

NEW REVIEWS

Effectiveness of physical activity promotion based in primary care: Small yet significant increases in physical activity reported by sedentary adults after interventions from primary care health professional. [Read more...](#)

Lifestyle interventions for overweight and obese pregnant women to improve pregnancy outcomes: Antenatal interventions are associated with restricted gestational weight gain and a trend towards reduced prevalence of gestational diabetes. [Read more...](#)

Communities that cook: Effects of home cooking courses for adults in the UK inconclusive due to a lack of reliable evidence about impact. [Read more...](#)

Centralisation of services for gynaecological cancer: Specialised services may prolong survival in woman with gynaecological cancer. [Read more...](#)

Training health professionals in smoking cessation: Greater success in helping patients quit smoking for health care professionals trained in smoking cessation care. [Read more...](#)

Interventions to improve the appropriate use of polypharmacy for older people: Pharmaceutical care may be successful in ensuring older people are receiving the right medicines and reducing medication-related problems. [Read more...](#)

Interventions for improving outcomes in patients with multimorbidity in primary care and community settings: Targeted interventions show significant benefits in improving medication management. [Read more...](#)

FORTHCOMING REVIEWS

Interventions for promoting reintegration and reducing harmful behaviour and lifestyles in street-connected children and young people

Exercise for reducing fear of falling in older people living in the community

Community-based, population level interventions for promoting child oral health

NEW REVIEWS

Effectiveness of physical activity promotion based in primary care

Promotion of physical activity to sedentary adults through primary care leads to a small to medium improvement in self reported physical activity which is statistically significant. The review sort to determine whether interventions showed sustained effects on physical activity and if exercise referral schemes were more effective than other types of interventions. Fifteen RCTs were included with 8745 participants aged 17-92 years. Most interventions included written materials and advice on physical activity with a minimum follow-up period of 12 months. This was the first review to examine the effects of promotion of physical activity over a longer follow-up period and interventions delivered through primary care by health professionals. The study provides evidence to directly inform use in

general practice and inform the sustainability of effects. There was insufficient evidence to recommend exercise referral schemes over other types of interventions such as physical activity advice or counselling. Findings also suggest the briefer interventions might achieve effects that are similar to more intensive interventions. The review also highlights the need for further evidence on medium to long term effectiveness of exercise referral schemes.

Orron G, Kinmonth A-L, Sanderson S, Sutton S. Effectiveness of physical activity promotion based in primary care: systematic review and meta-analysis of randomised controlled trials. *BMJ* 2012; 344:e1389. <http://www.bmj.com/content/344/bmj.e1389>

Lifestyle interventions for overweight and obese pregnant women to improve pregnancy outcomes

Antenatal dietary, activity and behavioural interventions during pregnancy limited weight gain and produced a trend towards reducing prevalence of gestational diabetes in overweight and obese women. Efficacy of antenatal dietary, activity or behavioural interventions were examined to see if these interventions improved maternal and perinatal outcomes in this group of women. Thirteen RCTs and six non-RCTs were included with eight studies performed in North America. Meta-analysis of the RCTs showed that combined antenatal dietary, activity and lifestyles intervention restricts weight gain in pregnancy but there was no evidence of lowering prevalence of Caesarean section or birth weight. The quality of studies published was found to be poor with most deemed to be of low to medium quality. Most studies were also conducted in the US with most participants being Caucasian. This highlights the need for more rigorous and robust studies to provide stronger evidence regarding effectiveness of lifestyle interventions in pregnancy especially given the adverse outcomes associated with maternal overweight and obesity.

Oteng-Ntim E, Varma R, Croker H, Poston L, Doyle P. Lifestyle interventions for overweight and obese pregnant women to improve pregnancy outcome: systematic review and meta-analysis. *BMC Medicine* 2012; 10:47. <http://www.biomedcentral.com/1741-7015/10/47>

Communities that cook

Diet-related ill health is a significant cause of morbidity and mortality in the UK. This is attributable to both excess consumption associated with obesity, and diets which are failing to meet nutritional recommendations for maintaining good health. People with socio-economic disadvantaged backgrounds were more likely to have diets higher in fat, salt and added sugar. Other influences on diet include people's skills, knowledge and confidence to cook which has decreased over the past few decades. Community based educational cooking initiatives were introduced to address this concern. This systematic review aims to synthesise and appraise the findings of evaluation studies of various forms of home cooking courses. Thirteen studies were included that were broadly similar and all taught practical cooking skills to existing community groups rather than individuals. The review found that the effects of home cooking courses for adults in the UK is inconclusive due to the lack of high-quality evaluations available. Only five of the thirteen studies had used comparison group designs and of these five all but one had major constraints. There is a need for building rigorous evaluation into the provision of home cooking courses to provide reliable evidence about impact.

Rees R, Hinds K, Dickson K, O'Mara-Eves A, Thomas J (2012). *Communities that cook: a systematic review of the effectiveness and appropriateness of interventions to introduce adults to home cooking*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. <http://eppi.ioe.ac.uk/cms/LinkClick.aspx?fileticket=vURg7hqAOGM%3D&tabid=3322>

Centralisation of services for gynaecological cancer

Centralisation of care may prolong survival in women with gynaecological cancer. The review assessed whether clinical outcomes for patients differed between centralised specialised centres and local non-specialised units. Five retrospective observational studies that adjusted for case mix using multivariate analysis were included. Meta-analysis showed

that institutions with gynaecological oncologists on site or regional cancer centres may prolong survival in women with gynaecological cancers compared to community or general hospitals. This evidence was stronger for ovarian cancer than for other types of gynaecological cancer. Findings should be interpreted with caution as all studies suffered from high risk of bias due to their design and the reasons whereby this benefit was achieved remains unclear. It is proposed that centralisation of cancer care encourages a multidisciplinary team approach which has benefits for overall survival. However centralising care may involve patients travelling further away from their local communities and could therefore have a social impact on patients. Further studies are required to provide higher quality evidence to support centralisation of services given the potential impact on patient's quality of life.

Woo YL, Kyrgiou M, Bryant A, Everett T, Dickinson HO. Centralisation of services for gynaecological cancer. Cochrane Database of Systematic Reviews 2012, Issue 3. Art. No.: CD007945. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007945.pub2/abstract>

Training health professionals in smoking cessation

There was strong evidence found to support the effectiveness of training health professionals in smoking cessation interventions. The number of patients who report receiving advice on how to stop smoking from health professionals is still low. Providing training in smoking cessation care is one possible method to increase the number and quality of delivered interventions. Seventeen randomised controlled trials were included in which health care professionals were trained to help their patients stop smoking and outcomes for patient smoking at least 6 months after the intervention were assessed. Characteristics of the intervention were also assessed. Meta-analysis of fourteen studies for point prevalence of smoking showed a statistically significant effect in favour of training (OR 1.36, 95% CI 1.20 - 1.55). Healthcare professionals who had received training were more likely to provide smoking cessation advice than untrained controls. Setting a quit date, making follow-up appointments, counselling and provision of self-help material for patients were all shown to have a statistically and clinically significant effect. The provision of nicotine gum or replacement therapy was the one exception which did not differ between groups.

Carson KV, Verbiest MEA, Crone MR, Brinn MP, Esterman AJ, Assendelft WJJ, Smith BJ. Training health professionals in smoking cessation. Cochrane Database of Systematic Reviews 2012, Issue 5. Art. No.: CD000214. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000214.pub2/abstract>.

Interventions to improve the appropriate use of polypharmacy for older people

Professional, organisational and financial interventions aimed at improving appropriate polypharmacy use in people aged 65 years or more were assessed in this review. Adverse drug events and geriatric syndromes such as cognitive impairment and poor balance leading to falls are some of the negative health outcomes associated with polypharmacy use. Randomised, non-randomised controlled trials, controlled before and after trials as well as interrupted time series studies were all examined however only ten studies met the criteria for inclusion. As such there was limited evidence to determine if interventions were effective with most studies only focusing on pharmaceutical care interventions. Meta-analysis of five studies showed that pharmaceutical care interventions had a positive impact on improving appropriate polypharmacy use. However it is unclear if this resulted in clinically significant improvement. Interventions were beneficial in terms of reducing inappropriate prescribing and some medication-related problems as well as promoting general health and proper use of medication.

Patterson SM, Hughes C, Kerse N, Cardwell CR, Bradley MC. Interventions to improve the appropriate use of polypharmacy for older people. Cochrane Database of Systematic Reviews 2012, Issue 5. Art. No.: CD008165. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008165.pub2/abstract>

Interventions for improving outcomes in patients with multimorbidity in primary care and community settings.

Health service or patient oriented interventions were examined to determine their effectiveness in improving outcomes in patients with multimorbidity. Individuals with multimorbidity are more likely to be admitted to hospital, have longer stays in hospital and to die prematurely. Ten randomised controlled trials were reviewed which were all of reasonable quality with minimal risk of bias. Organisational type interventions targeted at specific risk factor management or focused areas such as managing medication are more likely to be effective than those with a broader focus. Patient oriented interventions that are not linked to healthcare delivery were also found to be less effective. Outcomes relating to prescribing, medication use and adherence were all found to have significant benefits. Effects on outcomes relating to health service utilisation were limited with mixed effects on hospital admission rates. The results relating to improved prescribing and risk factor management indicate a potential for these interventions to bring about significant benefits for individuals as well as cost savings for the healthcare system in the long term.

Smith SM, Soubhi H, Fortin M, Hudon C, O'Dowd T. Interventions for improving outcomes in patients with multimorbidity in primary care and community settings. *Cochrane Database of Systematic Reviews* 2012, Issue 4. Art. No.: CD006560.

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006560.pub2/abstract>

FORTHCOMING REVIEWS – PROTOCOLS

Interventions for promoting reintegration and reducing harmful behaviour and lifestyles in street-connected children and young people

Physical, psychological and sexual exploitation as well as violence, social exclusion, substance misuse and HIV are some of the important risks faced by street-connected children and young people. Many street-connected children and young people experience health difficulties, criminality and lack of education. However this is not a homogenous group and interventions aimed to improve the situation of street-connected children and youth are complex and varied. This review will aim to evaluate and summarise the effectiveness of interventions for this group. Using logic models in a dynamic way the reviewers aim to synthesise the evidence on reintegration approaches including harm-reduction programs. Randomised controlled trials, clinical control trials, interrupted time-series studies and quasi-randomised trials will be included in this review.

Coren E, Hossian R, Pardo Pardo J, Thomae M, Veras MMS, Chakraborty K. Interventions for promoting reintegration and reducing harmful behaviour and lifestyles in street-connected children and young people (Protocol). *Cochrane Database of Systematic Reviews* 2012, Issue 4. Art. No.: CD009823.

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009823/abstract>

Exercise for reducing fear of falling in older people living in the community

Falls are an important cause of long-term disability and premature mortality in community-dwelling adults aged 65 years and older and can substantially reduce quality of life. Falls are frequent in this group and fear of falling is common. Fear of falling is associated with a range of negative health consequences including increased risk of falling, restricting or avoiding activities, loss of independence, reduction in social activity and depression. However measuring fear of falling is complex. Prescribed or provided exercise may reduce fear of falling by possibly improving lower limb strength, balance and stability. This review aims to review the effects of prescribed or provided exercise for reducing fear of falling in older people living in the community. Randomised and quasi-randomised controlled trials measuring fear of falling including direct measurement of fear of falling, falls efficacy and balance confidence will be included.

Kendrick D, Carpenter H, Morris RW, Skelton DA, Gage H, et al. Exercise for reducing fear of falling in older people living in the community (Protocol). *Cochrane Database of Systematic Reviews* 2012, Issue 5. Art. No.: CD009848. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009848/abstract>

Community-based, population level interventions for promoting child oral health

Good oral health is vital to good general health and oral disease remains a significant public health challenge. Chronic oral diseases such as dental caries are frequently associated with pain, infection, tooth loss and decreased quality of life. Socially disadvantaged communities have been shown to be disproportionately affected by poor oral health. Population health interventions should improve the health of whole populations and reduce health inequities between specific groups. This review will examine the effectiveness of community-based interventions to improve oral health of whole populations. It aims to gather evidence on the associations between access to oral health care services and oral health status, and risk factors associated with poor oral health. Randomised, quasi-randomised controlled trials, controlled before and after studies and interrupted time series will be included with participants aged up to and including 18 years.

de Silva-Sanigorski A, Prosser L, Hegde S, Gussy MG, Calache H, Boak R, Nasser M, Carpenter L, Barrow S. Community-based, population level interventions for promoting child oral health (Protocol). *Cochrane Database of Systematic Reviews* 2012, Issue 5. Art. No.: CD009837. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD009837/abstract>

NEWS

Health Evidence Webinar

Health evidence, a searchable online registry of quality-appraised systematic reviews, will host a 90-minute webinar to interpret the evidence in the 2010 systematic reviews: A systematic review of school-based marijuana and alcohol prevention programs targeting adolescents aged 10-15. The webinar will be held at 1pm EDT on 27 June (3am AEST on 28 June). The PowerPoint slides and a recording of the presentation will be available following the webinar. To register for the webinar follow the links on <http://www.health-evidence.ca/>

PulsE can also be viewed on the Sax Institute [website](#)



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Please feel free to forward this bulletin to any colleagues who may be interested