

Model Development – Evidence Summary

Theories and approaches:

5A's Framework, Motivational Interviewing and Stages of Change:

The 5As framework has been adopted nationally and internationally as a framework to addressing SNAP risk factors. There is evidence to support each step in the 5As model [1, 2], including the use of stages of change theory and motivational interviewing [3]

Ask

- Identify patients with risk factors

Assess

- Level of risk factors, its relevance to the individual and readiness to change. This enables advice to be tailored to stages of change

Advise

- Advice should be matched to individuals' stage of change and be provided in a non-coercive, non-judgmental manner that respects patients autonomy.

Assist / Agree

- Collaboratively develop an action plan which may include goals and methods of behaviour change. This may include specific strategies for example setting quit date, recommendations of NRT in smokers, self monitoring techniques and/or problem solving.

Arrange

- Consider referral to special services, support or community groups.
- Arrange follow up

Screening / Assessing Risk Factor	Effectiveness of Intervention	Benefits of Intervention
Smoking		
<ul style="list-style-type: none"> • Smoking status should be included in routine history taking. • Implementing clinic & hospital systems to increase assessment/documentation smoking can at least double long term quit rates. • Those likely to benefit most from quitting include: <ul style="list-style-type: none"> - People with smoking related disease - People with diabetes or CVD - People from low SES - Pregnant women - Parents of babies with young children - Indigenous Australians - People with mental illness - People with other chemical dependencies [2] 	<ul style="list-style-type: none"> • Compared to smokers who attempt to quit without assistance, the chance of successful quitting is 4-6 times higher in people who receive brief advice on quitting, help with dealing with withdrawal and stress and are referred to quit line program [4] • Interventions work best in those people who are ready and motivated to quit and follow up support is provided [2]. Evidence suggests patients should be offered follow up at 1 week and 1 month. • Brief intervention with health professional and repeated follow up is as effective as intensive intervention with smoking cessation specialist [5]. • In the absence of contraindications, NRT should be suggested to all motivated smokers who have evidence of nicotine dependence [2] • Lack of studies of brief intervention for smoking delivered by nurses in community setting as part of routine care (Cochrane Collaboration). 	<ul style="list-style-type: none"> • Quitting smoking has benefits in reducing cancers, coronary artery disease, chronic obstructive airways disease and stroke. • There are no risks from preventive actions.
Alcohol		
<ul style="list-style-type: none"> • Screening for at risk drinking should occur at least every 3 years in asymptomatic persons, and at every presentation in high risk groups for complications (eg those with high blood pressure, liver disease or pregnant women) [2]. 	<ul style="list-style-type: none"> • Brief advice by GPs has been shown to be effective in correcting risky drinking in non-dependent drinkers. Studies have shown a 25-30% reduction in alcohol consumption and a 45% reduction in the number of excessive drinkers with brief intervention in primary care [2]. • There is a lack of studies examining effectiveness of alcohol interventions provided by community health workers. 	<ul style="list-style-type: none"> • Reducing alcohol intake in at risky, or high risk drinkers has benefits in reducing cancer, high blood pressure, alcohol related injuries [2].

Screening / Assessing Risk Factor	Effectiveness of Intervention	Benefits of Intervention
Nutrition		
<ul style="list-style-type: none"> • Fruit & vegetable consumption is an important indicator of dietary quality, it is recommended that patients be asked about the number of portions of fruit & vegetables consumed each day [2]. • It is recommended that body mass index (BMI) and waist circumference should be measured every 2 years in those who appear under or over weight [2]. • It is recommended that screening for malnutrition in primary health care be undertaken in high risk individuals (elderly, those with aggressive inflammatory disease such as cancer, socially isolated, bereaved or recently discharged from hospital) using validated simple screening tool [6]. 	<ul style="list-style-type: none"> • Dietary advice given in primary care setting is effective in reducing saturated fat intake and increasing fruit and vegetable intake [7]. • There is insufficient evidence to support for or against routine behavioural counselling to promote a healthy diet in unselected patients in primary care [8]. • Nutritional interventions in malnourished patients have been shown to produce a range of clinical benefits including improved functional capacity, quality of life, reduced hospital admissions and mortality [6]. Such interventions usually require specialist dietetic input. 	<ul style="list-style-type: none"> • Weight loss of 5-10% of original body weight achieves clinically significant reductions in blood pressure, blood lipids, and diabetes risk or control [2]. • Increasing consumption of fruit and vegetables by as little as one portion a day can have significant population health benefits. • Benefits of addressing malnutrition include improved functional capacity, quality of life, reduced hospital admissions and overall mortality [6]
Physical activity		
<ul style="list-style-type: none"> • All patients should be asked about daily physical activity to determine if sufficient for health benefits [2]. 	<ul style="list-style-type: none"> • Effectiveness of interventions in primary care setting is inconclusive, more research is needed to clarify the effect, benefits and potential harm [9] • There is a lack of studies examining effectiveness of brief physical activity interventions provided by community health workers. 	<ul style="list-style-type: none"> • Regular moderate physical activity reduces all cause mortality, incidence of CHD, hypertension, type 2 diabetes, obesity, osteoporosis, colon cancer, falling, anxiety and depression [2]. • The benefits are greatest in those who were previously sedentary, adults from low SES backgrounds who are less likely to be active but more likely to have multiple CVD risk factors [2]. • Participation in regular physical activity offers similar benefits in older adults compared to younger adults, and may reduce age associated decline in physical functioning [10]

Evidence for Changing Individual (Client) Behaviour

Individual education:

- Information tailored to an individual's *stage of change* has been shown to be more effective than standard advice to all [1].
- The use of *motivational interviewing* techniques have been shown to be more effective than traditional advice giving in treatment of broad range of behavioural problems [3]. It involves using a directive client centred approach to facilitating behaviour change by helping patients to explore and resolve their ambivalence about the behaviour change
- Shared decision making about behaviour change results in greater personal control, ensures decisions are based on realistic expectations and patient values and results in improved adherence [1, 11]

Group education:

- There is strong evidence that group education sessions for people for chronic conditions can improve patient knowledge, satisfaction and have a small effect on clinical outcomes.[11]
- There is some evidence that educational sessions facilitated by lay educators can promote behaviour change among people with chronic conditions. [11]

Written Information:

- There is evidence that written information such as leaflets may improve peoples' knowledge but will not effect peoples' behaviour when used alone. The use of written information along with other strategies is more effective. There is inconsistent evidence about the usefulness of providing information via video or the internet [11]

Other Strategies

- There is strong evidence that self-monitoring, goal setting and enlisting social support can promote behaviour change [1, 11]
- Effective interventions teach self-management and problem solving / coping skills.
- The number of contacts with a health professional and follow up have been shown to help promote and maintain changes in behaviour [1].

Evidence for Changing Health Professional Behaviour

There have been a large number of studies (mainly in general practice) to look at the effectiveness of interventions to change clinician behaviour [11-13].

Interventions that have little or no effect:

- Educational materials alone (guidelines for care, audiovisual material or electronic publications).
- Didactic educational meetings (such as lectures)

Interventions of variable effectiveness:

- Audit and feedback (any summary of clinical performance)
- The use of local opinion leaders (practitioners identified by their colleagues as being influential).
- Local consensus processes (inclusion of participating practitioners in discussions to ensure that they agree that the chosen clinical problem is important and the approach to managing the problem is appropriate).
- Patient mediated intervention (any intervention aimed at changing the performance of health care providers for which specific information was sought from or given to patients).
- Changing structures and tasks
- Incentives and regulations (eg financial, policies)

Interventions of most promise:

- Multifaceted interventions (a combination of two or more of the above interventions of variable effectiveness).
- Interactive educational meetings (participation of healthcare providers in workshops that include discussion or practice).
- Reminders (manual or computerised)

References

1. Goldstein, M., E. Witlock, and J. DePue, *Multiple behavioural risk factor interventions in primary care*. Am J Prev Med, 2004. **27**(2S): p. 61-79.
2. RACGP, *SNAP A population health guide to behavioural risk factors in general practice*, P.M. Harris, Editor. 2004, The Royal Australian College of General Practitioners Melbourne.
3. Rubak, S., et al., *Motivational interviewing: a systematic review and meta-analysis*. British Journal of General Practice, 2005. **April**: p. 305-310.
4. Zwar, N., et al., *Smoking Cessation Guidelines for Australian General Practitioners*. 2004, Commonwealth Department of Health & Ageing: Canberra.
5. Miller, M. and L. Wood, *Effectiveness of smoking cessation interventions: review of evidence and implications for best practice in Australian health care settings*. Australian and New Zealand Journal of Public Health, 2003. **27**(3): p. 300-309.
6. Elia, M., L. Zellipour, and R. Stratton, *To screen or not to screen for adult malnutrition*. Clinical Nutrition, 2005. **24**: p. 867-884.
7. Ockene, I., J. Herbert, and J. Okene, *Effect of physician-delivered nutrition counselling training and an office-support program on saturated fat intake, weight and serum lipid concentration in a hyperlipidemic population: Worcester area Trial for Counselling in Hyperlipidaemia (WATCH)*. Archives of Internal Medicine, 2001. **159**: p. 725-731.
8. Pignone, M., et al., *Counseling to promote a healthy diet in adults. A summary of the evidence for the U.S Preventive Services Task Force*. Am J Prev Med, 2003. **24**(1): p. 75-90.
9. Eden, K., et al., *Does counselling by clinicians improve physical activity? A summary of the evidence for the U.S Preventive Services Task Force*. Annals Internal Medicine, 2002. **137**: p. 208-215.
10. NSWHealth, *Healthy Ageing and Physical Activity*. 1999, NSW Health: Sydney.
11. Singh, D., *Transforming Chronic Care: Evidence about improving care for people with long term conditions*. 2005, The University of Birmingham: Birmingham.
12. Grol, R., *Beliefs and evidence in changing clinical practice*. BMJ, 1997. **315**: p. 418-421.
13. Bero, L., et al., *Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings*. BMJ, 1998. **317**: p. 465-468.