers/facilitators' characteristics (ie, presage) in relation to the delivery of IPE (ie, process) and the outcomes of learning (ie, product).

Ethics and dissemination

Ethics approval will not be required, since this is a protocol for a systematic review utilising published data. Once completed, the results from this systematic review will be published in a peer-reviewed journal.

IMPLICATIONS

This systematic review aims to establish the effectiveness of IPE programmes on collaborative knowledge and skills, interprofessional practice and the delivery of dementia care. Evidence from other health conditions such as delirium⁴ suggests that IPE can enhance healthcare but the evidence for the impact of IPE on both training professionals in supporting neither people with dementia nor their carers has not been systematically explored. We will therefore examine the factors influencing on professionals involved in the care of people with dementia and their

carers. Results of this systematic review will therefore provide new insights into education approaches to increase healthcare providers' competence in caring for people with dementia, exploring the benefits of IPE in the field of dementia care. The systematic review may also identify specific gaps in the evidence, which would inform a future agenda for research, policy and practice.

Amendments

If we need to amend this protocol, the date, rationale and a description of each protocol change will be reported.

Contributors FP, NG and SR designed the research protocol, performed the preliminary searches and wrote the draft manuscript. Al, CE, KT, MJ and AM H coauthored substantial parts of the manuscript and reviewed all draft versions. All authors participated in the writing of the manuscript. The final version of this article has been seen and approved by all authors.

Competing interests None.

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Supplementary file 1. Search strategies for individual databases

EMBASE (OVID): 2004 – 2014, searched on 09/09/2014.

ID	Search	Hits
20	limit 19 to (human and english language and yr="2004 -Current" and article)	200
19	17 and 18	760
18	7 and 16	80209
17	1 or 2 or 3	189901
16	8 or 9 or 10 or 11 or 12 or 13 or 14 or 15	327024
15	interdepartment*.ti. or interdepartment*.ab. or inter department*.ti. or inter department*.ab. or inter-department*.ti. or inter-department*.ti. or inter-department*.ab. or inter-organi#ation*.ab. or inter-organi#ation*.ab. or inter-organi#ation*.ab.	1422
14	interinstitut*.ti. or interinstitut*.ab. or inter-institut*.ti. or inter institut*.ti. or inter institut*.ti. or inter institut*.ab. or inter agen*.ti. or inter agen*.ti. or inter agen*.ti. or intersector*.ti. or intersector*.ti. or inter sector*.ti. or inter sector*.ab. or intersector*.ab. or intersector*.ab.	4142
13	multioccupation*.ti. or multioccupation*.ab. or multi-occupation*.ti. or multi-occupation*.ab. or multiorgani#ation*.ti. or transprofession*.ti. or transprofession*.ti. or transprofession*.ti. or transprofession*.ti. or transprofession*.ab.	148
12	trans-disciplin*.ti. or trans-disciplin*.ab. or transdisciplin*.ti. or transdisciplin*.ti. or trans disciplin*.ti. or trans disciplin*.ti. or interprofession*.ti. or interprofession*.ti. or interprofession*.ti. or interprofession*.ti. or interprofession*.ti. or interdisciplin*.ab. or interdisciplin*.ti. or interdisciplin*.ti. or interdisciplin*.ab.	35882
11	team*.ti. or team*.ab. or multiprofession*.ti. or multiprofession*.ab. or multi-profession*.ti. or multi profession*.ab. or multidisciplin*.ti. or multidisciplin*.ab. or multidisciplin*.ab. or multi-disciplin*.ab. or multi-institution*.ti. or multi-institution*.ab. or multi-institution*.ab. or multi-institution*.ab.	193766
10	professional practice/ or interprofessional.mp. or teamwork/	64340
9	Interdisciplinary Communication.mp. or exp interdisciplinary communication/	8215
8	interprofessional Relations.mp. or public relations/	54326
7	4 or 5 or 6	1577964
6	education*.ti. or education*.ab. or trainin*.ti. or trainin*.ab. or learn*.ti. or learn*.ab. or teach*.ti. or teach*.ab. or course*.ti. or course*.ab.	1548710
5	education, graduate.mp. or exp academic achievement/	26276
4	education, continuing.mp. or exp continuing education/	27350
3	frontotemporal dementia/ or senile dementia/ or frontal variant frontotemporal dementia/ or dementia#.mp. or dementia/	87703
2	Alzheimer Disease.mp. or exp Alzheimer disease/	127224
1	exp multiinfarct dementia/	8599

The Cochrane Library: 2004 – 2014, searched on 09/09/2014.

ID	Search	Hits
#1	interdepartment*:ti,ab,kw or inter-department*:ti,ab,kw or interorganization*:ti,ab,kw or inter-organization*:ti,ab,kw (Word variations have been searched)	10
#2	interinstitut*:ti,ab,kw or inter-institut*:ti,ab,kw or interagen*:ti,ab,kw or inter-agen*:ti,ab,kw (Word variations have been searched)	82
#3	interagen*:ti,ab,kw or inter-agen*:ti,ab,kw or intersector *:ti,ab,kw or inter-sector *:ti,ab,kw (Word variations have been searched)	16
#4	transprofession*:ti,ab,kw or trans-profession*:ti,ab,kw or transdisciplin*:ti,ab,kw or trans-disciplin*:ti,ab,kw (Word variations have been searched)	13
#5	interprofession*:ti,ab,kw or inter-profession*:ti,ab,kw or interdisciplin*:ti,ab,kw or inter-disciplin*:ti,ab,kw (Word variations have been searched)	1004
#6	multiprofession*:ti,ab,kw or multi-profession*:ti,ab,kw or multidisciplin*:ti,ab,kw or multi-disciplin*:ti,ab,kw (Word variations have been searched)	1864
#7	multinstitution*:ti,ab,kw or multinstitution*:ti,ab,kw or team*:ti,ab,kw (Word variations have been searched)	4924
#8	MeSH descriptor: [Professional Practice] this term only	121
#9	MeSH descriptor: [Interprofessional Relations] explode all trees	413
#10	MeSH descriptor: [Patient Care Team] this term only	1390
#11	MeSH descriptor: [Interdisciplinary Communication] this term only	157
#12	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11	6920
#13	education*:ti,ab,kw or trainin*:ti,ab,kw or learn*:ti,ab,kw or teach*:ti,ab,kw or course*:ti,ab,kw (Word variations have been searched)	85139
#14	MeSH descriptor: [Education, Continuing] explode all trees	988
#15	MeSH descriptor: [Education, Graduate] explode all trees	267
#16	MeSH descriptor: [Education] explode all trees	19720
#17	#13 or #14 or #15 or #16	87573
#18	#12 and #17	2467
#19	dement*:ti,ab,kw (Word variations have been searched)	5119
#20	MeSH descriptor: [Dementia] explode all trees	3814
#21	#19 or #20	6538
#22	#18 and #21 Publication Year from 2004 to 2014	31

PsycINFO (OVID): 2004 – 2014, searched on 09/09/2014.

ID	Search	Hits
1	interdepartment*.ti. or interdepartment*.ab. or inter department*.ti. or inter department*.ti. or inter-department*.ti. or inter-department*.ti. or inter-department*.ab. or inter-organi#ation*.ti. or inter-organi#ation*.ti. or inter-organi#ation*.ti. or inter-organi#ation*.ab. interinstitut*.ti. or interinstitut*.ab. or inter-institut*.ti. or inter institut*.ab. or inter agen*.ti. or inter agen*.ab. or	1841
2	interagen*.ti. or interagen*.ab. or inter-agen*.ti. or inter-agen*.ab. or intersector*.ti. or intersector*.ab. or inter sector*.ti. or inter sector*.ti. or inter-sector*.ab.	1818
3	multioccupation*.ti. or multioccupation*.ab. or multi-occupation*.ti. or multi-occupation*.ti. or multi-occupation*.ti. or multi-occupation*.ti. or multi-organi#ation*.ti. or multi-organi#ation*.ti. or multi-organi#ation*.ti. or multi-organi#ation*.ti. or multi-organi#ation*.ti. or multi-organi#ation*.ti. or transprofession*.ti. or transpro	106
4	interprofession*.ab. or inter-profession*.ti. or inter-profession*.ab. or inter profession*.ti. or inter profession*.ab. or interdisciplin*.ti. or interdisciplin*.ti. or interdisciplin*.ab. or interdisciplin*.ti. or interdisciplin*.ti. or interdisciplin*.ti. or interdisciplin*.ti. or interdisciplin*.ti. or multiprofession*.ti. or multiprofe	18884
5	multidisciplin*.ab. or multi-disciplin*.ti. or multi-disciplin*.ab. or multi disciplin*.ti. or multi disciplin*.ab. or multi-institution*.ti. or multi-institution*.ti. or multi-institution*.ab. or multi-institution*.ab.	61294
6	interprofessional Relations.mp.	43
7	interprofessional Relations.ab. or interprofessional Relations.ti.	30
8	interdisciplinary communication/	0
9	exp Interdisciplinary Treatment Approach/ or interdisciplinary communication.mp.	6154
10	exp Work Teams/ or exp Teams/ or teamwork.mp.	13532
11	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10	82635
12	education*.ti. or education*.ab. or trainin*.ti. or trainin*.ab. or learn*.ti. or learn*.ab. or teach*.ti. or teach*.ti. or course*.ti. or course*.ab.	870506
13	exp Continuing Education/ or exp Teacher Education/ or exp Education/ or exp Graduate Education/ or education.mp.	368410
14	12 or 13	912994
15	exp Vascular Dementia/ or exp Dementia/ or exp Semantic Dementia/ or exp Presenile Dementia/ or DEMENTIA.mp. or exp Dementia with Lewy Bodies/	66113
16	Alzheimer Disease.mp. or exp Alzheimer's Disease/	32927
17	frontotemporal dementia.mp.	2167
18	dementia*.ab. or dementia*.ti.	44070
19	15 or 16 or 17 or 18	66784
20	11 and 14 and 19	302
21	limit 20 to (human and english language and yr="2004 -Current")	210

CINAHL (EBSCO): August 2004 – August 2014, searched on 09/09/2014.

ID	Search	Hits
#22	S16 AND S21 Published Date: 20040801-20140831; English Language; Human	156
#21	S17 OR S18 OR S19 OR S20	48125
#20	TI dementia* OR AB dementia*	23898
#19	"frontotemporal dementia"	678
#18	(MH "Dementia+") OR "dementia" OR (MM "Dementia, Vascular") OR (MM "Dementia, Multi-Infarct") OR (MM "Dementia, Presenile")	47831
#17	(MM "Alzheimer's Disease") OR (MM "Lewy Body Disease") OR "Alzheimer Disease"	15602
#16	S12 AND S15	39742
#15	S13 OR S14	774196
#14	(MH "Education+") OR "education" OR (MM "Education, Interdisciplinary")	655531
#13	TI education* OR AB education* OR TI trainin* OR AB trainin* OR TI learn* OR AB learn* OR TI teach* OR AB teach* OR TI course* OR AB course*	353868
#12	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11	102390
#11	(MH "Multidisciplinary Care Team+")	27293
#10	(MM "Teamwork") OR "teamwork"	11837
#9	"interdisciplinary communication"	135
#8	(MH "Interprofessional Relations+") OR "interprofessional Relations"	21104
#7	TI team* OR AB team*	46605
#6	TI multidisciplin* OR AB multidisciplin* OR TI multi disciplin* OR AB multi disciplin* OR TI multi-disciplin* OR AB multi-disciplin* OR TI multi-institution* OR AB multi-institution* OR AB multi-institution* OR AB multi-institution*	17082
#5	TI interdisciplin* OR AB interdisciplin* OR TI inter disciplin* OR AB inter disciplin* OR TI inter-disciplin* OR AB inter-disciplin* OR TI multiprofession* OR AB multiprofession* OR AB multi-profession*	9591
#4	TI trans-disciplin* OR AB trans-disciplin* OR TI trans disciplin* OR AB trans disciplin* OR TI transdisciplin* OR AB transdisciplin* OR TI inter-profession* OR AB inter-profession* OR AB inter-profession*	3924
#3	TI multioccupation* OR AB multioccupation* OR TI multi occupation* OR AB multi-occupation* OR AB multi-occupation* OR TI multi-organi?ation* OR AB multi-organi?ation* OR AB multi-organi?ation* OR TI multi-organi?ation* OR AB multi-organi?ation* OR AB multi-organi?ation*	219
#2	TI interinstitut* OR AB interinstitut* OR TI inter institut* OR AB inter institut* OR AB inter-institut* OR AB inter-institut* OR TI interagen* OR AB interagen* OR TI interagen* OR AB inter-agen* OR AB inter-agen*	1050
#1	TI interdepartment* OR AB interdepartment* OR TI inter department* OR AB inter department* OR TI inter-department* OR AB inter-department* OR TI inter-organi?ation* OR AB inter-organi?ation* OR AB inter-organi?ation* OR AB inter-organi?ation* OR AB inter-organi?ation*	555

Applied Social Sciences Index and Abstracts –ASSIA (ProQuest XML) – searched on 09/09/2014.

Search Hits Searched for: (((SU.EXACT.EXPLODE("Informal education") OR SU.EXACT("Interdisciplinary education") OR SU.EXACT("Education") OR SU.EXACT.EXPLODE("Courses" OR "Modular courses" OR "Short courses") OR SU.EXACT.EXPLODE("Continuing education")) OR (ab(education*) OR ab(education*) OR ti((trainin*3 OR learn*3)) OR ab((learn*3 OR trainin*3)) OR ti((teach*4 OR course*4)) OR ab((teach*4 OR course*4)))) AND (((SU.EXACT.EXPLODE("Interdisciplinary approach") OR (SU.EXACT.EXPLODE("Interdisciplinary team work") OR SU.EXACT.EXPLODE("Interdisciplinary approach")) OR SU.EXACT.EXPLODE("Interdisciplinary team work" OR "Team work")) OR ((ab(multiorgani?ation*4) OR ti(multiorgani?ation*4) OR ab((multi organi?ation*4 OR multi-organi?ation*4)) OR ti((multi organi?ation*4)) OR ti(multi organi?ation*4)) organi?ation*4)) OR ab(transprofession*4) OR ti(transprofession*4) OR ti(transprofession*4) OR trans-profession*4)) OR ti((transprofession*4)) OR ti(transprofession*4)) OR ti profession*4))) OR (ab(transdisciplin*4) OR ti(transdisciplin*4) OR ab((trans disciplin*4 OR trans-disciplin*4)) OR ti((trans disciplin*4)) OR ab(interprofession*4) OR ti(interprofession*4) OR ab((inter profession*4)) OR ti((inter profession*4)) OR ti((inter profession*4)) OR 46 (ab(interdisciplin*4) OR ti(interdisciplin*4) OR ab((inter disciplin*4 OR inter-disciplin*4)) OR ti((inter disciplin*4 OR inter-disciplin*4)) OR ab(multiprofession*4) OR ti(multiprofession*4) OR ab((multi profession*4 OR multi-profession*4))))) OR ti((multi profession*4 OR multi-profession*4))))) OR ((ab(multidisciplin*4) OR ti(multidisciplin*4) OR ab((multi disciplin*4 OR multi-disciplin*4)) OR ti((multi disciplin*4 OR multi-disciplin*4)) OR ab(multinstitution*4) OR ti(multinstitution*4) OR ab((multi institution*4 OR multi-institution*4)) OR ti((multi institution*4 OR multi-institution*4)) OR ti((multi institution*4)) OR ti((mul ab(team*4) OR ti(team*4)) OR (SU.EXACT.EXPLODE("Interdisciplinary approach") OR (SU.EXACT.EXPLODE("Interdisciplinary team work") OR SU.EXACT.EXPLODE("Interdisciplinary approach")) OR SU.EXACT.EXPLODE("Interdisciplinary team work" OR "Team work"))))) AND ((SU.EXACT("Alcoholic dementia") OR SU.EXACT("Presenile dementia") OR SU.EXACT("Dementia") OR SU.EXACT("Multi-infarct dementia") OR SU.EXACT("Lewy body dementia") OR SU.EXACT("Vascular dementia")) OR (SU.EXACT.EXPLODE("Presenile Alzheimer's disease") OR SU.EXACT.EXPLODE("Alzheimer's disease" OR "Presenile Alzheimer's disease")) OR ab(dementia*2) OR ti(dementia*2))

ERIC (EBSCO): August 2004 – August 2014, searched on 09/09/2014.

ID	Search	Hits
#14	(S11 OR S12) AND (S10 AND S13). Limiters - Date Published: 20040801-20140831; Language: English	25
#13	S11 OR S12	1113
#12	DE "Dementia" OR DE "Alzheimers Disease"	961
#11	TI dementia* OR AB dementia*	737
#10	S5 AND S9	49925
#9	S6 OR S7 OR S8	92088
#8	(DE "Graduate Medical Education" OR DE "Graduate Students") OR (DE "Continuing Education")	17264
#7	DE "Education"	4033
#6	TI education* OR AB education* OR TI trainin* OR AB trainin* OR TI learn* OR AB learn* OR TI teach* OR AB teach* OR TI course* OR AB course*	916901
#5	S1 OR S2 OR S3 OR S4	63751
#4	DE "Teamwork"	7233
#3	DE "Interdisciplinary Approach"	19881
#2	DE "Interprofessional Relationship"	3286
#1	(TI interdepartment* OR AB interdepartment* OR TI inter department* OR AB inter-department* OR AB inter-department* OR TI interorgani?ation* OR AB inter-organi?ation* OR AB i	4917

British Education Index –BEI (EBSCO): searched on 09/09/2014.

ID	Search	Hits
#11	S9 AND S10	2
#10	TX dementia* OR TX Alzheimer*	83
#9	S5 AND S8	2772
#8	S6 OR S7	108636
# 7 # 6	DE "EDUCATION" OR DE "CONTINUING education" OR DE "COMPULSORY continuing education" OR DE "CONTINUING education centers" OR DE "ENGINEERING Study & teaching (Continuing education)" OR DE "EVENING & continuation schools" OR DE "JOURNALISM Study & teaching (Continuing education)" OR DE "LIBRARIES & continuing education" OR DE "LIBRARY education (Continuing education)" OR DE "MEDICINE Study & teaching (Continuing education)" OR DE "NURSING Study & teaching (Continuing education)" OR DE "WORKSHOPS (Adult education)" TI education* OR AB education* OR TI trainin* OR AB trainin* OR TI learn* OR AB learn* OR TI teach* OR AB teach* OR TI course* OR AB	11049 105614
	course*	
#5	S1 OR S2 OR S3 OR S4	4473
#4	(DE "TEAM learning approach in education") OR (DE "TEACHING teams")	134
#3	DE "INTERDISCIPLINARY approach in education" OR DE "CULTURAL studies" OR DE "FUSED curriculum" OR DE "GENDER studies" OR DE "LANGUAGE arts (Higher) Correlation with content subjects" OR DE "LANGUAGE arts Correlation with content subjects" OR DE "INTERDISCIPLINARY approach to knowledge" OR DE "INTERDISCIPLINARY teams in education"	1877
#2	DE "INTERPROFESSIONAL education" OR DE "INTERPROFESSIONAL relations" OR DE "PRINCIPAL-superintendent relationships" OR DE "SCHOOL board-superintendent relationships" OR DE "TEACHER-administrator relationships" OR DE "TEACHER-counselor relationships" OR DE "TEACHER-principal relationships" OR DE "TEACHER-school board relationships" OR DE "TEACHER-superintendent relationships"	952
#1	(TI interdepartment* OR AB interdepartment* OR TI inter department* OR AB inter-department* OR AB inter-department* OR TI interorgani?ation* OR AB inter-department* OR AB inter-organi?ation* OR AB inter-organi?ation* OR AB inter-organi?ation* OR AB inter-organi?ation* OR AB inter-institut* OR AB inter-agen* OR AB multi-occupation* OR AB multi-occupation* OR AB multi-occupation* OR AB multi-occupation* OR AB multi-organi?ation* OR AB trans-disciplin* OR TI trans-disciplin* OR AB trans-disciplin* OR TI trans-disciplin* OR AB trans-disciplin* OR TI inter profession* OR AB inter-profession* OR AB inter-profession* OR TI inter profession* OR AB inter-disciplin* OR AB inter-profession* OR TI inter disciplin* OR AB inter-disciplin* OR TI multi-profession* OR TI multi-profession* OR AB multi-institution*	2291

PsycINFO (OVID): 2004 – 2014, searched on 09/09/2014.

ID	Search	Hits
#1	interdepartment*.ti. or interdepartment*.ab. or inter-department*.ti. or inter-department*.ab. or inter department*.ti. or inter department*.ti. or inter department*.ab. or inter-ogani#ation*.ti. or inter-ogani#ation*.ti. or inter-ogani#ation*.ti. or inter-ogani#ation*.ab. or i	1037
#2	multi-occupation*.ti. or multi-occupation*.ab. or multi occupation*.ti. or multi occupation*.ab. or multiorgani#ation*.ti. or multiorgani#ation*.ti. or multiorgani#ation*.ab. or transprofession*.ab.	220
#3	profession*.ti. or trans-profession*.ab. or trans profession*.ti. or trans profession*.ab. transdisciplin*.ti. or transdisciplin*.ab. or transdisciplin*.ti. or transdisciplin*.ti. or transdisciplin*.ti. or transdisciplin*.ab. or interprofession*.ti. or interprofession*.ti. or interprofession*.ab. or interdisciplin*.ti. or interdisciplin*.ti. or interdisciplin*.ab. or interdisciplin*.ti. or interdisciplin*.ab. or multi-profession*.ti. or multi	220 2149
#4	multidisciplin*.ti. or multidisciplin*.ab. or multi disciplin*.ti. or multi-disciplin*.ti. or multi-disciplin*.ti. or multi-disciplin*.ab. or multinstitution*.ab. or multi-disciplin*.ti. or multi-disciplin*.ab. or interorgani#ation*.ti. or multi-institution*.ab. or interorgani#ation*.ti. or interorgani#ation*.ti. or interorgani#ation*.ti. or interorgani#ation*.ab. or team*.ti. or team*.ab.	15106
#5	1 or 2 or 3 or 4	17350
#6	education*.ti. or education*.ab. or trainin*.ti. or trainin*.ab. or learn*.ti. or learn*.ab. or teach*.ti. or teach*.ab. or course*.ti. or course*.ab.	51743
#7	exp education/	23428
#8	exp Continuing medical education/ or exp Continuing education/	1302
#9	6 or 7 or 8	59404
#10	interprofessional.mp. or exp Interprofessional communication/ or exp Interprofessional collaboration/ or exp Interprofessional relations/ or exp Interprofessional education/	2752
#11	exp Teamwork/ or exp Interprofessional collaboration/ or Interdisciplinary.mp.	2184
#12	exp Pre senile dementia/ or dementia.mp. or exp Dementia/	2945
#13	exp Alzheimers disease/ or Alzheimer disease.mp.	561
#14	vascular dementia.mp.	26
#15	5 or 10 or 11	18770
#16	12 or 13 or 14	2950
#17	9 and 15 and 16	46
#18	limit 17 to (english and last 10 years)	28

Supplementary file 2. Checklists for study selection

(including Controlled Clinical Trials, controlled before-after studies and

phenomenological studies; ethnographic

studies; grounded theory studies; historical studies; case studies; action research

interrupted time series studies)

○ Not sure (refer to another reviewer)

Qualitative study (including

☐ Mixed methods designs

studies)

 \odot Yes

What is the TYPE

Include for full text

OF STUDY

article?

review?

reported in this

Title and abstract screening checklist

Reviewer	Date	
Article ID.	First Author	y (year):
	Include	Exclude
What is the STUDY POPULATION in this article?	 Health and/or social care providers (regulated and unregulated) involved in caring for people with dementia Can't tell (refer to another reviewer) 	 Health and/or social care providers (regulated and unregulated) involved in caring for peopl without dementia Not health and/or social care providers (regulated and unregulated)
What is the INTERVENTION?	Any interprofessional education activity involving providers/students working for the care of people with dementia	 Not an educational intervention Not interprofessional education activity Can't tell
	 □ Randomized study (including Randomized Clinical Trials -RCT- and cluster RCTs) □ Non randomized controlled study 	

 \Box Not

□ Commentary/editorial/letter

☐ Any non-peer-review publication

Full-text screening checklist

Reviewer		Date	
Aı	rticle ID.	Firs	et Author (year):
pe	id this article include health and soci eople with dementia —defined as adul egardless of diagnosis age- and/or the	lts (aged	18 +) with any form of dementia,
$\overline{}$	Yes (INCLUDE)		
·	No (EXCLUDE)		
· W	Partly (INCLUDE) Vhat EDUCATIONAL INTERVENT	TON is u	sed in the study?
	care providers –regulated and unregulated c	bers (or stud are provide	DE) dents) of two or more professions (health and socia ers) learn with, from and about one another to ed terms include "multi-professional education",
$\overline{}$	An IPE activity is part of the overall interven	tion evalua	ted in the study (INCLUDE)
$\overline{}$	Not an interprofessional education activity (E	EXCLUDE)	
⊡ IN	Not sure (refer to another reviewer) NCLUDE if the OUTCOME of interes	est in the	study is one of the following:
	 Intermediate outcomes IPE outcomes for learners –i.e. acquisitinterprofessional interactions); Behaviour changes –e.g. individuals' tratheir changed professional practice 	ion of know	reledge & skills, attitude; (learning as result of terprofessional learning to their practice setting and organisational practice, e.g. wider changes in the
	Final outcomes o IPE outcomes for patients with dementi users inal Decision	a and their	carers –benefits to the (health status) of services
.			
	INCLUDE EXCLUDE		
	Not sure (refer to another reviewer)		
	eason for Exclusion:		
$\overline{\cdot}$	Inappropriate study population (Not people v	vith dement	ia or their carers)
$\overline{}$	Not study reporting primary data		
·	Study description only		
$\overline{\cdot}$	Not intervention of interest (Not an interprofe	essional edu	acation activity)
$\overline{\cdot}$	No relevant outcomes		
$\overline{}$	Other (specify)		