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CASE STUDY

Factors relating to the uptake of interventions for smoking cessation amongst pregnant women: a systematic review and qualitative synthesis

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Choices and challenges:

1. Focusing the question
2. Searching
3. Data extraction
4. Quality assessment
5. Analysis and synthesis



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1. Focusing the question

OR

There must be a ton of stuff out there how am I going to do something useful and fit the review into the time available?

Underpinned by PICO(s) or SPICE

Factors relating to the uptake of interventions
for smoking cessation **amongst pregnant
women**

POPULATION

- **Pregnant women**
- **Just pregnant women and/or recently pregnant women (within one year of birth)?**
- **Partners?**



Factors relating to the uptake of interventions for smoking cessation amongst pregnant women

INTERVENTION

All smoking cessation interventions?

Just some?

Nicotine replacement therapy

Cognitive Behavioural Therapy

Group support interventions

Counselling

Include brief advice provided by a health professional

**All interventions – potentially large volume of
literature**

Getting to the right question

- Not asking a question of effectiveness
i.e. what are the outcomes of smoking
cessation interventions amongst pregnant
women
- Interested in a different type of question
Why might an intervention work or not
work, what are the factorss/processes?



Factors relating to the uptake of interventions for smoking cessation amongst pregnant women

Barriers and facilitators type factors

What are barriers/facilitators to pregnant women smokers quitting following an intervention?

Views/perceptions type factors

What are pregnant women smoker's views and perceptions of interventions?

Process type factors

What elements of an intervention are important, what is the process whereby people access interventions?

Factors relating to the uptake of interventions for smoking cessation amongst pregnant women

Uptake – “do-able”

AND important question:

Effectiveness reviews - Smoking cessation interventions can lead to successful outcomes in pregnant women smokers.

69% of pregnant women smokers express an interest in attending a stop smoking intervention, however only 5% attend NHS stop smoking services.

**Do-able + focused key question
= happy reviewer!**





**STUDY
DESIGN**

Where would data relating to intervention uptake come from?

- Qualitative papers
- Process data in papers reporting interventions
- Surveys (staff/users)



Qualitative synthesis =
combining of data from
primary qualitative studies

Or can it include any textual data?
Qualitative = analysis of words/text
rather than numbers



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2. Searching and sifting

OR

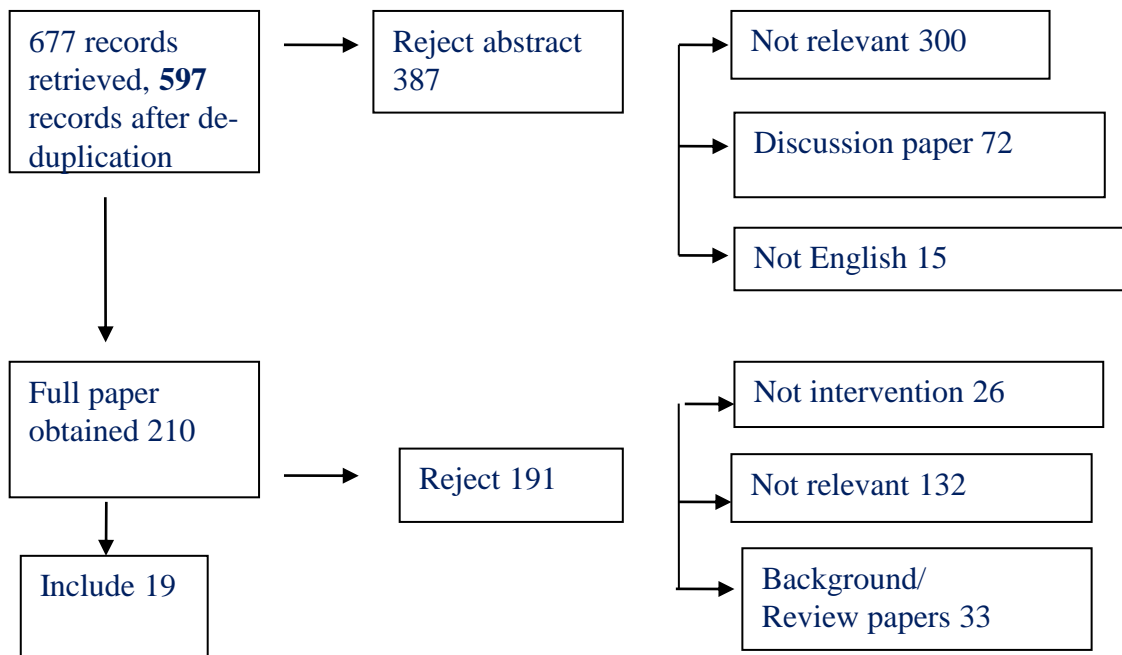
Why on earth did we decide to do uptake,
we must be mad thinking of including all
study designs

Iterative searching process

- 3 waves of database searching
- Retrieved citations used to inform further key word, author, citation searches
- Checking of reference lists and relevant reviews
- Process continues until little/no new material

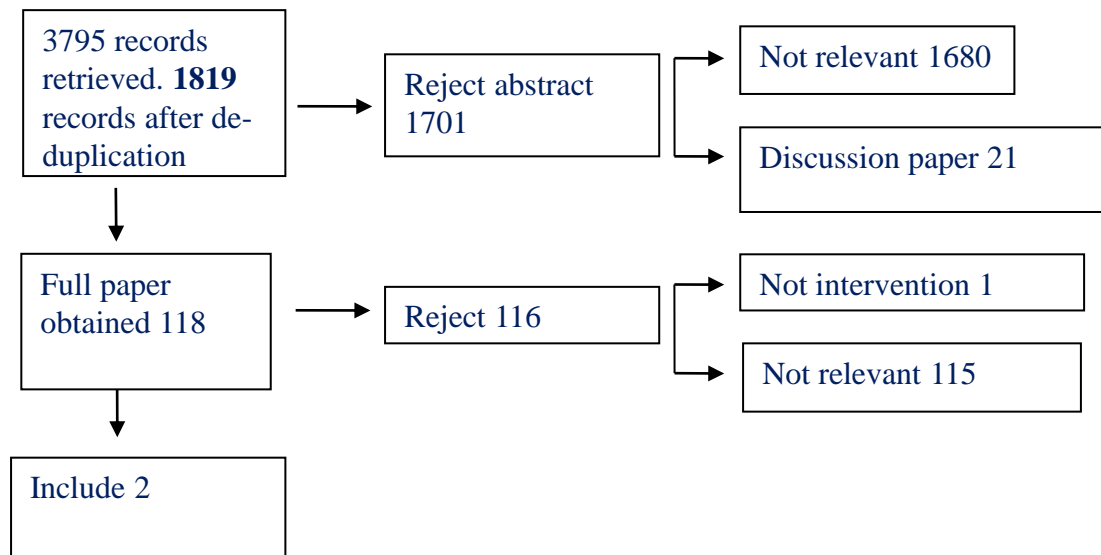


Search iteration 1

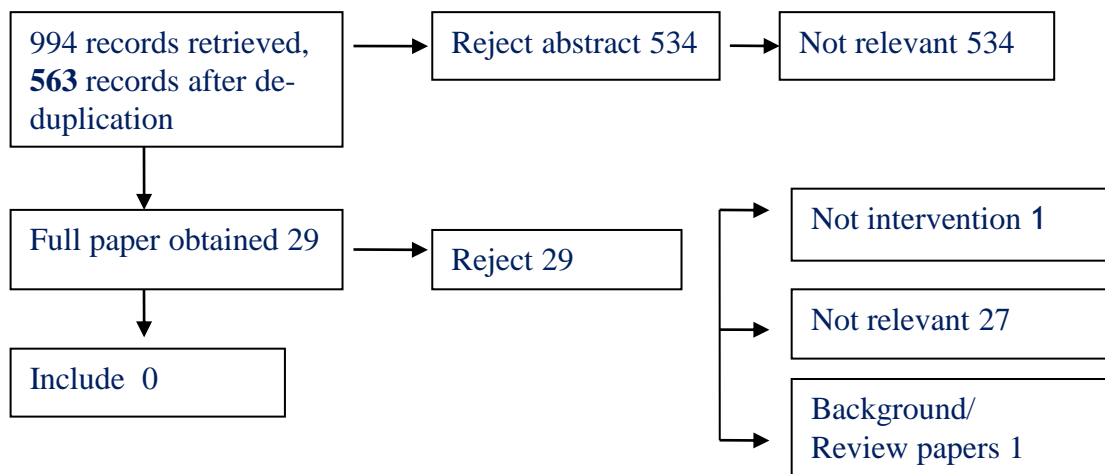




Search iteration 2



Search iteration 3



Science Citation Index and Social Science Citation Index via Web of Knowledge (no limits applied);
Maternity and Infant Care via OVID SP (no limits applied);
PsycINFO via OVID SP (1990-2009);
Embase via OVID SP (1990-2009, English);
Medline via OVID SP (1990-2009, English);
CINAHL via EBSCOhost (1990-2009);
ASSIA via CSA (1990-2009, English);
British Nursing Index via OVID SP (no limits).

(Anti smoking or antismoking).ti.

AND

(Pregnan* or prenatal or pre natal or antenatal or ante natal or post natal or postnatal).ti.
(smoking adj (cessation or intervention)).ti.

AND

(Pregnan* or prenatal or pre natal or antenatal or ante natal or post natal or postnatal).ti.
(tobacco adj (cessation or intervention)).ti.

AND

(Pregnan* or prenatal or pre natal or antenatal or ante natal or post natal or postnatal).ti.
((quit* or stop*) adj (smoking or smoker)).ti.

AND

(Pregnan* or prenatal or pre natal or antenatal or ante natal or post natal or postnatal).ti.

“The focus of the review question on the delivery and uptake of services rather than the interventions themselves required scrutiny of many intervention studies, searching for those aspects describing delivery”.

These aspects were not reported in the paper abstracts, and often represented only a very small section of data.

RESULTS

Database of 2979 citations

23 included papers

10 qualitative papers

10 survey papers

3 narrative descriptions in papers reporting RCTs

11 papers reported staff perspectives

11 papers reported pregnant or recently pregnant
women perspectives

1 reported both



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3. Quality appraisal

OR

How the heck do we deal with these different designs?

Qualitative papers rated using NICE checklist

1. Is a qualitative approach appropriate?
2. Is the study clear in what it seeks to do?
3. How defensible is the research design?
4. How well was the data collection carried out?
5. Is the role of the researcher clearly described?
6. Is the context clearly described?
7. Were the methods reliable?
8. Is the data analysis sufficiently rigorous?
9. Are the data rich?
10. Is the analysis reliable?
11. Are the findings credible?
12. Are the findings relevant?
13. Are the conclusions adequate?
14. How clear and coherent is the reporting of ethics?



All or nearly all criteria fulfilled = high quality

Most criteria fulfilled = good quality

Few criteria fulfilled = poor quality



Surveys

No NICE tool

Quality indicators identified – e.g. Design and piloting of survey instrument, sample size, recruitment process, analysis.

Narrative data – limited quality but added insights



4. Data extraction



1. Study reference 2. Research question 3. Funding	1. Sampling strategy 2. Sample achieved 3. Method of allocation	Population characteristics	1. Details of intervention 2. Details of any comparator 3. Data collection method for qual studies	1. Outcome 2. Method of analysis	Study findings/key themes
Abrahamsson et al. (2005) What are the experiences of midwives approaching women smokers in antenatal care? Funding:	Purposive sampling for variation in interests, participation in specific training, geographical location of work, age and duration in the position. 24 participants of 27 invited.	N=24. . Midwives. 2-24 years experience in antenatal work. All female. Age 27-61. All had been involved in recent training as part of a smoke free project including motivational interviewing training.	Qualitative interview study. 20 conducted in person, 4 via telephone.	Phenomenographic approach. Developing a set of story types to make sense of individual experiences.	Avoiding the issue of smoking linked to previous experiences of persuasion or information giving having a negative influence on the relationship between midwife and pregnant woman, or having a lack of competence to deal with the situation. Importance of informing the women to better understand how smoking influenced the baby's wellbeing. However experience was that this "informing" did not work. Mutual relationship seen as a tool that would encourage the woman to think over the smoking issue. Conflict between information-giving which had potential to increase women's sense of guilt which counteracted encouragement. Need to build co-operation by respect for what the woman wanted.
Anderson (2002) What are pregnant women's experiences with their care provider? No funding declared.	No details provided regarding sampling strategy	N=26 . Pregnant women who were smoking. Described as primarily lower income, lower educated women, most in their 20s. Nearly half had other children.	Qualitative focus group study. 3 focus groups run.	No details regarding analysis of data.	Variation in whether smoking cessation had been discussed by physicians. None of the participants described a thorough attempt to explain what smoking was doing to the baby, how quitting lowers risks, and how to go about trying to quit. Some women insulted by condescending tone and left feeling resentful. Discussions often reported as counter-productive due to perceptions of preaching, nagging. Descriptions of physicians requesting cutting down only.



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5. Analysis and synthesis

OR

Now that we've got it we have to do something with it



- Principles of thematic synthesis (Thomas & Harden, 2008) used
- Each study was read and line-by-line coded according to its meaning and content to establish core themes
- Themes were then compared and contrasted to further develop key themes across the studies.



Factors relating to the uptake of interventions for smoking cessation amongst pregnant women

- 1 Whether or not the subject of smoking is broached by a health professional
- 2 The content of advice and information provided
- 3 The manner of communication
- 4 Use of service protocols
- 5 Follow up discussion
- 6 Staff confidence in their skills
- 7 The impact of time and resource constraints
- 8 Staff perceptions of ineffectiveness
- 9 Differences between professionals
- 10 Obstacles to accessing interventions.



Presentation of findings

Anderson (2002), in a focus group study of pregnant women smokers in the United States, reports the perception that there had not been “a thorough attempt to explain what smoking was doing to the baby, how quitting lowers risks, and how to go about trying to quit.” In an interview study (Arborelius & Nyberg, 1997), 9 of the 13 Swedish women stated that they would have given up if they had been given proof that smoking was dangerous or that the baby would be harmed. McCurry et al. (2002) report participants’ perception that they had been advised rather than strongly persuaded to give up smoking. Nichter et al. (2007) similarly describe women’s views that they received no messages that were helpful, describing it as being “just a policy” for health professionals to ask and give a pamphlet.



Evidence statement 3.

Five qualitative papers describe how the style or way that information/advice is communicated to pregnant women smokers can impact on how the advice or information is received. Concerns regarding advice being construed as nagging or preaching are reported, together with the recommendation that that a more caring, empathetic approach may be helpful.

Arborelius & Nyberg 1997 (Sweden service users) Qual+

Everett et al. 2005 (South Africa service providers) Qual+

Tod 2003 (GB service users) Qual+

Lowry et al. 2004 (GB service users) Qual-

Anderson 2002 (USA service users) Qual-.

These studies report findings from professionals, pregnant women, recent mothers and a range of countries including two from the UK.

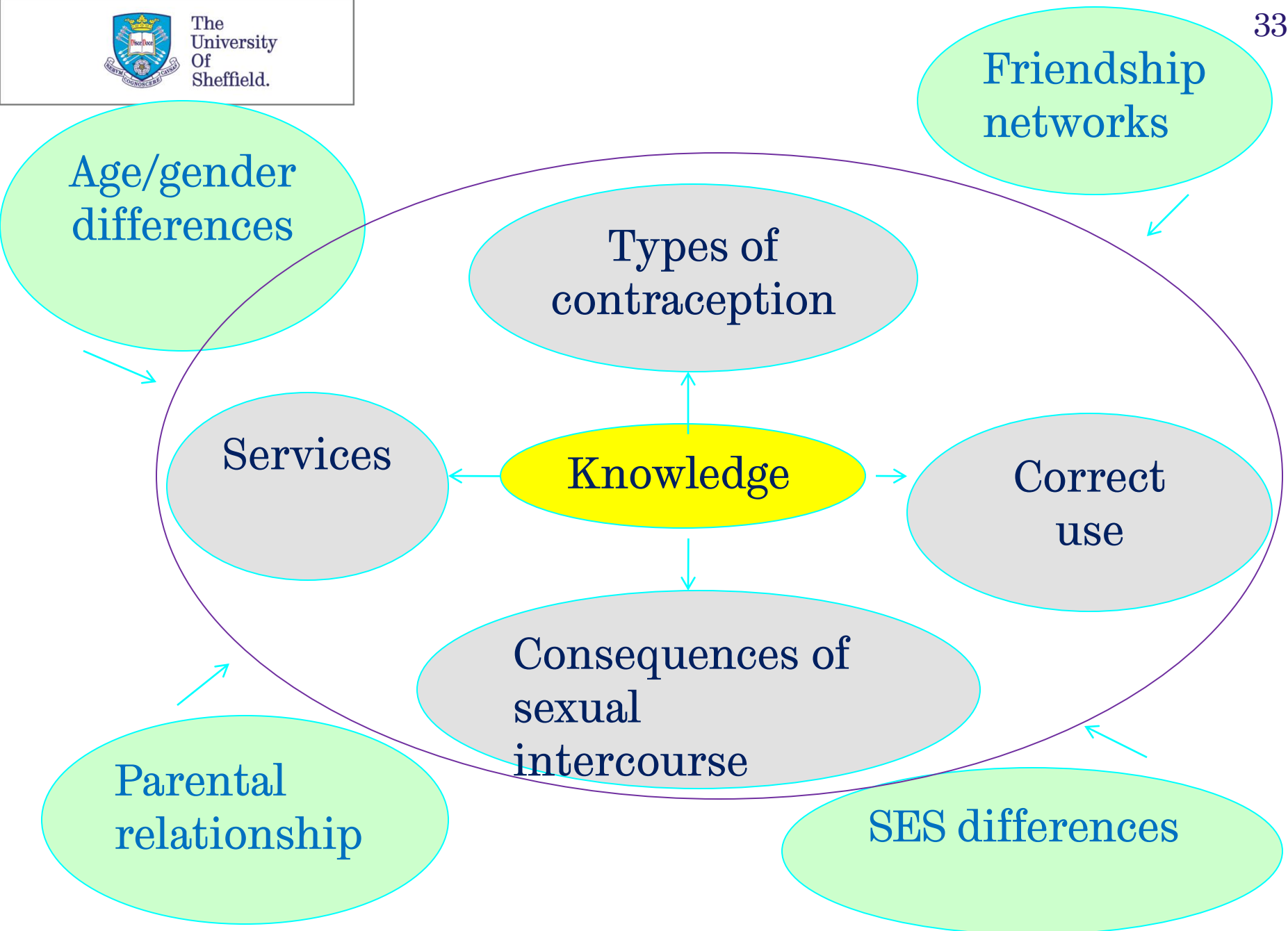
Two papers reports findings from a low education/health action zone population.



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Charting and mind maps

Example: A review of the effectiveness and cost effectiveness of contraceptive services and interventions to encourage use of those services for socially disadvantaged young people: Views review





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Writing it up

OR

This work is so great everyone has to hear about it



Publication

- Word count
- What to do with the extraction table
- Reviewers used to effectiveness reviews and meta-analysis
- Going beyond stating the obvious



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End of the study

OR

I am going to think very carefully before doing that again

OR maybe

Can't wait until I do the next one!

Baxter, S., Everson-Hock, E., Messina, J., Guillaume, L., Burrows, J., Goyder, E. (2010). Factors relating to the uptake of interventions for smoking cessation among pregnant women: a systematic review and qualitative synthesis. *Nicotine & Tobacco Research*, Volume 12, Issue 7, pp 685-694.

Baxter, S., Blank, L., Guillaume, L., Pilgrim, H., Payne, N. (2011) Views of contraceptive service delivery to young people in the UK: a systematic review and thematic synthesis. *Journal of Family Planning and Reproductive Health Care*, 37(2):71-84.

Baxter, S., Blank, L., Guillaume, L., Pilgrim, H., Payne, N. (2011) Views regarding the use of contraception amongst young people in the UK: a systematic review and thematic synthesis. *European Journal of Contraception and Reproductive Health Care*, Feb, DOI: 10.3109/13625187.2011.556762.

Baxter, S., Enderby, P., Evans, P., Judge, S. (2012) Barriers and facilitators to use of high technology augmentative and alternative communication devices: a systematic review and qualitative synthesis. *International Journal of Language and Communication Disorders*, 47 (2): 115-129.

Thomas J, Harden, A. (2009) Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*;8:45 doi:10.1186/1471-2288-8-45.



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To
Discover
And
Understand.

