Adapting health promotion interventions for ethnic minority populations: key findings of an MRC/HTA project

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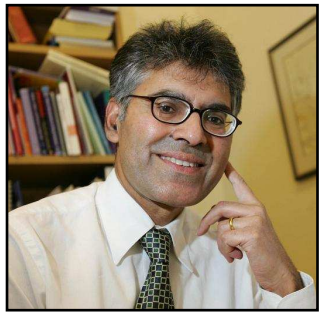
Project team



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Background

- Increasing population diversity
- Substantial ethnic variations in health, particularly in long-term conditions e.g. coronary heart disease and diabetes
- Preventive approach

Background

How effective?

Adaptation?

Generate inequalities?

Evidence?

MRC/HTA project:

- Examine evidence on preventive health interventions for smoking cessation, healthy eating and physical activity adapted for African-, South Asian- and Chinese-origin populations

Design – mixed methods:

Phase 1. Summary of recommended interventions for general population

Phase 2. Systematic review of adapted interventions

Phase 3. Qualitative interviews

Phase 4. Synthesis of research components

Phase 1. Summary of interventions recommended for the general population

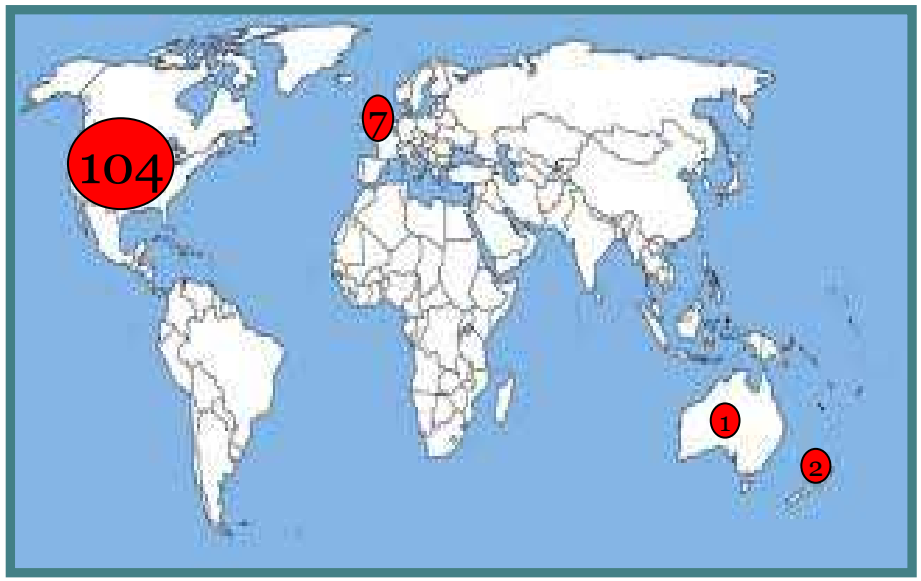
- Key Terms – 12 Guidelines and 66 reviews
- Informative statements – 12 Guidelines and 41 reviews

- 5 Main themes:
  - Acknowledging diversity
  - Identifying evidence gaps
  - Observing differential effects of interventions
  - Proposing adaptation of interventions
  - Improving research design, analysis and reporting

Phase 2. Systematic review of adapted interventions

- Searched ASSIA, BIOSIS, Campbell, CINAHL, Cochrane, EMBASE, ISI Web of Science, LILACS, MEDLINE, PsycINFO and SCEH databases

- Screened 48,740 potentially eligible studies - 7 systematic reviews and 107 studies (154 papers) of adapted interventions



Findings - 7 systematic reviews

Reviews	No studies and dates	Populations	Interventions	Synthesis	Results
Chen & Tang 2007	4 studies 1995-2005	Asian American	Smoking cessation interventions	Narrative	**Inconclusive** - more research required
Banks-Wallace & Conn 2002	18 studies 1984-2000	African American	Any intervention increasing physical activity	Narrative	**Inconclusive** – suggests are effective but study design and measurement issues prevented firm conclusions
Hudson 2008	6 intervention studies 1997-2007	African American	Obesity prevention interventions	Narrative	**Inconclusive** - more research required
Shaya et al 2006	10 studies 1966-2004	African American	Interventions focused on improving CVD related health behaviours, adherence to treatment and access to health care	Narrative	**Inconclusive** - more research required
Whitt-Glover & Kumanyika 2009	29 studies in adults and 14 in children 1985-2006	African American	Interventions to increase physical activity or fitness	Narrative	**Inconclusive** - did not appear to significantly improve outcomes - further, quality required
Webb 2008	20 studies 1984-2006	African American	Smoking cessation	Meta-analysis	Culturally specific interventions more **effective in short term** but not in the long term
Hawthorne et al. 2008	11 studies No publication year restrictions	African origin and South Asian	Culturally appropriate health education	Narrative, with meta-analysis where outcome measures sufficiently similar	**Significant effect** observed for culturally adapted interventions over the control groups for all ethnic groups.

Findings – 8 'head to head' studies

Study	Population	Intervention	Acceptability	Effectiveness		Cost effectiveness
Ma et al 2004	Chinese -|American youth Males 14-19yrs (n=17)	Smoking cessation	Acceptability similar for both adapted and control intervention	-	Adapted intervention did not improve quit rates over standard intervention	No data available in any of the studies
Nollen et al 2007	African American Male and female >18yrs (n=500)	Smoking cessation	More likely use adapted materials	**EI**	Response to intervention related to degree of ethnic identity, most likely to quit for those with low EI receiving standard interventions	
Webb et al 2008	>97%African American Male and female 18-65yrs (n=182)	Smoking cessation	Adapted materials preferre	**EI**	Response to intervention related to degree of ethnic identity, strongest EI highest readiness to quit with adapted intervention, but most likely to achieve quitting with standard materials!	
Resnicow et al 2009	African American (n=560)	Healthy eating	Enhanced personal relevance	**EI**	Response to adapted intervention related to degree of ethnic identity, with increased F&V intake in those with strongest EI	
Kreuter et al 2005	African American Women 18-39yrs (n=648)	Healthy eating	Not assessed	**!**	Behavioural + cultural adaptation increased fruit and vegetable consumption, but cultural adaptation alone no more effective than control	
Campbell et al 1999	African American Male and female >18yrs (n=459)	Healthy eating	Increased trustworthiness and impact	-	Both groups increased F&V intake: Adapted intervention did not improve results over standard intervention	
Ard et al 2008	African American Male and female >25yrs (n=377)	Healthy eating and physical activity	Higher attendance	-	Both groups significant weight loss: Adapted intervention did not improve results over standard intervention	
Djuric et al 2009	African American Women breast cancer survivors (n=31)	Healthy eating and physical activity	Attracted to adapted approach due to spiritual component	+	Both groups significant weight loss: Adapted intervention more effective for improved fruit intake, but not weight loss	

Summary of adapted interventions (Phase 2)

- Increased acceptability
- Mixed, inconclusive evidence of effectiveness
- No evidence on cost-effectiveness
- Highlights complexities of field of study
  - Lack of ‘head to head’ studies
  - Contextual effects
  - Complexity of adaptation
  - Poor reporting of adaptations
- Extract examples of approaches to adaptation

Phase 3. Qualitative interviews

- 26 international experts and practitioners in the field
- Recorded, transcribed, coded NVivo 8 and thematically analysed (independently by 2 researchers)
- Themes:
  - Approaches to adapting interventions
  - Practicalities of adapting
  - Conceptualising ethnicity

Conceptualising ethnicity:

- Ethnicity as concept includes conventional and contextual elements
  - **Conventional:** religion, language, culture, physical features and ancestry
  - **Contextual:** past healthcare and research exposures and experiences; significance of social dynamics, inherent heterogeneity within the target group, and relationships with spaces and places.

Quote – Spaces and places:

"*Back in 2003 New Zealand brought in the smoke-free environments legislation. What we found is that a lot of the communities that weren't accessing mainstream media weren't getting those messages across about to take the smoke outside and about the fact that it was now, you know legislated against smoking in public places, bars, restaurants and things like that, so there was a whole section of the New Zealand population that kind of missed that message*"

Quote – Spaces and places:

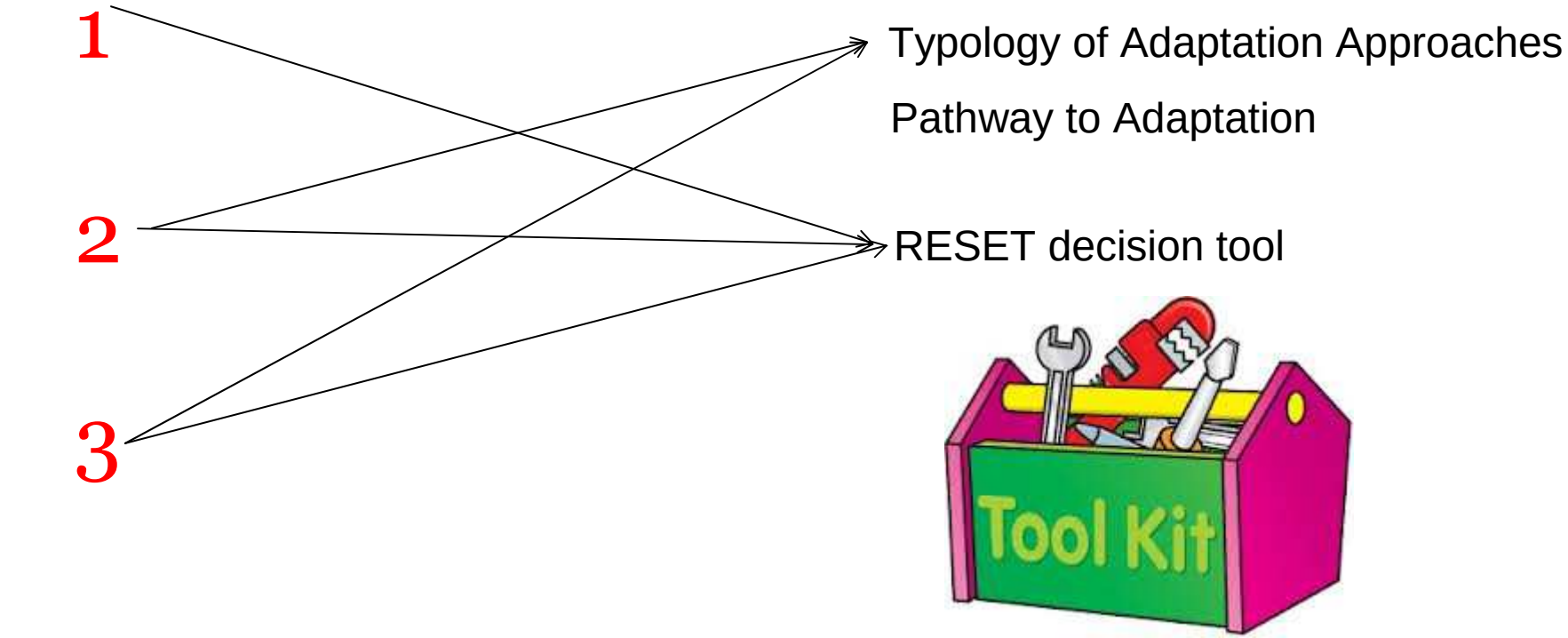
"*One interesting things like elderly people give up the smoking yeah and after six month they start again and he, he just saw me that passed the road and his hand is smoking, he's just hiding smoking like he's, he's seventy year old man but when he saw me, just then say oh I'm sorry, sorry Bhateja we call Bengali like, you know, like a son, we say Bhateja, sorry Bhateja, then we said don't worry Uncle, if you want please come back.*"

Phase 4. Research synthesis

To advance this field of research:

- Incorporate contextual effects
- Construct a standardised approach to adaptation

Phases:



Typology of 46 approaches to adaptation

- Previous approaches have been high level (e.g. Resnicow, Netto et al.)
- Assist researchers and practitioners practically in developing interventions
- Provide a standard approach to reporting which would facilitate evaluation and synthesis of research

	Adaptation	Example
1	Exploratory phase with target population (same group as intervention group)	Adaptations based on prior relevant (qualitative) research
2	Exploratory phase with target population (different group then intervention group or can't tell)	Adaptations based on focus groups from a previous study
3	Exploratory phase with community leaders	Needs assessment
4	Assesses if intervention goals and outcomes are relevant to the target population	Focus on reducing fat and not on losing weight when weight loss is not a priority for the population; emphasis on personal health improvement as means of assisting the family or community
5	Assesses whether intervention addresses health behaviour patterns found in target population	Modal smoking patterns of African American smokers (low daily smoking rate, menthol, high tar/nicotine cigarettes)
6	Assesses whether evaluation instruments are developed for and validated within the target population	Regionally and culturally specific foods added to Food Frequency Questionnaire (FFQ)
7	Ethnically-matched intervention staff or facilitator (with qualifications)	Dietician, exercise instructor, program staff with knowledge of culture, religion, and specific community characteristics
8	Ethnically-matched peer role models or peer education	Lay health advisors with the same background, age, ethnicity
9	Ethnically- matched high level/respected individuals and community members throughout planning, directing, reviewing and implementing stages	Steering group ethnically matched to the target population e.g. all Chinese
10	Ethnically-matched leadership within the study	Principal investigator is ethnically matched to the target population e.g. is South Asian
11	Cross-cultural training for all study personnel	Cultural competency training provided for study personnel

Pathway to Adaptation

Intervention pathway	Conception/ planning	Promotion	Recruitment	Implementation	Retention	Evaluation	Outcomes	Dissemination/ Capacity building
Examples from the typology of approaches to adaptation mapped on to relevant steps in a typical intervention	Conduct formative work	Utilises local, respected religious and spiritual leaders	Programme utilises ethnically appropriate formal and informal networks	Addresses physical and financial barriers to participation	Programme encourages social support	Intervention content targets population's social and cultural values	Intervention outcomes are relevant to the population	Ethnically-matched leadership within the study

RESET: a decision-making tool for adapting interventions

- Relevance/Evidence base/Stage of intervention/Ethnicity/Trends
- Relevance: Is this health promotion topic relevant to the target population?
  - Sufficient concern?
  - Competing priorities?
- Evidence base: What is the best intervention to address this health topic within this population?
  - General population?
  - Target population?

RESET:

- Stage of intervention: What stage(s) of the intervention programme theory should be adapted?
  - need adaptation?
  - can be adapted?
  - able to be adapted?

RESET:

- Ethnicity: What elements of ethnicity need to be considered for this population?
  - Conventional
  - Contextual
  - Degree of heterogeneity

RESET:

- Trends: What are the shifting trends within this population?
  - Can we monitor the patterns and trends in population characteristics, preferences and contexts and revise the adaptation(s) to maintain relevancy over time?

Conclusions and recommendations

- Key Findings - currently a lack of evidence
- Barriers to accumulating evidence:
  - adapted versus un-adapted interventions (including distinct adaptations)
  - report adaptations clearly (typology)
  - consider complexity and contextual elements of ethnicity and contextual factors that might make adaptations more or less salient
- To assist this we have developed tools which operationalise existing principles and aim to assist people working in practice in this field:
  - Typology of 46 Approaches to Adaptation
  - Pathway to Adaptation
  - RESET tool
  - All tools provide a more systematic approach to building evidence in this field
  - Now needs further tested and validated in practice

Further information:

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