



Effective Public Health Practice Project Summary Statement

October 2006

This is a summary statement written to condense the work of the authors of a systematic review. The reference for the full review is below. The intent of this summary is to provide an overview of the findings and implications of the full review. For more information on individual studies included in the review, please see the review itself.

Reference for Review: Park, E.W., Schultz, J.K., Tudiver, F., Campbell, T., Becker L. (2005) **Enhancing partner support to improve smoking cessation.** *The Cochrane Database of Systematic Reviews 2004, Issue 3.* Art. No.: CD002928.pub2. DOI: 10.1002/14651858.CD002928.pub2.

Issue

Reducing tobacco use is a public health priority in Canada. In 2005, an estimated 5.9 million Canadians, or 22% of the population above age 12, were smokers. In Ontario, the rate was marginally lower, at 21% (2.2 million) (Statistics Canada, 2006). The human and socio-economic costs associated with smoking-related mortality and morbidity are immense. Tobacco is the leading cause of preventable disease, disability and mortality in Canada, accounting for more than 47,500 deaths per year (Canadian Cancer Society, 2006). The Canadian Centre on Substance Abuse (CCSA) estimates that the direct and indirect costs of smoking in 2002 totalled 17 billion dollars nationally and six billion in Ontario.

The health care cost associated with tobacco emphasizes the importance of developing innovative and effective smoking cessation policies and programs. Ontario's Mandatory Health Programs and Services Guidelines (Ontario Ministry of Health and Long-Term Care, 1997) sets out a series of smoking cessation policy objectives and standards aimed at promoting "tobacco-free living". Local Boards of Health, for example, are charged with the dissemination of information and resources as well as the provision of cessation programming and brief interventions.

Smoking cessation interventions have been shown to be moderately effective in promoting abstinence (Fiore, 2000). Spousal and broader social support is often identified as an important component of cessation programming. The United States Agency for Healthcare Quality and Research (AHQR), for example, recommends behavioural therapies that provide both "intra-treatment and extra-treatment social support" (Fiore et al., 2000). The effectiveness of social support has been demonstrated in the treatment of other addictions and in some studies of tobacco cessation (Carlson et al., 2002). In the case of tobacco, however, evidence regarding the effectiveness of social support on cessation is mixed.

Review Content Summary

This meta-analysis summarizes evidence from randomized trials of smoking cessation (SC) programs with partner support interventions. Subjects were randomly assigned either to an SC program or to an identical SC program with an additional partner support element. Evidence was pooled from nine studies with a total of 1757 subjects. Smokers included males and females, with an average age of 33 to 44. The term “partner” was used to refer to relationships that fell into three categories: spouse, “buddy”, and fellow cessation participant. The analysis did not demonstrate a significant increase in abstinence rates among subjects receiving partner support interventions at either six to nine months or 12 or more months post-initiation.

Comments on this Review’s Methodology

The reviewers searched tobacco-specific, health and social science databases in order to identify randomized controlled trials (RCT) of smoking cessation interventions that measured the independent effects of partner support on smoking abstinence. Forty-one articles were screened independently by two reviewers. Eight articles (representing nine studies) met the inclusion criteria. Study quality was assessed using the Jadad 5-point scale. Allocation concealment was not described in any of the studies and three did not address subject dropouts/withdrawals.

Indicators of abstinence were the primary outcome variables. Abstinence measures consisted largely of self-reports (by the smoker) or biochemical assessment (carbon monoxide or saliva thiocyanate tests). Six studies reported data from the Partner Interaction Questionnaire (PIQ), a scale measuring supportive and critical partner behaviours relating to the subject’s smoking. The authors used the fixed effects Peto method to combine odds ratios and estimate the summary effect of partner support on abstinence. While no statistically significant heterogeneity among studies was detected, there were important differences in population, sample size, intervention and definition of partner. The term “partner” included: spouses, friends, co-workers, buddies or other significant individuals providing support to the smoker. Partner support interventions varied across studies, though most included empathy exercises, video tapes, booklets, behavioural technique sessions, social support guides and/or a telephone contact system. Partner support interventions were directed either at smokers, partners or both parties.

Evidence and Implications for Practice & Policy

Evidence points ARE NOT weighted or ranked according to strength

What’s the evidence?	Implications for practice and policy:
<ul style="list-style-type: none"> > Six to nine months following intervention initiation (9 RCTs), abstinence rates ranged from 0 to 65% in the partner support intervention groups and 0 – 88% in the control (i.e. smoking cessation program without partner interventions). The highest abstinence rates were observed in two small studies, with the remainder reporting abstinence rates of less than 20% in both the partner intervention and control groups. > At 12 months post intervention (5 RCTs), abstinence rates ranged from 14% to 59% for interventions with partner support, and 	<ul style="list-style-type: none"> > Cessation treatments, with and without partner support, can be successful in promoting tobacco abstinence. > Variability in abstinence outcomes at follow-up reflects heterogeneity in research populations, sample sizes and definitions of partner. > Larger studies suggest more modest impacts of treatment. > Improved study design may demonstrate more reliable measures of intervention effectiveness and more specific implications for SC programming.

What's the evidence?	Implications for practice and policy:
15% to 65% where subjects received support interventions.	
<p>> When study results were combined, the authors did not find statistically significant summary effects linking enhanced partner support with increased smoking cessation over and above interventions without partner support at either 6-9 months or at 12 months.</p>	<p>> While the reviewers found no evidence of an independent effect for partner support on abstinence rates, the value of social support in cessation programming should not be discounted.</p> <p>> Further research that draws on studies with more homogeneous populations, sophisticated measures of partner support and larger sample sizes may yield evidence of a treatment effect.</p>
<p>> PIQ results were mixed (6 RCTs). Three studies reported no difference in PIQ scores between the intervention and control groups. One study reported an increased level of partner closeness and an associated increase in quit rates. Another reported reduced levels of abstinence among those participants reporting negative partner interactions.</p>	<p>> Evidence of increased partner support post intervention was mixed. These results may reflect the variability in partner types and support interventions. The use of more sensitive social support measures may offer more conclusive findings.</p>
<p>General Implications: This review found no evidence that the addition of a partner support intervention to an otherwise identical SC program increased smoking abstinence rates. At this point, however, it seems very unwise to conclude that partner support is ineffective. Family and social support is widely recognized as an important factor in modifying other health behaviours and is effective in the treatment of other addictions. Moreover, the results combined in this analysis are likely insufficiently homogenous to demonstrate an intervention effect. Additional research is warranted.</p>	

Cost Benefit or Cost-Effectiveness Information: Not included in the review.

References Used to Outline Issue

Canadian Cancer Society (2006). *Alberta tobacco statistics*. Retrieved October 13, 2006 from: http://www.cancer.ca/ccs/internet/standard/0.3182.3225_445709_langld-en.00.html.

Carlson, L.E., Goodey, E., Bennett, M.H., Taenzer, P. & Koopmans, J. (2002). The addition of social support to a community-based large-group behavioral smoking cessation intervention: Improved cessation rates and gender differences. *Addictive Behavior, 27*: 547-59.

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<http://www.statcan.ca/Daily/English/060613/d060613a.htm>

Related EPHPP Summary Statements

The Effective Public Health Practice Project is producing or has completed summary statements for the following systematic reviews on smoking cessation:

- Hey, K. & Perera, R. (2005). Competitions and incentives for smoking cessation. *The Cochrane Database of Systematic Reviews 2005* (2). Art. No.: CD004307.pub2. DOI: 10.1002/14651858.CD004307.pub2.
- Lancaster, T. & Stead, L.F. (2005). Individual behavioural counselling for smoking cessation. *The Cochrane Database of Systematic Reviews 2005* (2). Art. No.: CD001292.pub2. DOI: 10.1002/14651858.CD001292.pub2.
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- Murphy-Hoefer, R., Griffith, R., Pederson, L.L., Crossett, L., Iyer, S.R. & Hiller, M.D. (2005). A review of interventions to reduce tobacco use in colleges and universities. *American Journal of Preventive Medicine*, 28, 188-200.
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- Usher, M.H., Taylor, A.H., West, R. & McEwen, A. (2000). Does exercise aid in smoking cessation? A systematic review. *Addiction*, 95(2):199-208.

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