THE ROLE OF HEALTH LOCUS OF CONTROL AND SELF-EFFICACY IN HYPNOSIS TREATMENT FOR SMOKING

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CHAPTER I

INTRODUCTION

"You've come a long way baby" has been a popular marketing jingle over the years luring millions within the consumer market place into a deadly addiction. In fact, the Surgeon General reports that there are over 51 million cigarette smokers in the United States and ever increasing countless millions more worldwide (U.S. Public Health Service, 1988). Unfortunately, these startling statistics regarding smoking behavior are not parallelled by successes regarding the ability of health professionals to extinguish the smoking addiction.

Cigarette smoking has been cited as the largest preventable cause of death in America (U.S. Public Health Service, 1979). Moreover, regular use of cigarettes has been shown to be either significantly linked or associated with increasing the likelihood of many serious illnesses, including lung cancer, laryngeal cancer, oral cancer, bladder cancer, cancer of the esophagus, cancer of the pancreas, coronary heart disease, chronic bronchitis and pulmonary emphysema, stillbirth and low birth weight, under-developed children, peptic ulcer, allergies and impairment of the immune system. These medical conditions lessen the quality of the smoker's

life, while increasing the likelihood of an economic health drain and the psychological trauma pertaining to chronic, intractable illness for both the smoker and his or her family.

Remedies have been developed to address smoking addiction. Preventative efforts include information dissemination regarding health hazards, other negative aspects of smoking, and the attractiveness of being a nonsmoker. Treatments for those who wish to stop smoking have included a hodgepodge of pharmacological and behavioral techniques, which have generally not produced lasting effects. The post-treatment effectiveness of these techniques often disappears in post-treatment recidivism of the smoking behavior (U.S. Public Health Service, 1978).

Average short-term cessation rates of 50 to 70 percent are common, but follow-up results average only 20 to 35 percent (Schwartz, 1969). However, long-term success rates are improving slightly over the years. In a later review by Schwartz (1977), one-fifth of the cessation programs reviewed had follow-up success rates of at least 40 percent. Group counseling, hypnosis, and rapid smoking were common treatment methods in the more successful programs.

What appears to be occurring in the treatment of smoking addiction is a slow yet increasing knowledge and understanding of the field. It was only some twenty years ago the public was officially made aware of the health hazards involved in smoking. Health professionals then began to

develop treatment methods with what little data was available concerning the physiological aspects of smoking and by borrowing from established behavioral principles. What emerged were mechanistic treatment methods which fit treatments to patients rather than patients to treatments. We now have evidence which indicates successful smoking cessation depends on both the patient and the treatment method (Schwartz and Dubitzky, 1969). What is emerging is an understanding that, like other addictions, treatment for smoking cessation needs to be personalized and comprehensive.

"Can we do more with what we know?" is the question asked by Reynolds (1985). Reynolds refers to the latest psychometric research on self-efficacy measures and scales designed to measure social support as a technique to tailor smoking cessation treatment. Through individual tailoring, the client's social, behavioral, cognitive, and physiological needs can all be met by the treatment, in order to increase long-term abstinence rates. The failure of the treatment techniques most commonly used today lie in their failure to deal with the recidivistic nature of the smoking addiction.

Literature Review

It is at the individual patient level where decisions concerning the treatment of choice appear to be most effec-

tive. Using a strategy of individualizing the patient's treatment to reflect their own strengths, weaknesses, and motivations decreases the likelihood of relapse. This tailoring of treatment, as Reynolds (1985) suggests, involves an assessment of the patient's overall functioning.

A database is being established in the literature defining the psychological factors pertinent in such an assessment. The rationale behind such research has been to identify those factors which appear to be related to the addiction of smoking. By doing so, a treatment program may be altered or prescribed to suit the patient's individual personality, thus decreasing the likelihood of relapse. The most prominent among these psychological factors have been extraversion, neuroticism, locus of control, and self-efficacy. These factors may be categorized in two classes as to their relevance to the smoker. The extraversion and neuroticism factors appear to be associated with the onset and maintenance of smoking behavior. Research findings on these two factors are useful in developing a clearer understanding as to the onset and maintenance of this particular addictive process. Locus of control and self-efficacy have been shown in past research to be important factors in the relapse and/or abstinence of smoking behavior. Holroyd (1980) suggests much more research needs to reflect the importance of factors which may be useful in understanding the cessation process.

Extraversion Factor

Eysenck (1963) showed a direct relationship between a greater degree of extraversion and those subjects with a greater frequency of smoking behavior. Among a college population, Cattell (1967), utilizing the 16PF Inventory, found smokers to be more "outgoing" and "happy-go-lucky", both primary components of the 16PF extraversion score. Smith (1970), in a review of 25 studies sampling from an assortment of populations, found smokers to perform higher on extraversion measures. Performance was assessed on a variety of measures including the Maudsley Personality Inventory, MMPI, 16PF, Strong Vocational Interest Blank, and peer ratings of extraversion.

Cherry and Kiernan (1976) employed the Maudsley Personality Inventory with a rather large sample size of 2,753 subjects. In this longitudinal study, 16-year-olds were tested and then nine years later their smoking behavior was measured. The results showed both male and female smokers to be more extraverted than male and female non-smokers.

Neuroticism Factor

Studies linking neuroticism to smoking are not as prevalent nor as statistically sound as those examining extraversion. Matarazzo and Saslow (1960) report that for the most part smokers score higher on neuroticism measures.

Waters (1971) sampled 773 men and 945 women. Men's neuroticism scores did not significantly correlate with degree of smoking behavior. However, using Spearman's rank-order correlation coefficient, women's neuroticism scores were significantly correlated with the amount smoked. Clausen (1968) found a similar sex difference as well. Clausen recorded psychoneurotic scores for adolescent males and females, comparing these later with their smoking behavior as adults. Males showed a generally negative relationship between amount smoked during adulthood and their adolescent neuroticism scores. Females showed a generally positive association between smoking and neuroticism. Thomas (1973) examined only males who were medical students at John Hopkins University. Subjects included 437 nonsmokers, 144 ex-smokers. and 251 continuing smokers. Subjects' performances on an anxiety scale were significantly related to greater smoking, as shown in a stepwise discriminate function analysis. It can be concluded that some type of systematic relationship appears to exist between neuroticism and smoking behavior, with some indications of a more positive relationship among women.

Locus of Control Factor

A major psychological factor which research has shown to be related to the cessation of smoking behavior is locus of control. Locus of control distinguishes people according to whether they believe that what happens to them is caused

by their own actions and characteristics (internal) or by factors outside their personal control (external). Reports in the literature generally report smokers to be more externally controlled individuals who tend to look to fate, luck, or things beyond their control to bring them their rewards. Nonsmokers on the other hand are generally internally controlled individuals who tend to believe they are the masters of what happens to them. Smokers tend to think of theirs as a problem of control or will power and previous work reliably shows that internal locus of control subjects are better able to abstain from smoking than external subjects.

In a review of the literature Smith, (1967) cites only five studies which had been done up to that point in time which examined the relationship between locus of control and smoking behavior. Of these five studies, four showed smokers to be more externally controlled, with only one study reporting a significance level as low as $p<.06$ for such a relationship between the two factors. More recent studies linking these factors have confirmed as well as elaborated on the relationship of locus of control and smoking behavior.

Wallston, Wallston, Kaplan, and Maides (1976) developed a health-related locus of control scale which provides a more sensitive prediction of the relationship between internality and health behaviors. Wallston et al.'s Health Locus of Control (HLC) Scale is aimed at predicting behavior in a

more specified situation than Rotter's (1966) Internal-External Locus of Control (I-E) Scale. Following development of the HLC Scale Wallston, Wallston, and DeVilles (1978) developed the Multidimensional Health Locus of Control (MHLC) Scales. The improvements of the latter scale tap into the theory that the source for reinforcements for health-related behaviors are primarily internal, a matter of chance, or under the control of powerful others. The MHLC Scales yield scores reflecting the subject's propensity on these three modes of operating. With the development of the MHLC Scales, researchers have been able to study the relationship of locus of control to smoking behavior in a more sophisticated manner.

The maintenance of smoking cessation has been shown to be enhanced by an internal health locus of control (Shipley, 1981). Shipley administered the MHLC Scales to smoking clinic patients. High scorers on the Internal scale were more often abstinent than low scorers (47% vs. 17% at three months, $p<.05$; 40% vs. 13% at six months, $p<.10$). Similarly, subjects low in chance beliefs were more often abstinent than high believers (47% vs. 17% at three months, $p<.10$; 45% vs. 9% at six months, $p<.05$). There was also a trend toward subjects low on the Powerful Others scale being more abstinent than those high on the scale ($p<.10$) at three months.

In a study investigating the psychometric properties of the MHLC Scales specifically with cigarette smokers Coelho (1985) suggests expectancies for health control are not distributed along three independent domains as the MHLC Scales imply. Rather, health locus of control orientation may be a bidimenisonal construct defined by the Internal and Powerful Others measures of the MHLC Scales. Coelho does suggest that possibly the absence of a Chance locus of control dimension may be more a result of the characteristics of the self-selected smoking population he studied rather than any invalidity in the theoretical assumptions that underlie the health locus of control construct. Coelho's finding helps to possibly further define the nature of locus of control in a smoker population.

Additional specificity utilizing the MHLC Scales was described by Horwitz, Hindi-Alexander, and Wagner (1985) investigating health locus of control, health beliefs, situational coping skills, and relapse following cessation treatment. Results indicated recidivists prior to treatment placed greater responsibility on powerful others for their health. Following treatment, recidivists placed less responsibility on either powerful others or themselves for their own health. Thus, Internality scores for those who relapsed decreased between pre-treatment and follow-up. Relapse was also predicted by the high Chance and Powerful Others MHLC scores. Pretreatment internality did not predict smoking status at the one year follow-up, in con-

trast to Shipley's (1981) results for a six-month follow-up. Horwitz et al. say their results suggest the psychological consequences of failure at smoking withdrawal appear to be more extreme for recidivists than for continuing smokers. Recidivists experienced a loss in their sense of personal control over their health and in their sense of control that powerful others have over their health.

Self-Efficacy

Self-efficacy like the health locus of control construct has recently been a topic of research for investigators examining factors which are associated with the maintenance of smoking cessation. Bandura (1977) described self-efficacy as the person's belief that he or she can successfully carry out a behavior called for by a particular situation to produce the desired outcome. These beliefs or expectations differ from a generalized expectancy construct such as Rotter's (1966) concept of locus of control in that efficacy expectations are relevant to coping efforts only for a particular set of behaviors. Thus, self-efficacy is a behavior specific construct. This efficacy expectation also is to be distinguished from an outcome expectation, which refers to the anticipated consequences of an action if and when it is performed. According to the theory, it is perceived self-efficacy that, along with contextual cues and motivation to obtain a particular outcome, directs behavior (Condiotte & Lichtenstein, 1981). Successful interventions

designed to eliminate smoking behaviors would be expected to increase efficacy expectations surrounding an individual's ability to resist the urge to engage in such behaviors. The level, strength, and generality of these altered expectations should predict the follow-up maintenance of treatment gains even in the face of obstacles to continued abstinence (Bandura, 1977).

Measures of self-efficacy have been found to be useful and important in the prediction of cessation and maintenance with smoking behavior. One such scale is the Smoking Self-Efficacy Questionnaire (SSEQ) which was developed by Colletti, Supnick, and Payne (1985). The SSEQ is an instrument designed to measure efficacy expectations for resisting the urge to smoke in high-risk smoking situations. The questionnaire is useful in the treatment of cigarette smoking by identifying which patients are most likely to relapse. Psychometric evaluation of the 17-item SSEQ suggests that the questionnaire is internally consistent, reliable and has moderate predictive and discriminant validity.

Using self-efficacy scales that vary greatly in item content and number, investigators have demonstrated that efficacy expectations predict successful completion of a smoking treatment program (Myerson, Foreyt, Hammond, & DiClemente, 1980), post-treatment relapse (DiClemente, 1981; Condiotte & Lichtenstein, 1981), and follow-up smoking rate (Colletti, Supnick, & Rizzo, 1981). Treatments of different types enhance efficacy expectations (Condiotte &

Lichtenstein, 1981) and the predictive relationship between self-efficacy and relapse holds true for both treated and untreated smokers (DiClemente, 1981).

Statement of the Problem

The Surgeon General reported in 1979 (U.S. Public Health Service, 1979) that during the previous fifteen-year period, 95% of the 30 million Americans who had quit smoking had done so on their own without undergoing formalized treatment. Schacter (1982) found that almost 64% of the successful ex-smokers he interviewed had managed to quit smoking on their own. Most smokers would like to quit smoking if they could, but they are often discouraged by the difficulty of the task or the low likelihood of success (Levanthal & Cleary, 1980). For those who do undergo treatment, long-term success rates rarely exceed 30%, and many of those who begin treatment drop out prematurely (Brownell, 1982; Lichtenstein, 1982).

These findings point out that health care professionals continue to have a long way to go in understanding and treating smoking addiction. In a study by the U.S. Public Health Service (1988), it was estimated that over 51 million Americans or 30% of the population, smoke cigarettes, and that this year 300,000 people will die as a result of their smoking. Smoking presents itself as a major health hazard with health professionals lacking adequate techniques to effectively treat the addiction of a population who would

quit smoking if they felt they had the control to do so.

Two of the most frustrating findings in the smoking cessation literature have been the enormous variability in treatment outcomes among subjects and the relative inability to predict who will do well and who will not (Glasgow & Bernstein, 1981).

This research project is concerned with the development of treatment selection methods which take into account the particular characteristics of the patients being treated. Two promising lines of research in the literature which will be examined focus on expectancy constructs. This research includes the utilization of a multidimensional approach to measurement of health locus of control as well as self-efficacy reports from subjects. The rationale behind this line of research is to first identify and quantify the patient's expectancy characteristics in terms of these two expectancy constructs. Upon doing so, a treatment program may be tailored to the patient which maximizes the probability for cessation maintenance based upon the predictive ability of measures of these two constructs.

The MHLC Scales have been used in a number of studies that investigated various health conditions and health-related behaviors with a wide range of populations (Wallston & Wallston, 1981). However, there have been only three studies that pertained to MHLC beliefs with chronic cigarette smokers who were seeking treatment (Shipley, 1981; Coelho, 1985; Horwitz et al., 1985). Given cigarette smok-

ing's status as the largest preventable cause of death in the nation, this minimal amount of research in the area represents a significant gap in the literature. Further clarification on the relationship of the multidimensional health locus of control construct and post-treatment relapse is needed, as pointed out by Coelho (1985).

The ability of self-efficacy scores to predict cessation maintenance suggests that self-efficacy scales should be useful in helping tailor treatment to particular patients. The utility of these scales need to be further defined. This study presents a first-time forum to test this utility within a hypnosis treatment format.

A review of 13 smoking cessation studies examining either health locus of control or self-efficacy showed that most studies (eight out of thirteen) utilized behavioral treatment approaches (e.g. Brad & Hall, 1984; Best & Steffy, 1971; DiClemente, 1981). Condiotte and Lichtenstein (1981) used both behavioral and educational treatment formats. Three studies involved testing and interviewing with no cessation treatment (Katz & Singh, 1986; Tucker, 1984; DiClemente, Prochaska, & Gibertini, 1985). One study (Coelho, 1985) made no mention of type of treatment. Only one out of the 13 studies reviewed used hypnosis as the cessation treatment (Horwitz et al., 1985). As mentioned earlier, Horwitz et al. examined health locus of control and did not look at self-efficacy factors. There is a scarcity in the smoking literature of studies using hypnosis treat-

ment approaches in researching health locus of control and self-efficacy. The present study hopes to help remedy this by using such a treatment format.

In an evaluative review of the literature, Holroyd (1980) found half to two-thirds of patients remain abstinent at least six months after receiving hypnosis treatment for smoking. This rate of effectiveness is found if most of the following treatment conditions are met. These conditions include an intense interpersonal interaction as part of treatment, hypnotic suggestions which are designed for specific motivations of the individual patients, and adjunctive counseling or follow-up telephone contact.

Six-month abstinence rates of 40% to 70% have been found in individual hypnosis treatment (Hall & Crasilneck, 1970; Miller, 1976; Nuland & Field, 1970; Stanton, 1978). Promising outcomes have also been acquired with group therapy (Kline, 1970; MacHovec & Man, 1978; Sanders, 1977; Jeffrey, Jeffrey, Greuling, & Gentry, 1985).

Holroyd (1980) also points out the need for future hypnosis treatment research which measures individual differences which might relate to the recidivism/abstinence dimension of smoking. The present study is an attempt to accomplish such a task, focusing on health locus of control and self-efficacy which have been shown in prior research to be important individual differences to measure.

In summary, the relevant literature provides a basis for certain predictions. Pre and post-treatment measures of

health locus of control and self-efficacy should yield a predictable set of results based upon subjects' treatment outcomes. Abstainers' pre and post-treatment MHLC scores are predicted to be higher on the Internal scale than those who relapse, while lower on Chance and Powerful Others scales. On the self-efficacy measures, abstainers are predicted to score higher than those who relapse on both pre and post-treatment measures with an increase for both those who relapse and those who abstain following treatment.

CHAPTER II

METHOD

Subjects

Subjects were recruited from a college population through university newspaper advertisements and flyers recruiting subjects for a smoking cessation program. The University of California Riverside Student Health Service was the site and the sponsor for the smoking cessation program. Of the thirty subjects who participated in the study, fifteen were females and fifteen were males. Subjects ranged in age from 18 to 54 years with a mean age of 32 years. Thirteen subjects identified themselves as single, nine married, and eight divorced. The average pretreatment smoking rate was 24 cigarettes per day. The average number of years smoked per subject was 14. The average number of smokers in the household including the subject was 1.4. Cessation Treatment condition and a Control condition each involved participation of 15 subjects. No subject attrition occurred during the study.

Instruments

Smoking History Profiles (see Appendix A) were completed by subjects to identify sociodemographic characteristics, smoking status and history, and health status. The Multidimensional Health Locus of Control (MHLC) Scales (Form A (Wallston et al., 1978) were used (See Appendix B). The MHLC questionnaire is an eighteen-item instrument that uses a six-point Likert-type format, with self-ratings from "Strongly Disagree" to "Strongly Agree." The three subscales each contain six items with a range of potential scores from six to 36. Subscale scores represent measures of three separate dimensions of locus of control beliefs related to health behaviors. These dimensions are Internality (IHLC), Powerful Others externality (PHLC), and Chance externality (CHLC).

As a pretreatment measure of self-efficacy, a Pretreatment Confidence Questionnaire, developed from a comprehensive list of smoking situations developed by Best and Hakstian (1978), was administered to assess efficacy expectations in smoking situations (See Appendix C). Subjects were provided with this fifty-item list and instructed to designate on a 100-point probability scale (expressed in percentage units), ranging in 10-interval units, the probability that they would be able to resist the urge to smoke in that situation if they were to try to quit smoking at that time without professional assistance. This instruc-

tion was designed to minimize the effects of subjects' outcome expectations on their designation of their pretreatment self-efficacy state. To provide an index of self-efficacy strength, the magnitude of expectancy scores across situations was added and then divided by the total number of items.

The self-efficacy assessment procedures were re-administered at the completion of treatment. These procedures were identical to those used in the pretreatment phase of the study, with the exception that the working of the instructions in the Post-treatment Confidence Questionnaire required subjects to indicate their post-treatment rather than their pretreatment self-efficacy states.

Procedure

Subjects participating in the study were screened in an initial interview. During the interview, subjects were informed of the general format of the research, completed the Smoking History Profile, MHLC Scales, Pretreatment Confidence Questionnaire, and Informed Consent Form (see Appendix D). General criteria for subject appropriateness included adequate motivation to stop smoking and an absence of a history of serious health problems. Subjects paid a $20.00 refundable deposit upon signing a Stop-Smoking Contract (See Appendix E) stating they would stop smoking upon the last treatment session. Criteria for refunding their deposit included the following: taking all pre/post-treat-

ment tests; attending all treatment sessions; and completing a daily log of smoking behavior throughout the study. Only subjects agreeing to all conditions of the study were allowed to participate.

Subjects were assigned to either the Cessation Treatment condition or Control condition. The number of subjects whose MHLC scores reflected IHLC, PHLC, and CHLC beliefs were matched for both conditions, within and across conditions.

A self-report Smoking Log (see Appendix F) was provided to subjects to monitor the number of cigarettes smoked on a daily basis. Subjects monitored this frequency during the five days of hypnosis treatment and for a three-month follow-up period. Subjects indicated on the Smoking History Profile the name and telephone number of an intimate other to contact for validation of the self-report log. Subjects were also provided with a Possible Withdrawal Effects list, Reasons for Smoking list, and Cessation Tip sheets listing behavioral management strategies for smoking reduction (see Appendices G, H, I, and J, respectively). As well, subjects were advised to make an appropriate gradual reduction, depending on their current consumption, of cigarette usage prior to beginning treatment.

The format content of the Cessation treatment and Control conditions varied, however, both conditions consisted of five 60 minute hypnosis sessions held on consecutive days. Subjects participated in hypnosis sessions on an

individual basis. Only in the Cessation Treatment condition did subjects receive hypnosis treatment specifically designed for smoking cessation. Environmental and musical stimuli audio-tapes were used for suggestive enhancement and relaxation throughout the sessions and across conditions.

The format content of session 1 was constant across conditions and involved introducing subjects to hypnosis treatment with relaxation and guided imagery suggestions presented to facilitate a hypnotic induction. Session 3 was also constant across conditions with the additional presentation of ego-strengthening suggestions (see Appendix K). The format content differed across conditions in sessions 2, 4, and 5. In these sessions, the Cessation Treatment condition employed the additional presentation of smoking cessation and covert sensitization suggestions (see Appendices L and M, respectively) instead of ego-strengthening suggestions. Covert sensitization differed from smoking cessation suggestions in that the former were designed to elicit unpleasant and/or nauseous images, thoughts, and feelings on the subject's part.

Following hypnosis treatment in session 5, all subjects across conditions were administered post-treatment measures of the MHLC Scales and Post-treatment Confidence Questionnaire. See Appendices N and O for more detailed content format of Cessation Treatment and Control conditions, respectively.

Subjects in both conditions underwent similar follow-up procedures. During the three-month follow-up, subjects continued the daily self-report of cigarette usage. Weekly telephone contact by the therapist to inquire regarding the subject's progress was provided. Upon completion of the three-month period, the Smoking Log data was collected from subjects and deposit refunded if they had been abstinent since completion of hypnosis sessions. In addition, de-briefing material was provided which also solicited for the subjects' comments regarding the project (see Appendix P).

CHAPTER III

RESULTS

The major goal of the analysis was to determine how abstainers and relapsers differ in their performance on the Multidimensional Health Locus of Control scale and Confidence Questionnaire given their participation in either Cessation or Control group. To accomplish this, several procedures were required.

First, t-test analyses were performed to test initial group equivalence of Cessation and Control groups. They were also used to test post-treatment differences between Cessation and Control groups, and differences between abstainers and relapsers. Second, a multiple regression analysis was performed to test which variables might predict abstinence, relapse, and number of cigarettes smoked per day following treatment. Third, a discriminant analysis was performed to identify those variables which might distinguish between abstainers and relapsers. Fourth, a split plot factorial analysis was performed to identify factors which might account for smoking frequency variances between Cessation and Control groups during a twelve week follow-up period.

A series of t-tests were utilized to test initial group equivalence of Cessation and Control groups. In most respects, the two groups were demonstrated to be essentially equal, however, there was an unexplainable apparently random difference in the number of attempts to quit which could effect the results of the experiment. Specifically, the Control group had a significantly greater number of attempts to quit than the Cessation group. The Control group's performance on the Confidence Questionnaire was significantly higher than the Cessation group, also an unexplainable apparently random difference. The full results of the tests for equality of groups are presented in Table I.

TABLE I

RESULTS OF t-TESTS OF INITIAL GROUP EQUALITY

Variables	$\bar{X}$ Control	$\bar{X}$ Cessation	SD Control	SD Cessation	t	df
Age	36.0667	29.8000	8.075	10.115	1.83	28
Sex	1.5333	1.4667	0.516	0.516	0.35	28
# Smokers in household	1.2000	1.6667	0.414	1.345	-1.28	28
Total years Smoked	17.3333	11.7333	9.693	8.319	1.70	28
# Attempts to quit	3.8000	1.9333	2.484	1.223	2.61*	28
# Cigarettes per day	25.6667	21.6667	12.938	8.797	.99	28
Internal Scale	24.5333	26.2667	6.988	4.682	-0.80	28
Chance Scale	13.8000	14.2667	4.858	4.964	-0.26	28
Powerful Others Scale	13.1333	15.2000	5.167	5.918	-1.02	28
Confidence Questionnaire	50.4667	39.1333	11.051	10.253	2.91**	28

* $p < .05$
** $p < .01$

A t-test analysis was performed to test post-treatment differences between Cessation and Control groups. The results show both groups not differing significantly on change scores for locus of control scales, Confidence Questionnaire, and number of cigarettes smoked per day. As well, both groups did not differ significantly on number of abstainers and relapsers or for number of cigarettes smoked post-treatment. The full results of the tests for differences between groups are presented in Table II.

TABLE II

RESULTS OF t-TESTS OF POST-TREATMENT DIFFERENCES BETWEEN GROUPS

Variables	$\bar{X}$ Control	$\bar{X}$ Cessation	SD Control	SD Cessation	t	df
[1]# Cigarettes per day	13.5333	13.8667	10.629	9.249	-0.09	28
[1]Internal Scale	-2.1333	-1.5333	4.704	2.386	-0.44	28
[1]Chance Scale	1.0667	0.9333	2.658	3.900	0.11	28
[1]Powerful Others Scale	0.0667	1.4667	2.685	2.997	-1.35	28
[1]Confidence Questionnaire	-25.800	-42.2667	24.060	21.605	1.97	28
Relapse vs. Abstinence	1.7333	1.8000	0.458	0.414	-0.42	28
# Cigarettes per day post-tx	12.1333	7.8000	14.307	7.858	1.03	28

[1]Change Scores

Descriptive statistics showed that twenty percent of the Cessation group abstained from smoking during the twelve-week follow-up period while twenty-seven percent of the Control group abstained. A t-test analysis was performed to test pretreatment differences between relapsers and abstainers. There were no significant t-tests in comparisons on variables between relapsers and abstainers. The specific t-tests are provided in Table III.

TABLE III

RESULTS OF *t*-TESTS OF PRETREATMENT DIFFERENCES BETWEEN RELAPSERS AND ABSTAINERS

Variables	$\bar{X}$ Relapsers	$\bar{X}$ Abstainers	SD Relapsers	SD Abstainers	t	df
Age	33.3913	31.4286	10.237	7.231	0.47	28
Sex	1.4783	1.5714	0.511	0.535	-0.42	28
Marital Status	1.8696	1.7143	0.815	0.951	0.43	28
# Smokers in household	1.4783	1.2857	1.123	0.488	0.44	28
Total Years Smoked	15.1739	12.4286	9.921	7.231	0.68	28
# Attempts to quit	2.9565	2.5714	2.402	0.976	0.41	28
# Cigarettes per day	24.3478	21.4286	12.459	3.780	0.60	28
Internal Scale	25.4783	25.1429	6.259	5.014	0.13	28
Chance Scale	14.7391	11.7143	5.047	3.352	1.48	28
Powerful Others Scale	14.1739	14.1429	5.382	6.568	0.01	28
Confidence Questionnaire	45.8261	41.4286	12.134	11.559	0.85	28

A multiple regression analysis was conducted in order to determine reliable predictors of relapse versus abstinence. The results shown in Table IV indicated that only the change in Confidence Questionnaire scores was significantly related to relapse or abstinence. A multiple regression analysis was conducted to establish reliable predictors of the post level of cigarette smoking. The analysis indicated that the post level of cigarette smoking was best predicted by number of cigarettes smoked before treatment as well as number of years smoked, as shown in Table V.

TABLE IV

STEPWISE MULTIPLE REGRESSION OF RELAPSE/ABSTINENCE OUTCOME AND DEMOGRAPHIC/TEST SCORE VARIABLES

Step 1 change in Confidence Questionnaire score Entered			
R^2	DF	F Value	PR>F
.22779	(1,28)	8.25960	.0077

TABLE V

STEPWISE MULTIPLE REGRESSION OF # OF CIGARETTES SMOKED POST-TREATMENT AND DEMOGRAPHIC/TEST SCORE VARIABLES

Step 1	# of cigarettes per day pre-treatment		Entered
R^2	DF	F Value	PR>F
.39159	(1,28)	18.02195	.0002
Step 2	# of years smoked		Entered
R^2	DF	F Value	PR>F
.49690	(2,27)	13.33365	.0001

A discriminant analysis was conducted to determine if any factors could consistently or reliably predict abstinence or relapse. The results of that analysis were that there was no reliable discrimination between groups (Wilkes' Lambda = .3396389, df = 14, p> .05).

Finally, a split plot factorial analysis of the number of cigarettes smoked during follow-up weeks one through twelve was conducted. Possible significant relationship patterns of cigarette smoking reduction over the course of weeks were examined. The results were that there were no significant results from the split plot factorial (Wilkes' F = .65169, df = 12,17, p> .05).

CHAPTER IV

DISCUSSION

The present investigation was designed to examine the role of health locus of control and self-efficacy in a hypnosis treatment format for smoking. From performing such a study, treatment programs might be tailored to the particular characteristics of the patients being treated. This tailored treatment would increase the probability for cessation maintenance based upon the predictive ability of pre-treatment measures when using similar treatment formats.

The results of this study show Cessation and Control groups not differing on any variables following cessation treatment. It appears the expected advantage of receiving cessation suggestions within the hypnosis format had no differential effect on subjects abstinence or relapse, their feelings of self-efficacy, nor on their health locus of control attitudes. A plausible explanation for these results could be that when utilizing a hypnosis format as such, the cessation techniques may very well be too similar in effect to hypnosis techniques in general, thus yielding no dissimilar results, as found here. Statistical analysis to test initial group equivalence showed some slight random variation between the two groups as far as confidence and

number of attempts to quit. It is possible this had an effect on the results, however, the analysis was repeated using these factors as covariates to control for them as extraneous variables, and still found no significant results, so it is unlikely that they had any adverse effects on the results.

Additionally, the results of the analysis reveal a consistent pattern of results which show little or no predictive ability for both the health locus of control and self-efficacy measures as found in earlier research.

Initially, several predictions were made as to the utility of the measures used and subjects' abstinence or relapse. A prediction that abstainer's pre and post-internal health locus of control scores would be higher than those who relapsed did not appear. Shipley (1981) had found abstainers higher on this scale. However, the present analysis did not identify significant differences between relapsers and abstainers on internality nor identify internality as being predictive of abstinence or relapse. Another prediction made was that the pre and post-chance and powerful others scores for abstainers would be lower than those who relapsed. Horwitz et al. (1985) had found these measures lower for abstainers prior to treatment as did Shipley (1981) for the chance scale. However, the present analysis did not identify significant differences between relapsers and abstainers on chance or powerful others scales nor identify these two variables as being predictive of

abstinence or relapse.

The prediction that abstainers would score higher than relapsers on pre and post-measures of the Confidence Questionnaire was only partially confirmed. The change in Confidence Questionnaire scores was found to be significantly related to whether a subject relapsed or abstained. Abstainer's confidence scores indicated an increased feeling of self-efficacy from initiation of treatment to termination of treatment. This is what one would expect when a behavior is mastered or a longstanding unwanted behavior is extinguished. This finding is in line with other investigators' findings (Myerson et al., 1980; DiClemente, 1981; Candiotte & Lichtenstein, 1981; and Colletti et al., 1981).

How much subjects smoked following their participation in the stop-smoking program was found to be predicted by how much they smoked prior to their participation. This finding is what researchers might expect. Common sense would suggest that these two variables are going to be correlated. If a subject starts off smoking a certain number of cigarettes and doesn't get much benefit from the treatment, they will probably continue to smoke the same amount or drop off a little. This was apparently the case here. The number of years smoked also was a reliable predictor of amount of post-treatment smoking. Again, common sense would suggest that someone who has been smoking for a number of years will probably be smoking more than someone who hasn't been smoking that long after receiving little or no benefit from

treatment.

It should be noted that the present study was an exploratory study examining the role of health locus of control and self-efficacy in a hypnosis format for smoking cessation. In doing so, there are some methodological problems which should be avoided in future investigations. For example, a more random method of group assignment might be designed with a more homogenous sample of smokers being utilized. Previous research (U.S. Public Health Service, 1978) indicates that the smoker population is quite varied, but different cessation techniques appear more successful with various types of smokers.

Future research might also examine how similar measures of self-efficacy and health locus of control might be utilized as pretreatment measures of success in other treatment formats. Of special concern would be those treatment formats employing multiple modalities. Such treatment formats have higher rates of abstinence than single modality formats.

In summary, the present study suggests that smokers who receive hypnosis treatment without smoking cessation suggestions do just as well as smokers receiving hypnosis treatment utilizing the cessation suggestions. It is important to point out that this study generated a success rate comparable to the majority of smoking cessation programs regardless of treatment format. In doing so, subjects participating in this study were quite successful. Past

studies utilizing a hypnosis treatment format reporting success rates of 40% to 70% abstinence at six month follow-up may be reporting inflated figures. These inflated figures may be due to variables other than hypnosis such as health education, peer support, behavior management techniques, and the use of a less chronic smoker population. The abstinence rate of the present study may be closer to realistic expectations for hypnosis as a treatment for smoking.

This study suggests that more research needs to be conducted to help establish reliable predictors of successful cessation treatment. At this point, it is unclear what predictive value health locus of control scales and self-efficacy scales have in tailoring a smoker's treatment to his or her own characteristics to increase the likelihood of a successful outcome. It does seem to make good clinical sense that a stop-smoking treatment which is designed specifically to address the individual smoker's strengths, weaknesses and degree of chronicity has the best chance of being successful.

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APPENDIX A

SMOKING HISTORY PROFILE

SMOKING HISTORY PROFILE

Date_____

Name_____ Address_____

City_____ Telephone_____

Age_____ Height_____ Weight_____ ( ) Male ( ) Female

Occupation_____

Marital Status: ( ) Single ( ) Divorced or Separated
( ) Married ( ) Widowed

1. Circle highest completed school grade:
1 2 3 4 5 6 7 8 9 10 11 12 College: 1 2 3 4+

2. Number of persons in household (including self):_____

3. Number of persons in #2 who smoke (include self):_____

4. On the average day, how many packs of cigarettes do you usually smoke? ( ) 1/2 pack ( ) 1 pack
( ) 1 & 1/2 packs ( ) 2 packs ( ) 2 & 1/2 packs+

5. Which brand(s) do you most frequently smoke?_____
_____

6. How many total years have you smoked cigarettes?_____

7. Where do you tend to smoke the most? ( ) Home ( ) Work
( ) Automobile ( ) Other. Be specific_____

8. Why did you decide to stop smoking cigarettes at this time?_____

9. How many different occasions have you made a serious and deliberate attempt to stop smoking?_____ ( ) none

10. If you have utilized various methods, products, programs or clinics, etc., to stop smoking, specify which ones:
_____ _____
_____ _____
_____ _____

11. What is the longest period of time you have stayed away from cigarettes? ___ Years ___ Months ___ Weeks
___ Days ___Hours ( ) None

12. Have you had a physical examination by a physician in the last year? ( ) Yes ( ) No

13. Check any health conditions you have or have had:

___ Diabetes
___ Ulcers
___ Heart Problems
___ Epilepsy
___ Kidney Problems
___ Liver Problems
___ Stomach Problems
___ Skin Problems
___ High Blood Pressure
___ Breathing Problems
___ Nasal Problems

Other physical disorders or problems (specify):_____
_____

14. Please describe your frequency of alcohol and/or drug usuage:_____
_____
_____

15. Please indicate the name and telephone number of an intimate other (i.e. spouse, roommate, friend, relative) who has knowledge of your smoking behavior and who can be contacted to verify Smoking Log data.

Name_____
Telephone_____

16. Please add any additional comments regarding your motivation, attitude, past history, etc., that you feel may be of use in your future treatment:_____
_____
_____
_____

APPENDIX B

MHLC SCALES (FORM A)

MHLC Form A

This is a questionnaire designed to determine the way in which different people view certain important health-related issues. Each item is a belief statement with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item we would like you to circle the number that represents the extent to which you disagree or agree with the statement. The more strongly you agree with a statement, then the higher will be the number you circle. The more strongly you disagree with a statement, then the lower will be the number you circle. Please make sure that you answer every item and that you circle only one number per item. This is a measure of your personal beliefs; obviously, there are no right or wrong answers.

Please answer these items carefully, but do not spend too much time on any one item. As much as you can, try to respond to each item independently. When making your choice, do not be influenced by your previous choices. It is important that you respond according to your actual beliefs and not according to how you feel you should believe or how you think we want you to believe.

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1.	If I get sick, it is my own behavior which determines how soon I get well again.	1	2	3	4	5	6
2.	No matter what I do, if I am going to get sick, I will get sick.	1	2	3	4	5	6
3.	Having regular contact with my physician is the best way for me to avoid illness.	1	2	3	4	5	6
4.	Most things that affect my health happen to me by accident.	1	2	3	4	5	6
5.	Whenever I don't feel well, I should consult a medically trained professional.	1	2	3	4	5	6
6.	I am in control of my health.	1	2	3	4	5	6
7.	My family has a lot to do with my becoming sick or staying healthy.	1	2	3	4	5	6
8.	When I get sick, I am to blame.	1	2	3	4	5	6
9.	Luck plays a big part in determining how soon I will recover from an illness.	1	2	3	4	5	6
10.	Health professionals control my health.	1	2	3	4	5	6
11.	My good health is largely a matter of good fortune.	1	2	3	4	5	6
12.	The main thing which affects my health is what I myself do.	1	2	3	4	5	6
13.	If I take care of myself, I can avoid illness.	1	2	3	4	5	6
14.	When I recover from an illness, it's usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me.	1	2	3	4	5	6
15.	No matter what I do, I'm likely to get sick.	1	2	3	4	5	6
16.	If it's meant to be, I will stay healthy.	1	2	3	4	5	6
17.	If I take the right actions, I can stay healthy.	1	2	3	4	5	6
18.	Regarding my health, I can only do what my doctor tells me to do.	1	2	3	4	5	6

Scoring Instructions MHLC Scales

Form A or B

The score on each subscale is the sum of the values circled for each item in that subscale.

Internal Items:	1, 6, 8, 12, 13, 17
Chance Items:	2, 4, 9, 11, 15, 16
Powerful Others Items:	3, 5, 7, 10, 14, 18

Mean Scores for MHLC Scales Summarized Across types of Subjects

Sample	N	IHLC	CHLC	PHLC
Chronic Patients	609	25.78	17.64	22.54
College Students	749	26.68	16.72	17.87
Healthy Adults	1287	25.55	16.21	19.16
Persons engaged in preventive health behaviors	720	27.38	15.52	18.44

APPENDIX C

PRE/POST-TREATMENT CONFIDENCE QUESTIONNAIRE

FCQ

People smoke for a variety of reasons in many different situations. Below are a number of possible situations.

For each situation described below, designate on a 100-point probability scale, expressed in percentages (ranging in increments of 10) the probability that you will be able to resist the urge to smoke in that situation now that you have decided to quit smoking.

For your reference, use the probability scale below to help you gage the probabilities. Please limit your answers to only the percentages shown below.

10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

_____ 1. When you want to sit back and enjoy a cigarette.

_____ 2. When you feel anxious.

_____ 3. When you feel really happy.

_____ 4. When you want something to do with your hands.

_____ 5. When you simply become aware of the fact that you are not smoking.

_____ 6. When you want to reward yourself for something you've done or tell yourself that you can have a cigarette if you complete some task.

_____ 7. When you find a cigarette in your mouth and don't remember having lit it.

_____ 8. When you are resting.

_____ 9. When you feel depressed.

_____ 10. When you want to cheer up.

_____ 11. When you take a break from work or some other activity.

_____ 12. When you want to feel more mature and sophisti-cated.

_____ 13. When you light up a cigarette to go along with some activity you are doing (for example, while fixing a bicycle, writing a letter, doing housework).

____ 14. When you realize you are lighting a cigarette even though you just put one out.

____ 15. When you feel tense.

____ 16. When you feel embarrassed.

____ 17. When you realize you won't be able to smoke for a while.

____ 18. When you are worried.

____ 19. When you are waiting for someone or something.

____ 20. When you feel nervous.

____ 21. When you feel impatient.

____ 22. When you want to keep yourself busy.

____ 23. When you feel bored.

____ 24. When you are drinking tea or coffee.

____ 25. When you realize you have run out of cigarettes.

____ 26. When you want to have time to think in a conversation.

____ 27. When you feel uncomfortable.

____ 28. When you are angry with yourself.

____ 29. When you feel you need more energy.

____ 30. When you want to concentrate.

____ 31. When you want to fill a pause in a conversation.

____ 32. When you want to relax.

____ 33. When you want to keep slim.

____ 34. When you are trying to pass time.

____ 35. When you feel angry.

____ 36. When you want something in your mouth.

____ 37. When you feel annoyed.

____ 38. When you want to feel more attractive.

____ 39. When you feel tired.

____ 40. When you are drinking an alcoholic beverage.

____ 41. When you feel frustrated.

____ 42. When someone offers you a cigarette.

____ 43. When you feel restless.

____ 44. When you have finished a meal or snack.

____ 45. When you feel upset.

____ 46. When you see others smoking.

____ 47. When you are overly excited.

____ 48. When you are in a situation in which you feel smoking is a part of your self image.

____ 49. When you want to avoid eating sweets.

____ 50. When you feel oversensitive.

APPENDIX D

INFORMED CONSENT FORM

INFORMED CONSENT FORM

Prior to your participation in this smoking cessation study it is required for your protection to be informed as to the nature of the study and your participation in such. The study you will be participating in is designed to advance health professionals' knowledge regarding effective means for treating smoking addiction.

This study is carried out conforming to the American Psychological Association standards for ethical use of human subjects in research. At the conclusion of your participation in the study you will be debriefed. Strict confidentiality will be practiced by the experimenter regarding your participation in the study.

Please sign below only after the experimenter has discussed with you the nature of the study and your participation in such. At any time during the study you have the option of discontinuing your participation.

Signing below indicates you have been thusly informed and consent to participate in the study.

_____ _____

subject's signature date

APPENDIX E

STOP-SMOKING CONTRACT

STOP-SMOKING CONTRACT

This contract is executed and entered into this _____ day of _____, 19__, by and between _____, hereinafter called or referred to as the patient and Joseph P. Muga, M.S., hereinafter called or referred to as the therapist, witnesseth:

For and in consideration for the mutual promises herein contained, the parties hereto agree herewith as follows:

The patient agrees to work hard to cease all smoking by faithfully following the principles of the smoking cessation procedures set forth by the therapist, and further AGREES TO CEASE ALL SMOKING by __/__/__.

As a testimony of the patient's committment to this contract the patient has given the sum of $____ as a refundable deposit (check made payable to an organization) to the therapist with the understanding that he will send the money to _____ if the patient is unable to cease smoking according to this agreement and/or fails to complete the follow-up inquiry.
(organization)

In witness thereof both parties have herein set their hands and seals the day and year above written.

_____ Patient

_____ Therapist

APPENDIX F

SMOKING LOG

SMOKING LOG

Circle number of cigarettes smoked for each day of the week.

Date ___/___	Date ___/___	Date ___/___	Date ___/___	Date ___/___	Date ___/___	Date ___/___
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9
10	10	10	10	10	10	10
11	11	11	11	11	11	11
12	12	12	12	12	12	12
13	13	13	13	13	13	13
14	14	14	14	14	14	14
15	15	15	15	15	15	15
16	16	16	16	16	16	16
17	17	17	17	17	17	17
18	18	18	18	18	18	18
19	19	19	19	19	19	19
20	20	20	20	20	20	20
21	21	21	21	21	21	21
22	22	22	22	22	22	22
23	23	23	23	23	23	23
24	24	24	24	24	24	24
25	25	25	25	25	25	25
26	26	26	26	26	26	26
27	27	27	27	27	27	27
28	28	28	28	28	28	28
29	29	29	29	29	29	29
30	30	30	30	30	30	30
31	31	31	31	31	31	31
32	32	32	32	32	32	32
33	33	33	33	33	33	33
34	34	34	34	34	34	34
35	35	35	35	35	35	35
36	36	36	36	36	36	36
37	37	37	37	37	37	37
38	38	38	38	38	38	38
39	39	39	39	39	39	39
40	40	40	40	40	40	40
41	41	41	41	41	41	41
42	42	42	42	42	42	42
43	43	43	43	43	43	43
44	44	44	44	44	44	44
45	45	45	45	45	45	45
46	46	46	46	46	46	46
47	47	47	47	47	47	47
48	48	48	48	48	48	48
49	49	49	49	49	49	49
50	50	50	50	50	50	50

APPENDIX G

POSSIBLE WITHDRAWAL EFFECTS

POSSIBLE WITHDRAWAL EFFECTS

As you cease all use of nicotine and/or tobacco, some of the following temporary withdrawal effects may occur:

Nausea
Acceleration of heart rate
Irritability
Sleep disturbance
Impaired concentration/memory
Nervousness
Restlessness
Distorted time perception
Profuse sweating
Reduction of blood pressure
Dizziness
Aches and Pains
Drowsiness
Constipation
Diarrhea
Increased appetite
Sore throat
Cough
Shortness of breath
Increased production of sputum

NUTRITIONAL CHANGES

To successfully withdraw from nicotine and/or tobacco, the following nutritional changes may be useful:

1. Increase fluids, especially fruit juices, following abstinence for a period of from 4 to 6 weeks.

2. Avoid all caffeine or other stimulants, especially coffee, tea, colas, aspirin, chocolates, etc.

3. Utilize supplemental thiamine, B vitamins, and multi-vitamins.

APPENDIX H

REASONS FOR SMOKING

REASONS FOR SMOKING

The following list describes the various types of smoking patterns.

1. Stimulation. Some smokers need a cigarette to wake them up. It also seems to help organize energies during the day. Sometimes they smoke to keep themselves going. This type of smoker finds it easier to quit if he uses safe substitutes to achieve the same effect: a brisk walk, modest exercise, the deep-breathing exercises suggested during the first day.

2. Handling. Some people like to see the smoke from their cigarettes and to smell it. They enjoy the action of their mouth and hands involved in smoking because they need to keep their hands busy and moving. The handlers are particularly hyperactive in unfamiliar social situations. They can quit easiest if they have something to finger when the urge to smoke strikes. A pencil or pen, a coin, jewelry, plastic cigarettes, or a doodling pad can help.

3. Relaxation. The individuals who smoke to relax are victims of conditioning. They believe the cigarette produces relaxation because they have associated smoking during times of relaxation with the assumption that tobacco really relaxes. For instance, smoking a cigarette after a meal seems to induce relaxation. Why? The process of digestion produces a relaxed and rather sleepy state. When a cigarette is smoked at this time, conditioning takes place and the smoker soon believes the cigarette has produced the relaxation which digestion has actually caused. Eating, social and physical activities, hobbies, are all pleasurable and can often suitably substitute for the cigarette.

4. Crutch. Some smoke a cigarette to reduce their negative feelings in moments of stress or discomfort. They use cigarettes as a tranquilizer to reduce tension. Some people smoke heavily merely because they try to handle their personal problems by smoking. Those who use cigarettes as a crutch should choose their Q day to coincide with a one-to-two-week period of least stress and tension. Such smokers might return to cigarettes more readily during moments of stress than other types of smokers. They should try to face moments of tension and stress realistically, analyze the problem, and then attempt to solve it. A cigarette will not solve the stressful situation, and after it is smoked the tension still remains.

5. Craving. Nicotine produces in some persons an addictive effect similar to drug addiction. For these smokers, withdrawal symptoms can be extremely uncomfortable. The pharmacological effect of nicotine produces that craving for another cigarette which builds up the moment the previous cigarette burns out. Many chain smokers are victims of this heavy craving. They cannot wait each morning for breakfast but must have a cigarette first.

Quitting abruptly--cold turkey--is the most effective quitting method for this type of smoker. Tapering off never seems to work, for each cigarette starts the cycle all over again. People who experience severe cravings should isolate themselves from tobacco, dispose of all their ashtrays and cigarettes in the house, and refuse to carry any. They must make it as difficult as possible to get a cigarette. Drinking plenty of liquids and practicing deep-breathing exercises will reduce the cravings.

6. Habit. In the grips of a strong neuromuscular habit pattern, smokers light up their cigarettes without realizing how often they smoke. Many times habitual smokers will light up a cigarette while one still smolders in the ashtray. The repetitive action of putting a cigarette into the mouth over 10,000 times a year becomes a vital part of their conscious activity. Complicating this activity are the external cues that call for a smoke: a cup of coffee, a moment of stress, a period of relaxation, or other familiar situations. Habitual smokers can succeed in kicking the habit only if they consciously break up their familiar habit patterns which trigger the brain to direct them to light up a cigarette. They shouldn't take coffee breaks. Instead of sitting down after a meal, they should take a walk or get involved in some activity.

APPENDIX I

SMOKING CESSATION TIP SHEET

SMOKING CESSATION

TIP SHEET

The following are the different ways smokers have actually used in retraining themselves to live without cigarettes. Any one or several of these methods in combination might be helpful to you. Check the ones you like and from these develop your own retraining program.

_____1. Before you quit smoking, try wrapping your cigarettes with a sheet of paper like a Christmas present. Every time you want a cigareete, unwrap the pack and write down what you are doing, how you feel and how important this cigarette is to you. Do this for two weeks and you'll have cut down as well as developed new insights into your smoking.

_____2. If cigarettes give you an energy boost, try gum, modest exercise, a brisk walk or a new hobby. Avoid eating new foods that are high in calories.

_____3. If cigarettes help you relax, try eating, drinking new beverages, or social activities within reasonable bounds.

_____4. When you crave cigarettes, you must quit suddenly. Try smoking an excess of cigarettes for a day or two before you quit so that the taste of cigarettes is spoiled. Or, an opportune time to quit is when you are ill with a cold or infulenza, and have lost your taste for cigarettes.

_____5. On a 3"x5" card, make a list of what you like and dislike about smoking. Add to it and read it daily.

_____6. Make up a short list of luxuries you have wanted or items you would like to purchase for a loved one. Next to each item write down the cost. Now convert the cost to "packs of cigarettes". If you save the money each day from packs of cigarettes, you will be able to purchase these items. Use a special "piggy" bank for saving your money or start a "Christmas Club" account at your bank.

_____7. Never smoke after you get a craving for a cigarette until <u>three</u> minutes have passed since you got the urge. During that three minutes change your thinking or activity. Telephone an ex-smoker or somebody you can talk to until the craving subsides.

_____8. Plan a memorable <u>date for stopping</u>. You might choose your vacation, New Year's Day, your birthday, a holiday, the birthday of your child, your anniversary. But, don't make the date so distant that you lose momentum.

_____9. If you smoke under stress at work, pick a date for stopping when you will be away from your work.

_____10. Decide whether you are going to stop suddenly or gradually. If it is to be gradual, work out a tapering system so that you have intermediate goals on you way to an "I.Q." day.

_____11. Don't store up on cigarettes. Never buy by the carton. Wait until one pack is finished before you buy another.

_____12. Never carry cigarettes about with you at home or work. Keep your cigarettes as far from you as possible. Leave them with someone or lock them up.

_____13. Until you quit make yourself a "smoking corner" that is far from anything interesting. If you like to smoke with others, always smoke alone. If you like to smoke alone, always smoke with others, preferably if they are nonsmokers. Never smoke while watching television.

_____14. Never carry matches or a lighter with you.

_____15. Put away your ashtrays or fill them with objects so they cannot be used for ashes. Plant flowers in them or fill with walnuts. The latter will give you something to do with your hands.

_____16. Change your brand of cigarettes weekly so you are always smoking a brand of lower tar and nicotine content than the week before.

_____17. Never say "I quit smoking" because your resolution is broken if you have a cigarette. Better to say "I don't want to smoke". This way you maintain your resolution even if you accidentally have a cigarette.

_____18. Try to help someone else quit smoking, particularly your spouse.

_____19. Always ask yourself, "Do I need this cigarette or is this just a reflex?".

_____20. Each day try to put off lighting your first cigarette.

_____21. Decide arbitrarily that you will smoke only on even or odd-numbered hours of the clock.

_____22. Try going to bed early and rising a half-hour earlier than usual to avoid hurring through breakfast and rushing to work.

_____23. Keep your hands occupied. Try playing a musical instrument, knitting or fiddling with hand puzzles.

_____24. Take a shower. You cannot smoke in the shower.

_____25. Brush your teeth frequently to get rid of the tobacco taste and stains.

_____26. If you have a sudden craving for a cigarette, take ten deep breaths, holding the last breath while you strike a match. Exhale slowly, blowing out the match. Pretend the match was a cigarette by crushing it out in an ashtray. Now immediately get busy on some work or activity.

_____27. Only smoke half a cigarette.

_____28. After you quit, start using your lungs. Increase your activities and indulge in moderate exercise, such as short walks before or after a meal.

_____29. Bet with someone that you can quit. Put the cigarette money in a jar each morning and forfeit it if you smoke. You keep the money if you don't smoke by the end of the week. Try to extend this period to a month.

_____30. If you gain weight because you are not smoking, wait until you get over the craving before you diet. Dieting is easier then.

_____31. If you are depressed or have physical symptoms that might be related to your smoking, relieve your mind by discussing this with your physician. It is easier to quit when you know your health status.

_____32. Visit your dentist after you quit and have your teeth cleaned to get rid of the tobacco stain.

_____33. If the cost of cigarettes is your motivation for quitting, try purchasing a money order equivalent to a year's supply of cigarettes. Give it to a friend. If you smoke in the next year, he cashes the money order and keeps the money. If you don't smoke, he gives back the money order at the end of the year.

_____34. After you have quit, never face the confusion of "craving a cigarette" alone. Find someone you can call or visit at this critical time.

_____35. When you feel irritable or tense, shut your eyes and count backward from ten to zero as you imagine yourself decending a flight of stairs or imagine you are looking at the horizon as the sun sets in the west.

_____36. Get out of your old habits. Seek new activities or perform old activities in new ways. Don't rely on the old ways of solving problems. Do things differently.

_____37. If you are a "kitchen smoker" in the morning, volunteer your services to schools or non-profit organizations to get you out of the house.

_____38. Stock up on light reading materials, crossword puzzles and vacation brochures you can read during your coffee breaks.

_____39. Frequent places you can't smoke, such as libraries, buses, theaters, swimming pools, department stores or just going to bed during the first weeks you are off cigarettes.

_____40. Give yourself time to think and get fit by walking ½ hour each day. If you have a dog, take him for a walk with you.

APPENDIX J

50 TIPS TO KICK THE SMOKING HABIT

"50 TIPS TO KICK THE SMOKING HABIT"

1. Set a date to quit--gradually reduce the number of cigarettes you smoke, day by day, or week by week, as it is approached--until on your target date, you have quit! OR--

2. Pick a day to stop smoking--and quit--cold turkey!

3. Try smoking only once an hour.

4. Prohibit yourself from smoking during alternate hours--from 9:00 to 10:00, 11:00 to 12:00, etc., then extend non-smoking by fifteen minutes, a half hour until you are not smoking!

5. Halve the number of cigarettes you smoke each week, week by week, giving yourself 4 weeks to cut down to none.

6. Make it an effort to get at your cigarettes--put the pack in a different pocket than usual.

7. Or wrap your pack of cigarettes in several plastic sandwich bags.

8. Leave your change at home--so you won't be able to use a cigarette machine.

9. Shift from cigarettes you like to brands you don't like.

10. Before you light up, ask yourself, "Do I really want this cigarette?" "Why am I smoking this cigarette?"

11. Make it harder to smoke--if you normally use your right hand to smoke the cigarette, use your left hand instead.

12. Keep a list of when and where you smoke--it'll tell you what situations are most tied in with your habit of smoking. Then avoid those situations.

13. If you light up after a meal, get up and brush your teeth instead.

14. Drink a cold glass of water or fruit juice instead of taking a cigarette.

15. Read a good book, then cut out those cigarettes!

16. Substitute a brisk walk or moderate exercise for the stimuation of smoking.

17. If handling things is an important part of the satisfaction of smoking, you can keep your hands busy by playing with a pen, a coin, a piece of jewelry, or some other harmless object instead of picking up a cigarette.

18. Try doodling to keep your hands busy. The world may discover another Rembrandt.

19. Don't let someone talk you into smoking. Let people know you've quit. Feel good about yourself.

20. If you really "crave" cigarettes, try smoking more than usual a couple of days before quitting--to spoil the taste of cigarettes.

21. Remember, if you are tempted to start smoking again--you'll only have to go through all this agony again!

22. Think about how clean your clothes smell--and how nice it is not to have cigarette holes in the upholstery!

23. Put away or throw away the ashtrays and lighters. Let yourself run out of cigarettes.

24. Cultivate your pride in controlling a habitual behavior. Be proud of your "won't power" (I won't smoke): you'll be ashamed to let a habit get the better of you!

25. Get your family involved--tell them you are quitting--and make them help you stick to it.

26. Notice how much better things taste.

27. Notice how much better your sense of smell is!

28. Notice how less often you are short of breath! Remind yourself why!

29. Give yourself the money you would have spent on cigarettes. Save it for something special. Reward yourself.

30. Quit with a friend. Support each other in kicking the habit. Use the Buddy System.

31. Join a smoker's cessation program. Call the American Lung Association for information.

32. Try quitting for just 24 hours. Then see if you can go a little longer.

33. Limit where you allow yourself to smoke (make rules that you cannot smoke in the car, at the dinner table, and so on).

34. Do deep breathing exercises instead of lighting up. It can be very relaxing.

35. Take up a new hobby or craft---especially one that keeps your fingers and your attention busy. Crossward puzzles, knitting, needlepoint, caligraphy, painting.....

36. Add up how much you spend on cigarettes a year! Look at the total!

37. Count up the cigarettes you haven't smoked. It could be 17,000 in a year.

38. Ask your kids and close friends and family what they really think of your smoking.

39. Another reason to quit: to be a good example, so your kids won't start.

40. Stick to "no smoking" areas in restaurants, theaters, public areas.

41. Carry carrot or celery sticks to work to substitute for the coffee-break cigarette. Avoid spicy foods.

42. Chew sugarless gum.

43. Vacation is a good time to stop smoking--try camping, mountain climbing or hiking.

44. Take up a new sport, like tennis, swimming, walking, etc...

45. Do crossword puzzles or some household task instead of watching TV or doing activities during which you normally smoke. Change your habit patterns. Join a club.

46. Reward yourself. Give yourself the things you like best--besides cigarettes. (But don't overeat--or you-ll need a diet!)

47. Don't try to diet and quit smoking and start a new exercise program; one thing at a time.

48. Do more things with your non-smoking friends.

49. Tape a list of health hazards of smoking to your pack of cigarettes or anywhere else you'll notice it.

50. Be realistic. You will be uncomfortable; you will feel irritated; you will feel tense, you will miss cigarettes. But the hard part will pass--and you will be able to be proud that you kicked the habit. You took control. You SUCCEEDED!

APPENDIX K

EGO-STRENGTHENING SUGGESTIONS SCRIPT

EGO STRENGTHENING

Every day you don't smoke...you will become physically stronger and fitter. You will become more alert...more wide awake...more engergetic. You will become much less easily tired...much less easily fatigued...much less easily disccuraged.

Every Day you don't smoke...your nerves will become stronger and steadier.

You will become so deeply interested in whatever you are doing...so deeply interested in whatever is going on...that your mind will become much less pre-occupied with yourself...and you will become much less conscious of yourself...and your own feelings.

Every day you don't smoke...your mind will become much calmer and clearer... more composed...more placed...more tranquil. You will become much less easily worried...much less easily agitated...much less fearful and apprehensive...much less easily upset.

You will be able to think more clearly...you will be able to concentrate more easily...your memory will improve...and you will be able to see things in their true perspective...without magnifying them...without allowing them to get out of proportion.

Every day you go without cigarettes...you will become emotionally much calmer...much more settled...much less easily disturbed. And, every day...you

will feel a greater feeling of personal well-being...a greater feeling of personal safety and security...than you have felt for a long, long time. Every day...you will become...and you will remain...more and more completely relaxed...both mentally and physically.

And as you become...and as you remain...more relaxed...and less tense each day...so you will develop much more confidence in yourself...much more confidence in your ability to do...not only what you have to do each day...but also...much more confidence in your ability to do whatever you ought to be able to do...without fear of failure...without fear of consequences...without unnecessary anxiety...without uneasiness. Because of this...every day... you will feel more and more independent...more able to 'stick up for yourself' ...to 'stand upon your own feet'... to 'hold your own'...no matter how difficult or trying things may be.

And because all these things will happen...exactly as I tell you they will happen...you are going to feel much happier...much more contented...much more cheerful...much more optimistic...much less easily discouraged...much less easily depressed.

As you continue to relax, just letting yourself drift down deeper and deeper relaxed...you relax completely throughout every fiber of your being; relaxing physically, emotionally and mentally. And as you relax so completely in this fashion, concentrating your mind, listening to each work that I say, you let each suggestion take complete and thorough effect to help you, deeply and automatically, on both the conscious and subconscious levels of mind activity. You extend the principles of relaxation and concentration which you now experience into your everyday life so that in every situation and in every circumstance in which you find yourself, whether alone or with others, you relax and you concentrate your mind, automatically; no matter what you are doing, you find that more and more, day by day, you relax and you concentrate your mind. If you are doing something for fun or relaxation, you relax and you enjoy it more...you concentrate your mind casually and comfortably and get more out of what you are doing. If you are doing something that involves work or some serious project or activity, you relax and apply yourself more thoroughly, more effectively; you concentrate and do a better job. And so, every day in every situation and in every circumstance in which you find yourself, you relax and you concentrate, more and more and more. As you relax and concentrate, you evaluate everything thoroughly and completely; you reach decisions easily and readily; you act efficiently and effectively; and you build your self-confidence, your self-reliance, your self-acceptance, and your self-esteem. You become a stronger individual; you become self-sufficent. As this occurs, you feel more relaxed and you are capable of greater concentration.

Just drifting down now...way down...deeper relaxed. And you realize that as you are more relaxed and as you are capable of greater concentration, you evaluate things even more thoroughly and completely; you reach decisions even more easily and readily; you act even more efficiently and effectively and you continually build your self-confidence, self-reliance, self-acceptance, and self-esteem...growing stronger and more capable every day in all situations. As you do this, you feel even more relaxed and you are capable of even greater concentration. As you drift down deeper relaxed, you let all of these suggestions seat themselves deeply, permanently in your subconscious mind. And as you apply these principles in your life automatically every day, in every situation and in every circumstance in which you find yourself, whether alone or with others, you relax more and more deeply, you concentrate your mind more and more sharply and intensely, you evaluate thoroughly and completely, you reach decisions easily and readily, you act efficiently and effectively, and you continually build your self-confidence, self-reliance, self-acceptance, and self-esteem and you continually find that you are capable of more relaxation and greater concentration and so on in a cycle of progress that grows, that deepens, strengthens and reinforces itself every day as you grow and become that person that you have always admired; the person you have always wanted to be: self-sufficient.

All of these suggestions are now implanted deeply, firmly and permanently in the deepest reaches of your subconscious and they are a part of your entire being to be used automatically by you to make your life more effective, more productive, more useful and happier as you learn to relax more and more; as you learn to concentrate your mind more and more. Helping you as

you learn to relax, deeper and deeper relaxed...as you learn to concentrate your mind more and more intensely, more and more completely; just drifting deeper relaxed.

APPENDIX L

SMOKING CESSATION SUGGESTIONS SCRIPTS

SMOKING CESSATION SUGGESTIONS SCRIPT I

"Through the experience of having learned during the last 10 minutes to produce a state of Hypnosis, you have established in your brain new circuits, new pathways, and new patterns of activity through which your brain learns to assume better and fuller control of your body. Your brain is the communications center; every second it receives millions of bits of information from every part of your body and from the outside; it coordinates this information, reaches decisions, and sends out orders, and instructions....Therefore, your brain is in full control and will continue to control your hands and will keep your hands from picking up cigarettes, from holding cigarettes, from lifting cigarettes, from lighting cigarettes....Your brain also controls your lips and your entire mouth and will keep them from holding any cigarette, from puffing on any cigarettes....Your brain controls the muscles of your chest, of your shoulders, and of your diaphragm and will keep them from pumping any more tobacco smoke into your lungs....

New patterns and new circuits have already become activited in your brain among other changes, you will experience prolongation and continuity in your periods of enjoyment and satisfaction, while episodes of irritation and frustration will seem to be quite short....During the next few days additional patterns become established in your brain and you begin to experience calmness and comfort instead of the usual rushed feeling. Therefore you begin to discover that you can accomplish many things well and efficiently with much less effort than before while your brain is completely eliminating any wish and need to smoke.

Every hour and every day that you go without smoking permits your body to eliminate the nicotine and the carbon monoxide that are now in your system, while tar and other impurities will gradually be removed from your lungs until they may become again as healthy as the lungs of a person who had never smoked....

and supply more, healing oxygen to your tissues. Your memory will be better and physically you will feel so much better. You will be able to do a day's work without getting so tired. YOu just can't help but feel better when you stop smoking.

And now you have done very, very, well. You are just drifting into deeper and deeper relaxation, remembering everything that was said. Realizing that if you ever think of taking another cigarette, you will remember every suggestion that I have given you. Every suggestion will flash through your mind in a fraction of a second and consciously or unconsciously you will take a deep breath and enjoy that relaxation as you breathe out, and as you breath out, and enjoy that relaxation, you will just have no desire what so ever to destroy your lungs with one more cigarette.

You have done very, very well.....

SMOKING CESSATION SUGGESTIONS SCRIPT II

Did you ever think why you smoke?

You do not smoke because:

a) You find cigarette smoking relaxing

b) You enjoy the irritation you get from cigarette smoking

c) You like the dirty, filthy, rotten taste of a cigarette in your mouth

You started smoking because:

a) You were suckered.

b) You became a grown-up overnight when you started smoking.

Every cigarette you smoke shortens your life by $18\frac{1}{2}$ minutes. If your working under safety regulations for a company, you would not be allowed to work where your life was shortened $18\frac{1}{2}$ minutes, 20 to 30 times a day. You are deliberately doing this, shortening your life minutes with every cigarette. You cannot live without your body, your body cannot live without oxygen, your body cannot get oxygen if you smoke. You owe it to yourself, you owe it to your body to stop smoking.

Cigarette smoking causes bronchitis, chronic bronchitis and lung abscesses, and then emphysema, a lung disease where you literally become shorter and shorter of breath. Grasping for breath is a panicky, dreadful, terrible situation. You

are unable to get oxygen, you are unable to breathe out carbon dioxide. You are being strangled, you are being choked everytime you try to move a muscle. Every intensive care unit in every hospital in the world has patient lying there, patients with emphysema trying to live a bit longer, just lying in their bed breathing straight oxygen; many of them hoping God won't let it last much longer. Why do you smoke anyway? Do you like to strangle yourself, or maybe you would like to constrict your blood flow by smoking and produce a heart attack or maybe you like the way smoking upsets your stomach increasing the liklihood of ulcers. Or maybe you like gambling on the chance of lung cancer. With lung cancer, you usually only die. Many people are not so lucky. Many smokers are not so lucky. They continue to smoke and develop emphysema -- the real hazzard of smoking

Cigarettes are a combination of tobacco and paper. Tobacco is dried vegetable protein. Your garbage is dried vegetable protein. Look in your garbage when you go home. You may see dried carrots, dried potato peelings, dried orange skins, dried beet greens, dried vegetable protein.

Manure is dried vegetable protein that has gone through an animal once. Have the cigarette advertisers ever suggested that burning garbage has a wonderful aroma? Have you ever smelt burning garbage or manure on fire? They all have a filthy, rotten, irritating stink, and the smoke has the same irritating effect on your nose, on your bronchial tubes and your lungs. If you ever think of having another cigarette, remember the stink of burning garbage and you will visualize yourself smoking dried manure, dried manure wrapped in paper. I used to say and I believed, that if you stopped smoking now, your lungs would not get any worse, but they, your lungs, would not get any better either. However, recent medical evidence does show that when you stop smoking your lungs condition will improve, you will be able to take in more air, little air sacs will open that have never been used before. You will be able to take in more oxygen

SMOKING CESSATION SUGGESTIONS SCRIPT III

Your mind has complete and total control over your body and the perceptions you feel. Your mind can block the perception of discomfort or your mind can control your body. Therefore, your mind will no longer crave for a habit which has affected your life negatively with every drag of cigarette smoke you have taken into your lungs, a habit which is causing your heart to work much harder than necessary, a habit which has forced your lungs to labor beyond all necessity, stressing and straining these vital organs. But because of the great control of your unconscious mind, the craving for this vicious lethal habit will grow markedly less until it rapidly reaches a permanent zero level. You simply will not crave nor will you smoke cigarettes again.

For your body, smoking is a poison. You are composed of a number of components, the most important of which is your body. Smoking is not so much a poison for you as it is for your body. You cannot live without your body. Your body is a precious physical plant through which you experience life. To the extent that you want to live, you owe your body respect and protection. This is your way of acknowledging the fragile, precious nature of your body and, at the same time, your way of seeing yourself as your bodies' keeper. You are in truth your bodies' keeper. When you make this commitment to respect your body, you have within you the power to have smoked your last cigarette.

You are confident, completely confident, that you are going to overcome the cigarette smoking habit....you will be able to let go of the habit so easily ....you will wonder why you ever bothered to smoke....you won't miss smoking at all...From this moment on, whenever you think of having a cigarette, if

you automatically reach for one, if someone offers you one, you will say "no"....a voice will echo through your mind, "No! No! No!....Smoking is a foolish, stupid habit....it hurts me physically....It damages my health.... I am not going to smoke again". You will completely overcome the cigarette smoking habit....You will find you are able to do this....Know in your mind, that you will be able to do this....It is easy and you can do it....Your mind can and should control your body....When you stop smoking, and you can do so from this moment, you feel physically better, healthier, your breathing easier, your senses sharper....and you will also feel emotionally better, pleased that you have been able to control your body....happy that you are in control....happy that you are strong enough to stop smoking so easily....It is your accomplishment....your success. When you see others smoking around you, you will feel delighted that you don't smoke....You'll say to yourself, "I'll never smoke again....the sight and smell of cigarettes is unpleasant....I haven't any desire to smoke at all....I have no need to smoke....it doesn't help me in any way and I feel so much better when I don't smoke".

You will completely overcome the cigarette smoking habit and stop smoking.... and you will never smoke again....It is easy and you can do it....You will feel no sense of loss or unhappiness....instead, you'll feel good, happy, proud of yourself....Once you make this decision to stop smoking, no force will be able to change this decision....You will be completely confident that you will stop and stop permanently.

You don't need to smoke cigarettes....From now on, if you think about smoking, and this will happen infrequently, you will immediately take a deep

breath, let go and relax, and you will realize in your mind that you don't need to smoke....You are in complete control and your decision to stop smoking cannot be reversed. You are improving your life by giving up cigarettes and you will continue to do so....You will not smoke cigarettes again....You will not be hungry or eat excessively....Your craving will reach a permanent zero level.

APPENDIX M

COVERT SENSITIZATION SUGGESTIONS SCRIPTS

COVERT SENSITIZATION SCRIPT I

I would like you to imagine that you are somewhere where you usually smoke. Imagine that you have just pulled out the pack of cigarettes from your pocket or purse, and you are about to take a cigarette out of the pack. Immediately there is a feeling of discomfort that you feel in your stomach. You are now trying to pull a cigarette out of your pack, and immediately you feel a tightness in your stomach. A nauseated feeling is beginning to develop as you continue to hold the cigarette in your hand. You are gradually but steadily beginning to feel more and more nauseated. From the depths of your gut you experience a very unpleasant sensation that travels through your throat to your mouth. As you are moving the cigarette closer to your mouth and you are ready to touch it with your lips, your throat begins to fill with phlegm. The nauseated feeling in your stomach is making you want to vomit. Indeed, as you touch your lips with the cigarette you begin to heave, and you have difficulty keeping down pieces of food that have already filled your mouth. Green bile and disgusting vomit come spilling out all over your cigarette and the hand which is holding it. The taste that accompanies your vomiting is very bitter and sour. In short, it is a very disgusting, terrible, horrible experience. You have just puked all over your cigarette, and pieces of green and yellow food are covering your hand and also the pack which you are holding in your other hand. You can very clearly smell the soggy, disgusting vomit that is all over your cigarettes and your hands. The sight of this disgusting scene, as well as the smell that you are now getting from all the half-digested food sitting all over your cigarette, makes you want to vomit even more. You are beginning to feel quite sick

as you are looking at the cigarettes full of lumpy, sour-smelling vomit, and before you know it more vomit is coming through your mouth and nose. You can feel the burning in the back of your nose as the vomit comes out. You are practically choking on the vomit, and the only thing you can see as you are experiencing these horrible sensations is the cigarette which, indeed, is the most disgusting object you have ever seen in your life.

You are irritated and angry at this and immediately take the cigarette as well as the pack you are holding in your other hand and quickly go into the bathroom, where you throw your cigarettes in the garbage pail and wash out your hands and your mouth. Immediately you begin to feel better, and there is a sense of relief knowing your cigarettes full of vomit are away from you and into the garbage pail. As you are wiping yourself now you feel refreshed. You feel very well, and you are thinking to yourself that you will never touch a dirty cigarette again in the rest of your life. If you wish, you may imagine that you are now somewhere else drinking your favorite drink, which actually brings back a sense of calmness, relaxation and well-being.

COVERT SENSITIZATION SCRIPT
(WITH ESCAPE) II

Imagine that you are about to take a pack of cigarettes from your pocket or purse and, as you do, that you are beginning to feel an uncomfortable feeling in your stomach. You are now beginning to pull a cigarette out of the pack, and a very uncomfortable and nauseated sensation overcomes you. Immediately you throw the cigarette away as well as the rest of the pack, and you say to yourself, "I don't need to smoke that lousy cigarette." As soon as you finish saying that you experience a very beautiful, calming and lifting feeling. You are very relieved because the nauseated feelings disappear immediately, and you are feeling well again.

COVERT SENSITIZATION SCRIPT
(ESCAPE WITH REWARD) III

Now I would like you to close your eyes and relax your muscles. Imagine yourself in a place where you usually smoke. You have no cigarettes on you, and you have had no urge whatsoever to smoke. At some point, you begin to realize how lucky you are for having gotten rid of the habbit, and you say to youself, "Isn't it wonderful that I don't feel like smoking anymore. It is such a good feeling not to have smelly clothes, to be able to taste food once again, to be rid of all the coughing and discomfort in my throat and, generally, to be able to go through the day without this terrible habit."

COVERT SENSITIZATION SCRIPT IV

Now I want you to imagine that you've just had your supper and have just decided to have an afterdinner cigarette, a (name of favorite brand). As you are about to reach for the pack, you get a funny feeling in the pit of your stomach. You start to feel queasy, nauseous and sick all over. As you pick up the pack, you can feel food particles inching up your throat. You're just about to vomit. As you pull a cigarette out of the pack, the food comes up into your mouth. You try to keep your mouth closed because you are afraid that you'll spit food out all over the place. You bring the cigarette up to your mouth. As you are about to open your mouth, you puke; you vomit all over your hands, the cigarette, the pack. It goes all over the table, all over the people sitting at the table. Your eyes are watering. Snot and mucous are all over your mouth and nose. Your hands feel sticky and slimy. There's an awful smell and a horrible sour taste in your mouth. As you look at this mess, you just can't help but vomit again and again until only watery stuff is coming out. Finally, nothing more will come up but you've got the dry heaves and just can't stop retching. It feels like the inside of your stomach is tearing loose. As you look up, everybody is staring at you with shocked expressions. You turn away and immediately you start to feel better. You run out of the room, and as you run out, you feel better and better. You wash and clean yourself up, and it feels wonderful.

COVERT SENSITIZATION SCRIPT

(WITH ESCAPE) V

You've just finished eating supper and decide to have an after dinner cigarette. As you make the decision, you start to get that funny feeling in the pit of your stomach again. You say to yourself, "Oh, no, I won't have that cigarette." Then you immediately feel calm, comfortable, and relaxed.

APPENDIX N

CESSATION TREATMENT CONDITION FORMAT

CESSATION TREATMENT CONDITION FORMAT

Session 1

A) Method

1. Initial "Success" Suggestion [5 minutes]

   a. Subject is presented the suggestion of this being a successful treatment for smoking. This is an initial "sales pitch."

   b. Subject is given general success statistics with no mention of relapse or the probability of such (e.g. "most people quit smoking after this type of treatment").

2. Discussion & Answer Period [15 minutes]

   a. Discuss very generally what hypnosis is and answer questions. Doing so to inform subject as well as lessen any anxieties based on any misconceptions he or she may have about hypnosis.

   b. Discuss how hypnosis is really more accurately described as self-hypnosis. Discuss how the patient is in complete control of the process. Present theme of self-control.

   c. Discuss how we are involved in various levels of hypnosis or altered levels of awareness throughout our everyday life. Present in terms of cognitive processes of attention, selective attention, and focusing. Give examples.

3. Relaxation Suggestions [15 minutes]

   Use of general progressive relaxation exercises. This includes closing of eyes, dimming of room lights, reducing other external stimuli, initial deep breathing, focusing on breathing, tensing and relaxing various muscles of entire body, continued focusing on breathing throughout session, presentation of calming and peaceful suggestions.

4. Guided Imagery Suggestions [15 minutes]

   Presentation of a guided imagery. Utilization of environmental stimuli audio-tapes which correspond to particular imagery scenes enhancing quality of imagery experience.

5. Suggestions to return subject to normal state of awareness [5 minutes]

a. Presentation of positive suggestions and self-control suggestions (e.g. "and next session you will become relaxed quicker and relaxed at a much deeper level").

b. Presentation of more alert suggestions such as counting slowly to a more alert state, "beginning to feel more alert, bright, and rested."

B) Goals

1. Introduction of subject to treatment.

2. Elicitation of a relaxation response.

3. Facilitation of a quicker, deeper, and more effective induction in later treatment sessions.

4. Create a positive and successful association to treatment.

5. Subject to think in terms of self-control method of lifestyle management.

6. Ability to more effectively resist urges to smoke, thus decreasing smoking behavior.

Session 2

A) Method

1. Relaxation Suggestions [10 minutes]

same as session 1

2. Guided Imagery Suggestions [15 minutes]

same as session 1

3. Smoking Cessation Suggestions [15 minutes]

Presentation of a script suggesting subject will decrease and/or stop smoking. This script presents many disadvantages to smoking (e.g. "each cigarette shortens your life by 18 1/2 minutes, causes fatal medical disorders", etc.). The script uses an informative format as well as overexaggerated suggestions. The script is also positive in that it reinforces no-smoking suggestions as being healthy, peaceful, relaxing, and comforting.

4. Suggestions to return subject to normal state of awareness [5 minutes]

same as session 1

B) Goals

1. Elicitation of a relaxation response.

2. Facilitation of a quicker, deeper, and more effective induction in later treatment sessions.

3. Create a positive and successful association to treatment.

4. Subject to think in terms of self-control method of lifestyle management.

5. Ability to utilize relaxation skills in daily life as a coping skill.

6. Ability to reflect back on, at whatever awareness level, and utilize smoking cessation suggestions in a decision making process when confronted with the urge to smoke.

7. Decrease smoking behavior.

Session 3

A) Method

1. Relaxation Suggestions [10 minutes]

   same as session 1

2. Guided Imagery Suggestions [15 minutes]

   same as session 1

3. Ego-Strengthening Suggestions [15 minutes]

   Presentation of a script with suggestions to strengthen the ego. These are positive suggestions of feeling stronger both emotionally and physically. Examples of other suggestions are becoming more confident, energetic, composed, better able to concentrate, more in control of self, be able to solve problems easier, be happier, etc..

4. Suggestions to return subject to normal state of awareness [5 minutes]

   same as session 1

B) Goals

1. Elicitation of a relaxation response.

2. Facilitation of a quicker, deeper, and more effective induction in later treatment sessions.

3. Create a positive and successful association to treatment.

4. Subject to think in terms of self-control method of lifestyle management.

5. Ability to utilize relaxation skills in daily life as a coping skill.

6. Ability to reflect back on, at whatever awareness level, and use ego-strengthening suggestions to improve self-efficacy state when confronted with an urge to smoke.

7. Decrease smoking behavior.

Session 4

A) Method

1. Relaxation Suggestions [10 minutes]

   same as session 1

2. Guided Imagery Suggestions [15 minutes]

   same as session 1

3. Covert Sensitization Suggestions [15 minutes]

   Presentation of a script designed to elicit unpleasant and/or nauseous images, thoughts, and feelings paired with imagined smoking behaviors (e.g. "you put the cigarette to your lips and immediately there is a feeling of discomfort in your stomach as a nauseous feeling begins to develop as you continue to hold the cigarette in your hand").

4. Suggestions to return subject to normal state of awareness [5 minutes]

   same as session 1

B) Goals

1. Elicitation of a relaxation response.

2. Facilitation of a quicker, deeper, and more effec-

tive induction in the next session.

3. Create a positive and successful association to treatment.

4. Subject to think in terms of self-control method of lifestyle management.

5. Ability to utilize relaxation skills in daily life as a coping skill.

6. Create a paired association between smoking behavior and unpleasant and/or nauseous images, thoughts, and feelings. In doing so, conditioning avoidance behavior to smoking situations.

7. Decrease smoking behavior.

Session 5

A) Method

1. Relaxation Suggestions [10 minutes]

   same as session 1

2. Guided Imagery Suggestions [15 minutes]

   same as session 1

3. Smoking Cessation Suggestions [15 minutes]

   same as session 2

4. Suggestions to return subject to normal state of awareness [5 minutes]

   same as session 1

5. Posttreatment administration of MHLC Scales and Posttreatment Confidence Questionnaire [30 minutes]

B) Goals

1. Elicitation of a relaxation response.

2. Create a positive and successful association to treatment.

3. Subject to think in terms of self-control method of lifestyle management.

4. Ability to utilize relaxation skills in daily life as a coping skill.

5. Ability to reflect back on, at whatever awareness level, and utilize smoking cessation suggestions in a decision making process when confronted with the urge to smoke.

6. Extinguish smoking behavior.

7. Obtain posttreatment measures.

APPENDIX O

CONTROL CONDITION FORMAT

CONTROL CONDITION FORMAT

Session 1

A) Method

1. Initial "Success" Suggestion [5 minutes]

   a. Subject is presented the suggestion of this being a successful treatment for smoking. This is an initial "sales pitch."

   b. Subject is given general success statistics with no mention of relapse or the probability of such (e.g. "most people quit smoking after this type of treatment").

2. Discussion & Answer Period [15 minutes]

   a. Discuss very generally what hypnosis is and answer questions. Doing so to inform subject as well as lessen any anxieties based on any misconceptions he or she may have about hypnosis.

   b. Discuss how hypnosis is really more accurately described as self-hypnosis. Discuss how the patient is in complete control of the process. Present theme of self-control.

   c. Discuss how we are involved in various levels of hypnosis or altered levels of awareness throughout our everyday life. Present in terms of cognitive processes of attention, selective attention, and focusing. Give examples.

3. Relaxation Suggestions [15 minutes]

   Use of general progressive relaxation exercises. This includes closing of eyes, dimming of room lights, reducing other external stimuli, initial deep breathing, focusing on breathing, tensing and relaxing various muscles of entire body, continued focusing on breathing throughout session, presenta- of calming and peaceful suggestions.

4. Guided Imagery Suggestions [15 minutes]

   Presentation of a guided imagery. Utilization of environmental stimuli audio-tapes which correspond to particular imagery scenes enhancing quality of imagery experience.

5. Suggestions to return subject to normal state of awareness [5 minutes]

a. Presentation of positive suggestions and self-control suggestions (e.g. "and next session you will become relaxed quicker and relaxed at a much deeper level").

b. Presentation of more alert suggestions such as counting slowly to a more alert state, "beginning to feel more alert, bright, and rested."

B) Goals

1. Introduction of subject to treatment.

2. Elicitation of a relaxation response.

3. Facilitation of a quicker, deeper, and more effective induction in later treatment sessions.

4. Create a positive and successful association to treatment.

5. Subject to think in terms of self-control method of lifestyle management.

6. Ability to more effectively resist urges to smoke, thus decreasing smoking behavior.

Session 2

A) Method

1. Relaxation Suggestions [10 minutes]

same as session 1

2. Guided Imagery Suggestions [15 minutes]

same as session 1

3. Ego-strengthening Suggestions [15 minutes]

Presentation of a script with suggestions to strengthen the ego. These are positive suggestions of feeling stronger both emotionally and physically. Examples of other suggestions are becoming more confident, energetic, composed, better able to concentrate, more in control of self, be able to solve problems easier, be happier, etc..

4. Suggestions to return subject to normal state of awareness [5 minutes]

same as session 1

B) Goals

1. Elicitation of a relaxation response.
2. Facilitation of a quicker, deeper, and more effective induction in later treatment sessions.
3. Create a positive and successful association to treatment.
4. Subject to think in terms of self-control method of lifestyle management.
5. Ability to utilize relaxation skills in daily life as a coping skill.
6. Ability to reflect back on, at whatever awareness level, and use ego-strengthening suggestions to improve self-efficacy state when confronted with an urge to smoke.
7. Decrease smoking behavior.

Session 3

A) Method

same as session 2

B) Goals

same as session 2

Session 4

A) Method

same as session 2

B) Goals

same as session 2

Session 5

A) Method

Same as session 2 with the addition of a posttreatment administration of MHLC Scales and Posttreatment Confidence Questionnaire following treatment.

B) Goals

1. Elicitation of a relaxation response.

2. Create a positive and successful association to treatment.

3. Subject to think in terms of self-control method of lifestyle management.

4. Ability to utilize relaxation skills in daily life as a coping skill.

5. Ability to reflect back on, at whatever awareness level, and utilize smoking cessation suggestions in a decision making process when confronted with the urge to smoke.

6. Extinguish smoking behavior.

7. Obtain posttreatment measures.

APPENDIX P

DEBRIEFING FORM

DEBRIEFING FORM

The Role of Health Locus of Control and Self-Efficacy in Hypnosis Treatment for Smoking

Cigarette smoking has been cited as the largest preventable cause of death in America. Cigarette smoking has been shown to be either a major cause or to greatly increase the likelihood of many severe medical disorders. Health professionals are in need of more effective means of treating smoking addiction. Researchers are working to increase current success rates of smoking cessation treatments.

Research has shown that smokers' beliefs and attitudes regarding their own control over their health is a significant success factor in smoking cessation. Generally, those who attribute their health status as a result of their own behavior rather than leaving it to chance or someone/something else are more likely to succeed in smoking cessation treatment.

Other research has shown that smokers' sense of self-efficacy also plays a significant role in successfully overcoming smoking addiction. The more the smoker believes he or she can successfully carry out non-smoking behaviors the more likely a successful treatment outcome will occur.

The research you have participated in is focused on the identification of the above factors within an hypnosis

treatment format. Little is known as to the role these factors play in such a treatment format.

Your comments and suggestions will be greatly appreciated. Thank you for your participation: _____

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VITA 2

Joseph Peter Muga

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE ROLE OF HEALTH LOCUS OF CONTROL AND SELF-EFFICACY IN HPYNOSIS TREATMENT FOR SMOKING

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