

## Evidence Synthesis: using qualitative evidence to understand RCT implementation



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## Asthma Action Plans (AP):

- Written agreed record of what do when asthma worsens
- In a self-management programme can improve clinical outcomes
- Recommended as good clinical practice internationally
- Under-provided by health professionals (HP)
- Under-utilised by patients/carers (P/C)



## Understanding AP use:

Systematic review of RCTs to identify interventions to promote their use:

- Limited information on sustaining AP use longer term.

Meta-ethnography of P/C and HP views on barriers and facilitators to AP use:

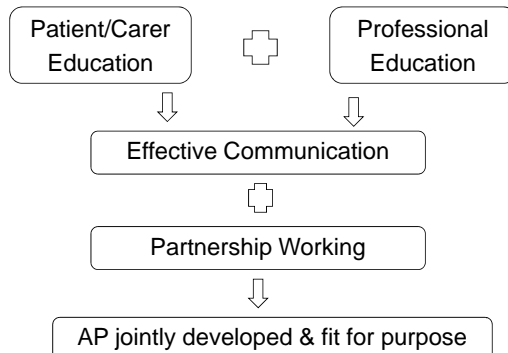
- AP not fit for purpose or meeting user needs.

Ring et al. (2007), Ring et al. (2011)

## Thematic Synthesis

- Integrates qualitative & quantitative data.
- Work of Thomas et al. (2004) & Harden et al. (2009).
- Modified their approach:
  - Stage 1: generated model of AP implementation.
  - Stage 2: tested model against RCT intervention components.

## AP Model of Implementation



## Testing our AP model

14 RCT interventions examined to:

- Identify if contained the 4 'essential elements' (EE) & in what strength (strong/weak/not present)
- For each RCT, the EE (presence/strength) were mapped to interventions & outcomes
- Detailed analysis of EE presence, strength & intervention effectiveness.

## Results:

- EE integral presence in all 14 interventions
- Strong EE availability appeared to be associated with intervention effectiveness
- EE likely 'active ingredient' but contribution to intervention delivery and outcomes not fully acknowledged.
- These RCTs emphasised the organisational context(s) & under-emphasised the individual context(s) of their interventions.

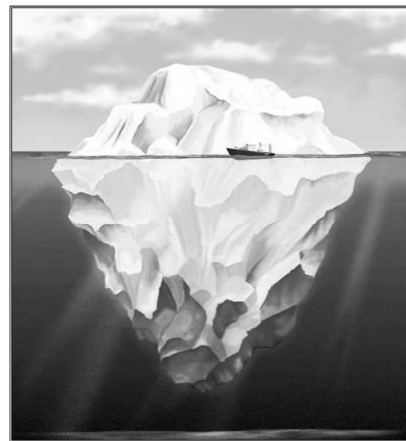
## Results:

AP implementation in:

- Research settings may be achievable because of the presence of strong EE
- Clinical settings may be harder due to a lack of consistently strong EE

Future AP interventions need to:

- Consider organisational & individual contexts
- Explicitly acknowledge the EE & measure their effect on study outcomes.



## Conclusions:

- Development & evaluation of complex interventions should have a theoretical underpinning (MRC 2000)
- Our study illustrates how qualitative & quantitative evidence can be combined:
  - Giving new insight into RCT intervention implementation
  - Enabling a more comprehensive identification of the components of a future AP intervention.

## References

Harden A. et al. (2009) Teenage pregnancy and social disadvantage: systematic review integrating controlled trials and qualitative studies. *British Medical Journal* 339:b4254.

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Iceberg picture from: [www.tv.com](http://www.tv.com) - last accessed January 2009.