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A family consultation intervention for health-compromised smokers

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Abstract

Although spousal support predicts the success of a smoker's cessation efforts, “social-support” interventions based on teaching partners better support skills have had consistently disappointing results. We examined the potential utility of a family consultation (FAMCON) intervention based on family-systems principles in a treatment–development project involving 20 couples in which one partner (the primary smoker) continued to smoke despite having or being at significant risk for heart or lung disease. The 50% rate of stable abstinence achieved by primary smokers over at least 6 months exceeds benchmark success rates reported in the literature for other comparably intensive interventions, suggesting that a couple-focused intervention different in concept and format from social-support interventions tested in the past may hold promise for health-compromised smokers. The FAMCON approach appeared particularly well suited to female smokers and smokers whose partner also smoked—two subgroups at high risk for relapse.

Keywords

Smoking cessation; Family consultation; Health-compromised smokers

1. Introduction

Despite increasing societal prohibitions, cigarette smoking remains a pressing public health problem: A substantial minority of U.S. adults continues to smoke, and many do so despite having smoking-related illnesses (Brandon, 2001). Although effective cessation treatments exist, their overall success rates are modest, and they rarely reach the high-risk, health-compromised smokers who need them most (Compas, Haaga, Keefe, Leitenberg, & Williams, 1998; Fiore et al., 1996; Lichtenstein & Glasgow, 1992). In addition, average effect sizes in controlled clinical trials appear to have diminished over the past few decades (Irvin & Brandon, 2000), perhaps reflecting a residual core of treatment-resistant smokers (Hughes, Goldstein, Hurt, & Shiffman, 1999).

Empirically supported cessation interventions range from intensive clinic-based treatments for individual smokers who seek help to briefer, more economical public health approaches targeting broader populations. A recently updated clinical practice guideline, based on a comprehensive review of clinical trials conducted through 1999, concluded that a variety of

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pharmacological and behavioral (counseling) interventions are efficacious and that, while both brief and more intensive interventions can make a difference, a strong association exists between the intensity of behavioral interventions and successful treatment outcome (Fiore et al., 2000; cf. Fiore et al., 1996). Higher intensity clinical interventions appear to be most necessary for high-risk smokers such as patients with heart or lung disease or heavy smokers who have failed to benefit from less intensive approaches to quitting (Lichtenstein & Glasgow, 1992; Wetter et al., 1998).

Curiously, cessation treatments that currently do have empirical support focus almost exclusively on the individual smoker, although substantial evidence indicates that social support provided by significant others, especially spouses, predicts whether smokers are able to quit and stay quit (Campbell & Patterson, 1995; Roski, Schmid, & Lando, 1996). More than a dozen studies link the success of a smoker's cessation efforts to spousal support and the absence of spousal criticism (e.g., Cohen et al., 1988; Coppotelli & Orleans, 1985; Murray, Johnston, Dolce, Lee, & O'Hara, 1995), yet clinical trials of so-called "social-support" interventions based on teaching partners better support skills have had consistently disappointing results (Lichtenstein & Glasgow, 1992; Lichtenstein, Glasgow, & Abrams, 1986; Palmer, Baucom, & McBride, 2000; Park, Tudiver, Schultz, & Campbell, 2004). The updated practice guidelines do include helping smokers enlist support for quitting from people outside the treatment context (Fiore et al., 2000, pp. 65–69)—for example, by training them how to solicit support from friends, family, and coworkers—but this component is typically packaged with other kinds of behavioral skill training and does not focus on couple or family relationships per se.

Elsewhere, we have argued that the failure of social-support training should not deter researchers from attempting to develop more effective couple and family-level interventions for change-resistant smoking (Rohrbaugh et al., 2001). One reason is that the early interventions apparently also failed to increase the targeted mediating variable of social support (Lichtenstein et al., 1986). In addition, some of them occurred in formats that mixed dual- and single-smoker couples in the same treatment group, while others made little distinction between committed partners and other relatives or acquaintances. The most crucial problem may be that teaching one-size-fits-all support skills and problem-solving strategies in group formats detracts attention from how particular support behaviors fit (or do not fit) idiosyncratic couple relationships (Palmer et al., 2000; Rohrbaugh et al., 2001). It would make a difference, for example, if, in some couples, persistent positive encouragement provokes resistance or if, in others, a spouse's refusal to allow smoking in the house (counted as "negative" support in some studies) actually functions to help a smoker stay quit.

Our family consultation (FAMCON) approach differs in several key respects from the social-support interventions tested to date (Rohrbaugh et al., 2001). Whereas the latter assume that cessation depends on whether individual smokers and their partners learn and implement various problem-solving, coping, or support skills (Lichtenstein & Glasgow, 1992), FAMCON assumes that (a) smoking is inextricably interwoven with the family and social relationships in which it occurs; (b) these relationships can play a key (albeit inadvertent) role in maintaining change-resistant smoking; and (c) partners and important family members should be involved in treatment, not merely as adjunct therapists or providers of social support, but as full participants with a stake in the process of change (Doherty & Whitehead, 1986).

Consistent with these ideas, FAMCON focuses on two types of interpersonal problem maintenance—*ironic processes* and *symptom-system fit*—and aims to mobilize *communal coping* as a relational resource for change. An ironic process occurs when well-intentioned but persistent "solutions" to a problem feed back to keep the problem going or make it worse (Fisch, Weakland, & Segal, 1982; Rohrbaugh & Shoham, 2001; Shoham & Rohrbaugh,

1997). For example, a partner's nagging may lead to more smoking, which leads to more nagging, and so on. Symptom-system fit, on the other hand, occurs when a problem such as drinking or smoking appears to have adaptive consequences for a relationship, at least in the short run. Thus, smoking could help to regulate closeness and distance for a couple—or more commonly, when both partners smoke, it could provide a context for mutually supportive interactions (Doherty & Whitehead, 1986; Rohrbaugh, Shoham, & Racioppo, 2002). Interventions aimed at interrupting ironic processes or helping partners realign their relationship in ways not organized around smoking often vary substantially from couple to couple, depending on the (case-specific) dynamics of problem maintenance. In all cases, however, FAMCON emphasizes the importance of partners working together (coping communally) to help one or both smokers achieve stable cessation.

Finally, in contrast to most cessation methods, FAMCON avoids educational or prescriptive approaches to change, relying instead on strategic interventions that emphasize client choice. In this way, it is less an alternative treatment than a complementary format that can even incorporate pharmacotherapy and behavioral skills training, if clients so choose, as long as this occurs in ways that fit and protect the partners' relationship.

In this report, we describe results from a federally funded treatment–development study applying FAMCON with 20 couples in which at least one partner continued to smoke despite having or being at significant risk for heart or lung disease. Although this was not a randomized clinical trial (i.e., there was no control group), the cessation patterns of FAMCON participants provide a basis for rough comparison with benchmark success rates in the literature and, hence, for judging whether this approach merits further investigation. One relevant benchmark comes from a meta-analysis of 45 clinical trials, which yielded an estimated abstinence rate of 24.7% for interventions consisting of at least eight person-to-person treatment sessions (95% CI = 21.0, 28.4; Fiore et al., 2000, pp. 57– 60)—an intensity roughly comparable to FAMCON. Indeed, 6-month abstinence rates from even the most intensive clinic-based interventions rarely exceed 35% (Fiore et al., 1996), and a recent quantitative review of clinical trials with a partner-support component put 6-month success rates at approximately 20% (Park et al., 2004).

Of particular interest is the applicability of FAMCON to two high-risk subgroups—smokers whose partner also smokes and women. Not surprisingly, smokers in dual-smoker couples are substantially less likely to quit and stay quit than those whose partner does not smoke (Ferguson, Bauld, Chesterman, & Judge, 2005; Homish & Leonard, 2005; Murray et al., 1995), perhaps because a smoking spouse provides less support for quitting and buffers the smoker from external pressure to change. FAMCON may be less vulnerable to this risk factor than other approaches because it addresses smoking partnerships directly and attempts to use their positive aspects as leverage for change. (Note, too, that having a partner who smokes is sometimes an exclusion criterion in clinical trials.)

Gender is of interest because female smokers appear more likely than men to relapse after quitting (Bjornson et al., 1995; Fiore et al., 1996; Wetter et al., 1998). Although intrapersonal variables such as perceived stress and appetite/weight control expectancies do not appear to mediate associations between gender and abstinence (Wetter et al., 1998), there is some evidence that female smokers are more responsive than males to aspects of their social environment. A spouse's smoking status, for example, appears to have more influence on abstinence by women than men (Homish & Leonard, 2005). Laboratory studies suggest that, for women, the reinforcing value of social cues exceeds that of nicotine, whereas the opposite applies for men (Perkins et al., 2001); and in a field-study finding reminiscent of ironic interpersonal processes, female smokers responded less favorably (more reactively) than men did to social influence attempts by family members and friends (Westmaas, Wild, & Ferrence, 2002). Results such as these are consistent with observations that the *quality* of close

relationships has greater consequences for the health and health behavior of women than men (Coyne et al., 2001; Kiecolt-Glaser & Newton, 2001). Because FAMCON addresses smoking in the context of vital relationships, it is possible that female smokers may find it more congenial and beneficial than other treatments.

2. Methods

2.1. Participants

Participants were 20 couples in which one partner (the primary smoker or patient) had either a heart or lung problem aggravated by smoking or at least two other documented risk factors for coronary artery disease. In 8 couples, the primary smoker's partner also smoked, yielding 28 smoking participants altogether. Primary smokers included 12 men and 8 women, while 4 men and 4 women were secondary-smoker partners. The couples were either married ($n = 17$) or living together in a committed relationship ($n = 3$). All but two—a gay couple with two smokers and a lesbian couple with one—were heterosexual.

Inclusion criteria were the following: (a) patient has a diagnosed heart/lung problem or 2+ coronary artery disease risk factors, (b) patient smoked at least 10 cigarettes per day on average for the previous 6 months, (c) couple married or living in a committed relationship for at least 2 years, (d) both partners are at least 30 years old, (e) both partners are able to read and speak English, (f) both partners are willing to participate in FAMCON, and (g) at least one smoker in the couple hopes to quit within the next 2 years. Exclusion criteria were the following: (a) terminal illness with life expectancy less than 5 years, (b) pregnancy, and (c) history of mania or psychosis.

Demographically, the mean age of both primary smokers and their partners was 55 years (range = 41–72). Only 10 (25%) of the 40 participants had graduated from college, and 54% were at least partially retired. Couples had been together an average of 22 years (range = 3–47), and 62% of the participants had been previously married. Although none had children living in their household, most (75%) had an adult child in the Tucson area. Of the 28 smokers, 2 were Mexican American, 1 was Native American, and the rest were Caucasian. Of the 12 nonsmoking partners, 1 was Mexican American.

In the clinical domain, 13 (65%) of the 20 primary smokers had a diagnosed heart or lung problem aggravated by smoking. At the time of initial screening, primary and secondary smokers reported averaging 25.1 ($SD = 9.1$) and 23.1 ($SD = 10.7$) cigarettes a day, respectively, and had scores of 6.2 ($SD = 2.3$) and 5.8 ($SD = 2.3$) on the Fagerstrom addiction severity index, respectively (Heatherton, Kozlowski, Frecher & Fagerstrom, 1991). The primary smokers all reported multiple unsuccessful prior quit attempts, nearly half (45%) had a previous alcohol or drug problem, and 45% had scores in the clinical-distress range of an abbreviated Hopkins Symptom Checklist (HSCL-25; Heshbacher, Downing, & Stephansky, 1978).

2.2. Research procedures and measurement

Referrals of primary smokers came from community medical clinics and newspaper ads. Before inviting a couple to participate, our research coordinator conducted individual telephone interviews with both partners to explain the project and establish both interest and eligibility. Four seemingly eligible couples opted not to participate because one of the partners was reluctant to attend the required FAMCON sessions. An additional couple became ineligible before treatment began because they separated. Couples who passed the initial screening attended a preliminary 2-hour session to provide informed consent and complete a series of assessments, including a medical history interview with the project nurse. The baseline assessment also included questionnaire measures of (a) perceived physical health, as reflected

in subscales of the SF-36 Health Questionnaire (Ware & Sherbourne, 1992) and a related “smoking quality of life” scale developed specifically for smokers (Abayomi et al., 1999); (b) symptomatic psychological distress, indicated by HSCL-25 scores and the Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996); (c) positive and negative affect (Positive and Negative Affect Schedule; Watson, Clark, & Tellegen, 1988); (d) general couple relationship quality, including demand–withdraw interaction (Communication Practices Questionnaire; Christensen & Heavey, 1993); (e) partner attempts to support cessation (Partner Interaction Questionnaire; Cohen & Lichtenstein, 1990), modified to include ironic social control processes indicated by whether influence attempts helped or hindered the smoker; and (f) confidence in each smoker’s ability to quit and stay quit (Likert-style self-efficacy scales developed for the study). These measures were used in exploratory analyses of variables predicting treatment outcome.

After the baseline assessment, couples received up to 10 sessions of FAMCON based on the clinical procedures outlined below. Sessions were conducted by one of six therapist–consultants and supervised (often in a one-way-mirror format) by authors M.J.R. and V.S. Research assistants collected CO₂ (breathalyzer) and self-report assessments of recent smoking immediately prior to each session and, in addition, conducted two separate follow-up interviews with each partner by telephone. The breathalyzer assessments served primarily to reinforce participant self-reports and did not figure directly in estimates of cessation outcomes.

The first follow-up was 6 months after the initial FAMCON session, and the second was 12 months after each smoker’s initial quit attempt (provided that it entailed at least 2 smoke-free days) or 12 months after FAMCON Session 1 for the few ($n = 6$) smokers unable to quit for at least 2 days. Each of these interviews involved a modified Timeline Followback procedure (TLFB; Sobell & Sobell, 1992), through which it was possible to generate *30-day point-prevalence abstinence* indices for 1, 6, and 12 months following the initial quit attempt (or following FAMCON Session 1 if there was no quit attempt). These point-prevalence indices were dichotomous, reflecting whether or not the smoker had been continuously abstinent for 30 days at each follow-up point, and constitute the cessation rates reported in the main analyses. The same TLFB data also provided a *% abstinent days* measure for the full 1-, 6-, and 12-month intervals following the first quit attempt. Secondary outcomes included a *consumer satisfaction* measure of how helpful participants found the program and changes in each smoker’s perceived health, assessed via a second administration of the SF-36 Health Questionnaire at 12 months.

2.3. FAMCON clinical procedures

As described elsewhere (Rohrbaugh et al., 2001; Shoham, Rohrbaugh, Trost, & Muramoto, 2002), FAMCON provides up to 10 “consultation” sessions for single- or dual-smoker couples. Ideally, the treatment proceeds through a *preparation* phase (Sessions 1–3), a *quit* phase (Sessions 4–5), and a *consolidation* phase (Session 6+). The treatment typically unfolds over a period of 2 to 6 months, with Sessions 1–3 conducted during the first month in a structured format and subsequent sessions allocated according to each couple’s quit plan and progress. In addition to detailed assessment (e.g., of smoking-related interaction, past quit attempts, other complaints, and couple strengths), the preparation phase emphasizes indirect intervention via future- and solution-focused questions that imply the possibility of change, such as what they will most appreciate after quitting. In Session 3, the consultant presents a carefully tailored “opinion,” which provides specific feedback based on information gathered during Sessions 1 and 2. The feedback includes observations about how smoking fits the couple’s relationship, why/how quitting will be difficult, reasons to be optimistic about success, and issues for the couple to consider in developing a quit plan. The opinion session then concludes with an invitation for the couple to consider a quit date.

Specific couple dynamics are relevant both as a source of smoking maintenance and as a potentially powerful resource for successful cessation. As noted above, the theory of change underlying FAMCON emphasizes (a) interrupting *ironic processes*, through which partners' persistent "solutions" to the problem of smoking inadvertently feed back to keep it going; (b) accommodating *symptom-system fit* by helping couples realign their relationship in ways not organized around tobacco use; and (c) reinforcing *communal coping* by the couple in the service of positive change. The therapist–consultant thus attends closely to ironic interpersonal cycles fueled by well-intentioned attempts to control or protect a smoker, as well as to the function (s) smoking appears to serve in the couple's relationship (e.g., providing a basis for cohesion when both partners smoke or for maintaining distance when only one does). To interrupt an ironic pattern in which one partner persistently attempts (without success) to control the other partner's smoking directly, the consultant would look for ways to help the spouse back off (e.g., by demonstrating acceptance, declaring helplessness, or simply observing the smoker's habits). By contrast, when an ironic spousal solution pattern entails *avoiding* the problem, we would encourage a more direct course of action (e.g., taking a stand). Interventions addressing symptom-system fit often involve helping the partners anticipate interpersonal difficulties likely to accompany cessation attempts and planning substitute rituals and activities that do not involve smoking—that is, to make nonsmoking fit the system. Finally, regardless of whether one or both partners smoke, the consultant encourages them to view this as a communal problem ("ours" rather than "yours" or "mine") and work together toward solving it.

A broader objective in FAMCON is to avoid ironic *therapy* processes that occur when directive interventions intensify client resistance (Shoham, Trost, & Rohrbaugh, 2004; Zelman, Brandon, Jorenby, & Baker, 1992) or when a therapist aligns with failed social control attempts by a smoker's significant others (Rohrbaugh & Shoham, 2001; Shoham, Rohrbaugh, Stickle, & Jacob, 1998). For this reason, a key overarching guideline is to maximize a smoker's *choice* about facets of the consultation process, ranging from setting a quit date to using pharmacological quit aids. Presenting FAMCON as "consultation," a term that connotes collaboration and choice, appears to arouse less reactance in this respect than calling it "counseling" or "treatment" (Wynne, McDaniel, & Weber, 1987).

3. Results

3.1. Patterns of FAMCON participation

Couples completed an average of 7.8 sessions ($SD = 1.6$, range = 3–10), with extent of participation unrelated to the smoker's gender or the partner's smoking status. All but 6 of the 28 smokers managed to set a quit date and abstain for at least 2 days. They typically took about 7 weeks to set a quit date (median = 49.5 days, range = 16–114), and when both partners smoked, all but one couple attempted to quit together. Although we offered pharmacological cessation aids, smokers did not consistently choose to use them: More than half (58%) of all smokers tried some form of nicotine replacement therapy (NRT) such as a patch, gum, or inhaler during the study, but only 27% were still doing so at the 6-month follow-up. Similarly, 16% tried the antidepressant bupropion, with 11% continuing at 6 months. Women tended to use NRT more than men (75% vs. 50%), whereas the opposite was true for bupropion (0% vs. 31%).

3.2. Cessation outcomes

For the 20 primary smokers, 30-day point-prevalence abstinence rates were 55%, 50%, and 40% at 1, 6, and 12 months, respectively, as shown in Table 1. Abstinence rates for all smokers were slightly higher than this because the 8 secondary smokers were somewhat better able to quit than their less healthy partners. Cessation data not shown in the table also indicate that

most FAMCON smokers who quit were able to stay quit, as only 3 (18%) of the 17 smokers who were abstinent at 1 month relapsed later on.

In addition to cessation rates, Table 1 presents descriptive statistics for outcome expressed as percentage of days abstinent during the entire 1-, 6-, and 12-month intervals following a smoker's initial FAMCON quit attempt (or following Session 1 if there was no quit attempt). Here, we see that, regardless of point-prevalence quit status, the average smoker spent more than half of the follow-up year smoke free. Because % abstinence days is a continuous variable, it also provides a potentially useful criterion for examining possible predictors of outcome.

Of particular interest is FAMCON's applicability to women smokers and members of dual-smoker couples—subgroups that may be difficult to treat successfully with conventional cessation interventions. Although n values are small, the pattern of means in Fig. 1 suggests that the intervention was at least as effective for women as it was for men and at least as successful when both partners smoked compared with when only one did. Interestingly, the highest 1-year cessation rate (71%) was recorded for women in dual-smoker couples and the lowest (29%) was recorded for men in single-smoker couples. These differences were not significant, however, probably because the small sample size limited the statistical power to detect them.

To examine these and other predictors of outcome, we computed simple correlations or t tests for primary smokers alone ($n = 20$) and used mixed (multilevel) models to estimate correlations for all smokers ($N = 28$) while taking the nonindependence of coupled partners into account statistically. Given the exploratory nature of these analyses, we will note here only those associations that were significant at $p < .10$ for both the point-prevalence and % days abstinent measures at the 12-month measurement point. Of the baseline demographic variables, only level of education came close to predicting cessation for primary smokers, with college graduates more likely than other participants to achieve abstinence (r values = .39 and .45 for point-prevalence cessation and % abstinent days). Smoking outcomes were unrelated to the severity of the smoker's health problems, assessed via both medical history and the SF-36 Health Questionnaire; unrelated to psychological distress as measured by the both the BDI and HSCL-25; and unrelated to the Fagerstrom index of smoking severity. The only baseline psychological variable that did consistently predict success was the individual smoker's confidence (self-efficacy) that he or she could quit successfully with the help of FAMCON (r values = .47 and .50).

At the same time, the exploratory analyses provided multiple indications that baseline perceptions of relationship quality and the effectiveness of a partner's smoking-specific influence and support attempts predicted later cessation success by women but not by men. Although the number of female smokers was small ($n = 12$), outcome correlations in this subgroup were consistently above .50 for measures ranging from individual ratings of partner influence attempts (e.g., whether they were positive, helpful, or both) to couple-level measures of marital quality and demand–withdraw interaction derived by combining the correlated scores of the two partners.

There was a nonsignificant trend toward better abstinence outcomes for primary smokers who attended more sessions (r values = .35 and .35 for point-prevalence cessation and % abstinent days, respectively) but no indication that successful cessation varied with participants' use of either NRTs (r values = .06 and $-.01$) or bupropion (r values = $-.21$ and $-.29$) during the treatment program.

3.3. Secondary outcomes

Secondary outcomes were pre-post changes in smokers' reported physical health, as measured by the SF-36 Health Questionnaire, and participants' satisfaction with the FAMCON intervention. Primary smokers showed significant or near-significant improvement from baseline to the 12-month follow-up on SF-36 subscales measuring physical role performance (paired $t = 2.36, p = .031$), physical functioning ($t = 1.98, p = .064$), mental health ($t = 2.81, p = .012$), and smoking quality of life ($t = 4.17, p = .001$). Not surprisingly the extent of positive change on these scales tended to be greater for participants who were abstinent at the 12-month follow-up than for those who were not (e.g., $t = 1.89, p = .076$ for physical functioning), suggesting that changes in smoking behavior contributed to health change. Although perceived health change for primary smokers was similar in single- and dual-smoker couples, the SF-36 subscale means were consistently in the direction of more positive change by female smokers than males, and for one scale (emotional role performance), the gender difference was marginally significant ($t = 1.91, p = .075$).

In general, smokers gave highly favorable ratings of FAMCON's helpfulness to them as individuals (median = 9 on a 1–10 scale, range = 5–10) and to the partners as a couple (median = 8, range = 1–10). Again, female smokers tended to give higher ratings than males of personal benefit at the 12-month follow-up (Mann–Whitney $U = 118, p = .06$).

4. Discussion

The results of this small treatment development study suggest that a couple-focused social-support intervention, different in concept and format from social-support interventions tested in the past, holds promise for health-compromised smokers. Cessation rates reported by FAMCON participants compare favorably to benchmarks in the literature. For example, the 50% rate of stable abstinence achieved by primary smokers at 6 months is approximately twice that cited in Fiore et al.'s (2000) meta-analysis involving other, comparably intensive interventions. In addition, only three (18%) of the FAMCON smokers who quit for at least 2 days relapsed during the next year, whereas other data suggest that 1-year relapse rates for initially successful quitters often exceed 50% (Stevens & Hollins, 1989).

Encouragingly, the FAMCON intervention appeared well suited to female smokers and smokers whose partner also smoked—two subgroups at high risk for relapse. Although the number of female smokers was small and most gender differences fell short of statistical significance, virtually all cessation, health, and client satisfaction indices were in the direction of better outcomes for women than men. In view of other evidence suggesting that the *quality* of close relationships may be more important to the health of women compared with men (Kiecolt-Glaser & Newton, 2001; Rohrbach, Shoham, & Coyne, in press), this could reflect the fact that FAMCON, more than most other cessation interventions, explicitly takes relationship dynamics into account. Such an interpretation is also consistent with our observation that women smokers, more than men, tended to have difficulty quitting if they reported relatively low marital quality before treatment began. By similar logic, a relationship-focused intervention like FAMCON might be especially useful when both partners in a relationship smoke—particularly if it addresses couple dynamics that support shared smoking.

Our study has obvious limitations—notably its small sample size, lack of a control group, and self-report assessment of cessation outcomes. Although having a serious health problem (e.g., a myocardial infarction) may not, on its own, increase the likelihood of giving up smoking (Andrikopoulos et al., 2001), only a randomized clinical trial can unambiguously rule out the possibility that other, individually focused interventions would have worked just as well or that a substantial proportion of our health-compromised smokers would have somehow managed to quit on their own. In addition, although partners' collateral reports contributed to

documentation of cessation outcomes, we did not obtain biochemical confirmation of abstinence through cotinine analysis as would have been ideal (Fiore et al., 1996). Considerations such as these should be paramount in further investigations of the FAMCON approach.

Questions about FAMCON's applicability to different subgroups of health-compromised smokers, its exportability to other settings, and the specific mechanisms through which this couple-focused intervention works also remain. A key limitation, for example, is that smokers must have a committed partner willing to participate fully in the program, regardless of whether that partner also smokes. A number of smokers who inquired about the project either did not meet the "committed relationship" criterion or turned out to have partners unwilling to attend the required FAMCON sessions. Nor can we know from this initial study how FAMCON would fare with smokers from ethnic or racial minority groups, where a smoker's relations with extended family members may be as relevant to intervention goals as his or her relationship with a spouse. Similarly, although only a few smokers in the sample were college graduates, educational level still correlated positively with successful cessation, which could reflect an additional constraint on applicability.

We are nonetheless optimistic that FAMCON can be exported to other settings and successfully implemented by other master's-level counselors with less intensive supervision than provided in a treatment-development project, but this of course awaits empirical demonstration. Variations of the approach may also have relevance to other groups, such as the demographically different population of pregnant smokers. Here, the consultation process would need to occur in a shorter time frame, with fewer consultation sessions, and be closely integrated with perinatal care. While preliminary results suggest that clients generally appreciate FAMCON, we do not know how receptive health or addiction specialists will be to an approach that requires a nondirective therapeutic stance akin to motivational interviewing (Miller & Rollnick, 1991) in addition to the conceptual and behavioral skills necessary for work with couples and families.

Finally, while it was not possible to document with quantitative rigor how FAMCON helped smokers quit and stay quit, our clinical observations of this process were generally consistent with the family-systems principles on which the intervention is based. For example, cessation tended to be most successful when partners worked together and accepted the "communal coping" frame for doing so; in fact, each of the three couples in which primary smokers failed to abstain at all (even for 2 days) essentially never bought the communal coping idea and resisted suggestions to view smoking as "our" problem (rather than just the individual smoker's problem). Cessation was similarly successful when couples found satisfactory ways to protect their relationship during the quit phase (e.g., to have important conversations without smoking, thus neutralizing symptom-system fit) and when the partners freely and conjointly chose and prepared for a quit date without explicit or implicit pressure from the therapist-consultant. It was also evident that rather different patterns of couple interaction (e.g., a spouse trying too hard to influence vs. avoiding influence altogether) served to maintain smoking in different ways for different couples and that correspondingly different intervention strategies (e.g., encouraging a spouse to back off vs. take a stand) helped to facilitate constructive change.

In summary, despite significant limitations, the results of this preliminary study suggest that the FAMCON intervention may hold promise for health-compromised smokers. We believe that it deserves further critical scrutiny in a randomized clinical trial.

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Fig. 1.
Twelve-month point-prevalence cessation rates by gender and partner smoking status (all smokers).

Table 1

Cessation outcomes by smoking status and follow-up interval

Follow-up interval	Primary smokers (<i>n</i> = 20)	Secondary smokers (<i>n</i> = 8)	All smokers (<i>N</i> = 28)
30-day abstinence (point prevalence), %			
1 month	55	75	61
6 months	50	63	54
12 months	40	63	46
Percent abstinent days during follow-up interval, <i>M</i> (<i>SD</i>)			
1 month	65 (43)	75 (46)	68 (43)
6 months	53 (46)	73 (46)	58 (46)
12 months	48 (47)	68 (47)	54 (47)