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[Intervention Review]

Behavioural interventions as adjuncts to pharmacotherapy for smoking cessation

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ABSTRACT

Background

Effective pharmacotherapies are available to help people who are trying to stop smoking, but quitting can still be difficult and providing higher levels of behavioural support may increase success rates further.

Objectives

To evaluate the effect of increasing the intensity of behavioural support for people using smoking cessation medications, and to assess whether there are different effects depending on the type of pharmacotherapy, or the amount of support in each condition.

Search methods

We searched the Cochrane Tobacco Addiction Group Specialised Register in July 2012 for records with any mention of pharmacotherapy, including any type of NRT, bupropion, nortriptyline or varenicline that evaluated the addition of personal support or compared two or more intensities of behavioural support.

Selection criteria

Randomized or quasi-randomized controlled trials in which all participants received pharmacotherapy for smoking cessation and conditions differed by the amount of behavioural support. Controls could receive less intensive personal contact, or just written information. We did not include studies that used a contact matched control to evaluate differences between types or components of support. We excluded trials recruiting only pregnant women, trials recruiting only adolescents, and trials with less than six months follow-up.

Data collection and analysis

Search results were prescreened by one author and inclusion or exclusion of potentially relevant trials was agreed by both authors. Data were extracted by one author and checked by the other.

The main outcome measure was abstinence from smoking after at least six months of follow-up. We used the most rigorous definition of abstinence for each trial, and biochemically validated rates if available. We calculated the risk ratio (RR) and 95% confidence interval (CI) for each study. Where appropriate, we performed meta-analysis using a Mantel-Haenszel fixed-effect model.

Main results

Thirty-eight studies met the inclusion criteria with over 15,000 participants in the relevant arms. There was very little evidence of statistical heterogeneity (I^2 = 3%) so all studies were pooled in the main analysis. There was evidence of a small but statistically significant benefit

from more intensive support (RR 1.16, 95% CI 1.09 to 1.24) for abstinence at longest follow-up. All but two of the included studies provided four or more sessions of support. Most trials used nicotine replacement therapy. Significant effects were not detected for studies where the pharmacotherapy was nortriptyline (two trials) or varenicline (one trial), but this reflects the absence of evidence. In subgroup analyses, studies that provided at least four sessions of personal contact for the intervention and no personal contact for the control had slightly larger effects (six trials, RR 1.25, 95% CI 1.08 to 1.45), as did studies where all intervention counselling was via telephone (six trials, RR 1.28, 95% CI 1.17 to 1.41). Weaker evidence for a benefit of providing additional behavioural support was seen in the trials where all participants, including those in the control condition, had at least 30 minutes of personal contact (18 trials, RR 1.11, 95% CI 0.99 to 1.25). None of the differences between subgroups were significant, and the last two subgroup analyses were not prespecified. No trials were judged at high risk of bias on any domain.

Authors' conclusions

Providing behavioural support in person or via telephone for people using pharmacotherapy to stop smoking has a small but important effect. Increasing the amount of behavioural support is likely to increase the chance of success by about 10 to 25%, based on a pooled estimate from 38 trials. A subgroup analysis of a small number of trials suggests the benefit could be a little greater when the contrast is between a no contact control and a behavioural intervention that provides at least four sessions of contact. Subgroup analysis also suggests that there may be a smaller incremental benefit from providing even more intensive support via more or longer sessions over and above some personal contact.

PLAIN LANGUAGE SUMMARY

Does more support increase success amongst people using medications to quit smoking?

Medications (including all types of nicotine replacement therapy, bupropion and varenicline) have been shown to help people quit smoking. It has been unclear how much additional benefit is gained from also providing behavioural support, such as counselling or a telephone quitline. Combined results from 38 trials suggests that increasing the amount of behavioural support (in person or via telephone) increases the chances of quitting smoking for the long term by about 10 to 25%. The effect may be a little greater when adding some support compared to no support, and a little smaller when more support is compared to some support. Providing some personal contact is beneficial, and people making a quit attempt with pharmacotherapy will increase their chances of success of they also have access to behavioural support.