

Award Number: W81XWH-05-2-0015

TITLE: FACILITATING SMOKING CESSATION AND PREVENTING RELAPSE IN
PRIMARY CARE: MINIMIZING WEIGHT GAIN BY REDUCING ALCOHOL
CONSUMPTION

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14. ABSTRACT A randomized controlled trial was conducted evaluating two smoking cessation interventions for use in primary care settings. Both included the nicotine patch and bupropion (Zyban) if desired. The Brief Counselor Assisted Program (BCAP; 2 in person and 2 telephone counseling sessions) combined motivational interviewing and behavioral counseling with an emphasis on reducing alcohol consumption to minimize weight gain. Participants in the Self-Guided Program (SGP) received a pamphlet discussing change strategies for tobacco cessation, minimizing weight gain, and how to plan for and deal with possible relapses. Current smokers at 3-month follow-up were randomized to receive no further counseling or an in person booster session focusing on obstacles to change. There were 317 participants, 158 in BCAP and 159 in SGP. Followup was completed on 92.1% of participants at 3-months, 90.9% at 6-months, and 84.5% at 12-months. Of those found at 3- months, 45.6% of BCAP and 32.7% of SGP participants were non-smokers in an intent to treat analysis (p=.019). The treatment conditions did not differ significantly at 6- and 12-month follow-up. Weight loss and alcohol reduction changes did not mediate the 3-month effect. Likewise, the analysis of booster session effects at 6- and 12-month follow-ups did not find significant difference between those who received and did not receive booster session.					
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Final Report Award Number W81XWH-05-2-0015

Introduction

This report summarizes progress made on Award Number W81XWH-05-2-0015 for the project year from December 27, 2010 through December 26, 2011, and for the overall project for which grant funding has now ended. The project, "Facilitating Smoking Cessation and Preventing Relapse in Primary Care: Minimizing Weight Gain by Reducing Alcohol Consumption," involved developing and testing a brief smoking cessation intervention for use in primary care settings. The intervention was intended to help participants stop smoking cigarettes and stay quit by use of motivational interviewing, behavioral counseling and nicotine replacement therapy, with an emphasis on reducing alcohol consumption as a strategy for minimizing weight gain related to smoking cessation. Participants were randomly assigned to one of two groups: a Brief Counselor Assisted Program (BCAP), or a Self-Guided Program (SGP), with the nicotine patch and bupropion (Zyban) available to all participants. Participants in the BCAP attend two 30-minute clinic appointments and have two counseling sessions by phone over a period of 8-10 weeks, where tobacco cessation skills were integrated with weight and alcohol reduction strategies. Participants in both groups received handouts describing nicotine pharmacotherapy. Participants in the BCAP group also received a Pamphlet. Participants in the SGP received, in addition to the medication, a pamphlet discussing the most effective behavioral change strategies for tobacco cessation, how to minimize weight gain, and how to plan for and deal with possible relapses. The pamphlet the SGP participants received by called "You can quit smoking," and it was produced by the Department of Health and Human Services. A copy is included in the appendix to this report. Current smokers at 3-month follow-up, blocked by original group assignment, were randomized either to receive no further counseling or to attend one clinic booster session focusing on dealing with their individual obstacles to change. All participants were scheduled to be followed up for 12 months, and follow-up data were gathered for more than 85% of participants at 3, 6 and 12 months. The study addressed three research questions: (1) Does an alcohol reduction strategy designed to minimize weight gain produce higher smoking cessation rates than a control treatment? (2) Does participation in a tobacco cessation program that includes an alcohol reduction component lessen the risk of relapse? (3) Does providing a stepped care intervention (booster) for participants who initially are unsuccessful at stopping improve long-term tobacco cessation rates? Using intent to treat analyses where participants either not located for follow-up or who refused to be interviewed were classified as still smoking, it was found that participants in the BCAP condition had a higher smoking cessation rate than participants in the SGP condition at the 3-month follow-up but the difference was not significant at the 6- or 12-month follow-ups. The difference between the groups was not mediated by a reduction in alcohol consumption or a difference in weight gain. Participants who stopped smoking had a larger weight gain than those who did not stop smoking, but this was not significantly related to treatment condition. Finally, the booster did not produce a higher cessation rate at 6- and 12-month follow-up than occurred for those participants who did not receive a booster session.

Body

The original Statement of Work was itemized for each investigator and consultant and by necessity, therefore, included considerable redundancy. To make this report better organized and easier to follow, we first discuss performance of the project toward objectives shared among the investigators. Following that, individual Statements of Work will be presented.

During the past project year our focus was on completing the formal analyses of the data and getting started on publications. Our final sample consisted of 317, with 158 in the BCAP group and 159 in the SGP group. To attain this sample we had contact with 1,391 total individuals, and of those we screened 1,296 (48 were not screened because they first asked if we offered Chantix, and when they found out we did not offer it they withdrew from consideration because they could receive Chantix through the smoking cessation program at the base Health and Wellness Center; 47 left initial contact information but never responded to repeated attempts to contact them). The major reasons for screening out were not enough alcohol consumption (549 of 961 total screenouts, or 57%), and wanted Chantix (42), followed by a variety of other reasons such as not wanting to be further contacted. Beside wanting Chantix, which could not be made available because it would have introduced a new medication midway through the trial and possible adverse side effects of Chantix were under investigation at the time, the major reason for screening out was not meeting the alcohol consumption criteria (≥ 4 drinks per week). This was unexpected because, as described in the original grant proposal, the 2002 DoD Survey of Health-Related Behaviors among Military Personnel reported that, among other things, more than 40% of DoD personnel drank 5 or more drinks at least monthly. In screening for our project, however, more than half of the screenouts resulted from insufficient alcohol consumption. This occurred even after we received approval to reduce our screening criterion from a minimum of 7 drinks per week on average to a minimum of 4 drinks per week. As noted in previous grant reports, we believe the most parsimonious and credible explanation for the high rate of potential participants screen out due to the alcohol consumption criterion is that of alcohol consumption at screening may have been underreported because our informed consent form was required to include the statement “complete confidentiality cannot be promised, particularly for military personnel, because information regarding your health may be required to be reported to appropriate medical or command authorities.” This is in contrast to surveys for which respondents typically can remain anonymous. The ultimate consequence of potential participants not meeting the alcohol consumption criterion is that our final sample was smaller than we had wished (the original target sample size was 682). The reduced sample still allowed us to compare smoking cessation rates for the two conditions, but it greatly reduced power for other potential analyses, such as conducting separate analyses for gender. It also compromised the ability to evaluate the effect of the booster, again due to greatly reduced power.

Results

Participant Characteristics

Table 1, below, presents participant characteristics for the two treatment conditions and supports the intent of the randomization because no group differences were statistically significant.

Table 1. Characteristics of participants in the two treatment conditions: Brief Counselor Assisted Program (BCAP, n = 158) and Pharmacotherapy plus Pamphlet (PP, n = 159) Group

<u>Variable</u>	<u>BCAP (n = 158)</u>	<u>PP (n = 159)</u>
Mean (SD) yrs age	37.3 (13.1)	37.6 (12.9)
% Male	69.6	72.3
% Married	62.7	58.5
% White/Caucasian	72.2	68.6
M (SD) yrs education	13.7 (1.7)	13.5 (1.8)
% Active duty	63.3	64.8
M (SD) Fagerström score	3.7 (2.2)	4.0 (2.1)
M (SD) yrs regular smoker	18.1 (12.9)	18.7 (13.0)
% Health most important reason to quit	79.1	76.7
M (SD) no. past quit attempts	6.1 (6.0)	5.9 (6.2)
% Definitely quit next 2 wks.	44.9	47.8
% Definitely be non-smoker in 6 mos.	40.5	43.4
% Definitely quit in next 6 mos.	79.1	80.4
M (SD) readiness to quit score (1-5)	4.7 (.5)	4.6 (.5)
M (SD) importance of goal (0-100%)	81.8 (15.1)	80.6 (15.4)
M (SD) confidence reach goal (0-100%)	82.2 (18.5)	82.0 (19.3)
M (SD) concern with weight gain (1-10)	6.7 (2.9)	6.7 (3.0)
M (SD) days ≥ 5 drinks past yr.	19.9 (44.0)	16.3 (34.4)

Note: No differences were statistically significant

Follow-Up Rates

A strong point of the implementation of the project was that our rate of retrieving data for follow-up was excellent, especially for a large scale study. Despite high follow-up rates, data were obtained from somewhat fewer GSP participants than BCAP participants. These differences were taken account of in intent to treat analyses. These analyses were conservative and considered all participants without data at an interval to be smoking. Because at all three points more GSP than BCAP participants were not included in follow-up, the strategy of considering all not found participants to be still

smoking would, if anything, favor the BCAP group in the intent to treat analyses (i.e., the number of participants still smoking may have been artificially high because some of those not located for follow-up may have quit smoking).

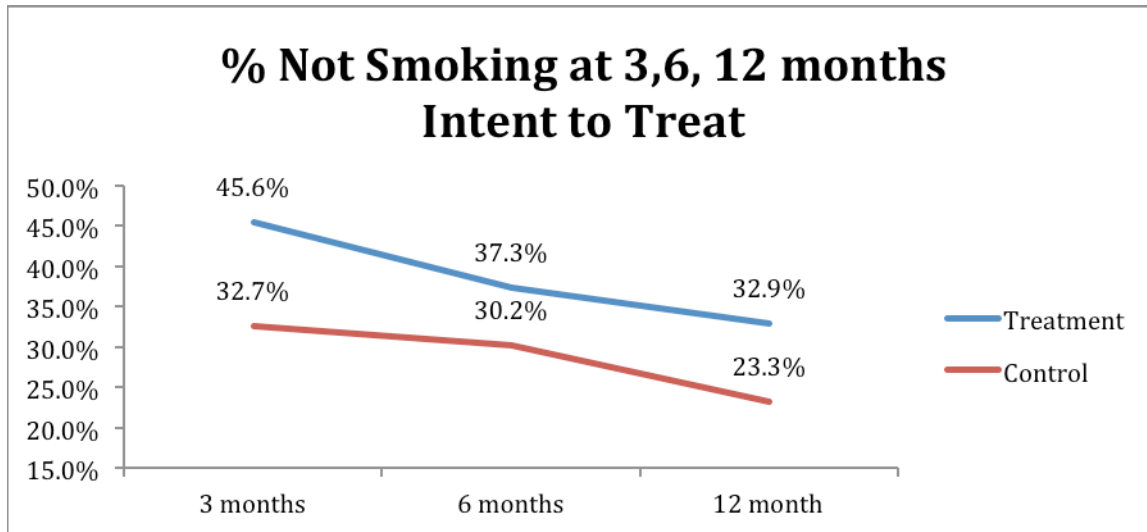
Interval	BCAP	GSP	Combined	<i>p</i> BCAP vs GSP
3 Months	95.0%	89.2%	92.1%	0.045
6 Months	91.1%	90.6%	90.9%	0.507
12 Months	89.2%	79.9%	84.5%	0.015

Smoking Cessation Outcomes

To assess the relationship of pretreatment variables to smoking status, first a set of bivariate correlations were calculated between variables and smoking status. Variables significant in those analyses were then used in a logistic regression analysis using an intent to treat approach.

For 3-month follow-up smoking status, significant bivariate predictors were treatment condition, participants' ratings of the likelihood they would have quit smoking within the next six months, participants' ratings of their confidence that they would quit smoking, and participants' scores on the Fagerström scale of nicotine dependence. In the regression analysis, controlling for the above variables, treatment condition was still significant ($B = -1.73$, $p = .002$). Similar results were found when the analysis was run using only those participants found for follow-up. The hypotheses regarding reduced drinking leading to less weight gain as mediating factors for the BCAP group were not supported in mediation analyses.

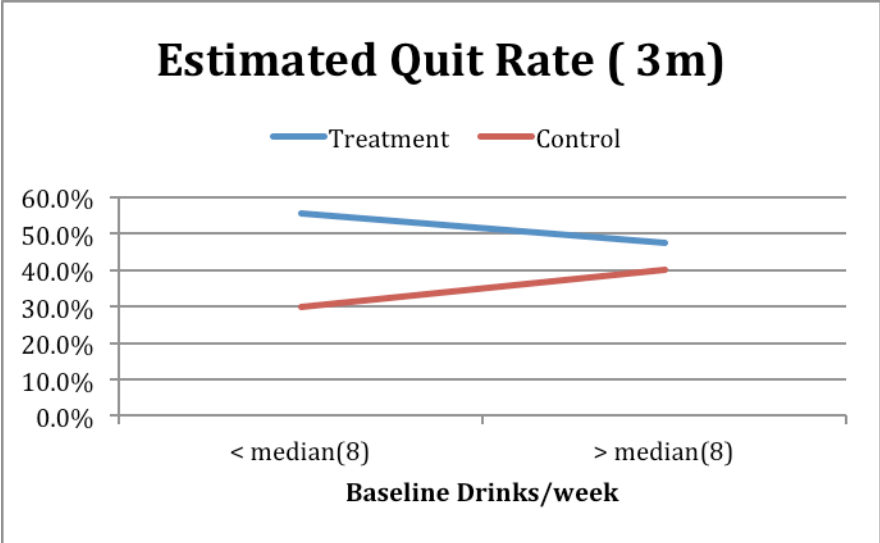
Findings of the intent to treat analyses for all three follow-up points are displayed below. Smoking status was determined by use of a 7-day pre-interview window, which is a standard for the field. Only at the 3-month point did the group outcomes differ significantly.



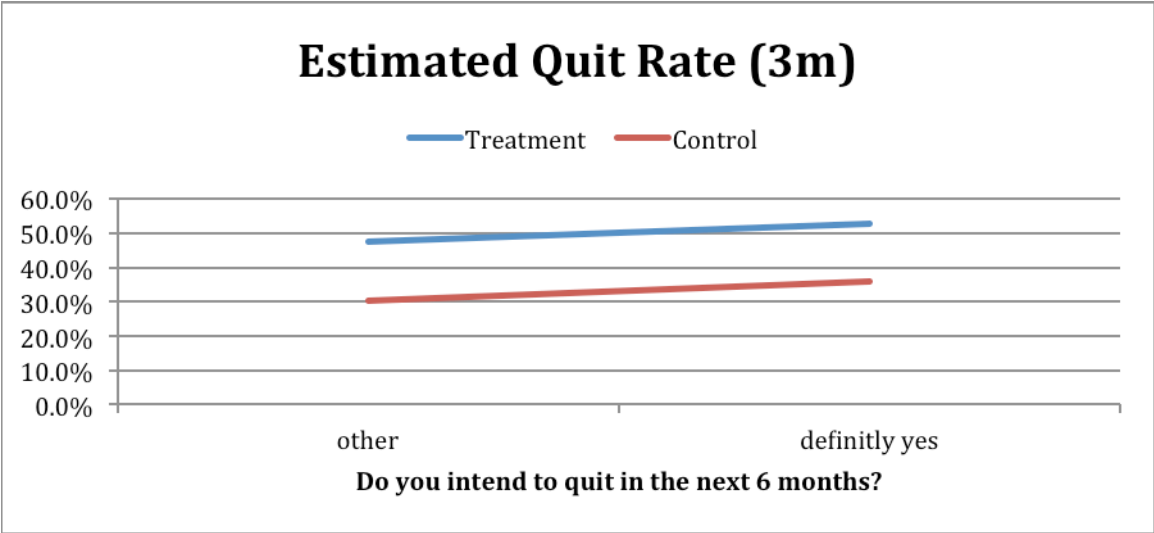
Not-Smoking at ... Intent-To-Treat	Treatment	Control	Chi Sq-	p value
3 months	45.6%	32.7%	5.508	.019
6 months	37.3%	30.2%	1.813	.178
12 month	32.9%	23.3%	3.648	.056

Further analyses showed that no demographic variables differed between smokers and quitters at 3 months.

Moderation analyses for the 3-month outcomes (since there was a significant difference between treatment groups) found two moderating variables. Average drinks per week reported at baseline was dichotomized using a median split. It was found that participants who were lighter drinkers prior to entering the study had a higher quit rate at three months if they were in the BCAP condition ($B = 0.118$, $p = .008$).



The other moderating variable was baseline intention to quit in the next six months ($B = -1.370, p = .023$). In this case, those who definitely intended to quit had a higher quit rate than those who were not as confident, no matter what the treatment condition. In practical terms, however, the advantage was only around a 5-7% higher rate of quitting.

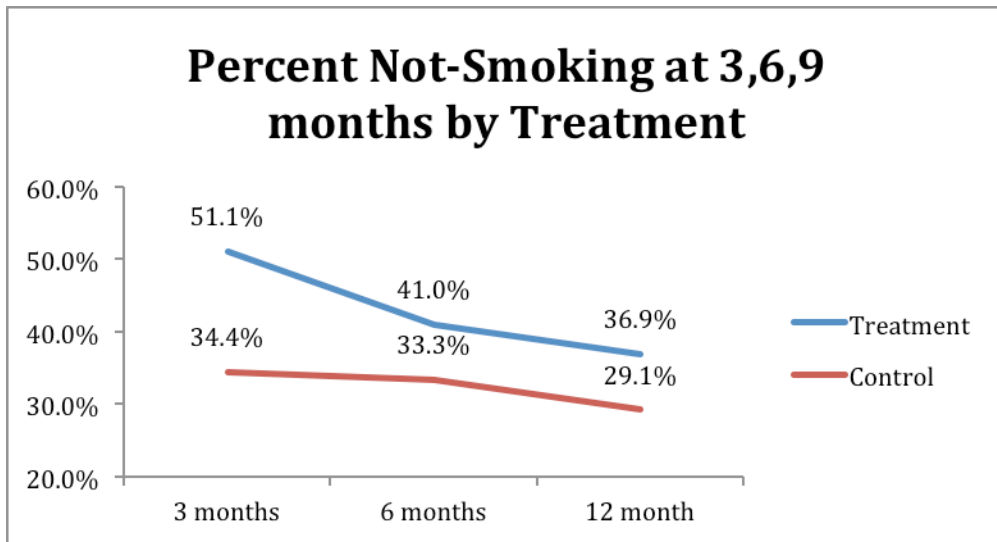


Because treatment condition did not have a significant effect at the 6- and 12-month follow-up intervals, mediation analyses would not be appropriate, and no potential moderators were significant in regression analyses.

Completer Outcomes

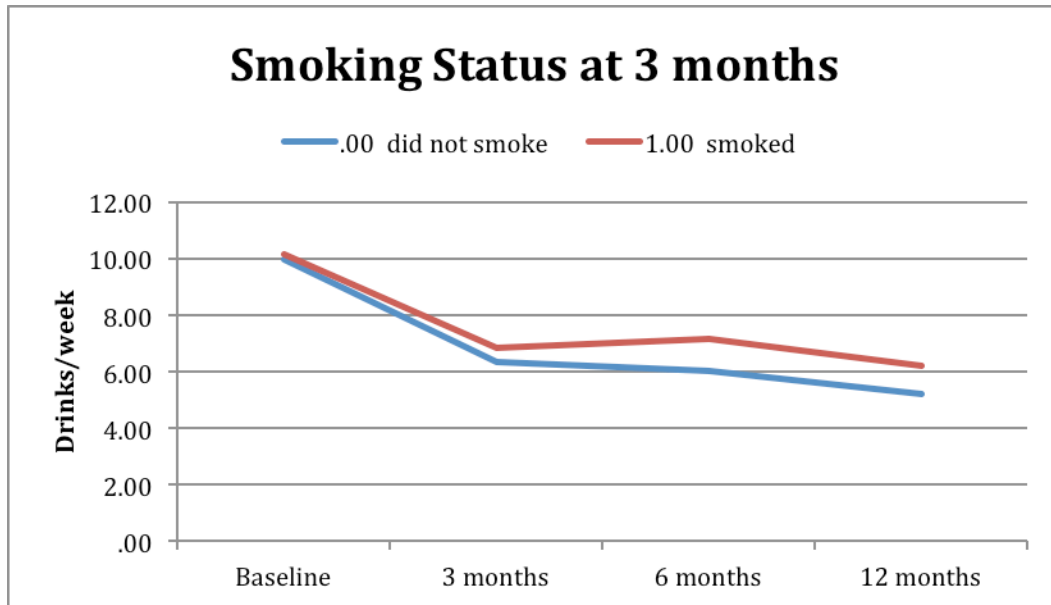
The above findings derive from intent to treat analyses where participants not found for follow-up were considered to still be smoking. Further analyses were conducted using

only those participants for whom data were collected. Obviously in cases of uneven find rate this risks biasing conclusions and affecting external validity. Nevertheless, this analysis basically replicated the intent to treat results in that group differences were significant at 3-month follow-up but not at 6- or 12-month follow-ups. This analysis also examined demographic variables as related to 3-month outcome. No demographic characteristics differentiated smokers from quitters at 3-month follow-up. By Chi-square analysis, the 3-month difference was statistically significant ($X^2 = 8.250, p = .004$), but 6-month ($X^2 = 1.799, p > .05$) and 12-month differences ($X^2 = 1.807, p > .05$) were not statistically significant.



Smoking Cessation and Alcohol Reduction

Participants in both groups reported reduced alcohol consumption after entering the study, but the relationship between drinking reduction and smoking cessation did not differ by treatment condition, as displayed below.



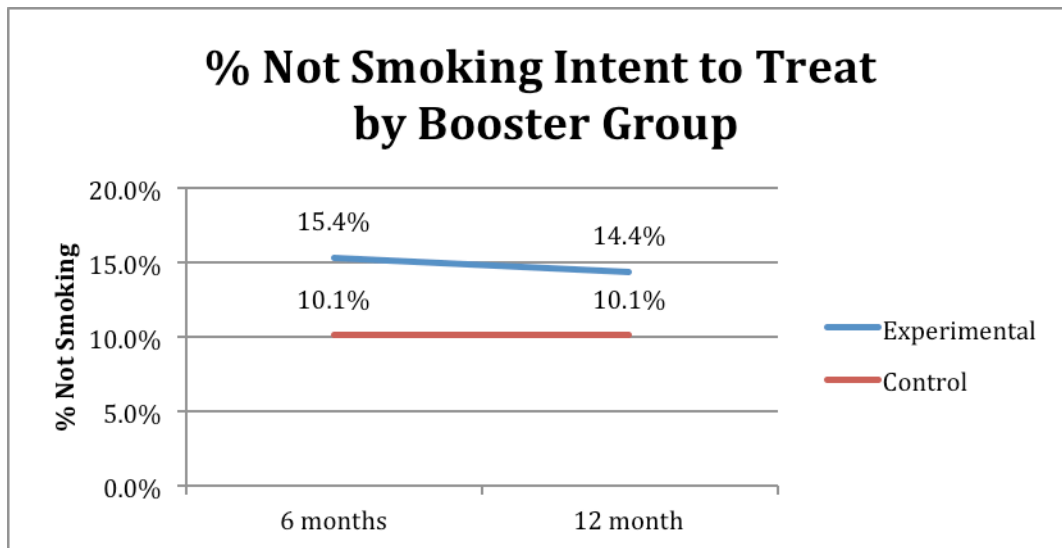
There was a very small difference in drinks consumed per week for participants who had quit at 3 month follow-up versus those still smoking, but the difference was negligible (slightly less than 7%). Note that participants in both groups had reduced their drinking by about one-third.

Smoking Cessation and Weight Gain

Analyses of weight changes found, as typical for smoking cessation studies, that participants who had quit smoking gained significantly more weight than those who did not quit ($t = -2.63, p = .009$), but there was no difference between treatment condition. Thus, neither weight change nor alcohol reduction distinguished the BCAP group from the SGP group. Therefore the study hypotheses regarding mechanisms of change were not supported by the study findings.

Booster Results

The analysis of Booster effects was compromised considerably due to the reduced sample size. However, as clear in the below figure (Experimental = got booster session; Control = no booster session), receiving a Booster session appeared to have no effect on quit rates, as was confirmed by statistical analyses that were not significant.



Presentations

Because it took longer than anticipated to recruit our sample and because data entry, cleaning, and analysis took a long time, we have only made poster presentations of results to this time but we are presently preparing for submission for publication the major manuscript describing this randomized controlled trial and its results. We also have proceeded in this manner because high quality journals recommend against piecemeal publication (i.e., investigators submitting a number of manuscripts describing different findings from the same study) and prefer manuscripts that provide most or all important findings in one major paper. Something that also impacted our productivity, as happens with grants that involve military personnel as investigators, was that with the exception of the principal investigator and one co-investigator (the principal investigator's spouse) all of the co-investigators moved to other positions during the course of the grant. In most cases this was to non-military organizations such as the National Institutes of Health and the University of Texas Health Sciences Center at San Antonio and to positions with an emphasis on topics other than smoking cessation (e.g., posttraumatic stress disorder; kidney disease).

With regard to dissemination, many tools were generated for this project that can be made available to others. These handouts largely involved reducing alcohol consumption and are included in the appendices to this report. Unfortunately, although the results indicate that the experimental intervention was successful in the short run (3-month follow-up), they also did not find that reduced drinking and less weight gain served as mediators of the effectiveness as had been hypothesized. Thus, although these aids can be made available and have clinical utility, we cannot conclude that they were a mechanism of change in smoking cessation.

Statement of Work Completion

The following completes the body of this report in a more standard format, reporting achievement of benchmarks approved in the May, 2008 revision of the Statement of Work for

this project. Although the formal grant period has expired, we are continuing to work on grant manuscripts and some further analyses. Thus, some of the following objectives are described as ongoing. These all involve the preparation of reports and possibly some additional, secondary data analyses.

Mark B. Sobell, Ph.D.

Nova Southeastern University

1. Hire project team members: Y01 M03 Completed
2. Finalize formal protocol, manuals: Y01 M09 Completed
3. Help coordinate, with the biostatistician, the development of the final assessment-outcome measures database: Y01 M09 Completed
4. Monitor compliance with, and integrity of, the treatment protocols: Completed
5. Monitor the quality control of all the data collection required for the project: Completed
6. Generate reports on outcomes of each new patient cohort administered the treatment protocols, in collaboration with the biostatistician: Primary analysis completed, secondary analyses ongoing
7. Update previous reports with most recent patient cohort outcome data, in collaboration with the biostatistician: Completed
8. Develop and implement plan to recruit a total of 350-400 subjects into the project by Y04 M12. The plan included continued on site recruitment at the Kelly Family Medical Clinic and the Wilford Hall Medical Center, use of occasional base wide emails, posters, and other methods of solicitation as approved by the Wilford Hall Medical Center IRB. In addition, on site recruitment will be established at the North Central Federal Outpatient Clinic in San Antonio. Completed
9. Generate the final manuscripts of study results: Ongoing
10. Disseminate results and materials produced by the study: Ongoing

Linda C. Sobell, Ph.D.

Nova Southeastern University

1. Hire project team members: Y01 M03 Completed
2. Finalize formal protocol, manuals: Y01 M09 Completed
3. Help coordinate, with the biostatistician, the development of the final assessment-outcome measures database: Y01 M09 Completed
4. Train personnel in project intervention: Y01 M12 Completed
5. Monitor compliance with, and integrity of, the treatment protocols: Completed
6. Monitor the quality control of all the data collection required for the project: Completed
7. Generate reports on outcomes of each new patient cohort administered the treatment protocols, in collaboration with the biostatistician: Primary analysis completed, secondary analyses ongoing
8. Oversee the conduct of project follow-up: Y04-05 M12 Completed
9. Generate the final manuscripts of study results: Ongoing
10. Disseminate results and materials produced by the study: Ongoing

Lt Col Alan Peterson, Ph.D.

Wilford Hall Medical Center

1. Review/coordinate IRB approvals: Ongoing
2. Hire project team members: Y01 M03 Completed
3. Secure office space for WHMC grant staff: Y01 M09 Completed
4. Finalize formal protocol, manuals: Y01 M09 Completed
5. Help coordinate, with the biostatistician, the development of the final assessment-outcome measures database: Y01 M09 Completed
6. Coordinate the training of phone counselors this project: Y01 M12 Completed
7. Provide weekly clinical supervision of phone counselors and monitor compliance with, and integrity of, the treatment protocols: Completed
8. Monitor the quality control of all the data collection required for the project: Completed
9. Generate reports on outcomes of each new patient cohort administered the treatment protocols, in collaboration with the biostatistician: Primary analysis completed, secondary analyses ongoing
10. Update previous reports with most recent patient cohort outcome data, in collaboration with the biostatistician: Completed
11. Supervise WHMC military and grant staff in assessment and intervention procedures: Y04 M12 Completed
12. Assist in developing and implementing a plan to recruit a total of 350-400 subjects into the project by Y04 M12. The plan will include continued on site recruitment at the Kelly Family Medical Clinic and the Wilford Hall Medical Center, use of occasional base wide emails, posters, and other methods of solicitation as approved by the Wilford Hall Medical Center IRB. In addition, on site recruitment will be established at the North Central Federal Outpatient Clinic in San Antonio. Completed
13. Generate scientific conference presentations of study preliminary results: Completed and continuing
14. Review/coordinate IRB amendments and annual reports: Completed
15. Generate the final manuscripts of study results: Ongoing
16. Disseminate results and materials produced by the study: Ongoing

Maj Christopher Hunter, Ph.D.

Wilford Hall Medical Center

1. Revise intervention manuals: Y01 M09 Completed
2. Assist in finalization of assessment instruments Y01 M09 Completed
3. Assist in training of military and grant staff to work in the primary care setting Y01 M09 Completed
7. Generate manuscripts of study results: Ongoing

Maj Christine Hunter, Ph.D.

Wilford Hall Medical Center

1. Help coordinate, with the biostatistician, the development of the final assessment-outcome measures database: Completed
2. Help coordinate, with the biostatistician, the development of the final assessment-outcome measures database: Y01 M09 1. Completed

3. Assist in training of telephone counselors: Y01 M12 Completed
Assist in weekly supervision of phone counselors: Completed
4. Generate manuscripts of study results: On-going

Capt Jeffrey Goodie, Ph.D.
Wilford Hall Medical Center

1. Finalize formal protocol manuals: Yo1 M09 Completed
2. Assist in training staff to work in primary care setting: Y012 M12 Completed
3. Generate manuscripts of study results: Ongoing

Keith Haddock, Ph.D.
University of Missouri, Kansas City

1. Provide consultation on development of data base for study and computerize data entry: Y01 M12 Completed

Carlos Poston, Ph.D.
University of Missouri, Kansas City

1. Provide consultation on development of data base for study and computerize data entry: Y01 M12 Completed

Timothy Baker, Ph.D.
University of Wisconsin, Madison

1. Provide consultation on smoking cessation treatment protocol and development of data base: Y01 M12 Completed
2. Help monitor integrity of study implementation: Y03 M06 Not needed
3. Provide consultation on data analysis strategies: Not needed
4. Provide consultation on interpretation of results: Not needed

Lt.Col. Ann Hryshko-Mullen, Ph.D. (Brought forward from the January 2009 annual report)
Dr. Hryshko-Mullen is a Wilford Hall Medical Center staff member added to the research team after the Permanent Change of Station (PCS) of Capt. Jeffrey Goodie, Ph.D. in August 2005. Dr. Mullen is the Chief of the Clinical Health Psychology Service at Wilford Hall.

1. Maintained Wilford Hall office space for all grant staff personnel: Completed
2. Coordinated with Lackland AFB Tobacco Cessation Program to limit any overlap or conflict with proposed study and ongoing Tobacco Cessation programs: Completed
3. Manuals: Completed
4. Assist in training staff to work in primary care setting: Completed
5. Generate manuscripts of study results: Ongoing

Sangeeta Agrawal, M. Sc.

1. Conduct statistical analyses, consult on interpretation of findings: Completed, consultation ongoing
- 2.

Key Research Accomplishments.

- Achieved a high rate of data retrieval rate for follow-up.
- Short term results (3-month follow-up) found that significantly more participants in the BCAP group quit smoking than had participants in the SGP group.
- However, weight loss minimization and alcohol reduction were not found to mediate the group difference at 3-month follow-up.
- A large amount of materials were developed for the project that can be made available to others conducting smoking cessation treatment. These materials are included as appendices to this report,

Reportable Outcomes

As described above, although grant funding has now terminated work we are currently proceeding to prepare for publication the main report of this randomized controlled trial. Following completion of that task we will work on publishing findings of secondary data analyses since we have a large data bank but the main study hypotheses were not supported.

Sobell, M Sobell, M.B., Peterson, A. L., Sobell, L.C., Hunter, C. L., Hunter, C. M., Alvarez, L., Brundige, A., Hryshko-Mullen, A.S., Isler, W.C., & Schmidt,S. (2006, May). Facilitating Smoking Cessation and Preventing Relapse in Primary Care: Minimizing Weight Gain by Reducing Alcohol Consumption. Poster presented at the 2006 Department of Defense Military Health Research Forum, San Juan, Puerto Rico.

Sobell M. B., Peterson, A. L., Sobell, L. C., Hunter, C. L., Hunter, C. M., Alvarez, L., Brundige, A., & Goodie, J. (2007, August). Alcohol Reduction to Facilitate Smoking Cessation and Prevent Relapse. Poster presented at the Annual Meeting of the American Psychological Association, San Francisco, CA

Sobell, M.B., Sobell, L.C., Peterson, A.L., Brundige, A., & Hryshko-Mullen, A. (2009, June). Using reduced alcohol consumption as a strategy to minimize weight gain when stopping smoking. Poster presented at the annual meeting of the Research Society on Alcoholism. San Diego, CA.

Sobell, M.B., Peterson, A. L., Sobell, L.C., Hunter, C.L., Hunter, C.M., Brundige, A., Goodie, J.L., & Mendoza, C. (2009, September). Smoking cessation: minimizing weight gain and preventing relapse by reducing alcohol consumption. Poster presented at the Congressionally Directed Medical Research Programs Military Health Research Forum, Kansas City, MI.

Sobell, M.B., Sobell, L.C., Peterson, A.L., Hunter, C.L., Hunter, C.M., Brundige, A., & Goodie, J.L. (2010, August). Facilitating Smoking Cessation by Reducing Alcohol Consumption. Poster presented at the Annual Convention of the American Psychological Association, San Diego, CA.

Conclusions

Although the final sample size was less than our target, our rates of retrieval of follow-up data were very good. A surprising event was that insufficient alcohol consumption was the major factor that screened potential participants out of the study. Our estimates of alcohol consumption were based on anonymous military surveys. In the case of conducting this study, research ethics required that the informed consent statement make clear that confidentiality could not be absolutely guaranteed because the command would have access to all health records. This may have deterred potential participants from accurately reporting their alcohol consumption. The reduced sample size was a handicap for conducting certain analyses, such as of the booster session and of variables like gender. The outcome analyses were conducted as intent to treat analyses and therefore participants for whom follow-up data were not collected were considered to be still smoking. The analyses found that participants in the BCAP group had a higher smoking cessation rate at the 3-month follow-up than the GSP group, but the group difference was not significant at either the 6-month or 12-month follow-up. The significant difference at the 3-month follow-up allowed further analyses regarding the study hypotheses. It was found that although participants in both groups reported reduced drinking, the difference between participants in the BCAP and GSP group were not significant. Moreover, although those participants who quit smoking had gained more weight than those who were still smoking, this difference also did not interact with group assignment. Thus, although the BCAP group had a statistically significant advantage at the 3-month mark, that advantage did not seem to be related to reduced drinking or to a lessened weight gain associated with their treatment. It will be noted that in the attached pamphlet (one of the appendices) given to the SGP participants, it does recommend that persons trying to quit smoking reduce their drinking. Although this advice is extremely brief, it would be consistent with reported drinking reductions in the SGP group. It was also found that participants who had lower levels of drinking at baseline or who said they definitely planned to quit within the next six months had higher quit rates than other participants. Having attended a Booster session after the third session for participants who had not quit smoking likewise did not differentially affect quit rates at later follow-ups. Finally, in the course of developing the study a large amount of handout materials were developed that could be used by other programs. The overall conclusion is that the experimental BCAP treatment produced a better smoking cessation outcome in the short run than the GSP treatment, but not for the reasons hypothesized to be mechanisms of change.

References

See reportable outcomes. No journal articles at this time.

Personnel who received pay from this project:

Mark Sobell, Ph.D.

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Appendices

- Sobell, M Sobell, M.B., Peterson, A. L., Sobell, L.C., Hunter, C. L., Hunter, C. M., Alvarez, L., Brundige, A., Hryshko-Mullen, A.S., Isler, W.C., & Schmidt,S. (2006, May). Facilitating Smoking Cessation and Preventing Relapse in Primary Care: Minimizing Weight Gain by Reducing Alcohol Consumption. Poster presented at the 2006 Department of Defense Military Health Research Forum, San Juan, Puerto Rico.
- Sobell M. B., Peterson, A. L., Sobell, L. C., Hunter, C. L., Hunter, C. M., Alvarez, L., Brundige, A., & Goodie, J. (2007, August). Alcohol Reduction to Facilitate Smoking Cessation and Prevent Relapse. Poster presented at the Annual Meeting of the American Psychological Association, San Francisco, CA
- Sobell, M.B., Sobell, L.C., Peterson, A.L., Brundige, A., & Hryshko-Mullen, A. (2009, June). Using reduced alcohol consumption as a strategy to minimize weight gain when stopping smoking. Poster presented at the annual meeting of the Research Society on Alcoholism. San Diego, CA.
- Sobell, M.B., Peterson, A. L., Sobell, L.C., Hunter, C.L., Hunter, C.M., Brundige, A., Goodie, J.L., & Mendoza, C. (2009, September). Smoking cessation: minimizing weight gain and preventing relapse by reducing alcohol consumption. Poster presented at the Congressionally Directed Medical Research Programs Military Health Research Forum, Kansas City, MI.
- Sobell, M.B., Sobell, L.C., Peterson, A.L., Hunter, C.L., Hunter, C.M., Brundige, A., & Goodie, J.L. (2010, August). Facilitating Smoking Cessation by Reducing Alcohol Consumption. Poster presented at the Annual Convention of the American Psychological Association, San Diego, CA.



Facilitating Smoking Cessation and Preventing Relapse in Primary Care: Minimizing Weight Gain by Reducing Alcohol Consumption



Mark B. Sobell, PhD, Alan L. Peterson, PhD, Linda C. Sobell, PhD, Maj Christopher L. Hunter, PhD, Maj Christine M. Hunter, PhD, Lisa Alvarez, PhD, Antoinette Brundige, MA, Maj Ann S. Hryshko-Mullen, PhD, Maj William C. Isler, PhD, Capt Steve Schmidt, PhD

Introduction

- Individuals who are advised to quit smoking by their medical provider face barriers that make quitting difficult or unlikely.
- One such barrier to smoking cessation in the military is concern about weight gain after quitting.
- This study targets smoking cessation and minimizing weight gain in patients seen in primary care settings.
- A unique feature of this study is the use of a harm reduction approach to reduce alcohol consumption as a means of minimizing weight gain after smoking cessation.
- In addition, it is expected that participants who reduce their alcohol consumption will have a lessened risk of relapse to smoking, since alcohol consumption is one of the strongest correlates of smoking relapse.

Objectives

- The purpose of this study is to ascertain whether or not combining smoking cessation training with alcohol use reduction training will increase the likelihood of smoking cessation, lessen the probability of relapse, and lessen the probability of weight gain after quitting.
- In addition, this study will test the impact of a stepped-care intervention in improving smoking cessation rates among those who are unsuccessful in quitting smoking.

Specific Aims

- This study will address three research questions:
 1. Does a weight gain minimization through an alcohol consumption reduction strategy produce higher smoking cessation rates than a control treatment?
 2. Does participation in a tobacco cessation program that includes an alcohol reduction component lessen the risk of relapse?
 3. Does providing a stepped care intervention for participants who are unsuccessful at stopping in the short-term improve long-term tobacco cessation rates?

Methods - Design

- The first two hypotheses will be tested using a two-group randomized design.
- Eligible participants, blocked by gender, will be randomized to groups.
- For those who have not stopped smoking at the three-month follow-up, half, blocked by initial treatment condition, will be randomly assigned to receive a booster session. Follow-up will be for one year post-treatment.

Methods - Treatment

The Treatment Conditions are as follows:

1. Brief Counselor Assisted Program: Tobacco cessation skills integrated with weight and alcohol reduction strategies, including nicotine replacement therapy (NRT) and Bupropion SR. Two in-clinic sessions and two phone sessions over a period of 8-12 weeks.
2. Self-Guided Program: Self-help pamphlet discussing the most effective behavioral change strategies for tobacco cessation, how to minimize weight gain, and how to plan for and deal with possible relapses. Bupropion SR and NRT will be available.

- The booster session will focus on discussing barriers to smoking cessation, development of a new quit plan, and future relapse prevention.

Relevance

- Smoking impacts personnel readiness through lower levels of physical fitness, increased risk for injuries, and more sick days.
- Despite the U.S. military's increased organizational focus on tobacco cessation, it appears that a plateau has been reached in trying to further reduce cigarette smoking using current interventions.
- While concerns about weight gain affect most individuals attempting to stop smoking, concerns in the military are heightened because of the potential impact of weight gain, increased abdominal circumference, or failure to meet the overall fitness standards.

Participants

- The primary care clinics at Wilford Hall Medical Center will be used to identify potential study participants.
- All participants will be eligible military medical beneficiaries.

Inclusion Criteria

1. Between 21 – 75 years of age
2. Smoke an average of 10+ cigarettes a day for the past year
3. Consume 7+ standard drinks with alcohol per week on average
4. Be concerned about gaining weight after stopping smoking
5. Planning to stay in the area for one year.

Exclusion Criteria

1. Pregnant, breastfeeding, or planning to become pregnant.
2. Health conditions including history of seizure, head injury, eating disorder, liver disease and/or hypertension that exclude use of cessation medications.
3. Having taken prescription or nonprescription weight-loss medication within 6 months prior to screening.
4. Medical profile (case-by-case basis).
5. Weight loss of more than 10 lbs in the past 2 months
6. Enrolled in Basic Military Training or Technical School Training.
7. History of major depression
8. Use of antidepressant medication
9. Evaluation for alcohol abuse or dependency



Better Health
One Step at a Time!



Alcohol Reduction to Facilitate Smoking Cessation and Prevent Relapse



Mark B. Sobell¹, PhD, Linda Carter Sobell¹, PhD, Alan L. Peterson^{2,5}, PhD, Christopher L. Hunter³, PhD, Christine M. Hunter⁴, PhD, Lisa Alvarez⁵, PhD, Antoinette Brundige⁵, MA, Jeffrey L. Goodie⁶, Ph.D.

1. Nova Southeastern University, 2. University of Texas Health Science Center at San Antonio, 3. National Naval Medical Center, 4. National Institute of Diabetes & Digestive & Kidney Diseases, 5. Wilford Hall Medical Center, 6. Uniformed Services University of the Health Sciences

Introduction

- Concern about weight gain is a well established barrier to smoking cessation.
- In the military, concern about weight gain after quitting is of heightened concern because excessive weight can result in being unfit for service.
- This study targets smoking cessation and minimizing weight gain in patients seen in military primary care settings.
- A unique feature of this study is counseling to reduce alcohol consumption to minimize weight gain after smoking cessation.
- Reduction of alcohol consumption is also included as a treatment component because it is highly correlated with smoking relapse and may increase weight gain due to its relatively high caloric value.
- It is expected that participants who reduce their alcohol use will have a lessened risk of relapse to smoking.

Research Questions

1. Does weight gain minimization using an alcohol reduction strategy produce higher smoking cessation rates than a control treatment?
2. Does participation in a tobacco cessation program that includes an alcohol reduction component reduce the risk of relapse?
3. Does a booster session for participants who initially are unsuccessful at stopping improve long-term smoking cessation rates?

Design

- The first two research questions are being evaluated using a two-group randomized design.
- Eligible participants, blocked by gender, are randomized to groups.
- For those who have not stopped smoking at the 3-month follow-up, half, blocked by initial treatment condition, are randomly assigned to receive a booster session.
- Follow-up is for one year post-treatment.

Treatment Conditions

1. **Brief Counselor Assisted Program:** Tobacco cessation procedures integrated with weight and alcohol reduction strategies, including nicotine replacement therapy (NRT) and Bupropion SR (Zyban). Two clinic sessions and two phone sessions over 8-12 weeks.
2. **Self-Guided Program:** Self-help pamphlet describing how to implement effective behavioral change strategies for tobacco cessation, how to minimize weight gain, and how to deal with possible relapses. Bupropion SR and NRT provided.

- The **Booster** session focuses on overcoming barriers to smoking cessation, and development of new quit and relapse prevention plans.

Participants

- Primary care clinics at Wilford Hall Medical Center (San Antonio, TX) are the primary source of participants.
- All participants are eligible military medical beneficiaries.

Inclusion Criteria

1. At least 21 years of age
2. Smoke an average of 5+ cigarettes a day for the past year
3. Consume 4 or more standard drinks per week on average
4. Concerned about gaining weight after stopping smoking
5. Planning to stay in the local area for one year.

Exclusion Criteria

1. Pregnant, breastfeeding, or planning to become pregnant.
2. Health conditions including history of seizure, head injury, eating disorder, liver disease and/or hypertension that excludes use of cessation medications.
3. Having taken prescription or nonprescription weight-loss medication within 6 months prior to screening
4. Medical contraindication (case-by-case basis).
5. Temporarily assigned to the base to attend a military training program.
6. No recent or current major depression
7. Diagnosed with alcohol abuse or dependence

Current Status

- As of mid-July, 2007, more than 200 participants had been enrolled in the study. Follow-up is ongoing.

Relevance

- While concerns about weight gain affect most individuals attempting to stop smoking, concerns in the military are heightened because of the potential impact of weight gain, increased abdominal circumference, or failure to meet the overall fitness standards.



Better Health
One Step at a Time!



Using Reduced Alcohol Consumption as a Strategy to Minimize Weight Gain When Stopping Smoking



Mark B. Sobell¹, Ph.D., Linda Carter Sobell¹, Ph.D., Alan L. Peterson^{2,3}, Ph.D., Antoinette Brundige³, M.A., & Ann Hryshko-Mullen³, Ph.D.

1. Nova Southeastern University, 2. University of Texas Health Science Center at San Antonio, 3. Wilford Hall Medical Center

Introduction

- Concern about weight gain is a well-established barrier to smoking cessation.
- In the military, concern about weight gain after quitting is heightened because excessive weight can result in being unfit for service.
- This study targets smoking cessation and minimizing weight gain in patients seen in military primary care settings.
- A unique feature of this study is counseling to reduce alcohol consumption to minimize weight gain after smoking cessation.
- Reduction of alcohol consumption is also included as a treatment component because it is highly correlated with smoking relapse and may increase weight gain due to its relatively high caloric value.
- It is expected that participants counseled to reduce alcohol consumption to minimize weight gain will have higher smoking cessation rates and a lessened risk of relapse than participants who do not receive such counseling.

Design

- 317 eligible participants, blocked by gender, were randomly assigned to two groups.
- Those who had not stopped smoking at the 3-month follow-up, blocked by initial treatment condition, were randomly assigned to receive or not receive a booster session.
- Follow-up is for 1 year post-treatment.

3-Month Outcome

- At the 3-month follow-up, of the 92.1% of participants for whom data were available 40.0% were nonsmokers (7-day window):
 - BCAP = 46.8% Nonsmokers
 - PP = 34.4% Nonsmokers
- The above difference, on the basis of the 92.1% of participants found, is significant: χ^2 (df = 1, N = 292) = 4.63, $p = .031$.
- If an intent to treat analysis is performed and all missing participants are considered failures, the nonsmoking rates (BCAP = 41.8%; PP = 32.7%) no longer differ significantly: χ^2 (df = 1, N = 317) = 2.79, $p = .095$.

Treatment Conditions

1. Brief Counselor Assisted Program (BCAP):

Tobacco cessation procedures integrated with weight and alcohol reduction strategies, including nicotine replacement therapy (NRT) and Bupropion SR (Zyban). Two clinic sessions and two phone sessions over 8-12 weeks.

2. Pharmacotherapy plus Pamphlet (PP): Self-help pamphlet describing how to implement effective behavioral change strategies for tobacco cessation, how to minimize weight gain, and how to deal with possible relapses. NRT and Bupropion SR provided.

- The **Booster session** focused on overcoming barriers to smoking cessation, and development of new quit and relapse prevention plans.

Participants

- Primary care clinics at Wilford Hall Medical Center (San Antonio, TX) are the primary source of participants.
- All participants are eligible military medical beneficiaries.
- Inclusion Criteria: ≥ 21 years of age, smoke a mean of ≥ 5 cigarettes/day for past year, consume a mean of ≥ 4 standard drinks/week, concerned about weight gain, plan to stay in area ≥ 1 year.
- Exclusion criteria: Pregnant, trying to become pregnant, breastfeeding; health conditions that contraindicate cessation medication; used weight loss medication within past 6 mos.; at base temporarily; recent or current major depression; DSM-IV alcohol use disorder; other medical contraindications

Participant Characteristics

Variable	Group	
	BCAP (n = 158)	PP (n = 159)
Mean (SD) yrs age	37.3 (13.1)	37.6 (12.9)
% Male	69.6	72.3
% Married	62.7	58.5
% White/Caucasian	72.2	68.6
M (SD) yrs education	13.7 (1.7)	13.5 (1.8)
% Active duty	63.3	64.8
M (SD) Fagerström score	3.7 (2.2)	4.0 (2.1)
M (SD) yrs reg. smoker	18.1 (12.9)	18.7 (13.0)
% Health most important reason	79.1	76.7
M (SD) no. past quit attempts	6.1 (6.0)	5.9 (6.2)
% Definitely quit next 2 wks.	44.9	47.8
% Def. be nonsmoker in 6 mos.	40.5	43.4
% Def. quit next 6 mos.	79.1	80.4
M (SD) readiness quit (1-5)	4.7 (.5)	4.6 (.5)
M (SD) goal importance (0-100)	81.8 (15.1)	80.6 (15.4)
M (SD) goal confidence (0-100)	82.2 (18.5)	82.0 (19.3)
M (SD) concern weight gain (1-10)	6.7 (2.9)	6.7 (3.0)
M (SD) days ≥ 5 drinks past yr.	19.9 (44.0)	16.3 (34.4)

Note: No differences were statistically significant

Follow-up Rates

Found for 3-mo. follow-up:	92.1%
BCAP	89.2%
PP	95.0%

Smoking Cessation: Minimizing Weight Gain and Preventing Relapse by Reducing Alcohol Consumption



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Introduction

- ★ Concern about weight gain is a well-established barrier to smoking cessation.
- ★ In the military, concern about weight gain after quitting is heightened because excessive weight can result in being unfit for service.
- ★ This study targets smoking cessation and minimizing weight gain in patients seen in military primary care settings.
- ★ A unique feature of this study is counseling to reduce alcohol consumption to minimize weight gain after smoking cessation.
- ★ Reduction of alcohol consumption is also included as a treatment component because it is highly correlated with smoking relapse and may increase weight gain due to its relatively high caloric value.

It is expected that participants counseled to reduce alcohol consumption to minimize weight gain will have higher smoking cessation rates and a lessened risk of relapse than participants who do not receive such counseling.

Specific Aims

This study will address three research questions:

1. Does a weight gain minimization through an alcohol consumption reduction strategy produce higher smoking cessation rates than a control treatment?
2. Does participation in a tobacco cessation program that includes an alcohol reduction component lessen the risk of relapse?
3. Does providing a stepped care intervention for participants who are unsuccessful at stopping in the short-term improve long-term tobacco cessation rates?

Treatment Conditions

Brief Counselor Assisted Program (BCAP): Tobacco cessation procedures integrated with weight and alcohol reduction strategies, including nicotine replacement therapy (NRT) and Bupropion SR (Zyban). Two clinic sessions and two phone sessions over 8-12 weeks.

Pharmacotherapy plus Pamphlet (PP): Self-help pamphlet describing how to implement effective behavioral change strategies for tobacco cessation, how to minimize weight gain, and how to deal with possible relapses. NRT and Bupropion SR provided.

The Booster session focused on overcoming barriers to smoking cessation, and development of new quit and relapse prevention plans.

Participants

- ★ Primary care clinics at Wilford Hall Medical Center (San Antonio, TX) are the primary source of participants.
- ★ All participants are eligible military medical beneficiaries.
- ★ Inclusion Criteria: ≥ 21 years of age, smoke a mean of ≥ 5 cigarettes/day for past year, consume a mean of ≥ 4 standard drinks/week, concerned about weight gain, plan to stay in area ≥ 1 year.
- ★ Exclusion criteria: Pregnant, trying to become pregnant, breastfeeding; health conditions that contraindicate cessation medication; used weight loss medication within past 6 mos.; at base temporarily; recent or current major depression; DSM-IV alcohol use disorder; other medical contraindications.

Participant Characteristics

Variable	Group	
	BCAP (<i>n</i> = 158)	PP (<i>n</i> = 159)
Mean (<i>SD</i>) yrs age	37.3 (13.1)	37.6 (12.9)
% Male	69.6	72.3
% Married	62.7	58.5
% White/Caucasian	72.2	68.6
<i>M</i> (<i>SD</i>) yrs education	13.7 (1.7)	13.5 (1.8)
% Active duty	63.3	64.8
<i>M</i> (<i>SD</i>) Fagerström score	3.7 (2.2)	4.0 (2.1)
<i>M</i> (<i>SD</i>) yrs reg. smoker	18.1 (12.9)	18.7 (13.0)
% Health most important reason	79.1	76.7
<i>M</i> (<i>SD</i>) no. past quit attempts	6.1 (6.0)	5.9 (6.2)
% Definitely quit next 2 wks.	44.9	47.8
% Def. be nonsmoker in 6 mos.	40.5	43.4
% Def. quit next 6 mos.	79.1	80.4
<i>M</i> (<i>SD</i>) readiness quit (1-5)	4.7 (.5)	4.6 (.5)
<i>M</i> (<i>SD</i>) goal importance (0-100)	81.8 (15.1)	80.6 (15.4)
<i>M</i> (<i>SD</i>) goal confidence (0-100)	82.2 (18.5)	82.0 (19.3)
<i>M</i> (<i>SD</i>) concern weight gain (1-10)	6.7 (2.9)	6.7 (3.0)
<i>M</i> (<i>SD</i>) days ≥ 5 drinks past yr.	19.9 (44.0)	16.3 (34.4)

Note: No differences were statistically significant

Follow-up Rates

Found for 3-mo. follow-up: 92.1% BCAP: 89.2% PP: 95.0%

3-Month Outcome

- ★ At the 3-month follow-up, of the 92.1% of participants for whom data were available 40.0% were nonsmokers (7-day window):
 - BCAP = 46.8% Nonsmokers
 - PP = 34.4% Nonsmokers
- ★ The above difference, on the basis of the 92.1% of participants found, is significant: χ^2 (df = 1, *N* = 292) = 4.63, *p* = .031.
- ★ If an intent to treat analysis is performed and all missing participants are considered failures, the nonsmoking rates (BCAP = 41.8%; PP = 32.7%) no longer differ significantly: χ^2 (df = 1, *N* = 317) = 2.79, *p* = .095.

Facilitating smoking cessation by reducing alcohol consumption



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Introduction

- Concern about weight gain is a well established barrier to smoking cessation.
- In the military, concern about weight gain after quitting is of heightened concern because excessive weight can result in being unfit for service.
- This randomized clinical trial targets smoking cessation and minimizing weight gain in patients seen in military primary care settings.
- A unique feature of this study is counseling to reduce alcohol consumption to minimize weight gain after smoking cessation.
- Reduction of alcohol consumption is also included as a treatment component because it is highly correlated with smoking relapse and may increase weight gain due to its relatively high caloric value.
- It is expected that participants who reduce their alcohol use will have a higher cessation rate and a lessened risk of relapse to smoking compared to participants who do not receive such counseling.

Treatment Conditions

Brief Counselor Assisted Program (BCAP): Tobacco cessation procedures integrated with weight and alcohol reduction strategies, including nicotine replacement therapy (NRT) and Bupropion SR (Zyban). Two clinic sessions and two phone sessions over 8-12 weeks.

Pharmacotherapy plus Pamphlet (PP): Self-help pamphlet describing how to implement effective behavioral change strategies for tobacco cessation, how to minimize weight gain, and how to deal with possible relapses. NRT and Bupropion SR provided.

Booster: Those who had not stopped smoking at the 3-month follow-up, half, blocked by initial treatment condition, were randomly assigned to receive a booster session on overcoming barriers.



Participants

- Primary care clinics at Wilford Hall Medical Center (San Antonio, TX) were the primary source of participants.
- All participants were eligible military medical beneficiaries.
- Inclusion Criteria: ≥ 21 years of age, smoke a mean of ≥ 5 cigarettes/day for past year, consume a mean of ≥ 4 standard drinks/week, concerned about weight gain, plan to stay in area ≥ 1 year.
- Exclusion criteria: Pregnant, trying to become pregnant, breastfeeding; health conditions that contraindicate cessation medication; used weight loss medication within past 6 mos.; at base temporarily; recent or current major depression; DSM-IV alcohol use disorder; other medical contraindications.

Outcomes (7-day window)

3-month follow-up: 92.1% of participants

- BCAP = 46.8% Nonsmokers Completers Only: χ^2 (df = 1, N = 292) = 4.63, $p = .031$
- PP = 34.4% Nonsmokers Intent-to-Treat (BCAP = 41.8%; PP = 32.7%): χ^2 (df = 1, N = 317) = 2.79, $p = .060$

6-month follow-up: 90.2% of participants

- BCAP = 39.2% Nonsmokers Completers Only: χ^2 (df = 1, N = 286) = 0.24, $p = .357$
- PP = 36.4% Nonsmokers Intent-to-Treat (BCAP = 35.4%; PP = 32.7%): χ^2 (df = 1, N = 317) = 2.79, $p = .346$

12-month follow-up: 86.1% of participants

- BCAP = 46.8% Nonsmokers Completers Only: χ^2 (df = 1, N = 273) = 2.93, $p = .056$
- PP = 34.4% Nonsmokers Intent-to-Treat (BCAP = 33.5%; PP = 23.9%): χ^2 (df = 1, N = 317) = 3.60, $p = .038$

Analyses of booster effects, and of the relationship between outcomes, weight change and drinking reduction are ongoing.

Participant Characteristics

Variable	Group	
	BCAP (n = 158)	PP (n = 159)
Mean (SD) yrs age	37.3 (13.1)	37.6 (12.9)
% Male	69.6	72.3
% Married	62.7	58.5
% White/Caucasian	72.2	68.6
M (SD) yrs education	13.7 (1.7)	13.5 (1.8)
% Active duty	63.3	64.8
M (SD) Fagerström score	3.7 (2.2)	4.0 (2.1)
M (SD) yrs reg. smoker	18.1 (12.9)	18.7 (13.0)
% Health most important reason	79.1	76.7
M (SD) no. past quit attempts	6.1 (6.0)	5.9 (6.2)
% Definitely quit next 2 wks.	44.9	47.8
% Def. be nonsmoker in 6 mos.	40.5	43.4
% Def. quit next 6 mos.	79.1	80.4
M (SD) readiness quit (1-5)	4.7 (.5)	4.6 (.5)
M (SD) goal importance (0-100)	81.8 (15.1)	80.6 (15.4)
M (SD) goal confidence (0-100)	82.2 (18.5)	82.0 (19.3)
M (SD) concern weight gain (1-10)	6.7 (2.9)	6.7 (3.0)
M (SD) days ≥ 5 drinks past yr.	19.9 (44.0)	16.3 (34.4)

Note: No baseline differences were statistically significant

Treatment Handouts (all participants got the documents on nicotine replacement therapy and Zyban; GSP participants got the pamphlet from DDHS; all other materials were only given to BCAP participants)

You Can Control Your Weight as You Quit Smoking



U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES

WIN *Weight-control Information Network*

Many people gain weight when they quit smoking. Even so, the best action you can take to improve your health is to quit smoking. Focus on stopping smoking first. Then you can continue to improve your health in other ways. These may include reaching and staying at a healthy weight for life.

Will I gain weight if I stop smoking?

Not everyone gains weight when they stop smoking. Among people who do, the average weight gain is between 6 and 8 pounds. Roughly 10 percent of people who stop smoking gain a large amount of weight—30 pounds or more.

What causes weight gain after quitting?

When smokers quit, they may gain weight for a number of reasons. These include:

- Feeling hungry. Quitting smoking may make a person feel hungrier than usual. This feeling usually goes away after several weeks.
- Having more snacks and alcoholic drinks. Some people eat more high-fat, high-sugar snacks and drink more alcoholic beverages after they quit smoking.
- Burning calories at normal rate again. Smoking cigarettes makes the body burn calories faster. After quitting smoking, the body's normal rate of burning calories returns. When calories are burned more slowly again, weight gain may take place.

Can I avoid weight gain?

To help yourself gain only a small amount or no weight when you stop smoking, try to:

**Do you want to
stop smoking?
Are you worried
about gaining
weight? If so,
this information
may help you.**



Accept yourself

Get regular moderate-intensity physical activity

Limit snacking and alcohol

Consider using medication to help you quit.

Accept yourself

Do not worry about gaining a few pounds. Instead, feel proud that you are helping your health by quitting smoking. Stopping smoking may make you feel better about yourself in many ways.

Stopping smoking may help you have:

- more energy
- whiter teeth
- fresher breath and fresher smelling clothes and hair
- fewer wrinkles and healthier-looking skin
- a clearer voice.

Get regular moderate-intensity physical activity

Regular physical activity may help you avoid large weight gains when you quit smoking. It may help you look and feel good, and fit into your clothes better. You will likely find that you can breathe easier during physical activity after you quit smoking.

Try to get 30 minutes or more of moderate-intensity physical activity on most days of the week, preferably every day. The ideas below may help you to be active every day.

Ideas for being active every day

- Take a walk after dinner.
- Sign-up for a class such as dance or yoga. Ask a friend to join you.

- Get off the bus one stop early if you are in an area safe for walking.
- Park the car farther away from entrances to stores, movie theatres, or your home.
- Take the stairs instead of the elevator. Make sure the stairs are well lit.

Limit snacking and alcohol

Having more high-fat, high-sugar snacks and alcoholic drinks may lead to large weight gains when you quit smoking. The ideas below may help you make healthy eating and drinking choices as you quit smoking.

Healthy eating and drinking choices as you quit smoking

- Do not go too long without eating. Being very hungry can lead to less healthy food choices.
- Eat enough at meal times to satisfy you.
- Choose healthy snacks, such as fresh fruit or canned fruit packed in juice (not syrup), air-popped popcorn, or fat-free yogurt, when you are hungry between meals.
- Do not deny yourself an occasional "treat." If you crave ice cream, enjoy a small cone.
- Choose an herbal tea, hot cocoa made with nonfat milk, or sparkling water instead of an alcoholic beverage.

Consider using medication to help you quit

Talk to your health care provider about medications that may help you quit smoking. Some people gain less weight when they use a medication to help them stop smoking.

Medications that may help you quit smoking

- Nicotine replacement therapy
 - patch
 - gum
 - nasal spray
 - inhaler
- Antidepressant medication

The patch and gum are available without a prescription from your health care provider.

Will weight gain hurt my health?

A small—or even large—weight gain will not hurt your health as much as continuing to smoke will. The health risks of smoking are dramatic.

Health risks of smoking

- Death—tobacco use is the leading cause of preventable death in the United States. It kills more than 400,000 people in the U.S. each year.
- Cancer—smoking greatly increases the risk for lung cancer, the leading cause of cancer death in the U.S. Smoking is also linked to cancer of the esophagus, larynx, kidney, pancreas, and cervix.
- Other health problems—smoking increases the risk for lung disease and heart disease. In pregnant women, smoking is linked to premature birth and low birth weight babies.

By quitting smoking, you are taking a big step to improve your health. Instead of worrying about weight gain, focus on quitting. Once you are tobacco-free, you can work toward having a healthy weight for life by becoming more physically active and choosing healthier foods.

These brochures from the Weight-control Information Network (WIN) can help you adopt healthy eating and physical activity habits:

Energize Yourself & Your Family

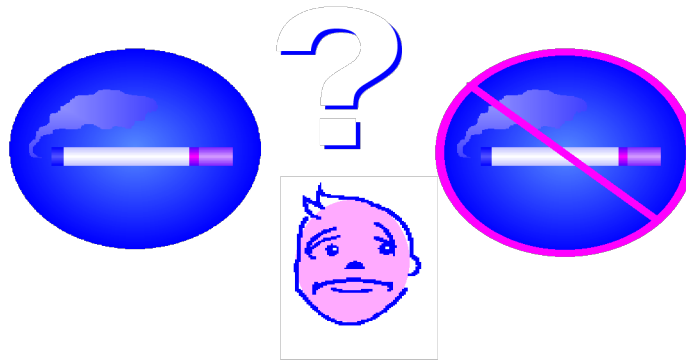
Healthy Eating & Physical Activity Across Your Lifespan: Better Health and You

Just Enough for You: About Food Portions

Walking...A Step in the Right Direction

DECISION TO CHANGE EXERCISE

One of the things that can help you clarify your thoughts about cigarette smoking is to list all the benefits and costs of quitting. This exercise is intended to help you think about what is involved in your decision to change. Remember that it is **your decision** to change! You are the one who must decide what it will take for you to tip the scale in favor of change.



**Good Things
About Smoking**

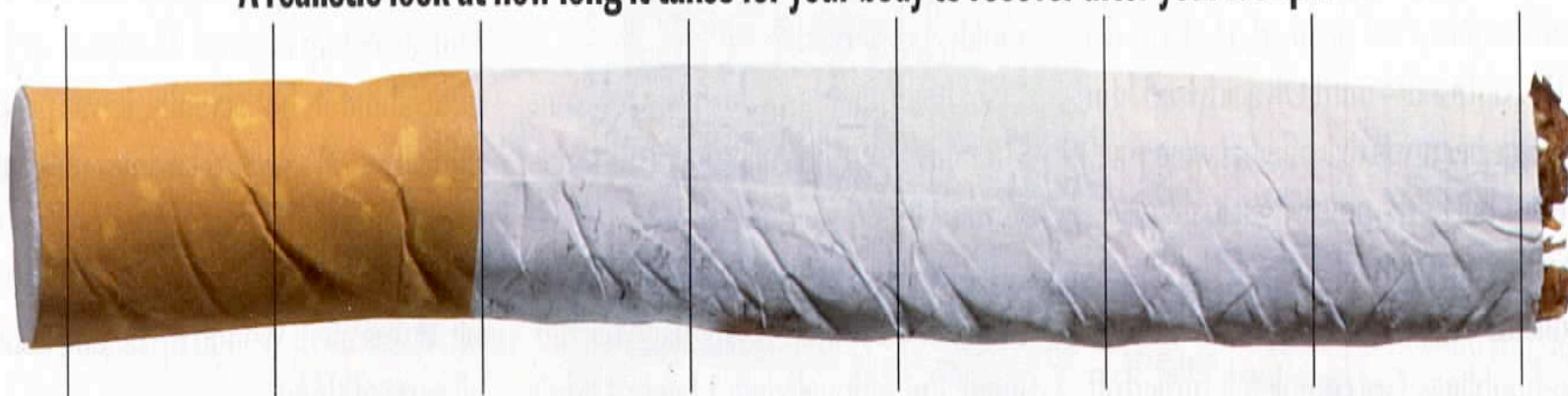
**Less Good Things
About Smoking**

**Good Things
About Quitting**

**Less Good Things
About Quitting**

The Healing Time Line

A realistic look at how long it takes for your body to recover after your last puff



● Twenty minutes after quitting, your blood pressure decreases.

● Eight hours: The amount of carbon monoxide in your blood drops back to normal while oxygen increases to normal.

● Forty-eight hours: Your nerve endings start to regenerate, and you can smell and taste things better.

● One to nine months: Coughing, sinus congestion, fatigue, and shortness of breath decrease.

● One year: The added risk of heart disease declines to half of that of a smoker.

● Five years: Your stroke risk may be reduced to that of someone who never smoked.

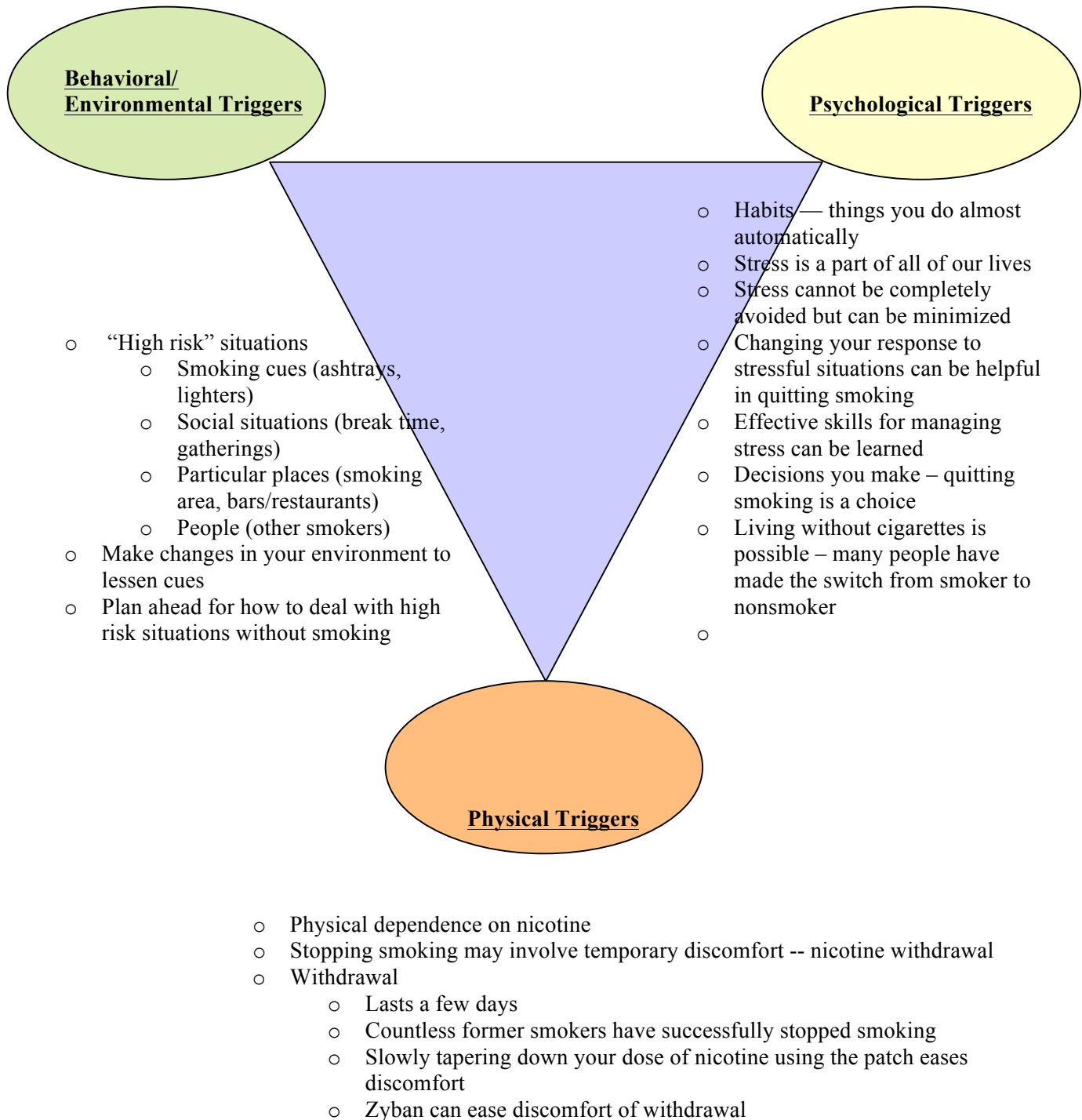
● Ten years: Your risk of all smoking-related cancers such as lung, mouth, and throat decreases by up to 50 percent.

● Fifteen years: Your risk of heart disease and smoking-related death is now similar to that of someone who never smoked.

SOURCE: AMERICAN LUNG ASSOCIATION

The Tobacco Triangle

There are three factors involved in maintaining smoking: physical, behavioral, and psychological. The importance of each area and how it contributes to smoking may differ from person to person. An effective tobacco cessation program should consider how all three of these factors may affect quitting and staying quit.



WHAT'S GOING UP IN SMOKE FOR YOU?

For many people the idea of saving money can be a strong motivator for quitting smoking. You may or may not have yet stopped to think about how much you've spent in cigarettes since you started smoking, but it is likely that you've already spent more than you intended to.

Get out your calculator and figure what it costs you to buy cigarettes.

What is a pack cost you? \$_____ (#1)

How many packs do you smoke per day: _____ (#2)

Your daily cost of smoking cigarettes (#1 x #2) = \$_____ (#3)

Using this figure fill in the following table and calculate the amount of money you would save if you quit and in the space below write in what you could buy with your savings.

Cost/Day #3	1 month #3 x 30	1 Year #3 x 365	5 Years #3 x 1820	10 Years #3 x 3600	20 Years #3 x 7200	30 years #3 x 10,800

**HOW MUCH WOULD YOU SAVE IF YOU
QUIT SMOKING CIGARETTES?**

**AND HOW WOULD YOU SPEND YOUR
SAVINGS?**



If I Quit For 1 Month, I Would Save \$ _____ and I could buy _____

If I Quit For 3 Months, I Would Save \$ _____ and I could buy _____

If I Quit For 1 Year, I Would Save \$ _____ and I could buy _____

If I Quit For 5 Years, I Would Save \$ _____ and I could buy _____

If I Quit For 10 Years, I Would Save \$ _____ and I could buy _____

If I Quit For 20 Years, I Would Save \$ _____ and I could buy _____

If I Quit For 30 Years, I Would Save \$ _____ and I could buy _____



HOW MANY PUFFS?



Number of Years Smoked

Number
of
cigarettes
smoked
per day

	5	10	15	20	25
10	182,500	365,000	547,500	730,000	912,500
15	273,750	547,500	821,250	1,095,000	1,368,750
20	365,000	730,000	1,095,000	1,460,000	1,825,000
25	456,250	912,500	1,368,750	1,825,000	2,281,250
30	547,500	1,095,000	1,642,500	2,190,000	2,737,500
35	638,750	1,277,500	1,916,250	2,555,000	3,193,750
40	730,000	1,460,000	2,190,000	2,920,000	3,650,000

*Figures based on 10 puffs per cigarette on average

**FOR QUESTIONS or CONCERNS REGARDING NICOTINE:
Please contact Project Staff at (210) 292-2909**

Nicotine Patch

What is the Nicotine Patch (NP)?

The NP is a way to provide your body with nicotine. Nicotine is the substance that makes tobacco addictive. The NP helps you quit smoking by providing your body with the nicotine that it needs, and then slowly reducing the level, thereby reducing the symptoms of nicotine withdrawal. You start using the NP the day you quit using tobacco. After a few weeks, the dose of nicotine will gradually be decreased. The NP is generally safe and well tolerated. The nicotine patch is available under several brand names, including Nicoderm and Habitrol. When you wear a nicotine patch, a relatively constant dose of nicotine passes through your skin and into your body.

- However, the NP should be used with caution if you have heart disease, have had a recent heart attack (especially within the past 6 weeks), have frequent chest pain (angina), an irregular heart beat, uncontrolled high blood pressure, or an active stomach ulcer. If you have any of these conditions, please let the project staff know immediately.

May I smoke while using the nicotine patch?

No. Do not smoke at any time if you are using the nicotine patch or gum. If you smoke while using NP it is possible to get too much nicotine. This can cause you to experience an upset stomach and possibly vomiting.

What can I expect when I am wearing the nicotine patch?

When you first put on a nicotine patch, mild itching, burning, or tingling is normal and should go away within an hour. After you remove a nicotine patch, the skin under the patch might be somewhat red. Your skin should not stay red for more than a day after removing the patch. Some people experience vivid dreams or other disruptions of sleep while wearing the nicotine patch for 24 hours. If this happens to you, try taking the patch off at bedtime and putting on a new one when you get up the next day. Some people will have an increase in blood pressure while using the nicotine patch. In this program, we will monitor your blood pressure.

What if my nicotine patch gets wet while I am wearing it?

Neither water nor sweat will damage the nicotine patch while you are wearing it. You can bathe, shower, or swim for short periods while you are wearing the patch. However, if your patch comes off while you are wearing it, place the same patch back on using medical tape (the type that won't tear your skin when you remove it). This is important to remember because putting on a new patch may administer a higher dosage of nicotine than you need.

**FOR QUESTIONS or CONCERNS REGARDING ZYBAN:
Please contact Project Staff at (210) 292-2909**

Zyban (Bupropion Hydrochloride SR, Wellbutrin SR)

You can choose to use Zyban (also known as bupropion or Wellbutrin SR) or not use this medication, alone or in combination with other medications as long as you have a medical provider's approval.

What is Zyban? Zyban is a prescription medicine to help people quit smoking. The active ingredient in Zyban, bupropion hydrochloride, was originally used as a medicine to treat depression, but it was found to help people quit smoking. Some research has shown that taking Zyban roughly doubles your chance of success.

How does Zyban work? It is not clear exactly how Zyban helps people quit smoking. For many people, it reduces withdrawal symptoms such as irritability, frustration, or anger; anxiety; difficulty concentrating; restlessness; and depressed mood or negative affect. Some research has also shown that Zyban reduces the craving for cigarettes or urges to smoke for some people.

What can I expect while I am taking Zyban? Like all medicines, Zyban may cause side effects. The most common side effects include difficulty sleeping and dry mouth. These side effects are generally mild and often disappear after a few weeks. If you have difficulty sleeping, avoid taking your medicine too close to bedtime. The most common side effects that caused people to stop taking Zyban during clinical studies were shakiness and skin rash. Use caution before driving a car or operating complex, hazardous machinery until you know if Zyban affects your ability to perform these tasks.

Zyban may increase blood pressure, especially if it is used with the nicotine patch. Therefore, we will measure your blood pressure at session 3 of this program before you are given your refill.

Zyban may affect other medicines that you are taking. Please make sure that your physician knows about all medicines—prescription and over-the-counter—that you are taking or plan to take.

Seizure Warning! There is a chance that approximately 1 out of every 1000 people taking Zyban will have a seizure. The chance of having a seizure increases if you: have a seizure disorder (for example, epilepsy), have or have had an eating disorder (for example, bulimia or anorexia nervosa), take more than the recommended amount of Zyban, or take other medicines with the same active ingredient that is in Zyban, such as Wellbutrin Tablets and Wellbutrin SR Sustained Release Tablets

Who else might be at increased risk of a seizure? The risk of having a seizure may be increased in individuals with certain conditions. Please tell the project staff if you have any of the following conditions:

- Prior seizure (but not necessarily epilepsy)
- Prior head trauma (for example, a concussion)

- History of withdrawal symptoms from alcohol or other sedatives, or addiction to opiates, cocaine, or stimulants

Who should definitely NOT take Zyban? You should NOT take Zyban if you:

- Have a seizure disorder (for example, epilepsy).
- Are already taking Wellbutrin, Wellbutrin SR, or any other medicines that contain bupropion hydrochloride.
- Have or have had an eating disorder (for example, bulimia or anorexia nervosa).
- Are currently taking or have recently taken a monoamine oxidase inhibitor (MAOI).
- Are allergic to bupropion.
- Are a woman who is pregnant, trying to get pregnant, or breast-feeding.

COPING WITH COMMON TRIGGERS and FINDING ALTERNATIVES TO SMOKING

Sometimes certain cues are associated with smoking. For some people it might be helpful to avoid or remove such cues to reduce urges to smoke (e.g. lighters, ashtrays, matches, and other smokers). What cues, if any, might exist in your environment that might serve as a cue or trigger to smoke? Check any of the following that you think might cause you problems.

COMMON TRIGGERS

ALTERNATIVES TO SMOKING

<input type="checkbox"/> Being around others who smoke	<ul style="list-style-type: none"> • Try to avoid them or leave the situation • Tell others you are trying to quit • Think of your reasons for quitting • Other:
<input type="checkbox"/> Talking on the phone	<ul style="list-style-type: none"> • Have healthy snacks available • Doodle with a pen • Break your usual phone routine (sit down, stand up, or change rooms) • Other:
<input type="checkbox"/> Taking breaks at work/home/school	<ul style="list-style-type: none"> • Eat a snack, chew gum or drink water • Go where smokers are not • Read a book/newspaper/article in a magazine • Take a walk • Other:
<input type="checkbox"/> Feeling bad or down	<ul style="list-style-type: none"> • Call a friend for support • Picture yourself as a nonsmoker • Start a hobby or plan new activities (read a book, jog, do other exercises) • Other:
<input type="checkbox"/> Drinking alcohol	<ul style="list-style-type: none"> • Switch beverages (e.g. from beer to wine) • Drink nonalcoholic beverages for a while • Other:
<input type="checkbox"/> Drinking caffeinated beverages	<ul style="list-style-type: none"> • Switch beverages (e.g. from coffee to tea) • Drink decaffeinated beverages for a while • Mix ½ decaf with ½ regular • Other:
<input type="checkbox"/> After a meal	<ul style="list-style-type: none"> • Get up after the meal, leave the table • Gargle or brush your teeth • Chew gum • Other:
<input type="checkbox"/> Driving	<ul style="list-style-type: none"> • Remove all cigarettes from the car • Clean out the ashtrays • Chew gum • Other:
<input type="checkbox"/> Coping with anxiety/stressful situations (i.e. after an argument with spouse/co-workers)	<ul style="list-style-type: none"> • Take a deep breath and go for a walk • Do something you enjoy (listen to music, read a book, watch TV) • Think of the reasons why you want to stop smoking • Other:

DEALING WITH URGES TO SMOKE**THINGS YOU MIGHT CONSIDER:**

- **Delay:** When the urge strikes, tell yourself that you will wait 10-15 minutes. By not satisfying the urge immediately, you begin to interfere with the routine of smoking and increase the probability that you will experience a reduction in the intensity of the urge.
- **Behavior Substitution:** This strategy is often used with the “delay” technique. It is the replacement of one behavior, smoking, with another behavior. For example, when you have the urge to smoke, you might decide to have a piece of gum, take a walk, draw or doodle, knit, play a game, brush your teeth, or any number of other things that would work for you.
- **Rewarding yourself:** This is an important strategy. Reward yourself when you have been successful at not smoking for a certain period of time. For example, go to a movie after not smoking for two weeks; buy yourself a CD or video after not smoking for one month, etc.
- **Escape:** When you are in a situation where you are tempted to smoke, leave, rather than smoke.
- **Seek Support From Others:** Talk to someone who will be understanding of your situation and will give you encouragement.
- **Rearrange Your Environment:** Put your ashtrays away, do not have cigarettes around, put reasons for quitting in key places, stock up on gum, nuts, fruit and vegetables to snack on, visit dentist and have your teeth cleaned, clean your house and car thoroughly.
- **Rearrange Your Activities:** Cut back on drinks associated with smoking, at least temporarily; put yourself into “no smoking” situations and places, try out new activities and places.

STOP AND THINK ABOUT

- Think about the positive benefits of not smoking.
- Think about the negative effects of smoking.
- Distract yourself by thinking about other things, especially positive things that hold your attention.
- Imagine yourself as a nonsmoker.
- Recognize that while quitting may seem difficult, many people have done it, so it is very do-able.
- Imagine your friends’ or family’s positive reactions as you stop smoking.

THINK ABOUT A QUIT DATE

Think about a date you want to quit smoking within the next few weeks. During the phone session, you will choose your quit date and post it on your calendar. Tell others about your planned quit date if you think this will help.

I will quit smoking on _____

PREPARING TO QUIT

- **Plan** your day in advance.
- **Avoid** smoking areas.
- **Change your routine** to take your mind off smoking.
- **Review your plan** for handling situations that might trigger an urge to smoke.
- **Tell close friends and family** of your quitting date and ask for their support.

A PLAN WILL HELP YOU ...

- Strengthen your decision to quit.
- Better handle cravings and withdrawal symptoms.
- Be better prepared to handle situations that trigger a desire for cigarettes.

PREPARE YOUR HOME/OFFICE

- Get rid of all ashtrays, matches, lighters, or pipes
- Empty car ashtrays
- Don't take work breaks with smokers
- Sit in nonsmoking sections of restaurants
- Other _____
- Other _____

PREPARE YOURSELF FOR THE FIRST FEW DAYS

- **Switch brands**
 - Don't buy cartons
 - Eliminate places where you can smoke
 - For every cigarette you crave wait an additional 5 minutes before lighting up
 - Smoke only half of each cigarette
 - Reduce the number of cigarettes smoked each day
 - Switch to non-menthol cigarettes
 - Other _____
-

TIPS FOR QUITTING FOR GOOD

- Get rid of anything that reminds you of smoking.
- Get rid of **ALL cigarettes and cigarette butts** (home, care, office).
- Pick what time you will do this and what you will actually do.
- Put every thing in one bag and throw it away, reward yourself by celebrating).

ASK OTHERS FOR SUPPORT: What friends can you ask for support and how can they help you?

1. _____
2. _____
3. _____

ENJOYABLE ACTIVITIES: What types of enjoyable activities that are not related to smoking can you engage in to reward yourself each week for not smoking?

1. _____
2. _____
3. _____

PLAN THE NIGHT BEFORE

If you smoke within 60 minutes of waking, prepare yourself – this is a particularly risky time for you. What will you do? **Think about your routine and how you can change it to make it easier to quit.**

- I usually get up at _____
- As soon as I wake up I will _____
- For breakfast I will _____
- Driving/going to work/school I will _____
- During work/class breaks I will _____
- After meals I will _____
- When spending time with my friends who smoke I will _____
- When watching TV or relaxing at home I will _____
- _____

- _____

START TAKING ZYBAN:

MY QUIT DATE /
START USING PATCH:

H I T C H

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PH# 292-2909

START TAKING ZYBAN:

MY QUIT DATE /
START USING PATCH:

H I T C H

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PH# 292-2909

START TAKING ZYBAN:

MY QUIT DATE /
START USING PATCH:

H I T C H

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PH# 292-2909

START TAKING ZYBAN:

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START USING PATCH:

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PH# 292-2909

START TAKING ZYBAN:

MY QUIT DATE /
START USING PATCH:

H I T C H

JULY						
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PH# 292-2909

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MY QUIT DATE /
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H I T C H

AUGUST						
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START TAKING ZYBAN:

MY QUIT DATE /
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H I T C H

SEPTEMBER						
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PH# 292-2909

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MY QUIT DATE /
START USING PATCH:

H I T C H

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DECEMBER						
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31						

PH# 292-2909



BEER (12 oz)

Anchor Porter	209	Leinenkugel Northwoods Lager	163	Red Hook ESB	179
Anchor Steam	153	Leinenkugel Original	152	Red Hook IPA	188
Anheuser Busch Natural Light	95	Leinenkugel Creamy Dark	170	Rolling Rock Extra Pale	142
Anheuser Busch Natural Ice	157	Leinenkugel Red	166	Rolling Rock Premium Beer	120
Aspen Edge	94	Leinenkugel Light	105	Sam Adams Boston Lager	160
Blatz Beer	153	Leinenkugel Amber Light	110	Sam Adams Boston Ale	160
Blue Moon	171	Lowenbrau Dark	160	Sam Adams Cherry Wheat	166
Bud Dry	130	Lowenbrau Special Beer	160	Sam Adams Cream Stout	195
Bud Ice	148	Magnum Malt Liquor	157	Sam Adams IPA	175
Bud Ice Light	110	Michelob Amber Boch	166	Sam Adams Light	124
Bud Light	110	Michelob Beer	155	Sam Adams Pale Ale	145
Budweiser	145	Michelob Golden Draft	152	Schaefer Beer	142
Busch Beer	133	Michelob Golden Draft Light	110	Schlitz Beer	146
Busch Ice	169	Michelob Honey Lager	175	Schlitz Light	110
Busch Light	110	Michelob Light	113	Schlitz Malt Liquor	185
Carling Black Label	138	Michelob Ultra	95	Sierra Nevada Pale Ale	200
Colt 45 Malt Liquor	174	Mickey's Fine Malt Liquor	157	Sierra Nevada Porter	200
Coors Banquet Beer	142	Miller Genuine Draft	143	Sierra Nevada Stout	210
Coors Light	102	Miller Genuine Draft Light	110	Signature Stroh Beer	153
Genesee Beer	148	Miller High Life	143	Stroh's Beer	149
Genesee Cream Ale	162	Miller High Life Light	110	Stroh's Light	113
Genesee Ice	156	Miller Lite	96	Tuborg Deluxe Dark Export	163
Genesee Red	148	Milwaukee's Best	128	Tuborg Export Quality	156
George Killian's Irish Red	163	Milwaukee's Best Light	98	Weinhard's Private Reserve	150
Icehouse	132	Milwaukee's Best Ice	144	Weinhard's Amber Light	135
Icehouse	149	O'Doul's	70	Weinhard's Hefeweizen	151
Hamm's Beer	144	Old Milwaukee Light	114	Weinhard's Blonde Lager	161
Hamm's Golden Draft	144	Old Milwaukee Beer	146	Weinhard's Pale Ale	147
Hamm's Special Light	110	Olde English 800 Malt Liquor	160	Yuengling Ale	145
Keystone Premium	108	Olympia Premium Lager	146	Yuengling Porter	150
Keystone Light	104	Pabst Blue Ribbon	153	Yuengling Premium Beer	135
Keystone Ice	143	Pabst Extra Light Low Alcohol	67	Yuengling Light	98
Leinenkugel Honey Weiss	149	Pete's Wicked Ale	174	Yuengling Lager	135



WINE (4 oz)

Beaujolais	95
Bordeaux, red	95
Burgundy, red	95
Burgundy, white	90
Cabernet Sauvignon	90
Chablis	85
Champagne, dry	105
Champagne, pink	100
Chardonnay	90
Chianti	100
Liebfraumilch	85
Madeira	160
Marsala	80
Merlot	95
Mosell	100
Muscatel	160
Port, ruby	185
Port, white	170
Reisling	90
Rhone	95
Rose	95
Sangria	115
Sauterne	115
Sauvignon Blanc	80
Tokay	165
Zinfandel, red	90
Zinfandel, white	80



SPECIALTY DRINKS

Alexander	244	Martini	210
Bacardi	144	Mimosa	137
Between The Sheets	141	Mint Julep	115
Black Russian	137	Old Fashioned	156
Bloody Mary	86	Pina Colada	342
Bocci Ball	135	Planter's Punch	184
Brandy Alexander	253	Rob Roy	194
Bronx	191	Rum Sour	128
Bull Shot	91	Rum Swizzle	102
Cuba Libre (Rum & Cola)	127	Rum Toddy	114
Daiquiri	125	Rusty Nail	223
Dubonnet Cocktail	173	Sangria	225
French 75	170	Screwdriver	181
Gibson	207	Sherry Flip	195
Gimlet	110	Side Car	225
Gin & Bitter Lemon	181	Silver Bullet	210
Gin Fizz	130	Singapore Sling	241
Gin Rickey	104	Slow Gin Fizz	167
Gin & Tonic	175	Sombrero	232
Golden Cadillac	250	Stinger	235
Golden Dream	269	Strawberry Daiquiri	150
Grasshopper	255	Strawberry Margarita	210
Harvey Wallbanger	258	Tequila Sunrise	219
Hot Buttered Rum	158	Toasted Almond	286
Irish Coffee	218	Tom Collins	169
Kir	121	Tom & Jerry	252
Madras	123	Vodka & Tonic	175
Mai Tai	310	Vodka Martini	210
Manhattan	183	Whiskey Sour	126
Margarita	185	Zombie	254

How Are Smoking Cessation, Alcohol Use, and Weight Gain Related?

Do people gain weight when they quit smoking?

Research has found that when people quit smoking, some may gain a small amount of weight. The average weight gain is about 5-7 lbs.

Why do people gain weight after they quit smoking?

- **Eating**—food might taste better or people might substitute eating for smoking
- **Metabolism may decrease**—nicotine is a stimulant and speeds up the metabolism—when you quit, your metabolism may decrease because you aren't using nicotine. Using the nicotine patch and other nicotine replacement therapies can help in this regard.
- **Eat when bored**
- **Eat when stressed**

As part of this program, we will discuss ways you can reduce your alcohol use which, in turn, can help you reduce the number of calories you consume and minimize weight gain.

There are two important ways that your use of alcohol can affect your smoking cessation experience.



#1: BECAUSE ALCOHOL CONTAINS SUGAR IT ADDS CALORIES TO YOUR DIET

- One concern of some people who stop smoking is that they may gain weight.
- However, a person's weight gain can be minimized by restricting the number of calories consumed and exercising more.
- A quick and easy way to reduce your caloric intake is to reduce your alcohol use. Each drink you consume contains 100 or more calories.







#2: DRINKING ALCOHOL CAN SERVE AS A TRIGGER TO SMOKE CIGARETTES: BE VIGILANT!

- Smoking cigarettes and drinking alcohol may occur at the same time; consequently, drinking alcohol can unintentionally serve as a cue to smoke cigarettes.
- In other words, for some people, drinking situations can be high-risk for smoking relapse.
- Thus, plans for how to handle drinking situations may be an important part of your program for staying quit.

STANDARD DRINK EQUIVALENTS AND CALORIES:

Different alcoholic beverages differ in the amount of alcohol they contain.

The following chart shows you what amounts of different alcoholic beverages contain the **same amount of alcohol**.

1 drink =	
	1 - 12 oz can/bottle of 4% - 5% beer 
	1 - 5 oz glass of 12% table wine  1 - 12 oz wine cooler
	1 - mixed or straight drink with  1 ½ oz of hard liquor (e.g., rum, vodka, whiskey)

Caloric content of common alcoholic beverages

- Although a 12 oz beer and a 5 oz glass of table wine contain the same amount of alcohol, there are more calories in the beer than in the wine.
- Although alcohol does not contain fat, it is loaded with calories from the sugar it contains. Furthermore, when you add in mixers, juice, or other ingredients, the calories add up.

Beer

- A 12-ounce beer or nonalcoholic beer has about 150 calories. However, light beer, at about 100 calories, is a less fattening alternative.

Wine

- Sweet wines, such as port, sherry, and dessert wines, have sugar added to the fermentation and thus have a higher alcohol concentration — typically about 20% alcohol.
 - There are about 100 calories in every 5-ounce glass of red or white table wine or champagne.
 - There are about 225 –calories in a 5-ounce glass of sweet dessert wine.
 - **Calories Count:** If you drink 2 glasses of red wine before dinner, and a glass of dessert wine after dinner, you have added about 425 calories to your meal.

Hard Liquor

- All hard liquors – gin, rum, vodka or whiskey — contain the same amount of calories.
- However, mixers can add many additional calories to drinks.
- Here are some examples of the number of calories in common mixed drinks:
 - 2-oz Manhattan = 125 calories
 - 5-oz Blood Mary = 115 calories
 - 8-oz Gin and Tonic = 170 calories
 - 5 oz Pina Colada = 300 calories
 - 3-ounce whiskey sour =125 calories

Alcohol and Weight Gain

- Calories in alcohol have no nutritional value and they also increase body fat.
- Because calories in alcohol are used before stored fat calories; people who are overweight will gain weight more easily when they drink alcohol.
- Calories from alcohol tend to be stored in the stomach.

Calories From Alcohol Add Up Quickly

- If you drink 2 beers (150 calories per beer) every day for a week, these 14 beers will add 2,100 calories to your weekly calorie count. This adds up to **15 pounds of body fat per year**.
- 2 glasses (100 calories per 5-ounce glass) of red wine every day will add about **10 pounds of body fat per year**.

Some Suggestions to Minimize Weight Gain:

- Avoid drinking alcohol with a regular pattern and do not drink every day.
- Minimize or avoid high fat, high calorie snacks (e.g., potato chips) as they often go hand in hand with alcohol use.
- Drinking for the effects or to get intoxicated is risky because over time a person needs to drink more alcohol to achieve the same effect.
- Make drinks last longer — limit your drinking to no more than 1 drink per hour.
- Alternate non-alcoholic drinks between alcoholic drinks.
- If drinking beer and wine, select those with lower alcohol content (e.g., light beer).
- Notice people, places, or times that may put you at risk for heavier alcohol use.
- Decide when, where and how much you will drink ahead of time. That is, stop and think before you drink. **Not drinking can be a good option.**

Recommended Guidelines For Moderate Alcohol Use

The following guidelines are based on several large studies that suggest that if most people drink below these guidelines, they generally will not have problems or put themselves at risk of alcohol problems.

Males: *No more than 12 drinks per week, no more than 3 drinks in a day, and no more than 1 drink per hour.*

Females: *No more than 8 drinks per week, no more than 2 drinks in a day, and no more than 1 drink per hour.*

Personalized Feedback Exercise on Smoking Cessation, Drinking Alcohol, And Weight Gain

Please answer the following questions regarding your alcohol use in the past year.

Question 1: On average how many days per week did you drink alcohol? _____ days per week

Question 2: When you did drink, on average, how many standard drinks did you consume per day? _____ drinks

Question 3: To determine how many drinks you consumed on average per week in the past year, multiply your answers to Questions 1 x 2 and write your answer here: _____ drinks per week

Question 4: When I drink, the type of alcoholic beverage I usually or most often drink is _____.

This beverage contains approximately _____ calories per drink. (see alcohol calorie table)

Question 5: Multiply the number of drinks per week in Question 3 times the number of calories in your usual beverage from Question 4

_____ X _____ = _____
Answer to # of Calories Question 5
Question 3 from Question 4

Question 6: Take the answer from Question 5 and multiple this by 52 (number of weeks in a year)

_____ X 52 = _____
Answer to Number of Calories Per Year (Question 6)
Question 5

Question 7: There are 3,500 calories in a pound. Divide the number of additional calories per year by 3,500 to determine your potential weight gain in one year from alcohol consumption.

_____ ÷ 3,500 = _____
Answer to extra pounds from alcohol calories
Question 6

If I drink the same amount of alcohol I drank in the past year, I could potentially gain _____ pounds in the next year.

**SOME SUGGESTIONS FOR MINIMIZING WEIGHT GAIN
WHEN QUITTING SMOKING**

- **Eat in One Place:** (e.g., at the kitchen table)
- **Do Not Clean Your Plate:** despite your mother's warning, kids won't go hungry if you don't clean your plate
- **Follow an Eating Schedule:** don't let yourself get overly hungry as you will more likely overeat
- **Slow Your Eating Rate:** put your fork down between bites
- **Shopping for Food:** shop on a full stomach; shop from a list; buy foods that require preparation
- **Storing Foods (out of sight, out of mouth):** hide the high-caloric foods (out of sight can help you reduce impulsive eating)
- **Keep Healthy Snacks Available**
- **Serving and Dispensing Food:** remove serving dishes from the table to prevent second helpings; leave the table after eating; serve and eat one portion at a time; wait 5 minutes and re-evaluate your hunger before getting seconds
- **Eating Away from Home:** order a la carte meals; order salad dressing on the side and dip your fork before spearing the lettuce; watch for hidden calories; avoid large servings; limit alcohol intake; beware of the breadbasket; be wise with dessert

Healthy Snack Ideas

Snacking is a common alternative to smoking when people are trying to quit. Because snacking can lead to weight gain, choosing healthy snacks can help you minimize weight gain after you quit.

The following snacks contain about 100 calories:

- **1 large celery stalk with 1 Tbsp peanut butter**
- **20 baby carrots with 2 Tbsp fat-free ranch dressing**
- **1 cucumber with lemon juice and spicy seasoning**
- **1 small apple with 1 Tbsp peanut butter**
- **1 piece of beef jerky**
- **1 dill pickle (only about 25 calories)**
- **1 cup popcorn with 2 tsp parmesan cheese**
- **1 serving fat-free pretzels**
- **6 saltine crackers**
- **3 squares of a regular graham cracker**
- **3 vanilla wafers**
- **10 animal crackers**
- **1 oatmeal or peanut butter cookie**
- **Low fat granola bar**
- **1 oz box of raisins**
- **1 cup grapes**
- **¾ cup fruit cocktail in its own juice**
- **½ cup fat free pudding**
- **1 regular popsicle**
- **1 low calorie fudge bar**

What is a pedometer?

- A pedometer is a device that attaches to your waistband and records each step you take.
- A pedometer is a great way to keep track of your daily physical activity.
- Many health professionals recommend a goal of taking 10,000 steps per day. Research shows that most inactive people take only 3,000-5,000 steps per day. When inactive people add a 30-minute walk to their daily routine, they tend to meet the 10,000 step goal.

Getting started using your pedometer

- The pedometer may be worn on your belt or waistband of your slacks or skirt.
- Make sure the pedometer is parallel to the ground (straight up and down). If it is tilted, it may not give you correct readings.
- Put your pedometer on when you first get up in the morning and wear it all day long.
- At the end of each day, record the number of steps you take.
- Track your progress and try to increase your steps gradually each day.

Increasing your daily steps

- Park in the far back of the parking lot and walk further to the door.
- Use the furthest entrance into your workplace from your parking spot, and walk through the building to your work area.
- Use the restroom, copy machine, water fountain, break room, etc. that is further from your work area.
- Take the stairs rather than the elevator, especially for one to three floors, both up and down.
- When making a phone call, stand up and pace around as you talk.
- During TV commercials, get up and walk around the house.
- When doing errands, park in a central location and walk to your store destinations.
- Return the shopping cart all the way into the store after grocery shopping.
- Never drive through - get out and park and walk into the bank or fast food stop instead. Every 30 minutes get up from your desk or easy chair and do 1-5 minutes of walking in place and stretching your arms, shoulders and neck.
- Before eating lunch, take a 10 minute walking break.
- Walk the dog.
- Look over your usual trips in the car - are there any that you could do as walks instead, such as to the post office?
- If you take your kids to sports or activities, dedicate 10-20 minutes of that time to walking around after dropping them off or when you arrive early to pick them up.
- Make a family habit of taking a 10-20 minute walk after dinner together, or first thing in the morning.

Step Tracking Calendar

S	M	T	W	T	F	S
S	M	T	W	T	F	S
S	M	T	W	T	F	S

Tackling Mt. StayQuit: One Step at a Time



One way to think about quitting smoking is as a climb up a mountain. Some people are able to reach the top quickly, for others this journey takes more time.

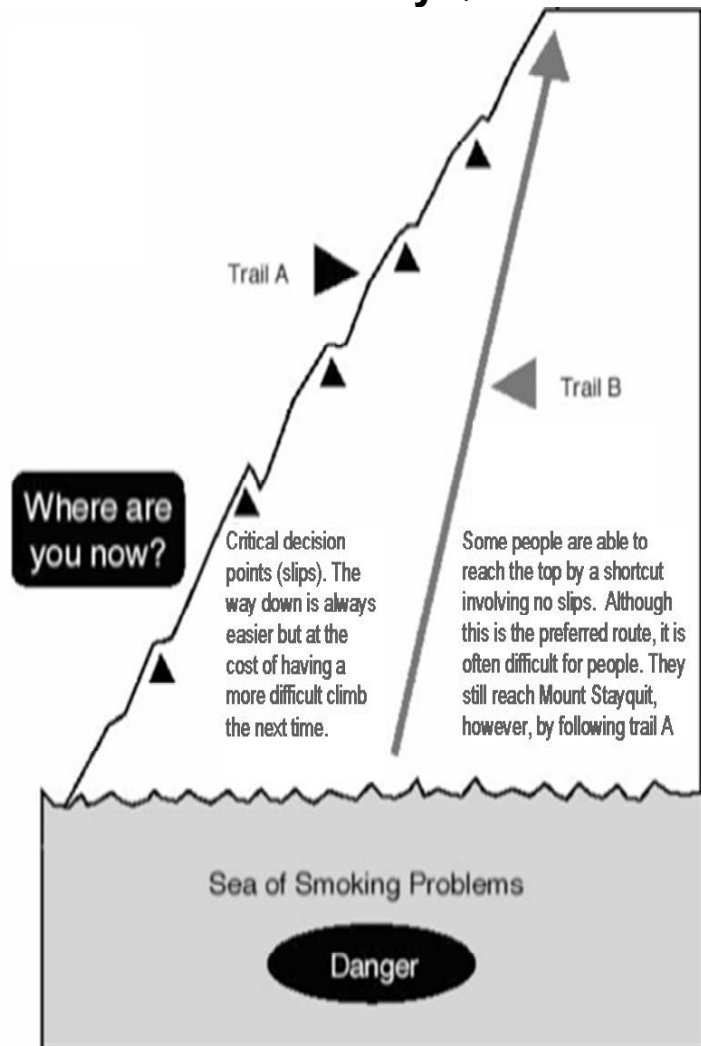
- The Mt. StayQuit diagram on the right hand side is intended to help you recognize the importance of adopting a **long-term perspective** on changing.
- Although some people stop smoking the first time they try, for others it is a slower process.
- **Quitting smoking is not impossible!**
- If you have a **slip**, the key is to use it as a learning experience, identify what triggered the slip, and start back up the mountain.

IMPORTANT THINGS TO KEEP IN MIND WHEN QUITTING

- Review the benefits of quitting.
- Think of the negatives of returning to smoking.
- Don't tempt yourself—avoid situations or triggers to smoke.
- Remember **smoking cigarettes has become a strong habit**, almost automatic. Consequently, it will take some extra thought and effort to avoid taking that 1st cigarette.



Mount StayQuit



WHAT COULD TRIGGER A RETURN TO SMOKING?

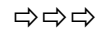
What types of situations have been associated with your smoking that might put you at risk of a relapse?

- Missed the feeling
- Missed holding something / having my hands busy
- Social gatherings (parties, sporting events)
- Drinking alcohol
- Relaxing at home
- After dinner
- When I'm happy or celebrating
- Upon waking
- During work/office/school breaks
- See others smoking
- Drinking coffee or tea
- Boredom
- Depressed
- Work pressure or other stresses (frustration, anger)
- Withdrawal symptoms from quitting
- Weight gain
- Other _____
- Other _____

PLAN AHEAD FOR HOW TO DEAL WITH TRIGGERS

For example, if you know that being around others who smoke has been a trigger for going back to smoking in the past, you could plan to sit in the non-smoking section at restaurants, ask relatives and friends who smoke not to smoke around you, and so on.

For the trigger situations you listed above, list on the next page how you plan to deal with those situations by other than smoking.



WHAT CAN YOU DO TO MAXIMIZE YOUR CHANCES FOR SUCCESS?

Trigger Situation #1:

My plan for this is:

Trigger Situation #2:

My plan for this is:

Trigger Situation #3:

My plan for this is:

Trigger Situation #4:

My plan for this is:
