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# Screening and alcohol brief interventions in antenatal care: a realist(ic) evaluation

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16<sup>th</sup> April 2012

# Outline of presentation

- Overview of alcohol use in pregnancy and the screening and alcohol brief interventions programme
- Approach taken - realist evaluation
- Methods used to obtain data
- Findings
- Conclusions and implications for policy and practice

# An FAS patient diagnosed at birth and photographed at ages 1, 8 and 18 years



Source: Reprinted with permission from the author (Streissguth, 2007)

# Background

- The Scottish government has recently implemented screening and Alcohol Brief Interventions (ABIs) in primary care, A&E and antenatal care settings in order to reduce alcohol harm
- ABIs are time-limited interventions, lasting for about 10-15 minutes that focus on assessment, advice and strategies to reduce alcohol consumption or change drinking behaviour
- ABIs – utilise motivational interviewing techniques to modify hazardous and harmful drinking behaviour
- Screening involves the use of validated tools, for example T-ACE and TWEAK in antenatal care settings to detect risk drinking

# Background (2)

- ABIs have a long history in primary health care and have proven to be as effective as more intense treatment regimes
- The WHO has been advocating and employing screening and ABIs since 1982
- Relatively new in antenatal care settings and therefore little research on their effectiveness
- Pregnancy period may be a catalyst for change

# Aim

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

Stage	Source of data
Stage 1 – Development of propositions (programme theories) about the screening and ABIs	Two separate systematic reviews, a critical review 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 alcohol and address issues of uncertainties bothering women	Increased awareness of fetal risk and alcohol guidelines promoted compliance which resulted in abstinence or reduction in alcohol use

# 1<sup>st</sup> trimester harm

Context	Mechanisms	Outcomes
<p>The adverse effects to the fetus of maternal drinking in the first trimester is profound as compared to the second and third trimester drinking and may present challenges to the timing of screening and ABI delivery</p>	<p>Policies like KCND facilitated early identification of alcohol use and offered opportunity for early screening and ABI</p>	<p>Subsequent maternal drinking behaviour altered and further risk to the fetus is reduced</p>

# 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 and continued relationship they have with their midwives</p>	<p>Increased adherence to midwives' advice</p>
	<p>Women saw the midwife as authority figure and this intimidated some women</p>	<p>This caused some women to limit the amount of drinking information they disclosed and this subsequently affected screening results</p>

# Training

Context	Mechanisms	Outcomes
Training, support and dedicated personnel are essential for effective screening and ABI delivery	Built capacity and ensured there was a scope to enhance fidelity to ABI delivery	Improved skills and increased confidence to screen and deliver ABI
	Training and support facilitated midwives acceptance of screening and ABI as part of their role	Raised awareness and priority of screening and ABI programme

# Timing of delivery

Context	Mechanism	Outcome
Screening and ABI usually delivered at the first appointment	The amount of information provided to women at the booking compromised the quality of screening and ABI delivery	Competing priorities at the booking decreased fidelity to screening and ABI delivery
	Undeveloped relationship at the booking appointment affected screening and delivery of ABI	Women more likely provided socially desirable response to screening

# Screening tools

Context	Mechanisms	Outcomes
Validated screening tools important to identify risk drinking in pregnancy	Screening tool difficult for women to understand and answer correctly and also difficult for midwives to record responses	Misclassification of women likely and decrease in quality of data collected as time became an issue

# Low numbers of ABI delivery

Context	Mechanism	Outcomes
Few women participate in risk drinking behaviour when they know they are pregnancy	The skills midwives gained from training were rarely put into practice	Confidence and fidelity to ABI delivery reduced
		ABI no longer a priority for midwives therefore the few women who drink at risky levels were unlikely to benefit as the ABI was not delivered effectively

## Conclusions and implications for policy/practice/research

- Screening and ABI appear to be enhanced when trust-based relationships are established. Therefore the first appointment may not be the best time to do the intervention.
- The effectiveness of the intervention may be limited as it is delivered after the most harm has been done. However, it might affect drinking behaviour in the next pregnancy.
- Because many midwives rarely deliver the ABI, regular training will be necessary to ensure fidelity to ABI delivery.
- Research efforts should focus on developing screening tools relevant to the Scottish context.



*Thank you*