The development of an intervention to support midwives in addressing health behaviours with pregnant women

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Background to PhD

- The development of an intervention to support midwives in addressing health behaviours with pregnant women

Increased risk of miscarriage, gestational diabetes, pre-eclampsia, venous thromboembolism, induced labour, caesarean section, anaesthetic complications, wound infections, increased risk of stillbirth, congenital anomalies, prematurity, macrosomia, neonatal death, and childhood obesity and metabolic disorders (Fitzsimons & Modder, 2010)

In Scotland, maternity care for a woman whose BMI is within the obese category costs the NHS an extra £202.50. For women within the severely obese range (BMI of 35 or more), this additional cost rises to £350.80 (Denison et al., 2014)
Midwives’ Health Promotion Practice = all the tasks midwives are asked to do to promote health during pregnancy

By enhancing midwives health promotion practice there is an indirect effect on women’s health

Secondary focus= women’s health behaviours during pregnancy

- Measure carbon monoxide levels
- Refer women to specialist services
- Carry out an alcohol brief intervention
- Provide women with vitamin supplements
- Calculate BMI by measuring height and weight
- Discuss the benefits of physical activity during pregnancy
PhD overview

Review of the existing evidence literature review including various policies/guidelines

Intervention Development
selection of theory, behaviour change techniques and format of delivery

Acceptability study

Gathering new evidence
Interview and survey studies
Review of the existing evidence

• Aim (i): identify documentation containing information about midwives’ health promotion practice
• Different philosophies underpinning various reports, strategies and guidelines

• Aim (ii): identify if there are interventions to support midwives’ health promotion practice
• No interventions to support midwives
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Gathering new evidence: interview study to investigate midwives' beliefs about their health promotion practice

- 11 community midwives took part in one-to-one semi-structured interviews
- Theoretical Domains Framework (TDF) used to inform the interview topic guide and coding of data

Michie et al., 2005
Examples of barriers

- Number of tasks, cognitive resources, quality of relationships with pregnant women, midwives’ own health status and organisational issues.

  “I think midwives find it really difficult because if you're big yourself they're looking at you thinking “well, she's got a cheek”, if you're small they're looking at you thinking “you've never had a problem in your life” and so I think it's a really difficult one and I think a lot of midwives don't talk about it” (M10)

  “I'm exhausted after a clinic because you feel as if you want to have your senses hyper alert” (M9)

  “We’re not getting the same chance to see the same women again so I find it a bit harder to address things” (M1)
Examples of facilitators

• Motivation and strategies

“I have to say I do it as a multitask. I’ll be testing the urine while I’m asking about how they feel in pregnancy and had they had any sickness and how they’re getting on with eating and things like that. I’ll be multi-tasking the whole way.” (M7)

“So what bit for you do we need to look at?”, ‘cause there’s very few people that need absolutely, well some of them do need absolutely everything, but if they do it’s about chipping away at it. I think you have to think let’s look at this wee bit by bit.” (M9)

“I think it’s a huge window of opportunity for midwives” (M5)
Example of mixed views

• Whether certain health promotion topics should be addressed by other health professionals prior to pregnancy, women’s receptiveness to health promotion during pregnancy

“Most women are quite receptive to that because they know they’re pregnant and know it’s not just about their health anymore” (M11)

“It seems to be that everything is piled onto this booking visit and I don't think it's fair on the women” (M3)
Gathering new evidence: online survey study to investigate the factors influencing midwives’ health promotion practice

- 505 midwives completed an online survey:
  1) Self-report of performing health promotion practice
  2) Barriers and facilitators to performing health promotion practice e.g. “I am confident in my ability”
  3) Demographics (e.g. years of experience)
  4) Health status (BMI) & health behaviours (PA levels)
  5) Strategies e.g. how do midwives prioritise which health promotion topics to focus on
  6) Perceived support needs e.g. type of support
  7) Open-ended qualitative questions
What factors influence midwives’ health promotion practice?

Predictors of health promotion practice:
- Years of experience as a qualified midwife
- Job role
- Midwives confidence
- Midwives intrinsic drive
- Midwives feelings of being supported
What factors influence midwives’ health promotion practice?

**Confidence:** “More confidence in some areas than others. Less confidence in oral health and sexual health as less focus on training and resources for these areas.”

**Motivation:** “I believe as midwives we have a great opportunity to encourage healthy lifestyles not only to the woman but her family also.”

**Support in carrying out health promotion practice:** “Much of the health promotion advice we are told to give feels painfully out of date, particularly in relation to things like nutrition (barely any training given on this as undergraduates) and advice does not keep up enough with changing attitudes to health (e.g. things like veganism).”
How do midwives prioritise which health promotion topics to focus on?

- “When there is not enough time to cover all Health Promotion Topics I focus on the topic(s) that...”

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The midwife perceives as most important</td>
<td>4.3</td>
<td>1.0</td>
</tr>
<tr>
<td>The woman wants to focus on</td>
<td>4.1</td>
<td>1.1</td>
</tr>
<tr>
<td>The midwife is the most appropriate professional to advise</td>
<td>3.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Have a reliable and high-quality service to refer to</td>
<td>3.7</td>
<td>1.1</td>
</tr>
<tr>
<td>The midwife knows there is a straightforward referral pathway</td>
<td>3.6</td>
<td>1.2</td>
</tr>
<tr>
<td>The midwife can cover in the available time but not in any detail</td>
<td>3.4</td>
<td>1.2</td>
</tr>
<tr>
<td>The midwife is most comfortable speaking about</td>
<td>3.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Least likely to involve follow-up</td>
<td>2.2</td>
<td>1.3</td>
</tr>
</tbody>
</table>
Other strategies midwives use to perform their health promotion practice

- Two thirds of midwives provided free text responses of “other” strategies used when there is not enough time to address all health promotion topics

<table>
<thead>
<tr>
<th>Other Strategies</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signposting to written/online materials and support groups</td>
<td>36</td>
</tr>
<tr>
<td>Follow-up at subsequent appointment</td>
<td>13</td>
</tr>
<tr>
<td>Combinations e.g. signposting and follow-up</td>
<td>9</td>
</tr>
<tr>
<td>Relevant to the woman</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td>Referral service</td>
<td>1</td>
</tr>
<tr>
<td>Make time/ over run the appointment</td>
<td>1</td>
</tr>
</tbody>
</table>
What type of support would midwives like to help them perform their health promotion practice?

- 72% of midwives wanted more support in carrying out their health promotion practice

- Type of support: 60% strongly agreed that they wanted health promotion updates from services, new resources and training

- Delivery channel: 72% in person, 59% email, 54% App

- Delivery method: 55% wanted a mixture of 1:1 and group support
Investigating midwives’ barriers and facilitators to multiple health promotion practice behaviours: a qualitative study using the theoretical domains framework

Julie M. McLeod1,2, Ronan E. O’Carroll3, Helen Cheyne2 and Stephan U. Dombrowski1

Abstract

Background: In addition to their more traditional clinical role, midwives are expected to perform various health promotion practice behaviours (HePPB) such as informing pregnant women about the benefits of physical activity during pregnancy and asking women about their alcohol consumption. There is evidence to suggest several barriers exist to performing HePPB. The aim of the study was to investigate the barriers and facilitators midwives perceive to undertaking HePPB.

Methods: The research comprised of two studies.
Study 1: midwives based in a community setting (N = 11) took part in semi-structured interviews underpinned by the theoretical domains framework (TDF). Interviews were analyzed using a direct content analysis approach to identify important barriers or facilitators to undertaking HePPB.
Study 2: midwives (N = 505) completed an online questionnaire assessing views on their HePPB including free text responses (n = 64) which were coded into TDF domains. Study 2 confirmed and supplemented the barriers and facilitators identified in study 1.

Results: Midwives perceived a multitude of barriers and facilitators to carrying out HePPB. Key barriers were requirements to perform an increasing amount of HePPB on top of existing clinical workload, midwives’ cognitive resources, the quality of relationships with pregnant women, a lack of continuity of care and difficulty accessing appropriate training. Key facilitators included midwives’ motivation to support pregnant women to address their health. Study 1 highlighted strategies that midwives use to overcome the barriers they face in carrying out their HePPB.

Conclusions: Despite high levels of motivation to carry out their health promotion practice, midwives perceive numerous barriers to carrying out these tasks in a timely and effective manner. Interventions that support midwives by addressing key barriers and facilitators to help pregnant women address their health behaviours are urgently needed.

Keywords: Midwives, Health promotion, Multiple health behaviours, Theoretical domains framework
PhD overview

Review of the existing evidence literature review including various policies/guidelines

Intervention Development
selection of theory, behaviour change techniques and format of delivery

Acceptability study

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Flex Five

What changes the intervention is attempting to make

How the intervention is being delivered

Who the intervention is aimed at

What the intervention includes

How the intervention is supposed to work

TARGET
BEHAVIOUR
FORM
OF
DELIVERY
THEORY
BEHAVIOUR
CHANGE
TECHNIQUES
TARGET
POPULATION
BEHAVIOUR
CHANGE
INTERVENTION
Format of delivery - stakeholder input

- Intervention development workshop
- Core team meeting
- First draft produced
- Stakeholder Feedback
- Core team meeting

Final intervention
Midwife health promotion toolkit...

- Health promotion prioritisation tool
- Midwife health promotion consultation tool
- Personalised Action Plan
Tool 1: Health promotion prioritisation tool (pre-consultation)

During your appointments your midwife will discuss a lot of health topics with you. Before meeting your midwife, think about what topics matter most to you.

For example, if you want to talk about your diet then please tick the relevant box. There is space to write any questions, worries, concerns, or views that you may have.

- PHYSICAL ACTIVITY
  - very important to me

- ORAL HEALTH
  - very important to me

- ALCOHOL CONSUMPTION
  - very important to me

- SMOKING
  - very important to me

- SUBSTANCE USE
  - very important to me

- DIET
  - very important to me

- WEIGHT MANAGEMENT
  - very important to me

- SOMETHING ELSE THAT MATTERS TO ME...
  - (for example, if you are feeling anxious or depressed you may wish to discuss this with your midwife)
    - very important to me

More information is available at readysteadybaby.org.uk
Tool 1: Health promotion prioritisation tool (pre-consultation)

During your appointments your midwife will discuss a lot of health topics with you. Before meeting your midwife, think about what topics matter most to you.

For example, if you want to talk about your diet then please tick the relevant box.

There is space to write any questions, worries, concerns, or views that you may have.

(Ready Steady Baby - page 8-9)
Tool 1: Health promotion prioritisation tool potential impacts

**Midwife:** may reduce the time spent making decisions about what topics to focus on, structure e.g. ask the woman to rate her top topic

**Pregnant woman:** provides an opportunity for women to shape their antenatal care before they have met their midwife

**Other impacts:** woman-midwife relationship, enhance continuity of care by providing a resource that can be used longitudinally throughout pregnancy, literacy/language barriers
Tool 2: Midwife health promotion consultation tool (during consultation)
Health promotion consultation tool: front cover

MIDWIFE HEALTH PROMOTION CONSULTATION TOOL

WHAT MATTERS TO THE WOMAN?

- WEIGHT MANAGEMENT
- PHYSICAL ACTIVITY
- DIET
- ORAL HEALTH
- SUBSTANCE USE
- SMOKING
- ALCOHOL CONSUMPTION

During a busy antenatal appointment, it can be difficult to remember all the health promotion topics you have to address with women. Try keeping this tool nearby as a reminder.
Health promotion consultation tool: strategies

**Chipping:** Rome wasn't built in a day. Sometimes big issues take a lot of time and effort to address for the woman. See yourself as chipping away at it and try not to expect too much all at once.

**Dipping:** Identify the topics that are most relevant to the woman and dip into them regularly. For instance, you could “dip” into topics identified at the booking as important at follow-up appointments.
Tool 2: Midwife health promotion consultation tool potential impact

**Midwife:** the availability of a prompt and/or strategies to assist midwives may reduce their cognitive load during the appointment.
Sometimes in a busy antenatal appointment, with so many competing priorities, it can be challenging to support women’s health behaviour change.

Developed from recommendations by midwives and feedback from women, the personalised plan is designed to provide the woman with a hand-held reminder of health behaviour change planned during an antenatal appointment.

You could use this tool by asking the woman if she would like a personalised reminder of what has been discussed regarding health behaviour change. If she would like a copy, then you could write the plan in this pad, tear it off and give it to her. There will be a copy underneath for you to keep too.
Tool 3: Personalised action plan (end of consultation)

For example, if you were helping a woman to become more physically active during pregnancy you could collaboratively agree on a plan like the following examples:

- **Plan the what, when and where of what you and the woman have agreed she will do**
  
  "We have agreed: you are going to read Ready Steady Baby pages 8-9 on physical activity during pregnancy (what), in the evening (when), on the train home from work (where)"

- **Encourage the woman to record her behaviour**
  
  "We have agreed: you are going to keep a note of your daily step count on your phone (what) each evening (when) before you go to bed (where)."

- **Set goals together about what it is she is aiming to achieve**
  
  "We have agreed: that the goal for your next appointment is to increase your average step count by 2,000 steps (what) during your lunch hour (when) by walking around the park near your office (where)."

Today we have talked about ...

| Todays Date: / / 20 | Next Appointment Date: / / 20 |
Tool 3: Personalised plan potential impacts

**Midwife:** helps guide the conversation

**Pregnant woman:** the personalised plan provides women with a personalised reminder of what has been discussed. It also provides the woman with something concrete to take away

**Other:** potentially facilitate continuity of care as the midwife could follow up on the plan at subsequent appointments
PhD overview

Review of the existing evidence literature review including various policies/guidelines

Acceptability study

Gathering new evidence Interview and survey studies

Intervention Development selection of theory, behaviour change techniques and format of delivery)
Midwives’ prospective acceptability of a toolkit designed to support them in performing their health promotion practice

- 108 midwives completed an online survey based on the Theoretical Framework of Acceptability, or TFA (Sekhon, Cartwright & Francis, 2017)

- Seven TFA component constructs: affective attitude, burden, perceived effectiveness, ethicality, intervention coherence, opportunity costs and self-efficacy
Midwives’ prospective acceptability of a toolkit designed to support them in performing their health promotion practice

<table>
<thead>
<tr>
<th>Component construct items</th>
<th>All midwives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Using the toolkit would support me in my health promotion practice (Perceived Effectiveness)</td>
<td>4.13</td>
</tr>
<tr>
<td>Using the toolkit would fit well within my values as a midwife (Ethicality)</td>
<td>4.02</td>
</tr>
<tr>
<td>Using the toolkit would be straightforward (Self-efficacy)</td>
<td>3.81</td>
</tr>
<tr>
<td>Using the toolkit would be something I would like to do (Affective Attitude)</td>
<td>3.75</td>
</tr>
<tr>
<td>Using the toolkit would not interfere with my other priorities when providing antenatal care (Opportunity Costs)</td>
<td>3.40</td>
</tr>
<tr>
<td>Using the toolkit would be something I would do in my antenatal practice (Intervention Coherence)</td>
<td>3.63</td>
</tr>
<tr>
<td>Using the toolkit would not require a lot of effort (Burden)</td>
<td>3.28</td>
</tr>
</tbody>
</table>
Acceptability of the toolkit: what midwives liked

- midwives considered the toolkit as potentially effective
- fitted well within midwives’ values
- most midwives appeared to like the toolkit and considered it straightforward to use

“A more streamlined, thorough and women led way to discuss health promotion”

“Really like the practical tips behind supporting behaviour change and getting away from the traditional advice giving”
Acceptability of the toolkit: what midwives didn’t like

- Many midwives also perceived the toolkit as being additional work that would cost them time within antenatal appointments.
- Some midwives also appeared to consider the toolkit as being primarily designed to support pregnant women.
- Some midwives questioned why the toolkit wasn’t electronic.

“The toolkit is a good idea but time is the main issue. Having time to fill out the slips in an appointment or making a plan would be challenging in view of the practical things that need completing in a 10-minute appointment.”

“With the move to electronic records in most Scottish boards, perhaps something that shows on the woman’s maternity record app would be more acceptable with the questions and tips incorporated into the electronic record.”
Summary of findings

- Midwives now have a very high health promotion workload and require more support to fully overcome the barriers they perceive in addressing health behaviours with pregnant women.

- The HePPBe toolkit should be considered a practical example of the development of a multiple integrated behaviour change intervention, using the systematic Flex Five approach which considers target population, target behaviour, theory, BCTs and FoD.
What’s next?

Further development and testing of the toolkit
- Address midwives’ perception that using the toolkit would add to their workload
- Digitalisation
- Testing of effectiveness e.g. open-pilot RCT or definitive RCT
- Expand target population e.g. could health visitors

Further research
- Barriers and facilitators that other HCPs perceive in addressing multiple health behaviours with pregnant women
- Explore how pregnant women and new mothers perceive multiple health behaviour change
Acknowledgements

- Midwives and stakeholders who took part in the studies and provided feedback

- Supervisors: Dr Stephan Dombrowski, Professor Ronan O'Carroll and Professor Helen Cheyne

- Funding: University of Stirling in collaboration with the Scottish Improvement Science Collaborating Centre (SISCC)