

Smoking Control; Behavior Change

Smoking Cessation and Exercise Promotion Counseling in Psychologists Who Practice Psychotherapy

Sally J. Wendt, PhD

Abstract

Purpose. Little is known about health promotion within the context of psychotherapy. The present study assessed a sample of psychologists' attitudes and behavior with their psychotherapy clients regarding smoking cessation and exercise promotion counseling.

Design. This is a cross-sectional survey study.

Setting. Surveys were mailed.

Subjects. Licensed psychologists (1000) in Massachusetts were randomly selected to receive surveys. Psychologists practicing psychotherapy at least 5 h/wk were invited to participate. Out of 496 responses, 328 completed surveys were analyzed.

Measures. Two parallel surveys were developed for smoking ($N = 154$) and exercise ($N = 174$) assessing health promotion behaviors and attitudes.

Results. Approximately 43% of respondents inquire about smoking and 53% inquire about exercise with new clients. Over 45% advise smoking clients to quit and 50% advise sedentary clients to exercise. Over 80% of respondents felt smoking and exercise should be addressed in psychotherapy; however only 41% of smoking and 65% of exercise respondents felt confident in their counseling abilities. Lack of confidence, beliefs about relevance of smoking and exercise to psychological functioning, and beliefs that such personal choices should not be addressed in psychotherapy significantly predicted smoking cessation and exercise promotion behaviors.

Conclusion Many respondents are engaging in health promotion with their psychotherapy clients. Exercise promotion is occurring more frequently and is viewed more favorably compared with smoking cessation counseling. Health promotion attitudes are associated with counseling behaviors. Limitations include self-selection bias and small sample size. (*Am J Health Promot* 2005;19[5]:339–345.)

Key Words: Prevention Research, Behavior, Clinical Health Care, Fitness, Physical Activity, Smoking Control

Sally J. Wendt is at Mount Holyoke College, South Hadley, Massachusetts.

Send reprint requests to Sally J. Wendt, PhD, Mount Holyoke College, 50 College Street, South Hadley, MA 01075; sjwendt@att.net.

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INTRODUCTION

Cigarette smoking and a sedentary lifestyle have been linked to leading causes of premature mortality and morbidity in the United States, in-

cluding cardiovascular disease and several forms of cancer.¹ Unfortunately, over 22% of U.S. adults smoke cigarettes and over 65% do not engage in the recommended level of physical exercise.² Therein lies

the need for "health promotion," that is, interventions designed to provide health education and to facilitate healthy behavior to prevent premature illness and death.³

Health promotion is most effective when it is individualized and tailored, repeated over time, and delivered in the context of a caring practitioner relationship; when there is opportunity for feedback and reinforcement regarding an individual's progress and readiness to change; and when facilitative information and resources are available to overcome obstacles in the maintenance of health behaviors.^{4–8} Each of these factors is often present in the psychotherapy context. The therapist's knowledge of the client's personal history, coping styles, motivations, and readiness to change can all be used to tailor the content, timing, and frequency of health promotion messages during the course of treatment.⁹ Given that psychotherapy typically involves regular practitioner-client contact over a period of time, there is the opportunity for repetition and reinforcement of health promotion messages throughout the course of treatment.

Despite its potential for changing clients' health behavior, health promotion within the psychotherapy context has received little specific attention in the research literature. Secker-Walker et al.¹⁰ included "mental health counselors" in their comparison of smoking cessation activities among several types of health care professionals. Their study did not, however, specify the type of

mental health providers, their primary professional activities, or the participants' attitudes regarding health promotion. Royak-Schaler and Feldman¹¹ found that psychologists regularly incorporated health promotion messages in their psychotherapy practices and that health promotion was strongly correlated with the participants' own health behaviors. However, the authors did not report the frequency of the specific health promotion behaviors.

The primary aim of this study was to assess psychologists' behaviors and attitudes regarding smoking cessation and exercise promotion with their psychotherapy clients. Psychologists were chosen because the population of practicing psychologists is readily accessed via licensing board lists. Because no widely used measure of health promotion among health care providers currently exists and because of the paucity of health promotion research regarding mental health practitioners, the survey items used in this study were largely based on physician health promotion practices, which have received considerable attention in the research literature.

Evidence suggests that primary care physicians often do inquire about their patients' smoking status, explain the dangers of smoking, and advise quitting.^{10,12} However, attitudinal barriers to smoking cessation counseling among physicians are commonly reported, including (1) pessimism regarding patients' likelihood of quitting,¹³⁻¹⁶ (2) lack of confidence or training in smoking cessation counseling skills,¹⁵⁻¹⁷ (3) lack of time,^{15,17,18} (4) lack of supportive resources,¹⁶ and (5) a belief that smoking is a matter of personal choice or "none of my business."^{15,18}

Exercise promotion is less commonly reported among physicians,¹⁰ and there is less agreement among physicians that regular exercise is a health priority. In a survey of primary care physicians (PCPs) in Massachusetts, Wechsler et al.¹³ reported that although 98% of the PCPs felt that smoking cessation was important for the average person, only 37% felt that engaging in aerobic activity at least three times per week was very

important to the average person.

Other attitudinal barriers to exercise promotion among physicians are similar to smoking cessation counseling barriers: (1) pessimism regarding patients' likelihood of engaging in an exercise regimen,¹³ (2) lack of confidence or training in exercise promotion counseling skills,^{17,19} and (3) lack of time.^{17,18,20}

Demographic factors also have been examined regarding health promotion among physicians. Some studies suggest that female physicians are more likely than male physicians to counsel patients regarding smoking and exercise.^{16,21,22} Mixed findings have been reported regarding the relationship between practitioner age and health promotion^{20,21} and the relationship between practitioner health behavior and their health promotion activities.^{17,23}

The goal of this study was to assess the extent to which psychologists are engaging in smoking cessation and exercise promotion counseling with their psychotherapy clients and to what extent these practices were related to psychologists' personal and professional characteristics and their attitudes about smoking cessation and exercise promotion within the psychotherapy context.

METHODS

Design

In March 2003, 1000 surveys (500 smoking, 500 exercise) were sent to 537 female and 463 male psychologists who were randomly selected from the Massachusetts Licensing Board list (N = 5207). In April 2003, a second mailing was sent to nonresponders. According to independent samples, *t*-tests, and χ^2 analyses, there were no significant demographic differences between responders to the first and second mailings. Survey packets included a cover letter, which provided a project summary and eligibility criteria, a consent form, either a smoking or exercise survey, and a self-addressed, postage-paid envelope. Psychologists who were conducting psychotherapy at least 5 h/wk were eligible to participate.

Sample

Overall, 12 (2.4%) survey packets were returned because of mailing problems, and 496 (49.6%) responses were returned. Of these, 159 (32.0%) were explanations of why the survey was not completed, and 337 (67.9%) were actual completed surveys (9 of which were removed because respondents only completed one side of the two-sided form). The final sample included 154 smoking and 174 exercise survey respondents.

Measures

Personal Characteristics. Participants were asked to indicate their gender, age, years in practice, current smoking status (current smoker, former smoker, or never smoked), and exercise practices (0-2 times/wk or ≥ 3 times/wk).

Professional Practice Characteristics. Participants were asked to indicate their primary psychotherapy orientation (i.e., cognitive, behavioral, cognitive-behavioral, psychodynamic, or psychoanalytic); primary practice setting (i.e., private practice office, mental health agency, medical hospital, psychiatric hospital, or other); the number of clients they work with on a one-on-one basis in a typical week; how many of those clients smoke/exercise; and the frequency with which clients initiate a discussion about smoking/exercise (i.e., often, sometimes, rarely, and never).

Training in Smoking/Exercise Counseling. Participants were asked whether they received formal training in smoking cessation/exercise promotion in the past 3 years and whether they were interested in such training. Response options were Yes or No.

Health Promotion Assessment and Counseling. Assessment of participants' smoking cessation counseling was based on published guidelines of the National Cancer Institute (NCI) for smoking cessation counseling by health professionals.^{10,12} These guidelines, known as "the 4 A's" (i.e., *ask, advise, assist, arrange*), have also been adapted to apply to exercise counseling.²⁴ First, respondents were asked:

“When you see a new client, do you routinely *ask* whether they smoke cigarettes/exercise?” Response choices were Yes and No. The assist, advise, and arrange elements of the 4-A’s technique were assessed by asking respondents to respond to the following prompt: “With how many of your clients who smoke/don’t exercise do you do the following?” Response options consisted of a Likert scale, ranging from 1 (none) to 4 (all). The list of counseling activities included: *advising* clients about risks and benefits of the behavior and encouraging behavior change; *assisting* the client in making plans to stop smoking or start exercising (e.g., setting dates, choosing an exercise activity, prompting the client to record progress, providing self-help materials); and *arranging* for follow-up support through recommendations and referrals.

Attitudes About Smoking and Exercise Promotion. Respondents’ attitudes regarding health promotion were measured on a Likert scale, ranging from 1 (strongly agree) to 4 (strongly disagree). Four items were positively worded such that agreement indicated a more positive attitude, (e.g., *My counseling will help clients’ smoking cessation/exercise behavior.*); and the remainder were negatively worded such that agreement indicated a less positive attitude, (e.g., *Such counseling can negatively impact the therapy relationship.*).

RESULTS

Participants

Respondents’ personal and professional characteristics are described in Tables 1 and 2. Independent sample *t*-tests and χ^2 analyses revealed no significant differences between smoking and exercise survey samples.

Health Promotion Counseling

Behaviors. The frequency of respondents who reported that they engage in specific smoking and exercise counseling behaviors is described in Table 3. Overall, asking and advising were reported more frequently than assisting and arranging, which were

Table 1
Personal Characteristics of Survey Respondents

	Smoking (N = 154)		Exercise (N = 174)	
	Mean	SD	Mean	SD
Age	52.2	9.0	51.8	9.4
Years in practice	19.7	9.1	19.9	8.9
	%	<i>n</i>	%	<i>n</i>
Gender*				
Female	48.1	74	55.7	97
Male	49.4	76	41.4	72
Practitioner exercise				
0–2 times/wk	—	—	22.0	37
≥3 times/wk	—	—	78.0	131
Practitioner smoking				
Current	1.3	2	—	—
Former	41.3	62	—	—
Never	57.3	86	—	—

* Percentages do not add up to 100 because four smoking (2.6%) and nine exercise (2.9%) respondents did not indicate gender.

Table 2
Professional Practice Characteristics of Survey Respondents

	Smoking (N = 154)		Exercise (N = 174)	
	Mean	SD	Mean	SD
Clients per week	17.6	9.4	18.4	9.7
Proportion of clients who smoke	24.0	22	—	—
Proportion of sedentary clients	—	—	53.0	22
Client initiates discussion (1 = <i>never</i> , 4 = <i>often</i>)	2.48	0.79	2.76	0.75
	%	<i>n</i>	%	<i>n</i>
Theoretical orientation				
Dynamic	48.0	72	45.3	78
Cognitive behavioral therapy	35.3	53	41.9	72
Other (behavioral, cognitive, analytic)	16.7	25	12.8	22
Practice setting				
Office	66.7	102	69.0	120
Hospital (psychiatric, medical)	8.2	13	12.1	21
Agency	12.4	19	11.5	20
Other	12.4	19	7.5	13
Health promotion training				
Yes	11.1	17	4.6	8
No	88.9	136	95.4	166
If no, training is desired	38.1	51	40.3	62

endorsed by fewer than 25% of the respondents. Chi-square analyses revealed several significant differences between smoking and exercise re-

spondents, with exercise counseling more frequently reported than smoking cessation, as noted in Table 3. Chi-square analyses revealed no gen-

Table 3
Respondents Who Engage in Specific Health Promotion Counseling Behaviors With Clients

	Smoking (N = 154)		Exercise (N = 174)		χ^2	<i>p</i>
	%	<i>n</i>	%	<i>n</i>		
Ask new clients						
Yes	43.4	66	52.6	91	3.0	0.20
No	56.6	86	47.4	82		
Advise*						
Explain risks/benefits	32.7	40	53.4	93	47.3	0.001
Advise to stop/start	45.7	70	50.0	86	33.9	0.001
Assist*						
Set quit/start date	11.9	18	16.8	29	12.1	0.007
Choose activity	—	—	22.5	39	—	—
Self-help materials	7.2	11	3.5	6	3.6	0.31
Prompt to keep track	—	—	5.8	10	—	—
Recommend gum/patch	21.0	32	—	—	—	—
Arrange*						
Make referral to group/gym	12.5	19	5.8	10	10.9	0.01
Make referral to MD	7.2	11	4.7	8	2.0	0.56

* These behaviors were measured with a Likert scale. Frequency of activities reported with "most" or "all" clients who smoke/don't exercise are included in this table.

der differences in counseling behaviors with each sample.

Given the limited endorsement of assist and arrange behaviors, only ask and advise behaviors were included in subsequent analyses. A mean score was calculated for the two advise activities, with higher scores indicating more frequent use of these behaviors. Independent samples *t*-tests indicated that the mean advise score for exercise ($M = 2.69$, $SD = .85$) was significantly higher than the mean advise score for smoking ($M = 2.37$, $SD = 1.05$), $t_{322} = -3.59$, $p = .001$.

Respondents' Personal and Professional Characteristics. The relationships between counseling behaviors and personal and professional characteristics variables were analyzed using bivariate correlation analyses, one-way analyses of variance, and independent samples *t*-tests. For the smoking survey sample, asking behavior was positively related to the respondents' number of clients ($r = .18$, $p = .03$), and the proportion of clients who smoke ($r = .20$, $p = .02$); advising behavior was positively related to the frequency with which clients initiate

discussion about smoking ($r = .36$, $p = .001$) and a cognitive behavioral therapy (CBT) orientation (vs. a psychodynamic orientation; $F_{2, 145} = 3.63$, $p = .03$; Bonferroni post hoc analysis, $p = .03$). No other significant relationships were found.

For the exercise survey sample, asking behavior was more frequently reported among respondents who had formal training in exercise counseling ($t_{8.43} = -2.79$, $p = .02$) and a CBT orientation (vs. a psychodynamic orientation; $F_{2, 168} = 3.75$, $p = .03$; Bonferroni post hoc analysis, $p = .04$). Advising behavior was more frequently reported among participants who had formal training in exercise counseling ($t_{170} = -2.60$, $p = .01$), a greater number of years in practice ($r = .19$, $p = .01$), proportionately fewer sedentary clients ($r = -.20$, $p = .02$), and greater frequency of clients who initiate discussion about exercise ($r = .26$, $p = .001$). No other significant relationships were found.

Attitudes. The frequency of respondents who agreed or strongly agreed with the health promotion counseling attitude statements is described

in Table 4. Chi-square analyses revealed several differences between smoking and exercise samples, as noted in Table 4. To conduct regression analyses, mean scores were calculated for all attitude items. Positive attitudes are indicated by high scores on positively worded items and low scores on negatively worded items. Data reduction efforts yielded no cohesive clusters of attitudinal items for either survey. Therefore, all of the items were analyzed as individual variables.

Predictors of Behaviors. To evaluate which variables were associated with counseling behaviors, regression analyses were conducted for each sample. Only variables with significant bivariate correlations at or above .30 were included in the analyses. Regression assumptions regarding multicollinearity, homoscedasticity, and error distribution were all met. For the smoking survey sample, logistic regression analysis indicated that the likelihood of not asking new clients about their smoking status is associated with the belief that smoking is not related to psychological functioning (OR, .36; confidence interval [CI], .16–.81; $p = .013$) and that smoking is a personal choice which should not be dealt with in psychotherapy (OR, .43; CI, .23–.79; $p = .007$). Taken together, the predictors accurately classified 66% of the cases. A linear regression analysis was conducted to evaluate the association between attitudes and advising behaviors as measured by the advising score. Significant predictors included confidence in counseling ability (partial $r = .23$, $p < .010$), inclination to discuss drugs or alcohol (partial $r = -.25$, $p < .01$), and a belief that smoking is a personal choice that should not be dealt with in psychotherapy (partial $r = -.18$, $p < .05$). The linear combination of attitude variables was significantly related to the advising score ($F_{5, 133} = 9.12$, $p < .001$, multiple $R = .51$, $R^2 = .26$).

For the exercise survey sample, logistic regression analysis indicated that the likelihood of not asking new clients about their exercise behavior is associated with lower respondent's confidence in their exercise counsel-

Table 4

Frequency of Respondents Who Agreed/Strongly Agreed With Attitude Items Regarding Smoking Cessation/Exercise Promotion Counseling With Psychotherapy Clients

	Smoking (N = 154)		Exercise (N = 174)			
	%	<i>n</i>	%	<i>n</i>	χ^2	<i>p</i>
Positively worded items						
My counseling will help clients' smoking/exercise behavior	73.1	106	78.3	126	5.33	0.149
Can positively affect therapy relationship	68.1	96	79.9	127	9.47	0.024
I am confident in my counseling ability	41.2	61	64.9	117	21.61	0.001
Many psychologists do smoking/exercise counseling	24.4	34	22.6	35	2.46	0.483
Negatively worded items						
Smoking/exercise is not related to psychological functioning	5.4	8	0.0	0	48.04	0.001
Smoking/exercise is a personal choice that should not be dealt with in psychotherapy	14.9	22	2.4	4	17.35	0.001
I don't have enough time	19.5	28	13.4	22	3.67	0.299
Clients think such counseling inappropriate	25.1	37	17.6	29	5.85	0.119
Can negatively affect therapy relationship	41.0	57	18.8	31	21.53	0.001
Some client's problems made worse	44.2	65	20.5	34	24.87	0.001
Clients are not interested in stopping/starting	47.6	69	27.7	45	15.70	0.001
Clients are not likely to comply	63.0	92	41.5	66	15.35	0.002
Smoking/exercise less important than other treatment goals	63.2	93	47.3	77	12.90	0.005
I am more inclined to discuss drugs/alcohol	71.9	107	—	—		

ing ability (OR, .47; CI, .27 to .83; $p = .008$), and the belief that exercise is a personal choice that should not be dealt with in psychotherapy (OR, .39; CI, .17–.92; $p = .031$). Taken together, the predictors correctly classified 67.3% of the cases. A linear regression analysis was conducted to evaluate the association between attitudes and advising behaviors as measured by the advising score. Significant predictors were routinely asking new clients about exercise (partial $r = .44$, $p < .001$), a belief that exercise is not related to psychological functioning (partial $r = -.24$, $p < .01$), and a belief that counseling will help clients' behavior (partial $r = .24$, $p < .05$). The linear combination of attitudes and asking behavior was significantly related to the advising score ($F_{10, 137} = 15.99$, $p < .001$, multiple $R = .73$, $R^2 = .54$).

DISCUSSION

The primary aim of this study was to assess the extent to which psychologists are engaging in smoking cessation and exercise promotion counsel-

ing with their clients, to what extent these practices were related to psychologists' personal and professional characteristics, and psychologists' attitudes about smoking cessation and exercise promotion within the psychotherapy context.

It is quite encouraging that many participants in the sample ask their new clients about smoking and exercise and that many advise their smoking and sedentary clients about changing these behaviors. Very few respondents felt that smoking and exercise were not related to psychological functioning or that these issues should not be dealt with in psychotherapy. In fact, over two thirds felt that counseling regarding smoking and exercise would help their clients and would positively affect the therapy relationship. These positive attitudes exist despite a general belief that such counseling is *not* the norm among practicing psychologists. In contrast to some previous findings, practitioners' smoking and exercise promotion was equally likely regardless of practitioner age, gender, and their own health behaviors.

Exercise promotion was more frequently reported and more positively viewed by practitioners than smoking cessation. Virtually all of the practitioners indicated that exercise is related to psychological functioning, perhaps suggesting an awareness that exercise is an effective intervention for depressive and anxiety symptoms.²⁵ As such, exercise promotion can be seen by both therapist and client as a means of achieving the client's therapeutic goals. Interestingly, exercise promotion was more frequently reported in this sample than in some physician samples.^{21,23} Perhaps physicians, who are more likely to report smoking cessation than exercise promotion,^{13,21} view smoking cessation counseling as more relevant than exercise to the goals of a physician/patient visit. In contrast, smoking cessation might be viewed by psychotherapy clients (and some therapists) as the removal of a behavior they use to cope with psychiatric symptoms and, therefore, could be counterproductive to the goals of psychotherapy. Indeed, over 40% of smok-

ing survey respondents in the sample of this study indicated that smoking cessation counseling could negatively affect the therapy relationship and could make some clients' problems worse.

Similar to findings in previous samples,^{10,26} asking and advising behaviors were more frequently reported than assisting and arranging. Although physicians commonly cite lack of time as an obstacle to engaging in all 4 A's with patients, lack of time was not endorsed as a significant obstacle for respondents in this sample. Perhaps, in the psychotherapy context, activities such as assisting and arranging are viewed by practitioners as moving too far away from the client-initiated focus of psychotherapy. These activities could also be viewed as requiring more specialized knowledge and skills.

Three attitudes significantly predicted both asking and advising behaviors for smoking and exercise survey respondents: (1) beliefs about the relevance of smoking and exercise to psychological functioning, (2) practitioners' confidence in their health promotion counseling abilities, and (3) the extent to which they felt the behavior is a personal choice that shouldn't be addressed in psychotherapy. Efforts within the psychology profession to increase health promotion among its practitioners might be best served by targeting these attitudes. Perhaps practitioner interest could be stimulated if such efforts focused on the psychological benefits of exercise and the myths about the "calming effects" of smoking.²⁷ Also, given that many respondents believe that clients are not likely to comply with their health promotion advice, practitioners could be informed of the efficacy of health promotion efforts within a caring practitioner relationship and could be encouraged to reconsider the assumption that a client's choice to smoke or be sedentary precludes addressing these behaviors in psychotherapy. Health promotion training, which has effectively addressed lack of confidence in health promotion counseling abilities among physicians,^{12,24} could increase confidence by helping to build such skills. Al-

though very few of the respondents in this study had received health promotion training, it is encouraging to note that a substantial proportion who had not indicated an interest in doing so. Inclusion of health promotion counseling within graduate training programs could reach practitioners in the earliest stages of their career.

Given that the current sample represents the eligible participants from only 49.6% of a sample of psychologists in Massachusetts, the findings of this study can hardly be considered representative of all psychologists who practice psychotherapy. Given that the respondents' health behaviors are much more frequently reported in these samples than is typical of the U.S. adult population, this self-selected sample could be biased toward more health-conscious practitioners. Inclusion of a greater number of sedentary and currently smoking practitioners would likely yield different findings. On the other hand, the smoking and exercise samples in the present study are appropriate in several important ways. First, they consist of experienced psychotherapists who are actively involved with psychotherapy. In fact, from the reported number of individual clients seen each week, many are likely to be in full-time practice. Second, the most commonly endorsed theoretical orientations (dynamic and CBT) and practice setting (office) are consistent with the findings of larger surveys of practicing psychologists in the United States.^{28,29} Finally, participants' report of the proportion of smoking and sedentary clients is comparable to the health behavior practices of the U.S. adult population.²

In addition to improving the representativeness and size of the sample, future explorations might include other health behaviors such as diet, alcohol and drug use, and sexual practices. Additional practitioner information (e.g., the practitioner's race and ethnicity, area of specialization, details regarding the gender and ages of clients) might also provide a more complete context for interpreting findings. Different findings for smoking and exercise in the

sample of this study support the use of measures that are tailored to each health behavior. However, given that a greater percentage of the variance in advising behavior was explained for exercise than smoking (54% vs. 26%, respectively), the survey questions regarding counseling behaviors might not have adequately captured the process of dealing with psychotherapy clients' smoking habits. Additional focus group data regarding smoking cessation counseling could help to shed light on other important factors. Finally, by building on the work of Secker-Walker et al.,¹⁰ future studies could include physicians, psychologists, and other health care professionals in the same sample to more directly compare health promotion behaviors and attitudes across disciplines.

SO WHAT? Implications for Health Promotion Practitioners and Researchers

The psychotherapy context is an understudied but potentially effective domain for health promotion. The findings of this study suggest that psychologists are promoting smoking cessation and exercise with their psychotherapy clients at levels comparable to physicians and that psychologists have favorable beliefs about the relevance and effect of health promotion within the psychotherapy context, particularly regarding exercise. Efforts within the psychotherapy field should address specific attitudinal barriers and teach health promotion counseling skills to psychologists to aid in health promotion activities with their clients. Research that includes representative, cross-discipline samples could help build on these findings.

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