



**UNIVERSITY OF
STIRLING**

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

A realist evaluation of screening and alcohol brief interventions in antenatal care

Lawrence Doi

[\(l.k.doi@stir.ac.uk\)](mailto:l.k.doi@stir.ac.uk)

Centre for Population Health and Public Health research
University of Stirling

The 9th Conference of INEBRIA, Barcelona, Spain
27th September 2012

Overview of presentation

- Brief background of Screening and Alcohol Brief Interventions (ABIs) programme in Scotland
- Approach taken - realist evaluation
- Methods used to obtain data
- Findings
- Conclusions and implications for policy and practice

Background

- Screening and ABIs were implemented in 2008 as part of the Scottish Government's commitment to reduce hazardous and harmful drinking
- ABIs have a long history in primary health care
- Relatively new in antenatal care settings and therefore little research on their effectiveness

Aim

To use realist evaluation to increase understanding of the factors that are likely to influence the effectiveness of the recently implemented screening and ABIs in Scottish antenatal care settings

Approach taken – realist evaluation

- Realist evaluation – theory driven approach to investigate social programmes
- Experimental design (successionist) versus realist (generative theorist) understanding of the nature of social causation
- Realist therefore provide highlights of the missing explanation ingredients i.e. internal features that caused change
- Context + Mechanism = Outcome

Methods of realist evaluation

Stage	Source of data
Stage 1 – Development of CMO propositions (programme theories) about the screening and ABIs	Two separate systematic reviews and qualitative in-depth interviews with key policy informants
Stage 2 – Testing or exploring the propositions identified in stage 1	Qualitative interviews/focus group with midwives and pregnant women
Stage 3 – Refining the CMO propositions to offer explanations as to whether the theories about how the programme works is supported or refuted	Revisiting the initial concepts to build an explanation about what works, for whom, how and in what circumstances

An example of developing the CMO propositions

	FASD incl FAS	Spontan eous abortion	Stillbirth	IUGR /SGA	Low birth weight	Preterm birth	Cryptor chidism	Cognitive problems	Behav iour
Low	X	•	?	X	X	X	X	X	?
Moder ate	X	•	?	?	?	?	X	✓	✓
Heavy	✓	•	✓	✓	✓	✓	?	✓	✓
Binge	•	X	✓	✓	?	✓	✓	?	✓

Key

✓ = evidence of risk

X = no evidence of risk

? = inconclusive evidence of risk

• = data unavailable to determine risk

Findings - Uncertainties of effects

Context	Mechanisms	Outcomes
There are uncertainties regarding the evidence of effects of moderate levels of drinking on the fetus	Through screening, there was regular opportunity for midwives to raise awareness about the effects of alcohol use in pregnancy	Increased awareness of fetal risk and alcohol guidelines promoted compliance which resulted in abstinence or reduction in alcohol use

1st trimester harm

Context	Mechanisms	Outcomes
Drinking in the 1 st trimester is more risky and may present challenges to the timing of screening and ABI delivery	New policy facilitates early identification of alcohol use and offered opportunity for early screening and ABI	Subsequent maternal drinking behaviour altered and further risk to the fetus is reduced

Pregnancy ideal period

Context	Mechanisms	Outcomes
<p>Antenatal period is a good opportunity to screen and deliver ABI because there is a captive audience and most women are motivated to change drinking behaviour</p>	<p>Pregnant women valued the good relationship they shared with their midwives</p>	<p>Increased adherence to midwives' advice</p>

Training

Context	Mechanisms	Outcomes
Training and dedicated personnel are essential for effective screening and ABI delivery	Offered midwives opportunity to develop motivational interviewing skills	Increased confidence to screen and deliver ABI
	Training facilitated midwives acceptance of screening and ABI programme	Raised awareness and priority of screening and ABI programme

Low numbers of ABI delivery

Context	Mechanism	Outcomes
Few women participated in risky drinking behaviour when they knew they were pregnancy	The skills midwives gained from training were rarely put into practice	Confidence and fidelity to ABI delivery reduced

Timing of delivery

Context	Mechanism	Outcome
Screening and ABI usually delivered at the 1 st appointment	The amount of information provided to women at the 1 st appointment compromised the quality of screening and ABI delivery	Competing priorities at the booking decreased fidelity to screening and ABI delivery

Screening tools

Context	Mechanisms	Outcomes
Screening tools important to identify risky drinking in pregnancy	Screening tool terminology (e.g. TWEAK) was difficult for women to understand	Risky drinkers were more likely to be missed

Conclusions

- As most of the women drank before they recognised that they were pregnant, more efforts should be placed on pre-pregnancy preventative measures in order to reduce alcohol exposed pregnancies.
- Because trust-based relationships are essential for effective screening ABI delivery, delivering them at the first appointment when they are most likely to make the most impact, may be particularly challenging in antenatal context.
- Because many of the midwives rarely delivered ABIs, regular training and assessment with Motivational Interviewing Treatment Integrity code may be necessary to maintain or improve skills and ensure fidelity to ABI delivery.

Thank you