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Cassidy, John James

A STUDY OF THE ATTITUDES AND BEHAVIORS OF AIR FORCE SOCIAL WORKERS AND PHYSICIANS TOWARD PROBLEM DRINKERS

The Ohio State University

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A STUDY OF THE ATTITUDES AND BEHAVIORS OF AIR FORCE SOCIAL WORKERS AND PHYSICIANS TOWARD PROBLEM DRINKERS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

John James Cassidy, B.S., M.S.S.A.

* * * *

The Ohio State University

1983

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iv
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>VITA</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vii</td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose of Research</td>
<td>2</td>
</tr>
<tr>
<td>II. REVIEW OF LITERATURE</td>
<td>15</td>
</tr>
<tr>
<td>Introduction and Overview</td>
<td>15</td>
</tr>
<tr>
<td>Historical Background</td>
<td>17</td>
</tr>
<tr>
<td>American Drinking Practices</td>
<td>26</td>
</tr>
<tr>
<td>Alcoholism - A Social Problem</td>
<td>30</td>
</tr>
<tr>
<td>Influence of Cultural Factors on Drinking and Drinking Problems</td>
<td>32</td>
</tr>
<tr>
<td>Definitional Problems</td>
<td>45</td>
</tr>
<tr>
<td>Methods of Assessing the Extent and Character of Alcoholism and Alcohol Abuse in a Population</td>
<td>56</td>
</tr>
<tr>
<td>Involvement of Professionals</td>
<td>62</td>
</tr>
<tr>
<td>Low Identification Rates of Problem Drinkers</td>
<td>65</td>
</tr>
<tr>
<td>Influence of Attitudes on Professional Behavior</td>
<td>67</td>
</tr>
<tr>
<td>Prevalence and Consequence of Alcohol Use Among U. S. Military Personnel</td>
<td>74</td>
</tr>
<tr>
<td>Highlights of Literature Review</td>
<td>77</td>
</tr>
<tr>
<td>III. METHODOLOGY</td>
<td>89</td>
</tr>
<tr>
<td>Research Design</td>
<td>89</td>
</tr>
<tr>
<td>General Characteristics of the Study Population</td>
<td>121</td>
</tr>
</tbody>
</table>
IV. DATA ANALYSIS AND FINDINGS ................................................. 128

- Training and Experience of Respondents .................................. 128
- First Major Research Question .............................................. 135
- Second Major Research Question ............................................ 163
- Third Major Research Question .............................................. 174
- Summary of Findings and Relevance to Research Questions ............ 178

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS ....................... 182

- Purpose of the Study .......................................................... 182
- Summary of Procedures .......................................................... 183
- Summary and Discussion of Findings .......................................... 185
- Conclusions ............................................................................. 194
- Implications and Future Recommendations .................................... 196

APPENDIXES

A. Sampling Methodology .......................................................... 212
B. Cover Letter to Chief of Hospital Services .................................. 219
C. Health Care Practitioner Questionnaire ..................................... 221

BIBLIOGRAPHY ............................................................................... 238
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Descriptive Alcohol-Related Factors</td>
<td>31</td>
</tr>
<tr>
<td>2. Facility Size and Commands</td>
<td>94</td>
</tr>
<tr>
<td>3. Telephone Contacts with Medical Facilities</td>
<td>99</td>
</tr>
<tr>
<td>4. Selected Bases</td>
<td>101</td>
</tr>
<tr>
<td>5. Demographic Characteristics of the Sample</td>
<td>124</td>
</tr>
<tr>
<td>6. Practitioner Background and Caseload</td>
<td>130</td>
</tr>
<tr>
<td>7. Estimated Percentages of All Patients Seen</td>
<td>132</td>
</tr>
<tr>
<td>8. Estimated Percentages of Problem Drinker Patients Seen</td>
<td>134</td>
</tr>
<tr>
<td>9. A Principal Components Factor Analysis of 64 Belief Statements</td>
<td>136</td>
</tr>
<tr>
<td>10. Percentage of N Agreeing with Factor 1</td>
<td>141</td>
</tr>
<tr>
<td>11. Percentage of N Agreeing with Factor 2</td>
<td>143</td>
</tr>
<tr>
<td>12. Percentage of N Agreeing with Factor 3</td>
<td>145</td>
</tr>
<tr>
<td>13. Percentage of N Agreeing with Factor 4</td>
<td>146</td>
</tr>
<tr>
<td>14. Percentage of N Agreeing with Factor 5</td>
<td>148</td>
</tr>
<tr>
<td>15. Percentage of N Agreeing with Factor 6</td>
<td>149</td>
</tr>
<tr>
<td>16. Summary Table</td>
<td>150</td>
</tr>
<tr>
<td>17. Knowledge Test 1</td>
<td>152</td>
</tr>
<tr>
<td>18. Knowledge Test 2</td>
<td>154</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>19. Knowledge Test 1 - Overall Breakdown</td>
<td>155</td>
</tr>
<tr>
<td>20. Knowledge Test 2 - Overall Breakdown</td>
<td>156</td>
</tr>
<tr>
<td>21. Proactive Treatment Stance Scale</td>
<td>162</td>
</tr>
<tr>
<td>22. Analysis of Practice Activities</td>
<td>167</td>
</tr>
<tr>
<td>23. 216 Case Sample</td>
<td>173</td>
</tr>
</tbody>
</table>
I. INTRODUCTION

Abuse of the substance of alcohol is a serious public health problem in the United States today. It permeates every area of life from industry to home. Two estimates of the yearly financial cost to society are $31 billion (Berry and Boland, 1971) and $42 billion (4th Special Report to Congress, 1981).\textsuperscript{1,2} If alcoholism is left untreated, the result is usually psychiatric, physiological, and/or legal problems or eventually death. Because of this, intervention and treatment efforts are of the utmost significance in attempting to lessen the magnitude of this problem.

Historically, one can trace the importance of the influence of attitudes of various groups of society on the social policies and programs which have attempted to deal with this problem. One need only to review the conflicting views and practices during the prohibition years to see the impact that one such formal piece of legislation (The 18th Amendment) had on members of society. Although a law had been enacted which in theory prohibited the manufacture and sales of alcohol, the attitudes of a major part of the population did not change and therefore still condoned the manufacture and sales of alcohol, under certain conditions.

Just as there have been varying attitudinal changes in the general public throughout the years regarding alcohol use and abuse,
there have been variations of opinions by professional health care practitioners regarding this topic. The emphasis placed during the 1960's and 1970's on health care and prevention efforts gave health care providers the task of helping to identify a variety of disabling conditions in their early stages. In the fields of cancer and heart research, the number of technical advances has contributed to earlier detection of conditions previously considered terminal and has consequently increased the life expectancy of Americans with such conditions.

Earlier identification of alcohol problems allows many individuals to take corrective action in time to avoid life threatening conditions. A body of literature exists which begins to address the possible relationship between the attitudes of health care practitioners and the extent of their clinical involvement with individuals with drinking problems.\textsuperscript{3-19} Much of this literature states that often the attitudes of practitioners prevent them from helping persons with alcohol problems.\textsuperscript{20} However, there is also a smaller segment of this literature which questions the significance of attitudes of health care practitioners to the diagnosis and treatment of alcohol problems. Thus this area is one which lends itself to further exploration and research.\textsuperscript{21,22}

The possibility exists that negative attitudes of practitioners may deter problem identification. Some writers believe that negative attitudes of practitioners (including physicians and social workers who are in earlier interaction phases with patients) may interfere with the identification of and engagement of clients in treatment. In such cases early detection can be a factor in prevention efforts.
The professionals in these earlier interaction phases will be referred to as front-line professionals. There are other professionals besides these two groups mentioned above who also may be considered in front-line positions, but this study will focus on those two groups.

The importance of these particular professional groups is attested to in the literature. The physician group will consist primarily of general medicine and family practice physicians but will also include a smaller number of other specialties including emergency medicine, internal medicine, and psychiatry. The selection of general medicine/family practice is in part due to the expectation that their training aims at preparing them for early intervention in any professional way which will increase the overall health of the individual and/or the family. Fisher et al. (1975) and Fisher et al. (1976) specifically address family practice physicians. Family practice medicine is especially significant because of the fact that in the 1970's family medicine became the most rapidly growing medical specialty. The report of the 1978 President's Commission on Mental Health revealed that "family physicians were providing a large quantity of mental health care, using whatever skills and intuitions they possessed to help their patients cope with psychiatric problems."

The selection of emergency room physicians as part of a front-line group is supported by Solomon et al. (1980). They state that physicians' negative attitudes toward alcohol abusers and drug addicts affect the necessary physician-patient interaction. Their study found that emergency room physicians tended to identify as
alcoholics or as alcohol abusers less than half of their patients who were identified as alcoholics by the Alcohol Abuser Scale or brief version of the Michigan Alcoholism Screening Test.  

Clinical social workers were chosen because they constitute one of the primary sources for directors of alcohol treatment centers and for staffs of mental health clinics, as well as representing a large source of staffing for alcohol-related programs. The 4th Special Report states that Master's level social workers (MSW's) are increasingly assuming administrative and supervisory responsibility in alcoholism treatment in addition to their case management and therapeutic responsibilities: "Currently MSW's comprise the largest professional group among directors of community mental health centers."  

This study will use a sample of professionals within the U.S. Air Force. There are several reasons for focusing on front-line professionals in a military setting. The U.S. Air Force offers a structure where similar policies and procedures exist within the medical system. Therefore, a number of variables will be automatically controlled for. In addition to that, in June 1979 a Rand report was released which presented some very detailed statistics regarding the prevalence of alcohol problems in the Air Force community. That study did not specifically address the role of health care practitioners and their attitudes but did provide a very current assessment of a problem population and a great deal of descriptive information upon which further alcohol-related studies can be evaluated. Its approach departed from the single-minded emphasis on "alcoholism" and recognized a "core syndrome of alcohol dependence exhibiting many
of the facets commonly ascribed to alcoholism.²⁸

Thus "problem drinkers" will include those individuals classified under Alcohol Dependence and those classified under Adverse Effects of Alcohol, the two categories described in the 1979 Rand study in the following manner.

- **Alcohol Dependence** - A chronic behavioral pattern indicating that the individual consumes high amounts of alcohol and relies on alcohol in everyday functioning.
- **Adverse Effects of Alcohol** - Any type of serious consequence of drinking not reflected under alcohol dependence if it results in concrete and serious damage or disruption to the individual's life or to the Air Force.²⁹

Another reason for selecting the Air Force is that this branch of the armed forces has indicated its concern for the area of alcoholism and alcohol-related problems by increasing its funding of such programs in the last 10 years. It has supported alcohol research by funding several independent projects including the 1977 Rand study of Air Force treatment efforts from 1971-1977, which revealed that statistically the ratio of costs avoided to costs incurred was determined to be 3.15 to 1.³⁰

The U.S. Air Force concern for alcoholism research and cost-effective programs could be expanded by maximizing the potential of the health care professionals in front-line positions. Professional intervention by health care practitioners such as emergency room and family practice/general medicine physicians and clinical social workers represents one important means for identifying individuals with alcohol-related problems.
Purpose of Research

The purpose of this research is to explore selected aspects of the following: (1) the attitudes of Air Force professionals (physicians and social workers) toward problem drinkers, (2) the possibility of these attitudes interfering with early identification and diagnosis of patients with alcohol problems, (3) descriptive data regarding comparisons between the two professional groups studied, and (4) treatment techniques used by these professionals.

It is believed that a study of this type can produce data which can help improve the quality of care for persons with alcohol problems, as well as providing feedback to the professional community. The 1979 Rand survey pointed out that much of what was learned from its study of the Air Force community had relevance to civilian programs, provided they controlled for certain descriptive variables.

Major Research Questions
1. What are the attitudes and practices of selected health care practitioners in the Air Force?
2. Can specific characteristics of a selected group of Air Force professionals (social workers and physicians) be identified that will be predictive of positive attitudes toward working with problem drinkers as well as rates of identification and treatment?
3. Is there a correlation between the attitudes of selected health care practitioners and rates of identification, diagnosis, and/or treatment of problem drinkers?

**Minor Research Questions**

1. How does the professional perceive his/her motivation or willingness to work with problem drinkers?
2. What are the professional's expectations of work satisfaction with clients with alcohol problems?
3. How does the professional feel about the adequacy of his/her knowledge and skills in working with these clients?
4. How does the professional feel about his/her right to work with problem drinkers?
5. How does the professional use his/her level of self-esteem in this specific task of working with persons with alcohol problems?
6. How does the professional perceive his/her level of role support in working with persons with alcohol problems?
7. How many actual clients with alcohol problems does the professional identify, refer, and/or treat within a specified time period?
8. How does the professional define alcoholism?
9. How does the professional perceive the possible utility of Alcoholics Anonymous (A.A.)?
10. How much alcohol-specific curricula has the professional had?
11. How much alcohol-related treatment experiences has the professional had?
12. If a professional were to raise the question regarding a possible alcohol-related problem with a patient, what technique would he/she choose to employ?

13. What is the professional's knowledge of A.A.?

14. What is the professional's attitude toward "controlled drinking" and "alcoholism?"

15. How strongly does the professional feel about recommending problem drinkers seek assistance at the Social Actions Office?

16. What clinical practice techniques are used by the professionals when they see problem drinkers?

17. How does the presence of an in-patient alcohol rehabilitation center at a base affect the professional's attitudes and practices toward problem drinkers?

**Significance of Study**

Increased emphasis on accountability in the field of alcohol treatment intensifies the need for the highest quality of program planning and utilization of professional staff. By focusing on early identification and prevention within a systems perspective, it is felt that an organization can increase its responsiveness to its constituents and make maximum intervention in the area of alcohol-related problems. In order to maximize the utilization of medical personnel in the helping arenas, a look at the attitudes of those personnel toward the problem and towards persons with the problems is required.
It is believed by this author that exploring these significant subsystems within the hospital system can provide important data regarding the benefits or detriments of a systems approach. This can aid not only the Air Force, but also all alcohol treatment programs. Some of the issues regarding professional attitudes toward alcohol patients can have merit across military and civilian lines.

If front-line professionals are not providing optimum care for problem drinkers, then, as much of the literature states, the patients (clients) will suffer. Changing negative attitudes to more positive or more realistic (as Trice and Belasco say) can help increase the effectiveness of professionals. As Baekeland and Lundwall state, such a change can help remove some of the "stumbling blocks" or barriers to effective identification and treatment.

This study is especially significant to the field of Social Work because there appears to be a paucity of social work authors and/or researchers in alcohol-related literature. This is somewhat paradoxical when one considers how highly represented social workers are in clinical and administrative positions in the alcohol field.

The significance of earlier identification of Air Force alcohol problems can improve efforts in primary and secondary prevention. As already noted, the costs to society are enormous and occupational programs have generally proven to be effective and to lessen the personal, social, political, and economic costs.\textsuperscript{31-33}

The Air Force stands to benefit from increased information regarding its professionals and their knowledge and attitudes regarding alcoholism.
This area has not been researched very extensively in the Air Force in regards to professional attitudes and their effects on work with persons with alcohol problems. The only specific Air Force alcohol treatment study during the last five years, to this author's knowledge, focused on the treatment centers and involved more of a concentration on the descriptive traits of the patients and the nature of the treatment community, that is, the center itself. Although that study found that the staff members saw more clarity in the program than did the patients, it did not attempt to look at the personal attitudes of the staff toward alcoholics or problem drinkers. It did not involve attitudes of those individuals out in the field (medical and mental health clinics) who could be increasing their identification rates of persons with alcohol-related problems who may eventually be admitted to in-patient facilities.

Because of the structure of the military with its stratification by commands and reliance on use of the chain of command philosophy, the possible improvement in duty performance of individuals with alcohol problems can have ripple effects throughout the system. Therefore, many persons in a variety of positions may indirectly or directly benefit from improvements in the current alcohol treatment field.

The U.S. Navy has shown interest in this area (attitudes of front-line professionals) for at least the last eight years by sending physicians for a two-week training experience at the Long Beach Naval Alcohol Rehabilitation program. The premise was that
earlier identification of persons with alcohol problems could be increased by improving the knowledge base and the attitudes of medical professionals who interface with at-risk populations.

The Air Force has shown its support of this philosophy by sending the directors and deputy directors of its ten in-patient alcohol treatment programs through this Navy training program.

The results of this current study could have far reaching effects for the Air Force in regard to the possible need or lack of need for educational and awareness type programs for professionals in front-line positions.
Footnotes


5 Ibid., p. 162.


7 Kissin and Begleiter, *Treatment*, p. 163.


29Ibid., p. 12.

31 Ibid.


II. REVIEW OF LITERATURE

Introduction and Overview

In order to have an overview of how the subject of alcohol use and alcohol misuse is dealt with in the literature, the following approach will be used. First, an attempt will be made to set an historical backdrop upon which the remaining literature may be analyzed. The historical component, though not exhaustive, will provide a sense of the climate of the times, upon which to view other significant variables.

This discussion will provide analysis of drinking practices and attitudes in American society, including a look at alcohol use itself from both a problematic and non-problematic perspective. The topic of alcohol abuse as a social problem will then be explored including an overview of how cultural factors affect both consumption and alcohol problems.

Time will be taken to review some definitional problems regarding the concept of alcoholism and/or alcohol abuse. Some of the methods used for assessing the extent and character of alcoholism and alcohol abuse in a population will be summarized.
The importance of the involvement of professionals in the field of alcohol treatment and prevention with a special focus on health care practitioners such as physicians and social workers will be discussed. This analysis will then be expanded to explore some of the stumbling blocks facing professionals and to possibly explain some of the reasons for low identification rates of problem drinkers.

A discussion of the attitudes of professionals and the potential effects of these attitudes on behaviors provides further clarification regarding the dynamics at work here. Groups such as physicians, social workers, nurses, and medical, nursing, and pharmacy students are discussed specifically regarding the importance of their attitudes toward alcohol and alcohol problems.

After a comparative analysis of the previously mentioned groups, the implications for the future are dealt with by a discussion of the impact of a variety of training programs. This is further elaborated upon by a brief discussion of the subject of alcohol-specific curricula in professional education. An attempt will then be made to summarize the highlights of the literature review without purporting to tie all the loose ends together amidst the discussion of a topic which gains some of its clarification by an understanding of the many foci which authors have taken. Rather, the intent will be to note any common themes as well as any informational gaps in the literature.
Historical Background

Ancient Attitudes toward Alcohol (up until 1785)

Alcohol has been a focus of study from very early times. Anacharsis, a Greek author (638-559 B.C.), gave the following description, "The vine bears three kinds of grapes: the first of pleasure, the second of intoxication, and the third of disgust."¹

A further historical review of some of the philosophers and statesmen provides clues to early attitudes toward excessive use of alcohol. Seneca (Rome, 4 B.C. – A.D. 65) said, "Drunkenness is nothing but voluntary madness."²

In spite of a lengthy study of the substance of alcohol down through the years, a totally satisfactory approach has not emerged. With the exception of tobacco, alcohol is virtually alone among drugs in having such a history. This is supported by the fact that distillation is believed to have been discovered in A.D. 800, while in comparison, it was not until 1806 that morphine was extracted from crude opium.³

The previously mentioned quote by Seneca depicted drunkenness as a voluntary madness. Historically, one can trace the varied attitudes toward over-indulgence in alcohol in relation to their degree of voluntariness. Historians of ancient Egypt and the Greek and Roman Empires all noted that alcoholism was a prevalent problem. "From time immemorial, alcoholism was looked upon as a voluntary excessive indulgence in drinking various alcoholic beverages." Since all drinking of alcohol was considered a voluntary act which a person either chose to do or chose not to do, the concept of "treating"
people who (voluntarily) habitually drank to excess and thereby were ruining their lives was unthinkable. 

**Dr. Benjamin Rush and His View on Alcoholism (1785-1800)**

It was not until 1785 that individuals such as Dr. Benjamin Rush, a signer of the Declaration of Independence and a Surgeon General in the Continental Army, in his publication, *An Inquiry into the Effects of Ardent Spirits on the Body and Mind*, began to speak of alcoholism as a "disease." Throughout the years, this topic has received varied attention and the attitudes of the public have often been good indicators of the type of response provided by medical professionals.

**The 1800's and A Focus on Moderation**

In the 1800's various ethnic groups coming to the U.S. brought with them different attitudes toward alcohol consumption. The British, French and Dutch drank freely, but they were critical of excessive drinking, especially among the poor. The Irish, who came to the U.S. in the mid-19th century, used alcohol freely and a large proportion of them accepted drunkenness as a natural consequence. This will be expanded upon later in this paper.

Because of concern at this time about excessive drinking, legal attempts were made to solve problems related to alcohol. For example, in 1838 Massachusetts tried setting limits on alcohol sales. However, that did not work and the legislation was repealed. The
legal arena did not appear to be the place where these problems would be solved. A focus on the various cultural differences existing in the population provided more information regarding alcohol use patterns and problems.

The drinking pattern in many was influenced by the particular custom of the ethnic groups who migrated to the United States in 1848. The European groups brought with them their tradition of drinking beer and from 1848 to 1850 the percentage of distilled spirits consumed compared to the total consumption of alcohol went from 85% to approximately 45%.

The economic disadvantages of alcoholism were beginning to be seen in the cities where workers were showing less productivity. The 19th century employer is said to have often equated "temperance" to a virtue and excessive drinking to a moral offense.

The Early 1900's and Increased Emphasis on Abstinence

It is important to note that around 1915 the distinction to be made between moderate drinking and alcoholism was for the most part lost. This contrasts with the attitudes during the colonial days when alcohol, per se, was not construed to be an evil. By 1915, many of the churches supported abstinence. Anyone who took a drink was considered by many to be a "skid-row derelict." Many of our present misconceptions regarding alcoholics and inaccurate assignment of traits to those affected by alcoholism may have had its roots in this period.
Although it has already been mentioned that solutions to alcohol problems were not seen via the legal route, the Prohibition Movement intensified up to and through World War I and in 1919 the 18th Amendment was ratified which made prohibition (the act outlawing the manufacturing and sales of alcoholic beverages) a national policy. A more than surface view of the policies and attitudes of the prohibitionists reveals a very aggressive and at times hostile and deceptive movement which had many key actors who appeared to have hidden agendas, as opposed to a purely humanitarian attempt to help problem drinkers. The ambivalence regarding the whole issue of alcohol abuse is perhaps highlighted by the fact that in 1933 the 18th Amendment became the only constitutional amendment ever to be repealed.

After 1933 and the Repeal of the 18th Amendment

A review of the health insurance plans of the 1930's also showed the ambivalence toward alcohol and the strong emphasis on individual responsibility and a moral rather than medical explanation of the problem.

Alcoholics Anonymous. The mid 1930's did begin to see a shift in some of the public attitudes regarding the illness concept. The entry on the scene, June 10, 1935, of Alcoholics Anonymous (A.A.) as an emerging group had much to do with that. An important part of the A.A. approach is that normal censure or blame was not attached to remissions.

The success of A.A. itself is an interesting phenomenon to analyze. The organization refuses funding from outside of its membership. It personifies the spirit of individualism in a positive sense and appears
to allude to a modified form of collectivism. It assumes that all individuals have the right to help in the form of A.A. fellowship. It stresses that such help must be made available for people because many do not have the power or control over their environment to actively seek out such aid. This bears a strong similarity to the beliefs of the community mental health acts in that "individuals have rights to be maintained in their communities and not to be institutionalized if at all possible."\(^9\)

One should not lose sight that over the years A.A. has become a very significant interest group whose philosophy and approach are found in alcoholism treatment programs more than is any other single approach.

The success of A.A. is somewhat paradoxical. It is due, in my opinion, in part to its flexibility and its rigidity. It has been flexible enough to allow its members to work in a great variety of social agencies and hospitals and at the same time it has rigidly held to the principles which were developed in 1935.

**Alcohol Focus in the 1940's**

The A.A. community was not the only sector where alcohol was receiving increased attention. In 1943 at Yale University, Dr. E.M. Jellinek organized a summer school of alcohol studies for workers in the field of public health, social work, education, clergy and other concerned medical fields. His first lecture was "Alcohol as a Public Health Problem," and he explored alcoholism as a "disease."\(^{10}\)
In 1944 the National Council on Alcoholism grew out of the Yale seminars. This decade also saw the beginnings of alcohol treatment programs in the corporate arena. For example, General Electric Company and Eastman Kodak started experimenting with treatment programs for workers who had drinking problems. A.A. was often an adjunct to these treatment approaches. The scarcity of these programs was somewhat influenced by the ambivalence among most of the medical profession at this time in regard to formal policies and programs for problem drinkers.

Alcohol Focus in the 1950's

Much of this ambivalence continued into the 1950's. In 1956 the American Psychiatric Association told its members to begin to attack alcohol problems and to abandon "therapeutic pessimism." In 1957, the American Hospital Association (AHA) admitted that many hospitals did very little for alcoholics and in fact some hospitals had formal policies which rendered minimal or no treatment for such persons.

The interest in family therapy and systems theory was growing during this decade and along with this was the increased focus among the A.A. community that the other members of the family from which the problem drinker or alcoholic came also needed some help, education and support. Therefore, in 1957, Alanon and Alateen were formed. They were modeled after A.A. and were designed as self-help groups for the family members and significant others affected by the problem which
Alcohol Focus in the 1960's

The 1960's showed a continued interest in alcohol programs at a state and national level. In 1962 the Center of Alcohol Studies moved from Yale to Rutgers State University in New Jersey, where it continued with both federal and private funding.

The first major federal involvement with alcoholism as a medical and public health problem was the Highway Safety Act of 1966. The concept of public drunkenness as a crime was first challenged in the 1960's.

Some Supreme Court decisions in the 1960's, although not reversing original judgments, did at least recognize the "sickman" concept of alcoholism.

In 1967 a special program for prevention and rehabilitation of alcoholism was included in the Economic Opportunity Amendments. President Johnson's 1968 Message on Crime and Law Enforcement recommended the Alcoholic Rehabilitation Act. The Act became law in 1968 and it followed the White House recommendation that alcoholism be considered a major social problem, primarily to be handled by community services, and using both public and private agencies. 12

Alcohol Focus in the 1970's

1970 marks the date for the Comprehensive Alcohol Abuse and Alcohol Treatment and Rehabilitation Act, which authorized the creation of the
National Institute on Alcohol Abuse and Alcoholism (NIAAA) within the structure of the then Dept. of H.E.W.'s National Institute of Mental Health. In 1972, the National Clearinghouse for Alcohol Information was organized as part of the Office of Public Affairs in Rockville, MD. This along with other developments of this decade showed a thrust toward national recognition of and involvement with alcohol as a public health problem.

This shift was also seen in the medical community. In 1972 the American Medical Association encouraged breaking the "conspiracy of silence" regarding doctors and hospital professionals with alcohol problems.

Throughout the 1970's there was a similar thrust in the military, including the U.S. Air Force. This was exemplified by the March 1972 Department of Defense (D.O.D.) directive which stated that the armed services had responsibility for counseling personnel on drug abuse, protecting them from it, preventing and deterring alcohol abuse, and attempting to restore to duty and otherwise rehabilitate members who abused alcohol or were alcoholics.

Throughout the 1970's, alcohol interest remained a central focus both in the civilian and military communities. On the civilian side, this was exemplified by Title XVI of the 1973 Amendments to the Social Security Act which stated that SSI benefits are to be available to alcoholics in treatment as disabled persons. April of 1973 marked the distribution of the one millionth book of Alcoholics Anonymous, and 1975 marked the 40th Anniversary and the International Convention of
A.A. in Denver, Colorado with over 19,000 persons in attendance.15

On the military side, the focus on alcoholism treatment and prevention continued to receive increased attention. 1976 marked the beginning of a consolidated reporting procedure for retaining data about patients in Air Force alcohol treatment centers.16 In 1977, the Rand Corporation released its report, previously mentioned in Chapter I of this paper, which showed the cost-effectiveness of Air Force alcohol treatment programs.

Consequently, a reemphasis on alcohol abuse programs occurred in the Air Force and in July 1978 the Deputy Secretary of Defense issued a new 12 point program.

Alcohol Focus in the 1980's

The 1980's began with the shift from public to private support for alcohol programs. The Alcoholism Services Development Program was implemented in 1980. Its purpose was to demonstrate that systematic planning by state and local governments, communities, services providers, and consumers could be more efficient than heavy reliance on the federal government.17

As of 1981, approximately 85% of the 70 Blue Cross plans nationwide recognized alcoholism as a "covered condition" and provided benefits generally comparable with benefits for other covered conditions.18

The early 1980's have thus focused on factors such as increased attention on drunken drivers and industrial treatment programs, although financial cutbacks have reduced activity at the federal level. Today
we see many large corporations such as General Motors, Firestone Tire and Rubber, Republic Steel and others using alcohol treatment programs to help their employees return to productive employment status.

American Drinking Practices

The ambivalence about drinking in general is addressed by Kilty's discussion of situational context and the meaning of drinking. He stated that it may appear that most drinking in America is either a matter of indifference (or ambiguity) or proscription. However, there is a good deal of prescription related to drinking. Kilty states that often conventional models of alcohol use are limited in terms of application. He further states that drinking "is a complex phenomenon that carries a variety of meanings for any given individual."\(^19\)

The meaning of drinking is contingent not only on the situational context but also on the social characteristics of the perceiver. Therefore, although the situational context must be studied, the drinker or drinker's characteristics are also important.

Just as studies of normal or non-problematic drinking should concern themselves with situational context, likewise, studies of problematic drinking must also take place within some sort of context. Kilty says, "variables such as type of situation or presence of others are likely to have an impact on the meaning of pathological drinking and on the definition of individuals as alcoholics and problem drinkers."\(^20\)
Before more specifically considering why alcohol abuse may be a social problem, it is now appropriate to discuss general drinking practices and attitudes in American society.

There is general agreement in the literature that approximately 2/3 of the American adult population consume alcohol in varying degrees. However, even the highest estimates of alcohol problems in this country do not approach that percentage. Therefore, why are there not more persons with alcohol problems? What types of drinking practices are engaged in by those persons who do not encounter difficulty with their alcohol use?

Kilty points out that in our society drinking behavior which does not appear to lead to any problematic situations is often ignored in the literature. The fact that approximately 7 out of 10 adults consume alcohol does not mean that those persons are doomed to problematic results. In fact the consumption of alcohol does not seriously affect most of these drinkers either in a positive or negative way.

The fact that non-problematic drinking practices are often neglected as a topic is supported by a review of the very recent and exceptionally well-written 1982 book, *The Clinical Management of Alcoholism* by Sheldon Zimberg. This may either reflect an abstinence-oriented bias on the part of Zimberg or a presumption that readers have adequate knowledge regarding the broader context of non-problematic drinking. Zimberg's book is mentioned here not because it is an exception, but rather because it is probably one of the most thorough and comprehensive contemporary texts regarding clinical work and
alcoholism and yet still has this shortcoming to which Kilty was alluding.

"American drinking practices appear dynamic rather than static." 23

The 4th Report to U.S. Congress on Alcohol and Health (Jan 1981) states that a history of drinking practices in the U.S. reveals shifts in types of beverages consumed, increases and decreases in volume of consumption and population differences over times. This was addressed earlier in this paper.

By 1978, apparent consumption of ethanol in the U.S. had risen to more than 2.7 gallons per year of ethanol per person 14 years of age and older. With approximately one-third of the adult population abstaining from alcohol use, another one-third reports light drinking and one-third reports either moderate or heavier drinking.

In the heavier drinking category, males represent 14% compared to 4% for females. The abstainers consist of 25% of males and 40% of females.

The higher rates of heavy drinkers appear at age 21-34 for males and 35-49 for females and the rates then tend to decline in that category for both sexes.

"Hispanic groups of both sexes, but especially males, reported relatively high rates of heavier drinking." 24

Blacks, both males and females, reported relatively high rates of abstention. However, among black adults who drink, the proportions of self-reported heavier drinkers are similar to those for most other groups. 25
Based on the overall measures of drinking problems and available recent survey data, approximately 10% of adult American drinkers are likely to experience alcoholism or problem drinking at some point in their lives.\(^{26}\)

However, drinking practices and consumption rates can often be misunderstood. For example, in the U.S. "apparent consumption now averages about 1 ounce of ethanol (approximately two drinks) each day for each person 14 years of age and older. However, since about 1/3 of the U.S. over 18 population abstains from alcohol, the average daily consumption for those who do drink is about 1.5 ounces of ethanol. In addition to that, a small proportion of adults drink far more than the average, while the majority of adults drink less. It is estimated that more than 16 million adults 18 years and older (about 11% of the adult population) consume about ⅙ of all beverages sold.\(^{27}\)

As the 4th Special Report indicates "while the majority of American drinkers appear to consume alcoholic beverages without problems, a substantial minority do experience difficulties."\(^{28}\) It is these "difficulties" which help further explain why alcohol abuse may be studied as a social problem. When considering this possibility, it is good to keep in mind the following definition used by Horton and Leslie (1970) to explain social problem as a "condition affecting a significant number of people in ways considered undesirable, about which it is felt something can be done through collective social action."\(^{29}\)
Alcoholism - A Social Problem

Kissin and Begleiter in *Treatment and Rehabilitation of the Chronic Alcoholic*, (1979) indicate the pervasiveness of alcoholism as a social problem.30

Patricia Roberts Harris, Secretary of Health and Human Services stated in January 1981, "Alcoholism and problem drinking are among the most serious public health problems in the country today."31

The 4th Special Report to the U.S. Congress on *Alcohol & Health* describes in detail what Harris is addressing. This includes the economic, physical, social, and psychological impact involved. "...considering all measures of drinking problems and available recent survey data, approximately 10% of American drinkers are likely to experience either alcoholism or problem drinking at some point in their lives."32

The 4th Report also states that societal attitudes have been the most formidable barrier to successful intervention. Even though the number of alcohol treatment programs has greatly increased in the last 30 years, it is estimated that 85% of alcoholics and problem drinkers are not receiving formal treatment services.

The following table attempts to summarize some of the findings from the 4th Special Report regarding significant events and/or population groups and their relationships to alcohol.33
<table>
<thead>
<tr>
<th>Event or Population Group</th>
<th>Relationship to Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide</td>
<td>Risk of suicide to alcoholics may be as much as 30 times greater than the risk of suicide for the general population.</td>
</tr>
<tr>
<td>Deaths of Native Americans</td>
<td>Highest prevalence of drinking problems.</td>
</tr>
<tr>
<td>Deaths of Native Americans</td>
<td>5 of the 10 major causes of death are alcohol related.</td>
</tr>
<tr>
<td>Employed Women</td>
<td>Higher rate of alcoholism than unemployed women.</td>
</tr>
<tr>
<td>Employed Married Women</td>
<td>Significantly higher rates of problem drinking and heavier drinking than either single working women or housewives.</td>
</tr>
<tr>
<td>Women living with a heavy drinker</td>
<td>Risk for alcohol-related problems is increased.</td>
</tr>
<tr>
<td>Women with alcohol problem</td>
<td>High risk of abusing other drugs. About 1/3 of recovering alcoholic women had abused prescription drugs.</td>
</tr>
<tr>
<td>All fatal traffic accidents</td>
<td>35-64% of drivers in fatal accidents had been drinking alcohol prior to the accident.</td>
</tr>
<tr>
<td>All fatal traffic accidents</td>
<td>45-60% of all fatal crashes involve a young driver.</td>
</tr>
<tr>
<td>Falling Accidents</td>
<td>As many as 50% of those who died in falling accidents had been drinking alcohol.</td>
</tr>
<tr>
<td>Adult fire deaths</td>
<td>Approximately 50% of adult fire deaths involve alcohol.</td>
</tr>
<tr>
<td>Adult fire deaths</td>
<td>Alcoholics were 10 times more likely to die in fires compared with the general population.</td>
</tr>
<tr>
<td>Drownings</td>
<td>50 to 68% of drowning victims had been drinking prior to the drowning.</td>
</tr>
<tr>
<td>Suicide</td>
<td>Between 15 to 64% had been drinking alcohol at the time of the event.</td>
</tr>
</tbody>
</table>
Although some of the previously mentioned statistics may appear quite ominous, there is still much unknown regarding alcohol and alcohol misuse. As Kilty says, "the current state of our knowledge about alcohol is quite primitive." 34

A study of the current state of research must consider the attitude and values of social scientists which have had a profound impact on conceptions of drinking, pathological or otherwise. Kilty points out that "the notion that alcohol possesses any biochemically addictive properties has yet to be resolved, since at least 90% of drinkers do not become "addicted." Much is lacking in the literature regarding the influence of the cultural forces on drinking behavior. It becomes more informative to stop believing that one or two drinking styles apply to particular cultures and to begin investigating the wide variety of style of drinking and types of drinkers that exist in our own cultures. 35

Influence of Cultural Factors on Drinking and Drinking Problems

In order to further understand the concept of alcoholism as a social problem in our society, it is helpful to look at how cultural factors, racial and ethnic group status, sex, sex-role orientation and familial influences affect alcohol problems in American society. Throughout the following discussion, one should attempt to keep in mind the historical influences which have been previously mentioned.
Racial Factors

In order to have a more thorough view of how alcohol affects a specific group, all relevant factors including race, ethnic origin, religion, etc. should be taken into consideration. An example of how certain cultural factors affect a racial group can be seen by looking at alcohol problems among Black Americans.

The review of the literature finds a striking paucity of information regarding drinking patterns and alcohol misuse among Black Americans. There are some general trends which are seen as a result of national surveys such as the contention that blacks of both sexes reported relatively high rates of abstention. However, among black adults who drink, the proportions of self-reported heavier drinkers are similar to those for most other groups.

These results are in agreement with earlier studies (Cahalan and Room 1974). However, there is some difference of opinion in the literature regarding this. For example, Goodwin (1976) states that "in whatever settings have been studied, the general hospital, the psychiatric clinic, the state mental hospital, the rates for blacks are five times as high as those for whites. Problem drinking associated with disorder, violence, automobile accidents, and crime, has also been consistently higher for blacks than for whites." 36

Goodwin states that the onset of alcoholism is much earlier among blacks than among whites, and the ratio of female alcoholics to male alcoholics is higher. He also stresses the lack of socioeconomic alternatives for blacks as playing a major contributing role in their
problem with alcohol. Goodwin states that there are differences in patterns of drinking and alcohol-related problems between upper and lower-class black males and generalizability from these should be cautioned.

Goodwin said, "Considering the social and economic conditions in which blacks in America live today, it is almost redundant to look for the causes of excessive drinking and alcoholism." Goodwin's discussion should not be seen as the answer to the problem of alcohol abuse and Black Americans. It is a highly complex problem and not every black who experiences what Dr. Goodwin talks about develops an alcohol problem.

Jerome Carroll et al. explore the personality similarities and differences in four diagnostic groups of women alcoholics and drug addicts. One of the findings which is relevant to our present discussion of Blacks suggested that black alcoholics and addicts were generally more fearful, vigilant, self-protective, argumentative and had a greater need for structure and control than were the white alcoholics and addicts. The whites tended to show more affiliation, and tended to be more uninhibited, spontaneous and aware of their feelings. These results can have relevance for policy, planning, and program implementation and knowledge of them may help program planners to reduce dropouts from inappropriately designed programs.
Ethnic Factors

In addition to the fact that certain alcohol-related variables may differ among various racial groups, other variables need to be considered in regard to ethnic differences. An attempt will be made to briefly touch upon some of the ethnic groups as examples of these variations.

**Italian Americans.** Dr. Giorgio Lolli stated that the majority of Italian-Americans drink "beer, whiskey and apertifs as well as wine." Contrary to the stereotypic image, they do not drink mainly with their meals. They drink socially "for the effect" at times. An occasional drunkenness is accepted with tolerance, although it is not condoned. Thus the existing culture does greatly affect the style of drinking, the consumption level, and the rate of the problem. Lolli discussed the progression in drinking for Italians in Italy who drink wine almost exclusively with their meals for "health and custom" up through first, second and third generation Italian-Americans, who drink less wine, more distilled spirits and report a higher frequency of intoxication. This points out the importance of the generation of the respondent in any studies of ethnic differences and alcohol practices.

**Jewish Americans.** Here again the generation of the respondent must be taken into consideration. The literature typically portrays Jews as drinking alcohol regularly but not producing many alcoholics. While it is true that the older generation confine much of their drinking to the home to religious rituals and to celebrations, the members of the younger generation of middle-class Jews drink like other middle-class Americans at a variety of social and business settings. It
appears that excessive drinking seems inversely related to the degree of adherence to Orthodox practice. Dr. Charles R. Snyder, who has written extensively regarding the influences of cultural factors on drinking, stated, "Where drinking is integrated with the process of socialization and the central social symbolism and rites of the groups, norms of sobriety can be sustained and pathologies are rare." 40

Another view regarding why Jewish Americans tend to have lower alcoholism rates is that by Dr. Gilman Ostrander, who proposes that alcoholism is basically a disease of individualism and therefore Jews and Japanese have lower alcoholism rates because their children are not expected to be independent. They are raised to be so dependent upon others in the family that they are unable to think of themselves as isolated individuals. 41 It is again evident that this view supports the contention that the rates of alcohol problems among Jews are often directly correlated with their degree of acceptance of their cultural standards and practices.

Irish Americans. Ostrander states that his previously mentioned theory regarding alcoholism as a disease of individualism is further supported by an analysis of Irish Americans. He sees them as being raised as children to be responsible for their own conduct. He sees them with less support or dependence and more of a push toward independence. 42

The Irish represent an ethnic group in the U.S. which contrasts the Jews, Italians, Chinese, and Japanesees by exhibiting a great deal of drinking, frequent drunkenness, and a high rate of alcoholism.
Goodwin states that heavy drinking among the Irish dates back at least to the 18th century or further. In fact, young men were often advised to "drink it off" in reference to emotional problems, and men who abstained from alcohol use were sometimes questioned regarding their sexuality.

The following quote from Goodwin summarizes the thrust of most of the literature regarding Irish Americans.

The influence of dependency conflict, the use of drinking as a way of asserting masculinity, the prevalence of drinking as a social custom, and the preferred use of drinking as a way of dealing with one's problems may all be presumed to contribute to the high rate of alcoholism among the Irish in America.43

American Indians or Native Americans. Another group which can be considered from a racial or an ethnic perspective is that of American Indians. Many myths have existed and have been perpetuated regarding the drinking practices of American Indians. Dr. Joy Leland did an extensive literature review regarding the firewater myth (belief that the American Indian was constitutionally prone to an inordinate craving for alcohol and prone to go wildly out of control when drinking) and she concluded that the belief was indeed a myth. With some variations, the American Indian responds to alcohol very much like other Americans in that if the tribal customs stress constraint and control, reaction to alcohol tends to be subdued and where such customs do not exist, reaction to alcohol tends to be unrestrained.44

Dr. Edward Dozier states that as a result of considerable intermarriage with non-Indian partners, the American Indian can no longer be considered a pure biological group and roots of problem drinking must be
looked for in historical, social and cultural circumstances.\textsuperscript{45}

This analysis of drinking practices among American Indians points out a general consensus among the authors that the context of the situation including the specifics of the local customs, practices, and socio-economic conditions are the keys to understanding alcohol styles of drinking, consumption levels and rates of problems in regards to American Indians. One can find historical accounts of Indians such as the Hopi and Zuni in Western New Mexico who did experience ritually with alcohol prior to the Spaniards introducing liquor. These Indians primarily continued to use alcohol only for ritual purposes and they disliked the effects of the overuse of alcohol.\textsuperscript{46}

The Special Report to the U.S. Congress on Alcohol and Health (1978) basically agreed with the previous discussion regarding the lack of a biological predisposition among American Indians toward alcoholism. This report noted that various successful programs had included the use of Indian paraprofessionals, recovering alcoholic Indians, and the use of Alcoholics Anonymous in an "Indianized" form.\textsuperscript{47}

This review of cultural influences among various racial and ethnic groups could be extended to include an analysis of Chinese Americans, Japanese Americans, Hispanics and others. However, the scope of this paper does not allow that. The purpose of discussing Black Americans, Italian Americans, Jewish Americans, Irish Americans and American Indians was to help clarify some of the unfounded assumptions and myths that have been maintained and to highlight that within any racial or ethnic group there is a variety of individuals and individual reactions, and
the reader, although gaining from certain verifiable generalizations, must be cognizant of the effect of individual personalities and contextual situations in dealing with the problem of alcohol.

**Gender Influences**

An exhaustive review will not be accomplished regarding the differences of male to female in prevalence of alcohol use and alcohol misuse. However, an attempt will be made to at least introduce this topic and stress why it is a significant one, especially in regard to future preventive and treatment recommendations.

The 1979 National Survey (referenced earlier) revealed self-reported consumption in the heavier drinking category to show males at 14% and females at 4%. While 40% of females reported abstaining from alcohol, 25% of males reported abstaining. Heavier drinking appeared to peak at age 21-34 for males (19%) and at age 35-49 for females (8%) and to decline after that for both sexes.48

One of the main findings in the literature is the discovery that the percentage of males to females in regards to alcohol problems has decreased, thus indicating that more females are being acknowledged as having alcohol problems.

One concept which deserves attention here concerns the implications of sex-differences in prevalence of alcoholism for familial transmission. Cloninger et al. (1978) looked at this topic and concluded that the differences in prevalence between male and female alcoholics are due to non-familial factors. The male and female alcoholics differ with
respect to non-familial environmental (sociocultural) influences but not familial factors. Thus epidemiologists, geneticists and others should be cautious in speculating about causes of such sex differences.\(^{49}\)

Cloninger's prevalence statistics for alcoholism (11.4% in men vs. 2.9% in women) are very similar to the previously mentioned statistics of the 1979 survey. Cloninger et al. further state that the finding that male and female alcoholics have equal numbers of alcoholic relatives indicates that the prevalence differences are due to non-familial factors, that is, factors outside of the home and the family. These authors strongly support belief in multifactorial etiology of alcoholism.\(^{50}\)

**Sex-Role Orientation**

This area can be further amplified by studying the aspect of sex-role orientation and its possible relationship to alcoholism or alcohol misuse. A fair amount of literature in the past (Lisansky 1957, Mogar, Wilson and Helm 1970, and Wilsnack, 1973) stated that sex-role conflict was an important factor in the etiology of alcoholism in women. Beckman challenged this in her 1978 article. Her research which employed quantitative and qualitative procedures revealed very little evidence for greater existence of sex-role conflict between unconscious masculinity and conscious feminity among alcoholic women than among non-alcoholic women. Less than \(\frac{1}{4}\) of the total alcoholic sample evidenced this pattern of conflict. Alcoholic women showed female role-relevant preferences similar to those of the non-alcoholic control women. In this study
androgynty is viewed as a healthy mix of male and female traits. One
should be aware that this study was limited to a white population age 20-
59.51

These findings are further supported by the work of Anderson. She
compared 30 women alcoholics with their non-alcoholic biological sisters
on several measures of sex-role identity. Although this was a small
sample, its findings do contribute to this body of literature.
Anderson's results indicated no significant differences between the
alcoholics and their sister controls on any of the sex-role measures
used. The conclusions reached were that an unconscious masculine iden-
tification was neither a necessary nor sufficient condition of alcoholism
in women and the results of the various studies indicate that
while it is possible that alcoholic women may have experienced more con-
ict about their masculine identification, the question awaits further
study.52

Davis wrote regarding sex-role orientation and psychological dis-
tress among alcoholics. Complex quantitative methods were used to analyze
the findings and the results indicated that the proportion of alcoholics'
scores on various measures did not differ significantly from the norma-
tive data.53 The findings here (1979) tend to basically agree with the
previous studies mentioned.

As the reader can see by now, the current literature suggests that
sex-role conflict does not appear to play the strong role in alcoholism,
especially as addressed in regards to women, as had been believed in the
past. All of the authors reviewed still support an awareness of this
aspect as it interacts with the many other relevant variables.

**Familial Influences**

The framework of analysis presented in this paper does not infer that these areas of exploration are discrete entities existing in isolation. It is already evident that the discussion overlaps at points and a review of some of the familial influences is no exception. The importance of some of the previously mentioned cultural and sex differences certainly will come into play in this area. However, the intent again is to see whether any accurate generalizations can be made and can any myths be challenged.

Perhaps, before starting this segment analysis it is necessary to reflect on some etiological aspects. Donald Goodwin is a strong supporter of the importance of heredity in producing a predisposition toward alcoholism. His review of and work with adoption studies concluded that 18% of adoptees with an alcoholic biological parent were "alcoholic" compared to 5% of adoptees with no known alcoholism in their biological parents. The only other significant variable seen was that those with alcoholic biological parents were three times more likely to be divorced than controls. This study has been challenged by other researchers because of the small sample size but it doesn't discredit it as a conscientious attempt to analyze this problem.  

J. J. Conley explored the family configuration as an etiological factor in alcoholism. Retrospective reports by the alcoholics indicate that the socialization of only children and last-borns from large
sibships is more permissive than of other children. Conley said that this may induce personality traits of dependence and impulsivity and thereby increase susceptibility to alcoholism. (However, the reader—may recall that Dr. Ostrander, previously mentioned, may question this analysis.)

Conley concluded that there was no overall excess of last borns in the alcoholic population, but there was an overrepresentation of only children and lastborn from large sibships. This is significant because it challenges some previous research.

Nancy Cotton reviewed over 39 studies on families of 6,251 alcoholics and 4,083 non-alcoholics. The findings revealed that the rates of alcoholism are substantially higher in relatives of alcoholics than in relatives of non-alcoholics, even when the non-alcoholics are psychiatric patients. This study is important in that at least several different comparisons are made. The author readily admits that these findings, although significant, do not answer the etiological question regarding nature vs. nurture. Cotton also states that this does not answer the question why a large percentage of alcoholics don't come from families with one or both parents who were alcoholics. (47% to 82%)  

A major contribution toward prevention efforts is made here in that Cotton recommends that future studies differentiate between alcoholics with and those without family histories of alcoholism. This should aid in the identification of children at high risk. There are numerous
implications here for practitioners and policy-makers in the field of alcoholism.

Joan McCord (1972) explored the etiological factors of alcoholism with regard to family and personal characteristics. Part of this was to determine if there was an "alcohol-prone personality." The personal and family histories of alcoholics were compared with non-alcoholics and with non-alcoholic criminals. The results indicated that alcoholism may result from a challenge to poor self-esteem. Alcoholics from broken homes differed from those reared in intact families in that they showed increased incest or illegitimacy, maternal employment, paternal deviance, maternal promiscuity, and mutual parental role dissatisfaction. The author stressed that alcoholic "breakdowns" may be a result of a challenge to an already poorly constructed sense of self-esteem.57 One of the significant contributions here is that it is an intensive look at differences within an alcoholic framework, that is, looking at alcoholics from intact and "broken" family backgrounds. The preciseness of this study should be a challenge to other researchers who are looking only at differences between alcoholics and non-alcoholics.

The importance of the family members to the individual with alcohol problems is frequently mentioned in research and clinically oriented literature. Not only is this influence important to the alcoholic prior to and during but also after he/she has undergone treatment. This topic is discussed by Cronkite and Moos (1980). The family environment is one of the three posttreatment factors which are analyzed as being
significant in predicting posttreatment outcome.\textsuperscript{58}

Moos et al. (1979) explored family characteristics and the outcome of treatment for alcoholism in greater detail in another article and found that families in which the alcoholic patient showed better treatment outcome were higher than the others in cohesion, active-recreational orientation and organization, and lower in conflict and control; they also experienced more positive and fewer negative life events, and reported fewer physical and emotional symptoms and disagreements.\textsuperscript{59}

The significance of the previously mentioned literature regarding familial influences becomes even more noteworthy when approaching alcohol problems from a systems perspective which emphasizes the importance of all individuals who are impacted upon by the problem drinker or alcoholic.

A review of the influence of cultural factors on drinking and drinking problems leads one to move on to just how this topic of alcohol problems/abuse/misuse/alcoholism is defined, especially since the definition has direct effect on the prevention and treatment efforts in the field.

Definitional Problems

As mentioned earlier, a great deal of the direction that alcohol programs (both treatment and prevention) take depends upon the definition applied to the extremely complex problem. It is necessary here to
make a statement regarding some of the terms that will be used throughout this paper. Alcohol will be used to refer to any beverage which contains any amount of ethyl-alcohol in it, whether the beverage be beer, wine or distilled spirits. There will be no attempt to come up with a catch-all definition for alcoholism or alcohol abuse. In fact, in my opinion, the "need" by certain authors to "produce" a single definition in the past has probably helped to cloud the research regarding alcohol-related problems and to contribute to the lack of specificity in this topic area. The reader should look at the context of the discussion to define the extent of the alcohol-related problems. If one feels more comfortable with equating alcoholism with a physical dependency on alcohol, and alcohol abuse as the experiencing of adverse effects of alcohol consumption, that is one option that is subscribed to by many in the field. However, there are others in the field that would challenge the aspect of any physical dependency at all. Therefore, the reader would be far better off from the perspective of an objective reviewer to look at most of the types of alcohol problems from a measurable physiological and behavioristic viewpoint. It is well known to researchers of alcohol-related problems that a pattern of drinking which may be injurious (physiologically, emotionally, socially, or economically) to one individual may not be injurious to another.

The historical review of this paper noted how definitional problems were affected by attitudinal changes. Therefore, in an attempt to present some further discussion regarding varying definitions, some of
the more striking examples of differences will be noted. This will, by no means, be a complete discussion, because that in itself could be the object of attention for an entire research paper. Instead, this paper will take a very pragmatic or applied approach, in that the definitional discussion will help set the stage for a better understanding of research, policy, or program topics that may be addressed later in regard to epidemiology and/or etiology.

The American Medical Association. The American Medical Association in 1971 adopted a statement identifying alcoholism as "a complex disease with biological, psychological and sociological components." The discussion then goes on to say that like other conditions, it follows a more or less specific sequence. The susceptible individual is exposed to the causative agent and the early stages of the process begin. When certain self-perpetuating mechanisms develop as a "consequence" of the condition, the syndrome is furthered. The characteristics of the alcoholic change from a status of "susceptibility to alcoholism" to one of alcoholism itself. This may be better understood by reference to Kissin and Begleiter, who use a chart to depict this. They draw mainly from the theoretical formulation of M.H. Seavers (1968) in the psycho-pharmacologic area and of E. M. Jellinek (1960) in his work on the disease concept of alcoholism. Essentially it states that the etiologic origins of alcoholism may be biological, psychological or social.

Alcoholics Anonymous. Although alcoholism has been increasingly accepted as an illness or a disease, this change in conceptualization has been accompanied by rather perplexing developments that have
far-reaching implications for the recovering alcoholic and his/her family members. For example, by accepting a disease concept, there is a tendency to focus on the negatives or contributing etiological factors. The philosophy of Alcoholics Anonymous (a total-abstinence oriented approach) has enjoyed more popular support than any other single philosophy seen in treatment settings. Inherent in this philosophy is the idea that a person cannot drink one drink of alcohol without it taking over and resulting in the person's willpower being rendered useless. The philosophy of Alanon often stresses that the family members of the alcoholic have become just as "sick" as the alcoholic. Although the goals of both A.A. and Alanon are directed toward serenity, peace of mind, and physiological, psychological, social and spiritual stability, it is hard for one to ignore the rather fatalistic features of the spirit of the programs.

Recognizing the above influences of existing philosophies, it may be incumbent upon therapists in the field of alcoholism treatment to complement the negative (although perhaps important and necessary) aspects of treatment with some positive focus.

Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition, (DSM III). A commonly used basis for definition of alcohol problems is derived from the use of the DSM III. It offers the latest guidelines regarding assessing and diagnosing cases of alcoholism and alcohol-related problems. The classification of alcohol abuse and alcohol dependence is included in the section entitled Substance Use Disorders: 305.0x Alcohol Abuse and 303.9x Alcohol Dependence. The
essential feature of Alcohol Abuse is a pattern of pathological use for at least a month that causes impairment in social or occupational functioning.

The essential features of Alcohol Dependence are either a pattern of pathological use or impairment in social or occupational functioning due to alcohol and either tolerance or withdrawal. DSM III then states that Alcohol Dependence "has also been called Alcoholism."61

According to DSM III, Alcohol Dependence is equated with alcoholism but alcoholism is not equated with alcohol abuse, even though certain characteristics delineated as applying to alcohol abuse (such as blackouts and others) are often associated in the literature with alcoholism. This seems to reflect a tendency away from DSM II which listed some of the criteria found under alcohol abuse (DSM III) as under Alcoholism, Episodic Excessive Drinking.

Harry Milt and the Psychological Perspective. Harry Milt (1976) talked of alcoholism as a dependence on alcohol, primarily psychological, as a result of which the affected individual drinks compulsively to intoxication and does so repetitively and chronically.

That small portion of drinkers who become alcoholics are those who are "alcohol-prone," not by virtue of a physiological defect or vulnerability specifically related to the physiological action of alcohol on the body, but rather by a predisposition to the psychological effects of alcohol on the mind and emotions. Milt subscribes to the belief in the existence of primary or essential alcoholics where alcoholism starts early, develops quickly, becomes very severe, and is not
very amenable to treatment and reactive or secondary alcoholics where alcoholism develops more slowly, and, except at the very late stages, less intensely and deeply, and where alcoholics are likely to come to treatment soon after they have become addicted. This latter group is more likely to respond well because of still available emotional resources.\textsuperscript{62}

Milt's definition will especially be well received by those readers who do not totally accept the disease concept of alcoholism with its "inevitable progression" and with abstinence from alcohol as the only viable goal for alcoholics. Milt admits to his strong psychological bias and he challenges concepts such as "biological predisposition" and a "loss of control" craving. He attributes part of the problem to the "labeling" effects of alcoholism. He accepts the use of the term disease, if it is viewed as the uncontrollable drinking itself and not as inborn physical vulnerability. In this way he states a "cure" is possible when some alcoholics return to normal social drinking or when other alcoholics abstain entirely.\textsuperscript{63} For further discussion on the "controlled drinking" possibility, refer to articles by Mark and Linda Sobell, Stanton Peele, and Mary Pendery.

Mark Keller and a Modified Illness Approach. Another definition which is more similar to the one offered by the AMA (1971) is that of Mark Keller, who defined alcoholism as a "chronic behavioral disorder manifested by repeated drinking of alcoholic beverages in excess of the dietary and social uses of the community and to an extent that interferes with the drinker's health or his social or economic functioning."
Keller states the condition is an "illness" because the alcoholic would stop such self-injurious behavior if he could, or if it were not intensely needed for the alleviation of some underlying discomfort which is less tolerable than the harms from over-drinking. Keller admits that his definition doesn't distinguish whether alcoholism is a disease or the symptom of an underlying personality disorder. His work implies that one addicted to alcohol is an alcoholic. His later writings (1975) are much more specific and he talks of the portion of heavy drinkers who progress into the alcoholism range. He also has become a strong proponent of population surveys which are longitudinal and, at least, partially focus on process.

Edith Gomberg in her research supports the use of Keller's definition because it is helpful in epidemiological research and it avoids problems posed by terms like "loss of control", "addictive drinking", and "psychological dependence."  

**Diagnosis Related to Onset.** Sheldon Zimberg provides a three category system for defining alcoholism among the elderly. He speaks of: (1) late onset (where the problematic drinking occurs during old age); (2) late onset exacerbation (where the individual had intermittent problems before old age but the problems became more persistent and more serious in old age); and (3) early onset (where there was a long history and continued problems with alcohol). Although Zimberg is talking of a specific age bracket, his views regarding a lack of information in the literature regarding the overall functioning of alcoholics apply to all age groupings. Many studies tend to lack an approach which adequately
describes an individual's functioning prior to the development of alcoholism or adequately provides a follow-up of his/her bio-psychosocial functioning after treatment.

Many research studies define alcoholics as those who are seen in alcohol treatment centers. It is understood that usually this reflects individuals who have experienced problems with alcohol for a number of years and this diagnosis-based definition can be further substantiated by a review of police, medical, and/or occupational records in addition to collateral information from relatives or close friends. The reliability of some of these means of obtaining information will be addressed later in this paper.

A Call For Increased Specificity in Definitions. Griffith Edwards "loosely" defined alcoholism as referring to any type of drinking that gives rise to social, physical, or mental impairment and the label does not necessarily equate with physical or psychological dependence on alcohol. His concern for increased specificity in definition referred more to the care taken in comparing or contrasting studies or surveys. He seems to be calling for more accurate matching of definitions when comparing research findings or procedures. This seemingly obvious point is often totally ignored.

A review of the literature discussing the possible relationship between child abuse and alcoholism revealed that no consistency was found in definitions used. In fact, at times "intoxication" was used interchangeably with alcoholism and at other times even less precise criteria were used to define alcoholism.
Other Attempts At Redefining Alcoholism. Donald Goodwin raised many questions of definition and etiology in his chapters on Nature and Nurture and alcoholism. Although he stopped short of making clearly definitive statements, he did present a strong case for "genetic predisposition" being probable for a certain number of alcoholics. Adoption studies were used to support his discussion.

Kissin and Begleiter also tend to reflect an approach that is more in keeping with the 1971 A.M.A. definition. They support the idea of a multivariant model of alcoholism treatment which recognizes the significances of the biological, sociological and psychological aspects of alcoholism.

The conceptual approach employed by the Rand Corporation in their 1979 study of alcohol problems in the U.S. Air Force is an example of one which lends itself to empirical testing. It also avoids the problems of identifying a particular clinical syndrome and instead it isolated and identified groups of people who were "seriously affected by alcohol to the extent that official intervention may be appropriate." The two types of alcohol problems addressed were: Alcohol Dependence - a chronic behavioral pattern indicating that the individual consumes high amounts of alcohol and relies on alcohol in everyday functioning; and Adverse Effects of Alcohol - any type of serious consequence of drinking not reflected under alcohol dependence if it results in concrete and serious damage or disruption to the individual's life or to the Air Force.

George Jacobson approaches the topic of definition in a somewhat similar vein in that he is not looking for one specific clinical syndrome.
He states adequate scientific data exists to support the ideas that not all so-called alcoholics experience blackouts, lose control of their drinking, change jobs frequently, undergo delirium tremens, drink in the morning, get in trouble with the law, or have in common any other symptom(s) beside drinking "too much" or "too often." He states there are other equally adequate scientific data to support the ideas that some so-called alcoholics can resume responsible controlled drinking, do respond to behavior modification treatment, do not respond to traditional group psychotherapies of A.A., do experience spontaneous remission of their symptoms, and otherwise respond in different ways to different treatment, or in some cases no treatment. Jacobson then concludes his discussion by saying what exists are "alcoholisms."69

The review of the literature regarding etiology of alcoholism did not reveal any current literature overtly supporting the belief in alcoholism as a moral weakness. However, some discussions of surveys and public reactions revealed that a stigma is still often perceived and that alcoholism is one of the most dreaded disabilities. A study by Tringo in 1971 revealed that alcoholism was ranked as #120 in the least acceptable disability category, only ranking above mental illness, which was #121.70

A few studies tended to discuss and support biological theories of explanation and a few tended to stress psychological theories. None of the research produced definitions reflecting only a sociological perspective, even though concepts such as "labeling" were addressed in several studies.
Overall, the majority of definitions stressed a combination of biological, sociological and psychological factors as playing contributing parts in the formation of definitions. It is with these varied concepts of "alcoholism" and possibly more appropriately put "alcoholisms" in mind that I will now move on to further discussion of this complex topic.

This review of literature clearly demonstrates the definitional problems which currently exist in the field of alcohol treatment and prevention. Practitioners find themselves in settings which may support none, some, or all of the conceptual viewpoints discussed in this paper. A great deal of knowledge and management skills are required to allow the practitioner to function within this organizational framework. For example, it is not unusual for an inpatient alcohol treatment facility to basically operate from an AMA/DSM III modified illness perspective but also to rely heavily on the A.A. community with its non-medical orientation for program and patient support. In addition to that, the individual personalities of those in positions of power greatly affect the type of approach which will be offered to problem drinkers and the community, in general.
Methods of Assessing the Extent and Character of Alcoholism and Alcohol Abuse in a Population

The preceding definitions have demonstrated different ways of referring to the etiology of alcoholism. Since most of the literature accepts some form of a disease concept of alcoholism, it may be helpful to describe how etiology is defined.

Etiology is defined in the Psychiatric Dictionary 4th Ed. (1974) as "the division of medical science relating to the cause of disease." Etiological studies also involve investigations into the nature and response of the tissues of the host as well as the response of the total personality to the results of the disease.71

The above dictionary defines epidemiology as "the study of the occurrence of (mental) disorder within a specified population; often expressed in terms of (1) incidence: the number of new cases that appear during a specified time period; and (2) prevalence: the number of cases of any (mental) disorder that exist currently within the population."72

Precise definitions for etiology, epidemiology, incidence, and prevalence were provided for the reader because one will often find such terms are imprecisely and inconsistently used in the literature.

Some other cautions must be noted at this point. Various authors writing in the field of alcoholism may make unfounded assumptions which warrant tight scrutiny. All generalizations should be carefully analyzed in regard to the population studied, the analytical methods utilized, and the investigator biases which may exist.
No attempt will be made by this author to give all the answers to questions that have appeared unanswerable to many learned scholars and many caring laypersons in the field. However, an attempt will be made to clarify where various approaches to the study of the etiology and epidemiology of alcoholism travel similar paths, or perhaps entirely part company. Common themes will be identified and recommendations into specific areas for further analysis will be made.

With these caveats in mind let us proceed to look at the methods which are used to gain information regarding the prevalence of alcoholism and alcohol-related problems.

The prevalence of alcoholism and alcohol-related problems may be estimated primarily by the means of population surveys which generally involve self-reports and by means of agency-reporting data.

Much of the current literature including that of Keller encourages the refinement and use of population surveys. Methods used to estimate problem drinking and alcoholism in a community include surveys and indirect population-based methods. Health planners sometimes use the two methods interchangeably without recognizing the conflicting results mentioned in research literature. Celentano and McQueen explore the best means for measuring reliability and validity in alcoholism research. They used a variety of self-report instruments including a version of the Mulford Index of Uncontrolled Drinking, a quantity-frequency scale modeled after those of Straus and Bacon and Cahalan (which deals with escape drinking), and a two-item index of "loss of control" developed by Mulford. Although all of the scales had their usefulness, the authors
found that the instruments could not be used interchangeably. Convergence validity was not seen for the most part. Correlations were varied and of only moderate strength. There were differences in form and extent of relationships, adding credence to the argument that the estimators are measuring different domains of content. 73

Not only is there confusion regarding the utilization of various instruments gauging the prevalence of alcoholism, but there is some controversy regarding whether studies based on self-reports are accurate.

K. Pernanen reviewed the literature regarding self-reports and alcoholism and showed that, on the average, estimates of consumption derived from surveys were about half the estimates based on sales statistics. Since the sales statistics were felt to be generally accurate and comprehensive, the author concluded that self-report data on the volume of alcohol consumed was likely to underreport actual behavior substantially. However, these discrepancies are often overlooked in the research. 74

Popham & Schmidt (1981) admit that persons in alcohol treatment settings generally give more reliable information than persons who claim to be "moderate drinkers." Follow-up studies of patients who have been in hospital treatment have indicated the problem of reliability surfaces again once the inpatient becomes an outpatient. The authors recognize the usefulness of the conventional population survey for many purposes. However, they feel it is crucial to recognize its limitations as a source of data on the prevalence of heavy drinkers and on the distribution of all drinkers by amount consumed. Although Popham and Schmidt stimulate
the readers and other researchers to be aware of the short-comings of present population surveys, they fall short of making any recommendations for alternative procedures. They felt that to be beyond the scope of their efforts.

An article by O'Leary and Chaney (1978) examined the extent that the variables of the situation affect an individual's self-report and, in particular, comments regarding low self-esteem, which have often been tied to alcoholism. The results of their work revealed the possibility that hospitalization itself, not the alcoholism, "played an unexamined but important role in previous studies of alcoholics' self concepts."

One of their recommendations is that previous findings comparing alcoholics' and non-alcoholics should be replicated using non-hospitalized alcoholics.

Cooper et al (1980) discuss the validity of self-reports and conclude that most problem drinkers' verifiable self-reports are highly valid. When self-reports and record data were discrepant, inpatients tended to overreport alcohol-related arrests and hospitalizations while outpatients more frequently underreported these events. Another significant finding was that drinking during a 30-day pretreatment interval was not representative of longer pretreatment intervals. All of these findings have relevance to the use and analysis of self-reports.

Freedberg and Johnston in their research concluded that alcoholics' self-reports of use of alcohol submitted before and after treatment were found to be both valid and reliable. Reports on their drinking behavior were obtained at four points: immediately prior to treatment, and at 3,
6, and 12 months after residential treatment. Four data sources were used: the subject, his spouse if any, his therapist, and his work supervisor. The results indicated high agreement among all four sources on the subjects' drinking behavior, thus indicating that any one of the four sources could provide adequate data for program evaluation. The authors noted that by being able to rely on several data sources, follow-up becomes a reality for a higher number of cases.

Are there any alternatives besides self-reports and indirect or agency-based data? Murphy et al (1979) explored the possibility of a new type of alcoholism survey. It consisted of a type of household survey in which the interviewer asked questions related to alcohol use in regards to the respondents, their family members and their acquaintances. They found that this method could be used in any population and cost about 1/15 as much as self-report surveys do. This method also identified individuals whose alcohol-associated behavior had become "shame-arousing" (thus unlikely to be admitted) but not a matter of official record. Therefore, it was felt that it would not have been detected via normal population surveys or reviews of agency records. The authors admit that among the shortcomings of such a survey are the inability to do follow-up due to anonymity and the lack of more precise information regarding the individual's alcohol behavior. I also wonder how duplication reporting is avoided since full names are never given. It appears that there are some interesting possibilities with a survey such as this. However, it also appears that it would best serve to augment the data gained from other surveys.
The previous review of some current research regarding methods of assessing the extent and character of alcoholism and alcohol-abuse in a population serves to highlight some of the areas of needs assessment which are extremely important in formulating policy and programs in the field of alcoholism. An example of a fairly recent national survey was a NIAAA-funded survey conducted in 1979, which revealed that self-reported consumption for U.S. adults showed no dramatic changes from previous years. Approximately one-third of the adult population continued to report abstention, one-third reported light drinking, and one-third reported either moderate (24%) or heavier (9%) drinking.  

These figures are in keeping with what the Dept. of Health and Human Services (HHS) reported in 1979 that 7% of Americans over age 18 are alcoholics or problem drinkers and that 3,300,000 adolescents between the ages of 14 and 17 are problem drinkers. This compares with the results of the Rand Corporation study published in 1979, which reported that 4.6% of active duty Air Force members are "alcohol dependent" and an additional 9.3% are "adversely affected" by using ethyl alcohol.  

Thus from a national as well as an Air Force perspective, there is an obvious need for an effective network of facilities to treat alcoholism. According to Berry and Boland, less than 2% of the estimated costs related to alcohol abuse go for alcohol treatment. Most of the expense is associated with health care (other than alcohol treatment per se), lost production, and motor vehicle accidents.
Involvement of Professionals

Throughout the literature, it is obvious that there is growing interest among professionals. Some of this may well be due to the fact that alcohol treatment is becoming an economically popular area and this can be seen by the growing involvement of private company investments and the number of health coverage insurance policies which now include benefits for alcohol treatment. There are some less obvious involvements by professionals that still require additional attention.

The articles reviewed represent interests in the field of alcoholism by physicians, psychologists, sociologists, social workers, politicians and other professionals as well as paraprofessionals and lay persons.

Joseph Boscarino studied the characteristics of patients referred to alcohol treatment centers. He analyzed the data collected from 57 alcoholism treatment centers. The findings have particular relevance in regard to the involvement of professionals within the legal, medical, and social service area and possible biases which they demonstrate in their referral processes. The findings confirm the hypothesis that different groups are associated with different referral sources. For example, blacks and persons age 22 to 35 tended to be referred from criminal justice agencies. Although these findings are only suggestive of certain trends, they certainly point to the need for more precise research in this area and they open the door to a very controversial area of inquiry with definite policy and treatment implications. These findings also tend to suggest a possible "labeling effect"
which may be operating.

The practitioner's own drinking pattern may often reflect how he/she perceives the severity of an individual's alcohol problem. This often receives little attention in the literature. Overall, the main implications for policy and clinical practice concern increased education of both staff and the population at risk.

At times the ego or self-esteem of the practitioner may be a very significant variable. It appears that often in the past, treatment center directors and others have tried to provide programs that treated everyone alike and could welcome any type of patient. The most recent literature indicates that a program need not satisfy every patient's needs and in fact what is indicated is a need for more culture-specific programs which openly acknowledge their limitations but utilize a referral system to other treatment resources.

Griffith Edwards in his article on epidemiology and alcoholism called for a combination of the efforts of epidemiologists and social scientists in a partnership in order to help guide society toward effective preventive as well as therapeutic actions. Epidemiology is seen as the means of gathering the raw material which is the starting point for other disciplines.

Another area where professionals can increase and improve their involvement in dealing with persons with alcohol problems entails the use of effective screening mechanisms. Hurt and Morse explored the possibility of screening all general medical patients for alcoholism and to do it "simply and reliably." The authors utilized the
Self-Administered Alcoholism Screening Test (SAAST) and a series of lab tests including GGT, SGOT, and others. The authors contend that a screening of the general hospital population could yield a 9% discovery rate of alcoholism. This could have far-reaching implications for primary, secondary and tertiary prevention efforts.

Hurt and Morse also point out the need for clinicians in alcohol treatment work to see defensiveness in their patients as a symptom of alcoholism and not a reason for anger or frustration. They challenge professionals to utilize the most effective technology available and also to honestly assess their own possible biases.

The attitudes of those working as therapists in alcohol treatment settings may, as already noted, represent an extremely important variable. Perkins et al. studied therapists' recommendations of abstinence or controlled drinking as treatment goals and discovered that the higher the patient's social class or the longer the patient's history of moderate drinking, the more likely the therapist was to recommend controlled drinking as a treatment goal. The authors recommend that the influence of therapists' values and societal values be explicitly noted. This article was a significant piece of literature but somewhat ironically seemed to have a subtle bias toward controlled drinking.

The design of programs by professionals may affect the type and suitability of treatment which is offered to various socioeconomic groups. Edward Seelye in his article evaluated the effectiveness of the Alcoholism Treatment Unit of the N.Y. Hospital, Cornell Medical Center. The therapeutic philosophy of the unit is that characterological
or emotional disorders underlie the alcoholism and the optimal treatment includes therapy of the underlying disorder as well as the alcoholism. The author concluded that the upper class patients responded better to the treatment than did the lower class patients. The reader must recall what type of treatment was offered when understanding this statement.85

These previously mentioned selections regarding the parts played by professionals in this field of alcohol treatment and research serve to only reveal a small sampling of the literature. The reader should be encouraged to more specifically search out literature in this area and to be attentive to the credentials and professional backgrounds of authors of alcohol related texts and journal articles. These facts are often not clearly stated in print.

Low Identification Rates of Problem Drinkers

Baekeland & Lundwall discuss four major stumbling blocks for those trying to treat alcoholics: "(1) The vast majority of alcoholics remain undetected and undiagnosed and do not receive treatment for their alcoholism if they ever get it, until their condition is far advanced. (2) Once referred for treatment, a high percentage of alcoholics fail to negotiate successfully the jump from referring source to treatment facility. (3) Once in treatment, the alcoholic patient is likely to quickly drop out of it. (4) Among the variety of treatment approaches, it is by no means clear which is most appropriate for a given patient."86
One of the benefits of the Baekeland and Lundwall material is the fact that they view the dilemma with an awareness of the total picture, or what appears to be a systems perspective. They point out that the mere existence of diagnostic, referral, and treatment resources is not sufficient. There must be a way to account for the linkages between and among the various parts. Their work is very precise and makes an extremely strong case for a more wholistic approach to this problem area.

This first point (or stumbling block) is also supported by a study by Edwards et al. (1973) when they reported that the likely ratio of cases in need of attention for their alcoholism to those in contact with an appropriate agency probably is between 4:1 and 9:1.87

Other authors such as Zimberg state a concern regarding the apparent overrepresentation of alcoholics in general medical in-patient populations. Very few of the patients were given diagnoses of alcoholism and unless there was obvious liver disease or DT's, there were very few adequate drinking histories in the medical charts. In a study by McCusker et al (1971) at a Harlem Hospital in New York City which reported a 60% alcoholism rate in male medical ward patients, less than $\frac{1}{3}$ of the alcoholics were diagnosed as such by the staff who failed to detect only 28% of the severe cases but missed 92% of the moderate ones. Further studies indicate that alcoholics also tend to be overrepresented among psychiatric populations.88

Professionals are not solely responsible for low identification rates. Denial by individuals with problems is a part of the whole
affliction of alcoholism. However, "failure to consider alcoholism in the differential diagnosis or to take the kind of history which would reveal it must rank as a major culprit in the widespread failures of physicians to detect alcoholism among their patients." 

The problem thus centers around the seeming paradox that the medical profession has endorsed a disease definition for alcoholism, but past studies have pointed out a negativism toward working with alcoholics. The early identification of alcohol problems requires a functioning system where medicine and mental health are identifying problems and making appropriate linkages and understanding these linkages.

The results of this research will attempt to add to the empirical base concerning attitudes of professionals and the impact of these attitudes on their behaviors. It will take into consideration a systems theory approach which will explore specific areas where problem drinkers may interface with the health care practitioners. The intent is to survey resources available to persons with drinking problems.

Influence of Attitudes on Professional Behavior

How Attitudes Affect Behavior

O'Leary et al. reinforce the significance of attitudes when they discussed the interactive contribution of patient characteristics and staff perceptions of the patient to decisions concerning the provision of continued alcoholism treatment following a two-week evaluation period.
Staff perceptions contributed more to an individual acceptance or rejection than patient characteristics. Those patients who were seen as highly attractive on an interpersonal level, as defined by staff ratings of their personal likability and suitability for group membership, were likely to be accepted for continued treatment. The primary variable appears to be the staff members' collective attitude toward the patient rather than psychometrically measured patient characteristics.90

The Attitudes of Physicians

In discussing the internal medical complication of alcoholism, Baekeland & Lundwall state that the internist and general practitioner should be "on the lookout" for alcoholism among patients with cirrhosis or ulcers. Other medical problems such as TB, cancer, impotence, insomnia, also may be strong indicators of alcoholism.91

William Lukash (Physician to the President, 1979) discussed the significance of the physician's awareness of possible alcohol problems among cancer patients when he stated, "Identification of alcoholism may be crucial for ensuring the most appropriate treatment for patients suffering with cancer." He specifically addresses the role of the family physician as a diagnostician and coordinator of needed services. Lukash's analysis of a review of clinical charts showed specifics for treatment of alcoholism were recorded in less than 5% of the 40 to 50% who had diseases caused or aggravated by excessive alcohol intakes.92

Dr. Lukash cited the hesitancy and inability of physicians to confront the patient about the drinking problem as the "most critical
deficiency in physicians" and he warned them not to be compromised by their personal biases or attitudes regarding alcoholism. Lukash is a supporter of the disease concept of alcoholism and recommends abstinence as the goal and he sees utility with the involvement of Alcoholics Anonymous. He also saw therapeutic benefit for cancer patients who were provided a means to ventillate not only about their alcohol problems but about their cancer problems and its treatment.93

He cites the "fact" that at any time 25 to 50% of a hospital patient population, regardless of their diagnoses, have alcohol complications. He recommends a blood alcohol level as a standard admission laboratory test for every patient.94 Lukash's writing stands out as very specific, clear, and yet controversial. He appears unparalleled in the literature regarding the depth and breadth of his comments.

Attitudes of Social Workers

Wilma Knox surveyed the attitudes of social workers toward alcoholism and found they, for the most part, believed in a multifaceted explanation of alcoholism and favored hospital treatment for alcoholics. These findings were then compared with identical studies of the attitudes of psychiatrists and psychologists. One of the findings was that social workers were more willing to work with alcoholics than the psychiatrist or psychologists.

Knox also supports the need for research in this area of professionals' attitudes toward alcoholism. She states that recent surveys of
psychiatrists and psychologists working in the Veterans Administration demonstrated that few of them were willing to devote a major portion of their time to treatment of alcoholism.  

Keith Kilty has contributed to the attitude studies in the alcohol field with a number of writings. In a 1978 British Journal of Addiction article, he compared the attitudes of a community sample, graduate social work students, and prison inmates. He found attitudes toward alcohol to be consistent with attitudes toward alcoholism, in that both types of attitudes tended to be positive or negative.

Attitudes of Nurses

Harlow & Goby in their analysis of changing nursing attitudes toward alcoholic patients stated that regardless of whether seen as a disease or not, the alcoholic is often rejected by most professionals, even some in treatment settings. Attitudes can be nurses’ greatest asset or strongest defect when relating with the alcoholic. They also stressed the importance of the understanding of alcoholism within a theoretical framework.

Attitudes of Medical, Nursing & Pharmacy Students

An Australian study by Ruth Engs concluded that a sample of medical, nursing and pharmacy students had more negative attitudes toward alcoholics than the norm (a sample of American students). These Australian students felt alcoholism was more of a moral weakness and less of a physical genetic problem compared to the norm. One of the
recommendations from the study was exposure of the students to have opportunities to interact with recovering individuals including physicians and nurses.97

Another study by Kinney, Bergen and Price addressed the perceptions of medical students toward alcoholics and alcoholism. They learned that the attitudes of the medical students at Dartmouth Medical School toward alcoholics as persons quickly changed to more positive after work with alcoholics. However, negative attitudes toward alcoholics as patients tended to remain negative. For the students, the "kind of care alcoholics require and respond to is seen as beyond the scope of the physicians' primary mission. Students see the physician who would be involved with alcoholics as deviant, as one who has gone out of his way to do more than would be reasonably expected and more than what was called for by the physician's role."98

Kinney et al. found that the key to changing the students' attitudes toward working with alcoholics was in changing their own feelings and attitudes toward medicine and doctoring.99 The authors' implications for medical education included the suggestion that medical schools think more of alcoholism as treatment of a chronic illness and that it thus shares similarities with other chronic illnesses which comprise perhaps 80% of a physician's patient load. Although this study was based only on a sample of sixteen medical students, the findings and analysis certainly help point out possible directions in attitudinal research in the field of alcohol studies. These directions have striking implications for training/education programs for health care practitioners.
Training Programs and Attitude Change

Training programs represent a means for attempting to effect attitudinal changes. Training programs such as that at Smithers Center can be 1, 2 and 4 week modules. The goals are threefold: (1) To change negative and pessimistic attitudes regarding alcoholics and alcoholic treatment, (2) To provide increased information regarding the disease, and (3) To improve the skills for diagnosis, confrontation and referral.\(^{100}\)

Fisher et al. discuss training programs and physicians. They state that physicians' attitudes toward alcoholic patients have been shown "to be pervasively negative and to limit diagnostic and therapeutic abilities."\(^{101}\) They recommend measurement of achievement of alcoholism education programs in each of the three domains of potential learning, that is, the cognitive, affective, and behavioral domains.

Fisher et al. found the educational program to be successful. They then discussed practice implications. They stated that if physicians continue to see the alcoholic as weak-willed, passive, and with a character weakness, then he/she is more apt to place the onus of initiating treatment onto the patient. However, if the physician abandons these beliefs, he/she is more likely to personally initiate treatment.\(^{102}\)

Fisher et al. found that their training program did result in a significant increase in the number of diagnosed alcohol cases and the authors stress the significance of a behavioral component in attitude studies.
Harlow & Goby discussed the benefits of a 3 week nurses' training program on alcoholism treatment which had as its goal improvement of knowledge base and attitudes toward alcoholism and patients with the problem. They recommend continuing education to reinforce improvements in knowledge and attitudes. They found it necessary to address the possible negative influences of attitudes of other medical personnel or other nursing instructors when considering related variables. 103

Keith Kilty and Allen Feld explored the topic of professional education in understanding and treating alcoholism. Their findings are extremely significant for directions regarding professional social work education and alcohol education. The results of this pilot project revealed that an alcohol education and field work program within the master's social work curriculum was unlikely to affect students cognitively or affectively and is very costly. The main effect seemed to be to familiarize students with the subject area and to increase their knowledge. The authors did suggest some other options for programs, such as degrees in "alcoholism" and in-service continuing education with a focus on improving the skills, not the attitudes, of those working in the field. 104

Alcohol-Specific Curricula in Professional Education

The Fourth Report also stressed its concern for "increased alcoholism-specific curricula in various professional schools and to expand training opportunities in alcoholism to physicians, psychologists, nurses,
social workers, and others whose disciplines bring them into contact with alcoholic patients or clients." 105

A national survey of family practice residency programs in the U.S. revealed that within curriculum content areas, substance abuse as a subject ranked 17th out of 35 when ranked for their inclusion in programs. This meant that substance abuse was not included in 11% of about 230 family practice residency programs, and therefore, 10% of the residents being trained were not receiving training in substance abuse. 106

In order to later apply some of the previous findings in the literature to data received from a military population, it is necessary to augment our discussion of the prevalence and consequences of alcohol use among U.S. military personnel.

Prevalence and Consequences of Alcohol Use Among U.S. Military Personnel

It has been commonly alleged that drug abuse (including abuse of the drug alcohol) is worse in the military than in the civilian population. Many of these allegations had been emotionally fueled by reports about drug problems afflicting the Vietnam War returnees. Although the military readily admitted to the existence of such problems and then followed through with intensive mandated programs, the actual data regarding the prevalence of such problems often was unknown to the public. Consequently, the rates were often overestimated by civilian reports.

Marvin Burt has written regarding alcohol use and abuse in the military. An interesting aspect of Burt's work is that he avoids the
shortcoming of many authors who totally overlook "normal" or non-problematic alcohol consumption. Reference to Burt's article can reveal more about the methodology of his research. Only summary findings will be presented here. He found that 83% of the respondents drank at least occasionally with the highest prevalence of drinking recorded "by senior officers (grades 0-4 to 0-6), followed by junior officers (0-1 to 0-3) and junior enlisted personnel E-1 to E-5), senior enlisted personnel (E-6 to E-9) and warrant officers (W-1 to W-4)."  

Regional differences in drinking patterns were generally slight with the exception that more wine was consumed in Europe. This appeared directly related to the customs of the area.

"Heavy drinking" was defined as consumption of eight or more drinks in a single day. This pattern was reported almost exclusively by enlisted personnel. Twelve percent of E-1 to E-5's and four percent of E-6 to E-9's worldwide reported heavy drinking of beer and only one percent of each enlisted group reported heavy drinking of wine and eight percent of E-1 to E-5's and three percent of E-6 to E-9's reported heavy consumption of distilled spirits. This is in contrast with the findings that only about one percent or less of each officer or warrant officer group worldwide reported heavy drinking of any type of alcoholic beverage.  

107

108
Burt provided these breakdowns regarding service branches and the percentage of heavy drinkers in that branch: Total Department of Defense - 38%; Army - 42%; Navy - 45%; Marine Corps - 48%; and the Air Force - 26%.

The results of Burt's survey showed that 63% of the U.S. military consume less than one drink of alcohol per day, on the average. These results were also found: 7% were alcohol dependent; 11% had one or more specific physical, social or work consequences of alcohol use during a one-year period of time; and 27% had at least one occasion of alcohol-related work impairment during a year's time period.\textsuperscript{109}

Burt compared his findings with a civilian group (matched on variables of age, sex, marital status, and education) and found the results were similar in that the prevalence alcohol use rates were 84% for the military and 82% for the civilian group. One should keep in mind that this finding is only relevant to the prevalence rates and does not provide data regarding problematic drinking rates.\textsuperscript{110}

Burt analyzed the validity of his findings and discovered that the prevalence estimates for Air Force personnel from this survey were comparable to the estimates from the survey of Air Force personnel conducted by the Rand Corp. (1977).\textsuperscript{111}

Colonel S. Myers cautions regarding the reluctance of the medical community in general to devote resources toward dealing with alcoholic patients. The Air Force history of inpatient alcohol treatment programs dates back to the pilot program at Wright-Patterson AFB, Ohio in 1966, which is still in existence today as one of the ten inpatient
alcohol rehabilitation centers worldwide. The Air Force also participates in the administration of the tri-service program at Bethesda, MD.

The structure and the underlying theory of the approach at these centers can be evidenced by the fact that all ten centers currently support the use of a multivariant model 28-day program oriented toward group experiences, family participation in treatment, and involvement with Alcoholics Anonymous. This common theoretical approach contrasts the structure which existed approximately seven years ago when two of the programs were 14 day behavior modification aversion therapy programs.

For additional writings regarding alcohol treatment programs in the military, refer to Pursch, Polich and Orvis, and Borthwick.112-114

Highlights of Literature Review

Common Themes

The identification of certain common themes within this literature review helps point out the fact that although the study of alcohol is extremely complex, certain basic questions do arise. For example, the historical discussion described the public dilemma regarding how to view alcohol-related problems, that is, voluntary madness vs. legitimate illness, with a variety of perspective inbetween.

This dilemma often spawned reactions which varied in their degree of success. For example, legal attempts to solve alcohol related problems, for the most part, have not been successful. On the other
hand, political coalitions of individuals from various backgrounds and with different theoretical bases often showed greater successes in accomplishing commonly agreed-upon goals. This highlights the importance of viewing policy and programs in the alcohol treatment field from a systems perspective.

This more wholistic framework is evidenced in changes in the field during the 1950's and 1960's in particular. One can see the ambivalence toward dealing with alcohol-related problems as lessening and more of a public health problem approach developing. This public health approach is later evidenced by alcohol treatment and education efforts of the military in the 1970's. Along with this approach, one sees the push toward involving more of private industry and local communities in supporting these efforts.

When viewing American drinking practices, there is much agreement in the literature that the existing culture greatly affects the style of drinking, the consumption level and the rate of the problem. There is growing interest by contemporary authors regarding such factors as the generation of the respondent in any studies of ethnic differences and alcohol practices. When more factors are controlled for, previously accepted generalizations regarding alcohol problems and various subpopulations do not withstand. The context of situations becomes increasingly important.

Discussions of nature vs. nurture, sex-role orientation, familial influences and others point out the importance of a broader systems approach toward understanding this problem of alcohol abuse.
When focusing more specifically on professionals and their attitudes toward dealing with problem drinkers, the literature points out the importance in the definitions and theories which are subscribed to by various health care practitioners. These can directly or indirectly affect the type of treatment/education provided to clients and or patients. They can also affect the types of referrals which are made within the whole alcohol treatment field.

Kissin and Begleiter, Baekeland and Lundwall, Perkins et al., and Lukash are only a few of the authors who share the common concern regarding the part which attitudes of professionals play in the identification of and treatment of problem drinkers. The part played by physicians such as family practice physicians is stressed. A concern about possible low identification rates of problem drinkers is discussed throughout the literature.

Knox stresses the importance of the role of social workers in increasing the identification rates of problem drinkers. Thus another common theme seems to be to increase the knowledge base and skills of professionals who interface with this problem drinker population.

Gaps in the Literature

There are some specific areas which seem to leave many questions unanswered. In relation to social work itself, there appears to be a paucity in the literature regarding the part that social workers play in the field.
Although there are high numbers of professional social workers functioning in alcohol treatment settings, the literature is very limited in this area. Social workers also tend to be underrepresented as authors in this field. Consequently, we see very little regarding the effect of the attitudes of professional social workers on their behaviors and practice.

Very little if any research exists regarding the possible effects of the professional's own drinking pattern on his/her interactions with problem drinkers.

Information regarding the advantages and disadvantages of various support systems such as Alcoholics Anonymous is sparse. Part of this is understandable due to the philosophical stance of A.A. which does not lend itself well to research endeavors. A few authors such as Zimberg have made a real contribution in attempting to analyze groups such as A.A. and to highlight some of their strengths and weaknesses. There appears to be very little empirical research to describe how many health care practitioners actually do refer patients to Alcoholics Anonymous.

The literature also lacks studies in general which attempt to describe actual behaviors of professionals in their daily work with problem drinkers. For example, do they chart alcohol problems or do they request blood alcohol levels on patients?

Another gap in the literature surrounds the question of whether there are certain traits which, is possessed by health care practitioners, make them better able to identify, work with and treat problem drinkers?
These, by no means, represent all of the unanswered questions in the literature but they are some of the gaps which are readily visible when reviewing the literature in this field.

How This Study Relates to Current Literature

This Health Care Practitioner Study utilized three major and eighteen minor research questions to attempt to explore and analyze material relevant to the overall question of professional attitudes and work with problem drinkers in the U.S. Air Force.

This study will attempt to answer some of the questions regarding the last gap mentioned in the previous section. By use of multiple regression statistics, certain variables were explored to see which demographic and attitudinal data may be associated with variations of practice behaviors utilized in working with problem drinkers.

The inclusion of questions in the survey which directly relate to practice techniques such as confrontation helps expand some of what Lukash and Baekeland and Lundwall have discussed in the literature. The inclusion of social workers and physicians has provided a dimension beyond what some of these authors have analyzed.

The inclusion of minor research questions which obtain data regarding the proactive stance of the health care practitioner provides information which Lukash described as essential, such as actual charting of and use of alcohol-specific terminology and treatment plans.

Throughout most of the literature there is an assumption that more positive attitudes are associated with higher identification rates
and with greater knowledge base regarding alcoholism. This study attempts to explore that further and to see if correlations do exist between and among these variables.

Cartwright et al. have explored the importance of professional and personal role support among practitioners as being significant in their positive dealings with patients/clients with alcohol problems. This study attempts to also address that issue.

Primarily, this study attempts to explore the Air Force practitioner group and to provide information which has not existed up to this date. The thrust of alcohol research in the Air Force has centered around the client/patient or the Air Force member in general and not around those professionals in front-line positions who are assigned the duty of identifying, educating, and treating persons with alcohol problems.

2. Ibid.

3. Ibid.


6. Ibid.

7. Ibid., p. 593.

8. Ibid., p. 594.


11. Ibid.

12. Ibid., p. 602.

13. Ibid., p. 599.


18. Ibid., p. 12.


20. Ibid., p. 1031.


30 Kissin and Begleiter, *Treatment*, pp. 593-613.

31 Deluca, *Fourth Special Report*, p. V.


Ibid., pp. 69-71.


Ibid.


Ibid.


86


60 Kissin and Begleiter, Treatment, pp. 1-2.


63 Ibid.


66 Zimberg, Practical Approaches to Alcoholism Psychotherapy, pp. 239-240.


68 Polich and Orvis, Alcohol Problems, pp. 4-12.


72 Ibid., p. 270.


75 Ibid., pp. 355-358.


82 Berry and Boland, Economic Cost, Quote from inside front cover.


86 Kissin and Begleiter, Treatment, pp. 161-163.

87 Ibid.

88 Ibid.

89 Kissin and Begleiter, Treatment, p. 167.

90 O'Leary et al., American Journal of Psychiatry, p. 621.

91 Kissin and Begleiter, Treatment, pp. 161-163.

92 Lukash, Cancer Research, pp. 2834-2835.

93 Ibid.
94 Ibid.
96 Harlow and Goby, Nursing Research, pp. 59-60.
97 Engs, Alcoholism, p. 228.
99 Ibid.
100 Geller, Alcoholism, pp. 320-321.
102 Ibid., p. 1691.
103 Harlow and Goby, Nursing Research, pp. 59-60.
108 Ibid.
109 Ibid.
110 Ibid.
111 Ibid.
113 Polich and Orvis, Alcohol Problems.
114 Borthwick, Cost-Benefit Study for Navy.
III. METHODOLOGY

Research Design

The basic research design was an exploratory cross-sectional survey. The setting was the U.S. Air Force, with the intent to look at the attitudes and practices of two types of primary care workers, physicians and social workers, toward alcoholics and problem drinkers. The use of mail surveys distributed to and returned by an administrative office at each of 48 selected medical facilities allowed for the maximum amount of anonymity and confidentiality for each respondent. This will be expanded upon later in the sampling design section.

The primary dependent variables were (a) attitudes toward problem drinkers, (b) desire and willingness to work with such clients, and (c) practice techniques employed when working with them. The basic purpose was to determine if and how knowledge of and attitudes toward problem drinkers relate to practice techniques employed with problem drinkers. These and other variables will be discussed in much greater detail later in this chapter as well as throughout this paper.

The questionnaire which was utilized for this project drew from and built on materials from a variety of sources including Keith Kilty (1975), Cartwright (1980), Jep Hostetler (1977), and Atkins and Gwynn (1959).1-5
Some of the items used were presented in their original form while others were adapted to more readily apply to an Air Force population. The questionnaire and its component parts will be described in more detail later in this chapter.

**Major Research Questions**

Before proceeding with a detailed description of the methodology, it may be helpful to review the basic research questions and to look at some of the major concepts that will be operationalized.

The major research questions explored three topical areas. First, what are the attitudes and practices of selected health care practitioners in the Air Force? Second, can specific characteristics of a selected group of Air Force professionals (social workers and physicians) be identified that will be predictive of positive attitudes toward working with problem drinkers? Third, is there a correlation between the attitudes of selected health care practitioners and rates of identification, diagnosis, and/or treatment of problem drinkers?

**Minor Research Questions**

In addition to those two major research questions, seventeen minor research questions explored the following areas in regards to professionals: perception of motivation or willingness to work with problem drinkers; expectations of work satisfaction with problem drinkers; feelings regarding adequacy of knowledge and skills; feelings regarding right to work with problem drinkers; perception of self-esteem in
working with problem drinkers; perception of role support; composition of patient/client caseload; definition of alcoholism or alcohol problems; past educational and practice experiences/training related to alcohol problems; knowledge of and attitude toward Alcoholics Anonymous (A.A.) and the interactional techniques used with problem drinkers.

The Setting In Which The Study Took Place

This study focused on personnel at medical facilities of the U.S. Air Force throughout the United States. This represents a sampling of health care practitioners from all four sizes of facilities from the smallest clinics to the largest medical centers. Medical facilities were selected from 29 of the 48 continental United States and the District of Columbia.

Sampling Design

A combined sampling method, as described by Morris Slonim in Sampling Sampling was used. He states that in most surveys a combination of sampling methods, rather than one method, is used.

The primary source of data in this study was an attitude survey of active-duty Air Force health-care practitioners who were systematically selected from randomized lists which contained the names of all medical facilities within each command. Because of the legitimate concern regarding the use of self-reports and the issue of validity, all attempts were made to measure affective, cognitive and behavioral aspects in as many and as precise ways as possible.
For feasibility purposes, this study was conducted through Air Force channels with questionnaires (forms) distributed to and returned through the mail by the Chief of Hospital or Clinic Services (or the equivalent administrator) at each base. Although there exists a somewhat lessened degree of control in mail surveys than in in-person administration, "mail surveys of this kind are almost invariably used because they can produce timely data covering all geographical areas at low cost."⁷

All Air Force personnel are assigned to a major command, and these commands enjoy a substantial amount of autonomy in their daily affairs. Although alcohol abuse control policy is generally set for all commands at the Air Staff level, there are significant variations in the way that policies are interpreted. Therefore, the command represents a potentially important source of variation in alcohol policy and can be partially controlled for by stratifying the sample by command. Certain other administrative differences can also be controlled for by stratifying by command.⁸

The six largest stateside commands which represent 66% of the total Air Force personnel were selected. The two largest overseas commands were omitted for feasibility purposes. They account for 12% of the total force. The remaining commands which account for 22% of the total force are numerous and quite small. They are therefore being excluded from the sampling frame. This is similar to the procedure followed by Polich and Orvis in the 1979 Rand Report entitled Alcohol Problems: Patterns and Prevalence in the U.S. Air Force.⁹
Since the Rand study focused on a survey of Air Force personnel in general rather than on professional health care practitioners, one difference in the present study is the classification of the sample according to the size of the medical facility. Size could range from clinic (smallest with no beds) to Hospital to Regional Hospital to Medical Center (largest hospital facility).

The following strategy was followed: First, the population was stratified by the six major CONUS commands. Second, within each command, the population was stratified by size of medical facility. Finally, a systematic sampling technique was used to obtain a sample which would be representative of professional health care providers within each size of facility within each command. Slonim states that systematic sampling is used frequently because it is a simple, direct, and inexpensive form of random sampling. This is sometimes referred to as patterned, serial, or chain sampling. Slonim also speaks of this type of sampling lending itself well to Air Force research.10

The following pattern was used to maximize the sampling potential. Every other (or alternate) base medical facility, all of which had been arrayed on a randomly designed list, was included in the sample, beginning with the first name on the list. If only one facility existed on the list for a certain size (such as clinic, hospital, regional, or medical center), then all selected physicians (primarily family practice, general medicine, and emergency medicine) and clinical social workers at that facility were included in the sample. Throughout this study, physicians will be referred to as Group A and clinical social workers
as Group B.

Questionnaires were mailed to the Chief of Hospital or Clinic Services at each facility to equal the estimated total number of professionals (Groups A and B assigned to that facility.) For example, if a hospital had two clinical social workers, two emergency room physicians, and one family practice physician assigned, then five questionnaires were mailed to the Chief of Hospital Services, with instructions noting that he/she was to distribute and then collect the surveys when they were completed. The surveys were then to be returned to this author for compilation of data. This resulted in packages of questionnaires sent to the following commands as shown in Table 2.

Table 2
Facility Size and Commands

<table>
<thead>
<tr>
<th>Military Airlift Command (MAC)</th>
<th>Strategic Air Command (SAC)</th>
<th>Tactical Air Command (TAC)</th>
<th>Air Systems Command (SYS)</th>
<th>Air Training Command (ATC)</th>
<th>Logistics Command (LOG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Hospital</td>
<td>2</td>
<td>10</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Regional Hospital</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Medical Center</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

This sampling technique resulted in potential respondents from 10 clinics, 26 hospitals, 6 regional hospitals, and 6 medical centers. All
six major CONUS commands were sampled in clinics and hospital settings, and 100% of the commands having regional hospitals and/or medical centers were sampled. The approximate number of potential respondents was 497.11

Further detail on sampling, including specific units included may be found in Appendix A.

Follow-up Procedures

The following format describes the use of telephone contacts to explain the mail surveys as well as to provide appropriate follow-up with the bases.

4 Feb 1983 - A telephone call was made to the office of the Chief of Hospital Services (SG) or his/her designate at each of the 48 medical facilities. The purpose of the call was to briefly explain the research project and the questionnaire itself and also to personalize the contact. It was stated that the questionnaires were to be mailed out later that day as a package to that base. The dissemination and return instructions were outlined in detail. When possible, a contact name was obtained from the SG office.

23 and 24 Feb 1983 - The second telephone call was made to the SG office at each of 46 medical facilities. Follow-up calls were not necessary for two bases which had already returned their packages. The primary purpose of this call was to assure that the package had been received and that the instructions on the cover page enclosed with each package of questionnaires was understood. See Appendix B for
details regarding cover page letter.

At the time of this call, as well as during the previously mentioned preliminary explanatory telephone call, appropriate annotations were made by this researcher on 3" x 5" cards for each medical facility. This provided a very easy and compact way of maintaining relevant notes regarding the conversations and the way that the project seemed to be handled at each individual base. The difference in the ways individual facilities handled this project will be discussed in more detail later in this section.

4 March 1983 - This was the original cut-off date given to the facilities. However, the decision was made to extend this cut-off date to 11 March 83. In fact, during the follow-up telephone calls of 23 and 24 Feb 83, each SG office contact person was told of the one week extension for mail-back of the packages.

9 March 1983 - On this date, the third contact telephone call was made to each facility from which no responses had been received. This meant the following: Telephone Call #3 was made to nine facilities. The purpose of the call was to attempt to trouble-shoot the situation and to offer replacement packages if necessary.

11 March 1983 - This represented the extension date given to the remaining facilities.

18 March 1983 - This was originally to be the final cut-off date return of original packages.

22 and 23 March 1983 - Telephone Call #4 was made to five of the six remaining non-responding bases.
25 March 1983 - This was to be the final cut-off date for return of replacement packages, but again an extension was allowed.

28 and 29 March 1983 - Telephone call #4 was made to the one remaining non-responding base.

1 April 1983 - Data received after this date were not included in this sample. (In fact, only two questionnaires were received after this date.)

Table 3 shows the number of telephone contacts made with each of the 48 bases. On this chart, two comments are also being made about the contact with each facility. The first comment precedes the base name. It consists of either a "+" (indicating higher than 50% of the originally estimated respondent number returned completed surveys), "Avg." (approximately 50% of the originally estimated respondent number returned completed surveys), and a "-" (less than 50% of the originally estimated respondent number returned completed surveys).

The second comment is found after the name of the facility. It consists of a subjective evaluation on the part of this researcher regarding the manner in which each SG office handled the project. This is reflected by the following:

1. "Disorganized" (reflecting poor structural support or subtle negative reaction to the survey);
2. "Uncertain" (reflecting no clear indicators of how the project was being handled);
3. "Adequate" (indicating facility appears to have project in order, but no exceptional positive indicators); and
4. "Well organized" (reflecting strong positive structural support and/or strong positive reaction to the survey).
Please keep in mind that this chart (with the comments given) is only being provided as a way to better understand the utility of close telephone contacts with respondents and to contribute knowledge to this type of follow-up regimen.

One may wish to note the correlation, if any, between the respondent rate figures and the subjective comments. This may have some bearing on whether the subjective evaluation of the telephone contacts may be a realistic predictor of general response rates in sample populations.
## Table 3

**Telephone Contacts with Medical Facilities**

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Hanscom 4</td>
<td>Avg. Lowry 3</td>
<td>+ Plattsburgh 2</td>
<td>- Kelly 1</td>
</tr>
<tr>
<td>+ Hancock 4</td>
<td>Avg. Vance 3</td>
<td>- Eglin 1</td>
<td>+ Little Rock 2</td>
</tr>
<tr>
<td></td>
<td>Avg. Reese 3</td>
<td>- Travis 3</td>
<td>+ Myrtle Beach 3</td>
</tr>
<tr>
<td></td>
<td>+ Laughlin 3</td>
<td></td>
<td>- Keesler 1</td>
</tr>
<tr>
<td></td>
<td>- Maxwell 1</td>
<td></td>
<td>- Columbus 2</td>
</tr>
<tr>
<td></td>
<td>- Sheppard 1</td>
<td></td>
<td>- Castle* 1</td>
</tr>
<tr>
<td></td>
<td>- Griffiss 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Grissom 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Loring 3</td>
<td></td>
<td>+ only nonresponding base, despite fact that replacement package was sent.</td>
</tr>
<tr>
<td></td>
<td>+ K.I. Sawyer 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ McConnell 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Whiteman 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Fairchild 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Wurtsmith 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Carswell 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Patrick 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Lackland 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Hill 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Robins 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avg. W.-Patterson 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ March 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- F.E. Warren 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Los Angeles 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avg. McGuire 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- McChord 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Charleston 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Dover 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Scott 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Andrews 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Holloman 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Langley 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ England 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avg. S.-Johnson 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Bergstrom 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Tyndall 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Davis-Monthan 4</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Avg. Cannon 3</td>
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**CODE**

1 - Disorganized
2 - Uncertain
3 - Adequate
4 - Well organized
- (less than 50% response)
Avg. (approx. 50% response)
+ (more than 50% response)
Response Rates

The following discussion presents several alternative ways of dealing with response rate for this sample.

Initially, information regarding the staffing assignments at each base was received from personnel at Randolph AFB Military Personnel Center, San Antonio, Tx. This revealed the staffing assignments for family practice (FP), general medicine (GM), and emergency medicine (EM) physicians and those for social workers (SW) at each of the selected bases. The following represents those original figures which reflected staffing numbers as of January 1983.
Table 4

Selected Bases

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|       | 9  | 17 | 7  | 2  | 35  |

103
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*Selected due to presence of alcohol rehabilitation center.

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The previous figures resulted in a potential N of 497 respondents, which included 99 social workers, 123 general medicine physicians, 247 family practice physicians, and 28 emergency medicine physicians. It must be kept in mind that these figures represent slotted assignments according to January 1983 data from Randolph AFB, Military Personnel Center.

This distribution was then subject to the intervening variable of the office of SG at each of the 48 facilities. The design was structured so that the package of questionnaires was sent to each SG office (or designate) which then served as distribution point for the individual questionnaires.

This researcher personally telephoned each of the 48 SG offices on 4 Feb 1983 and explained the nature, purpose, and design of the Project (USAF SCN 83-6, 30 Jun 83). At that time an attempt was made to discuss the potential N and each base acknowledged that due to certain factors such as persons being on leave (vacation), on TDY (temporary duty assignment), or PCS (permanent change of station) since Jan 83, the data from Randolph may not be current. Each SG office was then asked to distribute the questionnaires as per the cover letter with the package and as per handwritten note which had been added to each of the cover letters.

The N was further affected by the following. On 18 Feb 1983, thirteen individual questionnaires were returned in the mail. They apparently had come from a damaged envelope. The post office said that apparently the package must have been later retaped, since all large packages were received by the designated bases. This reduced the N
potential N to 484.

Unforeseen design complications were that certain SG offices took the administration very lightly while others took it as a high priority. This seemed to have been a significant variable when considering the administration of the questionnaires. For example, at some bases, physicians were appointed as "Project Officers" and this added credibility and authority to the significance of the questionnaire. By way of illustration, at one base, Base X, the completed number of questionnaires returned was 30 out of the estimated 36 (or 83.3%). In contrast, where the project was not handled very seriously and where follow-up calls indicated no specific person with any authority or interest in the project was assigned the responsibility of administering the questionnaire, such as happened at another base, Base Y, the response was 2 out of an estimated 16 (or 12.5%). Comments from follow-up calls with Base Y included "I don't remember it," when talking with the person originally contacted or "people have too much work here" etc. There appeared no attempt at explaining the merits of the project by the person administering the questionnaires.

The potential N was further reduced by the number of questionnaires returned by certain SG offices, which stated that they were returning their "extras." That is, these never were given to any practitioners. This number was 21. It is understood that possibly others were considered extras but were not returned through the mail. The adjustment 21 reduced the N to 463.
Other adjustments to the potential N occurred via the decision by certain SG offices not to administer to family practice residency phys­icians. As already mentioned, the cover letter and telephone instruc­tions regarding this were clear, but, with at least two known bases, the figures indicate that the SG office apparently decided not to include the family practice residency programs in the sample. This resulted in 59 questionnaires not being distributed to potential respondents. That brought the potential N (number of persons receiving questionnaires) down to 404.

Sixteen individuals outside of the physician or social worker cate­gories received the questionnaires from the SG distribution offices. Therefore, the potential N for the design sample population was reduced to 388. Using this figure as N gives an individual response rate of 58%. This number of 388 will heretofore be considered the largest possible N meaning individuals in the design sample group receiving questionnaires.

Dillman in his book on the Total Design Method presents some information which appears relevant to this discussion of response rates. He cautions the reader to beware of confusion in comparing response rates in the social science literature. In a way, his point seems to be that face-to-face surveys may appear inflated because they exclude non-contact but mail survey rates often include non-contact. Some of the problems which he is addressing and which appear to have hampered this researcher's work include failure to reach each respondent. This may be due to mail or intermediary problems. Based on our knowledge of some
of the problems encountered in the Practitioner survey, both of those factors raised difficulties. Dillman also mentions that ineligible respondents may receive the survey. This also happened to some degree in this current study. Dillman also states that researchers often fail to describe their way of calculating response rates. Therefore, in order to avoid that pitfall, this practitioner survey has specifically outlined the rationale for the N.

It is estimated that due to personnel changes and other probable disparities between the original personnel staffing estimates and the actual number of working professionals, the N in this sample could be mathematically reduced below 388. However, since the interest in this study is also with the base response rate, not merely the individual response rate, time will not be taken to do that at this point. Instead, a brief discussion of the significance of the base response rate will follow.

Another way to view the response rate and representativeness of this survey is in relationship to the base response and with regards to each of the sizes of medical facilities and within commands. When doing this, the response rate was 47 out of 48 medical facilities involving themselves in this sample or 98% of the total sample facilities. Note that a replacement package of questionnaires was sent to the 48th facility, but no response was received by this researcher.

The following indicates the only grouping which was not 100%: size of medical facility (Hospitals - 96%); or command (SAC - 92%).
This indicates that 96% of all facilities designated as "Hospitals" responded, and that 92% of all sized medical facilities with SAC responded.

Therefore, one may view the response rate in the following two ways: individual health care practitioner response rate of 58%, or individual medical facility response rate of 98%.

Use of The Total Design Method

This Health Care Practitioner Study has utilized the Total Design Method of Dillman as a guideline during the construction of and implementation of this survey. The following are some of the highlights which were relevant to this survey.

Dillman speaks of belief in the exchange theory in regards to what the researcher can do to encourage response. That is, something is done by or promised by the researcher in exchange for certain compliance by the respondents. An attempt at heeding this guideline was the promise on this researcher's part to offer a summary of the results of this survey in exchange for the completion of an attached stamped postcard.

Dillman suggests the researcher reduce costs to the respondent. In this project all efforts were made to minimize time needed for completion of the survey and for distribution by the local SG office. Confidentiality and anonymity were closely provided for and a copy of a "Privacy Statement" was included on page 2 to explain the purpose, use and government support of the project.
This author attempted to adhere to Dillman's comments regarding establishing trust by observing all bureaucratic guidelines of the U.S. Air Force, even when it meant a delay in approval of the proposal. The credibility of the survey was attested to by the official survey approval number on the cover page and on page 1 of the questionnaire (USAF SCN 83-6 30 June 83).

Even the printing of the questionnaire was done in accordance with Dillman's suggestion that the printing should include an overestimate so that replacement packages could be expeditiously sent out when necessary, and in fact, this had to be done on several occasions.

Focus on a military setting highlights the importance of how all component parts of a system are affected by sampling or dealing with one part of that system. Dillman even says that the Total Design Method is more similar to Army maneuvers in which one must move several elements along together, usually choosing from among several options and constantly making adjustments because the anticipated moves of others did not materialize as expected. This was borne out several times during this project. At times, unexpected intervening variables arose such as the existence of administrative problems at one medical facility which resulted in the turnover of personnel during the course of this survey.

Dillman suggests the ideal size for a questionnaire is under 12 pages or approximately 125 items. This "Health Care Practitioners and Problem Drinkers" survey consisted of eleven pages containing 111 actual questions which resulted in 155 variables. This questionnaire
actually had fourteen total pages, not counting the unnumbered cover or back pages (see Appendix C for a complete copy of the questionnaire).

Dillman's guidelines for the size of the booklet were used with the survey booklet size being approximately 5-5/8" by 8-5/8". No questions were used on the front or the back pages. A photographically reduced form was made on white copy.

An attempt was made to group similar questions together. More objectionable questions were positioned after less objectionable items. Demographic questions were placed, as Dillman recommends, in the last half of the questionnaire.

The front cover followed the recommended guidelines of having a study title, a graphic illustration, any needed directions and the name and address of the study sponsor, in this case, the U.S. Air Force, and this individual researcher (see Appendix B).

Page 14 and the back cover included the following: an invitation to make additional comments; a thank you; and plenty of white space.

In addition to the previous specifics, other suggestions by Dillman were adhered to in composing the cover letter and in using telephone communications to insure follow-up. This researcher altered this technique somewhat by also using a preliminary explanatory telephone call to each medical facility on the day of the actual mail-out of questionnaires.

Personalization was the key during the telephone contacts. Follow-up phase points in this study were approximately at the 3 week, 5 week, 7 week, and 8 week point as necessary. This differs somewhat from
Dillman's guidelines. As Dillman states, the use of three follow-up calls is usually adequate, although some researchers do use more. As Dillman also says, "The effectiveness of a telephone call as an additional follow-up also has been demonstrated."^{14}

Reflections on Sampling Design. A reassessment of the sampling design and distribution of the survey may be in order. However, with the limitations posed by approval processes of the military taken into consideration, it is still doubtful whether some type of direct mailing to potential respondents would have been any more efficient.

It is interesting to note the importance of the interest level, assigned responsibilities and personality of the person who was given the role as coordinator or project officer.

Overall, the smaller clinics seemed to be able and willing to take on the task and distribute and collect the surveys much more effectively than the larger hospitals.

The number of professionals actually receiving the surveys and those designated as being assigned to the base facilities often did not match up well. This may be due to persons in transition, old staffing data (as of Jan. 83), persons on leave and other intervening variables.

Telephone contacts revealed a great deal regarding the individual facilities. For example, with a certain base where a population of 16 professionals were the intended sample, only two actually agreed to even accept the survey for potential review. This seemed to be highly related to the degree of organization at the point of presentation of the survey. For example, at this particular base, the person tasked
with the job of working with the survey changed several times and the surveys were distributed or an attempt at distribution did not take place until the package had been around for over one month.

The excuses of "too much work", "too many other surveys," or "you know how hard it is to get doctors to do surveys" were often a part of the reply where lower response rates were involved.

This contrasts with some of the larger facilities where a higher ranking officer (often a physician) would himself spearhead the project. The responses from a center such as that resulted in a response rate close to 80%.

**Attitude Measurement.** Social scientists have been using attitude measurement as one of the oldest types of social measurement.¹⁵

Miriam Lewin in *Understanding Psychological Research* stresses the point that attitudes have three aspects: (1) A cognitive or belief component, (2) an evaluation or feeling component part, and (3) a behavior component (the action which expresses the attitudes).¹⁶

It therefore becomes important to try to gather as much data as feasibly possible about these three aspects of attitudes.

An example of a "scale" which is used in this research project is the Likert Scale, which was originally developed in 1932. Lewin refers to the Likert Scale as more of an answer format, with each item consisting of a statement followed by five or seven answer categories such as Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD).¹⁷
Likert had turned to a complex scoring system based on Thurstone's work, whereby an individual's score was converted into a score "indicating how many standard deviation units away from the mean it lay, thus indicating how extreme the score was relative to the total group." 18

Reacting to a suggestion by the head of the department where Likert had done his Ph.D. work in social psychology, he tried a simpler "1-2-3-4-5" scoring method and found it to produce results nearly identical to those derived from his more complex procedure. Ever since that time, the simpler version has received wide acceptance. 19

Allen Edwards further explored the utility of attitude measurement in Techniques of Attitude Scale Construction. He devoted a chapter to the method of summated ratings. In addition to providing an excellent overview regarding summated ratings he gives other specific suggestions. One heeded by this author in the later analysis of data was the suggestion to weight categories of response in such a way that the response made by individuals with the most favorable attitudes have the highest positive weight. 20

Just as Allen Edwards cites attitude measurement scales of the Likert type as being highly reliable, Delbert Miller in Handbook of Research Design and Social Measurement states, "This scale (Likert) is highly reliable when it comes to a rough ordering of people with regard to a particular attitude or attitude complex. The score includes a measure of intensity as expressed on each statement." 21

With an overview of the merits of attitude measurement in mind, discussion will now center on the questionnaire and the major variables.
Major Variables

Attitudes. Attitudes were in part measured by responses to sixty-four Likert-type belief statements (in Part A. of the questionnaire). Each item was responded to on a 5-point rating scale, ranging from "strongly agree" to "strongly disagree." In addition to items developed by this author, these items were drawn from or were variations of items previously used by Kilty, Cartwright, and the Dept. of Preventive Medicine, Ohio State University. For example, the following item drawn from Cartwright helped measure a health care practitioner's interest in the field of alcohol problems:

I am interested in the nature of alcohol-related problems and the responses that can be made to them.

The complete set of sixty-four statements can be seen in Chapter 4, Table 7 or in Appendix C, where the questionnaire is presented.

Knowledge Base. The knowledge base of the respondents regarding the field of alcohol problems, treatment, education, and prevention was measured by two short knowledge tests.

Knowledge Test I. (in Part B., Section I. of the questionnaire) was drawn mostly from the previous items used by the Dept. of Preventive Medicine, Ohio State University. This consisted of a fourteen statement YES/NO format. These items are of a more general alcohol education type, with the following being an example of one such item:

The ability to confine drinking to weekends suggests that a person is probably not an alcoholic.

Knowledge Test II. (in Part B., Section II. of the questionnaire) was drawn mostly from this author's work and from Atkins. This test
consisted of a set of ten multiple choice type statements which required somewhat more specific knowledge than did Knowledge Test I., with the following being an example:

Alcoholics Anonymous is a self-help group which has been in existence since: A. 1915 B. 1935 C. 1955 D. 1975

**General Information.** This consisted of information (in Part C.) regarding such variables as age, sex, religion, professional education, current professional assignment, and special training/education/practice experience related to alcohol and alcohol problems.

In addition to those variables, information was obtained regarding the following: estimates of practitioner's patients/clients with alcohol problems, demographics of patients/clients seen by practitioners (including problem drinkers and non-problem drinkers), practitioner's years treating problem drinkers in and out of the Air Force, and the average number of patients/clients seen daily by the practitioner.

**Clinical Practice Responses.** This section (Part D. of the questionnaire) consisted of ten items including seven Likert-type 5 point (SA - SD) items, two multiple choice items, and one YES/NO item which allowed for further specification regarding one's answer.

The main purpose of this section was to explore the overall manner in which the practitioner approached his/her work with problem drinkers. It included questions regarding who actually raised questions of possible alcohol problems with clients/patients and regarding what technique was most utilized in clinical work with problem drinkers. Further clinical practice behaviors were delineated by a group of seven questions which
covered diagnosis, treatment, documentation, and referral to other resources.

The last formal question in Part D., and in fact the next to the last item in the questionnaire, dealt with the practitioner's agreement or disagreement with the Diagnostic and Statistical Manual of Mental Disorders' (DSM III)'s definition of "Alcohol Abuse" and "Alcohol Dependence." This item basically represented another attitude-type statement. This question is of particular relevance because all those in the respondent sample are required to use the DSM III rationale as the primary guideline for official alcohol diagnoses.

Presence of an Alcohol Rehabilitation Center. The last item in the questionnaire was a YES/NO question regarding whether there is an inpatient alcohol rehabilitation center at the base of the respondent. The information was gathered from matching the return addresses on the packages with a listing of the locations of the treatment centers. There are seven such centers in the continental United States, in addition to three overseas centers. This item will be of particular interest especially during the data analysis to see how this variable may affect knowledge test scores and attitude scores.

Pretest of Questionnaire

The questionnaire was pretested by administering it to a sample of nine professionals. The individuals were allowed to give feedback
verbally and in writing. As Dillman says, "pretesting is especially important for mail questionnaire, because there are no interviewers to report defects and inadequacies to the researcher conducting the study." 22

The pretest questionnaire consisted of the actual draft pages for the final questionnaire. This included the cover page and the back page. This mock-up was done as suggested by Dillman. Dillman recommends that the questionnaire be submitted to three types of people. This includes colleagues, that is, "similarly trained professionals who understand the study's purpose, including the hypotheses to be tested." 23 This group is to evaluate the questionnaire in terms of whether it will accomplish the objectives of the study. 24

The second group consists of potential "users" of the data. "This may include politicians, policy makers, agency administrators, or professionals in other fields." These persons should have substantive knowledge of the topic under study. 25

The third group, according to Dillman, consists of persons drawn from the population to be surveyed. These may represent a cross-section of potential respondents.

In this study, an attempt was made to adhere to or, at least, approximate some of Dillman's guidelines. The major concern was to try to reach representatives from each of the three designated groups. The following was done. Locally, the questionnaire was administered to one
physician and two MSW social workers, one nurse, one psychologist, two representatives from Air Force Research Approval sources, and two professionals in administrative positions.

All of these pretests were done in person except the two Air Force Research approval individuals, which were done via mail, telephone and electronic transmission. For example, the individual at Randolph Air Force Base Research Survey approval office and this researcher conducted approximately six telephone conversations including one which lasted over one hour in length.

General Characteristics of the Study Population

The following sections, "Overview of the Sample," "Other Relevant Descriptive Respondent Factors," and "Demographics of the Patients/ Clients Seen by the Practitioners" will provide a descriptive analysis of the 225 cases in the study sample. In order to have a broader understanding of the total treatment arena, the material related to the demographics of the patients/clients is being provided. The first section, "Overview of the sample" will present five descriptive variables, all of which will then be summarized in Table 5.
Overview of the Sample

Sex. Because of the fact that the Air Force population is approximately 93% male, there was no attempt to obtain equal numbers of male and female respondents. However, when considering the sample population here, that is, Air Force physicians and social workers, females may tend to be somewhat more represented than among the general Air Force population. The percentage of females in the total Air Force social work force as of October 1982 was approximately 20% of the then total 199 social work force. No figures were readily available regarding the percentage of females in the physician force.

In this study, 12% of the total sample are females and 88% are males.

Age. With the age variable, like sex, no attempt was made to obtain certain percentages within various age groupings. Due to the nature of the sample, that is, a heavy proportion of the physicians being family practice and family practice resident physicians, the mean age was expected to be somewhat young. The final tabulations produced five age categories with the following percentages: 24-33, 55%; 34-43, 28%; 44-53, 8%; 54-63, 6%; 64+, 1%; and missing, 2%. The average age for all cases was 35.06.

Religion. There were three respondents who failed to supply an answer for this item. The following figures represent the adjusted frequency for the 222 respondents. 52.3% of the sample identified themselves as Protestant; 27% of the sample identified themselves as Catholic; .9% of the sample identified themselves as Jewish; 9.5% responded
123
to the designation of "other"; and 10.4% stated they had no religious preference.

Education & Professional Specialty. The design of the sample was such that the minimum education would be a Master's Degree. Consequently, 22.7% of the sample had a Master's Degree and 77.3% had a PhD or M.D. It must be kept in mind that the sample consisted of two general groups of individuals, that is, physicians and social workers. 25.3% of the sample had been trained and were functioning as social workers. 89% of these social workers had a Master's Degree and the remaining 11% had a PhD in social work. 74.7% of the sample were physicians. A fair percentage of those also identified other specialties such as internal medicine, surgery, etc. but their primary duties related to their family practice or general medicine assignments. About 11% of the physicians identified themselves as having training in emergency medicine. Some of this group overlaps with the already mentioned family practice physicians. 15.5% of the physicians who were in the family practice specialty were medical resident physicians. Table 5, which follows, summarizes material related to these five descriptive variables.
Table 5

Demographic Characteristics of the Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Respondents</th>
<th>Adjusted Frequency Percent of Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>197</td>
<td>88.3</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>11.7</td>
</tr>
<tr>
<td>(Total)</td>
<td>(223)</td>
<td>(100.0)</td>
</tr>
<tr>
<td>2. Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-33</td>
<td>124</td>
<td>56.3</td>
</tr>
<tr>
<td>34-43</td>
<td>62</td>
<td>28.2</td>
</tr>
<tr>
<td>44-53</td>
<td>18</td>
<td>7.6</td>
</tr>
<tr>
<td>54-63</td>
<td>14</td>
<td>6.6</td>
</tr>
<tr>
<td>64+</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>(Total)</td>
<td>(220)</td>
<td>(99.7)</td>
</tr>
<tr>
<td></td>
<td>Mean - 35.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mode - 28.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median 32.14</td>
<td></td>
</tr>
<tr>
<td>3. Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>60</td>
<td>27.0</td>
</tr>
<tr>
<td>Jewish</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Protestant</td>
<td>116</td>
<td>52.3</td>
</tr>
<tr>
<td>None</td>
<td>23</td>
<td>10.4</td>
</tr>
<tr>
<td>Other</td>
<td>21</td>
<td>9.5</td>
</tr>
<tr>
<td>(Total)</td>
<td>(222)</td>
<td>(100.1)</td>
</tr>
<tr>
<td>4. Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master's Degree</td>
<td>51</td>
<td>22.7</td>
</tr>
<tr>
<td>PhD/MD</td>
<td>174</td>
<td>77.3</td>
</tr>
<tr>
<td>(Total)</td>
<td>(225)</td>
<td>(100.0)</td>
</tr>
</tbody>
</table>
Table 5 (continued)

<table>
<thead>
<tr>
<th>Professional Specialty</th>
<th>N</th>
<th>Adj. Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine or Family Practice*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- General Medicine (GM) or Family Practice Medicine (FP) alone.</td>
<td>99</td>
<td>44.00</td>
</tr>
<tr>
<td>- GP or FP with Internal Medicine</td>
<td>9</td>
<td>4.00</td>
</tr>
<tr>
<td>- GM or FP with Obstetrics and Gynecology</td>
<td>1</td>
<td>.40</td>
</tr>
<tr>
<td>- GM or FP with Aerospace Medicine</td>
<td>3</td>
<td>1.33</td>
</tr>
<tr>
<td>- GM or FP with Pediatrics</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td>- GM or FP with Anesthesiology</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td>- GM or FP with Surgery</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td>- GM or FP with Administration</td>
<td>2</td>
<td>.89</td>
</tr>
<tr>
<td>- GM or FP with Admin. &amp; Psychiatry</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td>- GM or FP Residents</td>
<td>28</td>
<td>12.44</td>
</tr>
<tr>
<td></td>
<td>146</td>
<td>64.82</td>
</tr>
<tr>
<td>Emergency Medicine (EM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Emergency Medicine alone</td>
<td>5</td>
<td>2.22</td>
</tr>
<tr>
<td>- EM with FP or GM</td>
<td>10</td>
<td>4.44</td>
</tr>
<tr>
<td>- EM with FP and Administration</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td>- EM with Internal Medicine and Psychiatry</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>7.54</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Internal Medicine alone</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td>- Internal Medicine with Aerospace Medicine and Administration</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>.88</td>
</tr>
<tr>
<td>Psychiatry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Psychiatry alone</td>
<td>2</td>
<td>.89</td>
</tr>
<tr>
<td>- Psychiatry with Aerospace Medicine</td>
<td>1</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1.33</td>
</tr>
<tr>
<td>Social Work</td>
<td>57</td>
<td>25.33</td>
</tr>
<tr>
<td>(Total N=225)</td>
<td></td>
<td>(99.90)</td>
</tr>
</tbody>
</table>

*Note: These represent two different training backgrounds but their daily responsibilities are often similar.
Footnotes


2 Cartwright, Dr. Jnl. Addc., pp. 413-431.

3 Preventive Medicine Dept., Ohio State University, Standardized Survey of Attitudes Toward Substance Abuse (Fifth Revision), Columbus, Ohio: Ohio State University, n.d.

4 Jep Hostetler, Preventive Medicine Dept., Ohio State University, Alcohol and Other Drugs, Columbus, Ohio: Ohio State University, (1977).


7 Polich and Orvis, Alcohol Problems, pp. 13-23.

8 Slonim, Sampling, pp. 57-66.

9 Polich and Orvis, Alcohol Problems, pp. 13-23.


11 Staff quotes (via telephone contact) from Military Personnel Center, Randolph AFB, Texas. (Jan. 83).


13 Ibid., p. 20.

14 Ibid., p. 191.


16 Ibid., pp. 129-178.

17 Ibid.

18 Ibid.

19 Ibid.


22. Dillman, p. 155.

23. Ibid., p. 156.


25. Ibid.
This chapter will present a summary analysis of the data for the 225 health care practitioners included in this study. The discussion will provide descriptions of the various scales and summary scores that were developed to measure the various independent and dependent variables. The chapter has been organized into three major sub-sections, reflecting the material covered by each of the three Major Research Questions. However, before turning to the major research issues, it would be useful to review the background of the sample in terms of special training and experience regarding alcoholism and problem drinking.

Training and Experience of Respondents

Special Training/Education/Practical Experience Regarding Alcohol-related Problems. The responses revealed the following: 18.9% of the sample stated that they had no specific alcohol-related classes or training; 12.2% stated they had one alcohol-related class or training experience; 35.1% had two or more alcohol-related classes or training experiences; 11.7% of the sample had no specific alcohol-related courses or training but some practical experience; 18.9% of the sample stated they had extensive alcohol education and training (including at least some practice experience with patients with alcohol problems).
Over three percent claimed they had some "other" type of special training/education/practical experience.

**Total Years Treating Alcohol Abusing Individuals.** Approximately thirteen percent of the total sample identified themselves as having one year or less in time treating alcohol abusers while .7% had forty years experience in treating alcohol abusers. The average number of years treating alcohol abusers was 7.4 years. The following grouping shows the overall percentages of respondents and years treating alcohol abusers. Adjusted Frequency Percentages allows for missing data on 4 respondents and missing data on 77 respondents who chose a "not applicable" response. See Table 6.

**Years Treating Alcohol Abusers in the Air Force.** This item differed from the previous item in that here the years treating alcohol abusers in the Air Force was the key variable. Approximately sixteen percent of the sample stated they had one year or less treating alcohol abusers in the Air Force. About one percent of the sample stated they had 15 years treating alcohol abusers in the Air Force. The average number of years treating alcohol abusers in the Air Force was 4.5 years. Table 6 shows the distribution of cases regarding years treating alcohol abusers in the Air Force.

**Number of Patients/Clients Seen Per Day by Health Care Practitioner.** This item identified the number of patients/clients which were seen per day by the respondents in the sample. One percent of the sample stated they saw one or less patients/clients per day. Less than one percent of the sample saw forty patients/clients per day. The average number
of patients/clients seen per day was 17.16. Table 6 shows the distribution of the percentages regarding patients/clients seen per day.

Table 6
Practitioner Background and Caseload

<table>
<thead>
<tr>
<th>Years Treating Alcohol Abusers</th>
<th>Number of Respondents</th>
<th>Adjusted Frequency Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year or less</td>
<td>19</td>
<td>13.2%</td>
</tr>
<tr>
<td>2 - 5 years</td>
<td>64</td>
<td>44.4%</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>32</td>
<td>22.3%</td>
</tr>
<tr>
<td>11 - 15 years</td>
<td>16</td>
<td>11.2%</td>
</tr>
<tr>
<td>16 - 40 years</td>
<td>13</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years Treating Alcohol Abusers in the A. F.</th>
<th>Number of Respondents</th>
<th>Adjusted Frequency Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year or less</td>
<td>24</td>
<td>16.4%</td>
</tr>
<tr>
<td>2 - 5 years</td>
<td>78</td>
<td>53.4%</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>35</td>
<td>23.9%</td>
</tr>
<tr>
<td>11 - 15 years</td>
<td>9</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Patients/Clients Seen Per day</th>
<th>Number of Respondents</th>
<th>Adjusted Frequency Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5</td>
<td>13</td>
<td>6.0%</td>
</tr>
<tr>
<td>6 - 10</td>
<td>49</td>
<td>22.6%</td>
</tr>
<tr>
<td>11 - 15</td>
<td>41</td>
<td>18.8%</td>
</tr>
<tr>
<td>16 - 20</td>
<td>50</td>
<td>23.1%</td>
</tr>
<tr>
<td>21 - 25</td>
<td>31</td>
<td>14.3%</td>
</tr>
<tr>
<td>26 - 30</td>
<td>25</td>
<td>11.5%</td>
</tr>
<tr>
<td>31 - 40</td>
<td>8</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

From a systems perspective, it is necessary to learn as much as much as possible about the arena where the practitioner functions. One way to do this is to acquire data not only about the professionals themselves but also about their patients and clients and interactions with them. The following section presents data regarding estimated
percentages of and selected demographics of all patients seen by the practitioner, and the estimated percentage and selected demographics of problem drinkers seen. After a general discussion of this data, more specifics will be presented in Table 7 and 8.

Demographics of all Patients/Clients Seen by Practitioners. The following table depicts the estimated percentages of the practitioner's patients within each category. It is acknowledged that the questions in this section required the most time on the part of each sampled respondent and 31 respondents opted not to provide estimated percentages here. Therefore, the adjusted frequency estimates for the remaining 86.2% of the sample will be given.

The findings will be discussed here primarily from the mean data. Other information regarding the mode and median estimates can be found in Table 7. When asked to estimate the percentage of their patients (all patients seen) within various categories, the respondents gave the following answers. They estimated their total caseload as including 23% male active duty (A.D.) enlisted, 8.6% female A.D. enlisted, 7.2% male A.D. officers, 3.4% female A.D. officers, 4.5% male dependents of A.D. officers, 7% female dependents of A.D. officers, 6.7% male dependents of A.D. enlisted, 11.3% female dependents of A.D. enlisted, 10.5% male retired, 3.6% male dependents of retired, 8.1% female dependents of retired, .3% male other, and .4% female other.
Table 7
Estimated Percentages of All Patients Seen

<table>
<thead>
<tr>
<th>Category</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active duty (A.D.) enlisted</td>
<td>Mean 23.0%</td>
<td>8.6%</td>
</tr>
<tr>
<td></td>
<td>Mode 15.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>Median 10.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Active duty (A.D.) officers</td>
<td>Mean 7.2%</td>
<td>3.4%</td>
</tr>
<tr>
<td></td>
<td>Mode 5.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>Median 5.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Dependents of A.D. officers</td>
<td>Mean 4.5%</td>
<td>7.0%</td>
</tr>
<tr>
<td></td>
<td>Mode 0.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>Median 4.6%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Dependents of A.D. enlisted</td>
<td>Mean 6.7%</td>
<td>11.3%</td>
</tr>
<tr>
<td></td>
<td>Mode 0.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>Median 5.1%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Retired</td>
<td>Mean 10.5%</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>Mode 10.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Median 9.7%</td>
<td>.9%</td>
</tr>
<tr>
<td>Dependents of Retired</td>
<td>Mean 3.6%</td>
<td>8.1%</td>
</tr>
<tr>
<td></td>
<td>Mode 0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Median .6%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Other</td>
<td>Mean .3%</td>
<td>.4%</td>
</tr>
<tr>
<td></td>
<td>Mode 0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Median .1%</td>
<td>.1%</td>
</tr>
</tbody>
</table>
Demographics of Problem Drinker Patients/Clients Seen by Practitioners. The following table depicts the estimated percentages of the practitioner's problem drinker patients/clients within each category. As with the previously mentioned section, these questions required the most time on the part of the respondent and 63 respondents opted not to provide estimated percentages here. Therefore, the adjusted frequency estimates for the remaining 72% of the sample will be given.

The findings will be discussed here primarily from the mean data. Other information regarding the mode and median estimates can be found in Table 8. When asked to estimate the percentage of their problem drinker patients within various categories, the respondents gave the following answers. They estimated their problem drinker caseload as including 33.1% male active duty (A.D.) enlisted, 5.8% female A.D. enlisted, 7.6% male A.D. officers, 1.5% female A.D. officers, 1.4% male dependents of A.D. officers, 2.8% female dependents of A.D. officers, 2.04% male dependents of A.D. enlisted, 3.8% female dependents of A.D. enlisted, 26.4% male retired, 5.3% female retired, 2.4% male dependents of retired, 5% female dependents of retired, .2% male others, and .1% female others.
Table 8

Estimated Percentages of Problem Drinker Patients Seen

<table>
<thead>
<tr>
<th>Category</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active duty (A.D.) enlisted</strong></td>
<td>Mean</td>
<td>33.1%</td>
</tr>
<tr>
<td></td>
<td>Mode</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>25.2%</td>
</tr>
<tr>
<td><strong>Active duty (A.D.) officers</strong></td>
<td>Mean</td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td>Mode</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>4.8%</td>
</tr>
<tr>
<td><strong>Dependents of A.D. officers</strong></td>
<td>Mean</td>
<td>2.04%</td>
</tr>
<tr>
<td></td>
<td>Mode</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Retired</strong></td>
<td>Mean</td>
<td>26.4%</td>
</tr>
<tr>
<td></td>
<td>Mode</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>20.2%</td>
</tr>
<tr>
<td><strong>Dependents of Retired</strong></td>
<td>Mean</td>
<td>2.4%</td>
</tr>
<tr>
<td></td>
<td>Mode</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>Mean</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>Mode</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
First Major Research Question:
Descriptive Analysis of Attitudes toward,
Knowledge about, and Practice
Activities toward Problem Drinkers

Attitudes about Problem Drinking

The intent of this portion of the survey was to answer part of the first major research question, that is, "What are the attitudes of selected health care practitioners in the U.S. Air Force toward problem drinkers?" In order to accomplish this, a set of 64 items was used.

The initial step in the analysis was to find out what kind of structure there was among the 64 belief statements. Therefore, a principal components factor analysis was carried out on the data. Factor analysis, as Kim and Mueller (1978) point out, has many uses, which include being an exploratory means for possible data reduction.\(^1\)

Table 9 lists all 64 of the belief statements and then the results of the factor analysis, including the varimax rotated factor loadings. The decision was made to use the six factors which had the highest eigen values. This controlled for 37.5% of the variance. In describing the six factors, attention will be given only to variables having loadings of .40 or greater on the various factors. Scores were then created for each factor by summing all items with loadings greater than .40.
Table 9
A Principal Components Factor Analysis of 64 Belief Statements

<table>
<thead>
<tr>
<th></th>
<th>Varimax Rotated Factor Loadings</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I.</td>
<td>II.</td>
<td>III.</td>
<td>IV.</td>
<td>V.</td>
<td>VI.</td>
</tr>
<tr>
<td>1. The alcohol treatment services in this community (civilian-military) are quite adequate.</td>
<td>04</td>
<td>05</td>
<td>-41</td>
<td>06</td>
<td>-29</td>
<td>13</td>
</tr>
<tr>
<td>2. Parents should teach their children how to use alcohol.</td>
<td>09</td>
<td>27</td>
<td>13</td>
<td>29</td>
<td>-22</td>
<td>03</td>
</tr>
<tr>
<td>3. Any drug can be safely used by a person who is mentally healthy.</td>
<td>-05</td>
<td>18</td>
<td>37</td>
<td>22</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>4. Almost anyone would turn to drugs if their problems were great enough.</td>
<td>-17</td>
<td>24</td>
<td>37</td>
<td>12</td>
<td>25</td>
<td>09</td>
</tr>
<tr>
<td>5. Members of the clergy should not drink in public.</td>
<td>-11</td>
<td>50</td>
<td>16</td>
<td>-11</td>
<td>-12</td>
<td>09</td>
</tr>
<tr>
<td>6. Alcoholism is associated with weak will.</td>
<td>-17</td>
<td>32</td>
<td>19</td>
<td>24</td>
<td>-11</td>
<td>18</td>
</tr>
<tr>
<td>7. Angry confrontation is necessary in the treatment of alcohol abusers.</td>
<td>04</td>
<td>-14</td>
<td>-53</td>
<td>18</td>
<td>02</td>
<td>16</td>
</tr>
<tr>
<td>8. Family involvement is a very important part of the treatment of alcohol abuse.</td>
<td>-10</td>
<td>06</td>
<td>23</td>
<td>34</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>9. Alcohol is so dangerous that it could destroy the youth of our country if it wasn't controlled by law.</td>
<td>-01</td>
<td>-17</td>
<td>-07</td>
<td>21</td>
<td>66</td>
<td>08</td>
</tr>
<tr>
<td>10. Lifelong abstinence is a necessary goal in the treatment of alcoholism.</td>
<td>19</td>
<td>-26</td>
<td>-27</td>
<td>41</td>
<td>11</td>
<td>-03</td>
</tr>
<tr>
<td>11. Alcoholism is a treatable illness.</td>
<td>-03</td>
<td>02</td>
<td>-04</td>
<td>48</td>
<td>24</td>
<td>-01</td>
</tr>
<tr>
<td>12. A hospital is the best place to treat an alcohol abuser.</td>
<td>17</td>
<td>-12</td>
<td>-16</td>
<td>40</td>
<td>22</td>
<td>04</td>
</tr>
<tr>
<td>13. Group therapy is very important in the treatment of alcoholism.</td>
<td>13</td>
<td>06</td>
<td>-19</td>
<td>06</td>
<td>22</td>
<td>06</td>
</tr>
<tr>
<td>15. Paraprofessional counselors can provide effective treatment for alcohol abusers.</td>
<td>-09</td>
<td>57</td>
<td>08</td>
<td>10</td>
<td>-07</td>
<td>01</td>
</tr>
<tr>
<td>16. An alcohol dependent person who has relapsed several times probably cannot be treated.</td>
<td>19</td>
<td>06</td>
<td>-19</td>
<td>-06</td>
<td>22</td>
<td>06</td>
</tr>
<tr>
<td>17. Physicians who diagnose alcoholism early improve the chance of treatment success.</td>
<td>-14</td>
<td>-37</td>
<td>-24</td>
<td>11</td>
<td>-04</td>
<td>03</td>
</tr>
<tr>
<td>18. An alcohol dependent person who has relapsed several times probably cannot be treated.</td>
<td>13</td>
<td>06</td>
<td>-09</td>
<td>42</td>
<td>25</td>
<td>-07</td>
</tr>
</tbody>
</table>
Table 9 (continued)

<table>
<thead>
<tr>
<th>Belief Statements</th>
<th>Varimax Rotated Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I.</td>
</tr>
<tr>
<td>20. Chronic problem drinkers who refuse treatment should be legally committed to</td>
<td>-05</td>
</tr>
<tr>
<td>long-term treatment.</td>
<td></td>
</tr>
<tr>
<td>21. An alcohol dependent person cannot be helped until he/she has hit &quot;rock</td>
<td>-06</td>
</tr>
<tr>
<td>bottom.&quot;</td>
<td></td>
</tr>
<tr>
<td>22. Once an alcohol dependent patient is abstinent and off all medication, no</td>
<td>15</td>
</tr>
<tr>
<td>further contact with a physician is necessary.</td>
<td></td>
</tr>
<tr>
<td>23. The more extensive efforts to &quot;educate the public&quot; regarding alcoholism</td>
<td>-08</td>
</tr>
<tr>
<td>probably serve simply to increase alcoholism.</td>
<td></td>
</tr>
<tr>
<td>24. Spiritual guidance is the only sure cure for drinking.</td>
<td>-08</td>
</tr>
<tr>
<td>25. Alcoholism is hereditary.</td>
<td>-01</td>
</tr>
<tr>
<td>26. Only sensitive people are prone to become problem drinkers.</td>
<td>-12</td>
</tr>
<tr>
<td>27. Even if problem drinkers could be rehabilitated by proper treatment, the</td>
<td>-12</td>
</tr>
<tr>
<td>cost would be prohibitive.</td>
<td></td>
</tr>
<tr>
<td>28. The facts of alcoholism are generally unknown to the public.</td>
<td>-08</td>
</tr>
<tr>
<td>29. Many problem drinkers engage in criminal activities as a result of their</td>
<td>-12</td>
</tr>
<tr>
<td>drinking.</td>
<td></td>
</tr>
<tr>
<td>30. Private treatment facilities should be available to problem drinkers.</td>
<td>12</td>
</tr>
<tr>
<td>31. Alcoholism is a disease.</td>
<td>00</td>
</tr>
<tr>
<td>32. Problem drinkers have no one to blame for their trouble but themselves.</td>
<td>25</td>
</tr>
<tr>
<td>33. People who use alcoholic beverages are not as trustworthy or as dependable</td>
<td>07</td>
</tr>
<tr>
<td>as people who do not.</td>
<td></td>
</tr>
<tr>
<td>34. Drunk drivers should lose their driver's license.</td>
<td>-24</td>
</tr>
<tr>
<td>35. The public has heard enough about alcoholism.</td>
<td>-09</td>
</tr>
<tr>
<td>36. Alcoholics Anonymous is an important resource for persons with alcohol</td>
<td>10</td>
</tr>
<tr>
<td>problems.</td>
<td></td>
</tr>
<tr>
<td>Belief Statements</td>
<td>Varimax Rotated Factor Loadings</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>37. The Air Force should begin to consider giving monetary compensation to retired persons who have developed serious alcohol problems during their active duty time.</td>
<td>09 -35 22 28 -34 -18 41.</td>
</tr>
<tr>
<td>38. I would recommend controlled drinking (social or moderate drinking) to most persons who have had past serious problems with alcohol.</td>
<td>-02 13 24 -07 -60 02 44.</td>
</tr>
<tr>
<td>39. Alcoholics Anonymous is a must for persons with alcohol problems.</td>
<td>10 16 -07 34 51 03 41.</td>
</tr>
<tr>
<td>40. I believe there are some severe problem drinkers who can return to controlled (social or moderate) drinking.</td>
<td>03 15 -06 -14 70 06 54.</td>
</tr>
<tr>
<td>41. I think it is good that a number of professional persons and entertainers have spoken out about their alcohol problems.</td>
<td>11 -23 -38 28 24 12 36.</td>
</tr>
<tr>
<td>42. I feel that I am well informed about the alcohol treatment services which the Air Force has to offer.</td>
<td>60 -19 -01 26 01 -03 47.</td>
</tr>
<tr>
<td>43. Some problem drinkers need more than Alcoholics Anonymous as a support system in order to refrain from problematic drinking.</td>
<td>22 -24 -51 18 -05 20 44.</td>
</tr>
<tr>
<td>44. I believe a blood alcohol test should be routinely done on all hospital admissions.</td>
<td>13 -17 04 55 -07 -06 35.</td>
</tr>
<tr>
<td>45. The best I can offer problem drinkers is referral to somebody else.</td>
<td>-28 57 05 18 05 -13 46.</td>
</tr>
<tr>
<td>46. Pessimism is the most realistic attitude to take toward problem drinkers.</td>
<td>-16 52 30 02 03 -16 41.</td>
</tr>
<tr>
<td>47. I want to work with problem drinkers.</td>
<td>40 -63 -09 18 04 20 64.</td>
</tr>
<tr>
<td>48. I am interested in the nature of alcohol-related problems and the responses that can be made to them.</td>
<td>30 -50 -03 17 22 01 41.</td>
</tr>
<tr>
<td>49. There is little I can do to help problem drinkers.</td>
<td>-33 62 13 -01 01 -20 55.</td>
</tr>
<tr>
<td>50. In general, one can get satisfaction from working with problem drinkers.</td>
<td>25 -47 -03 16 02 12 55.</td>
</tr>
<tr>
<td>51. I often feel uncomfortable when working with problem drinkers.</td>
<td>-33 38 10 -01 10 -18 30.</td>
</tr>
<tr>
<td>52. I know how to counsel problem drinkers over the long term.</td>
<td>66 -25 -04 05 -20 -04 55.</td>
</tr>
</tbody>
</table>
Table 9 (continued)

<table>
<thead>
<tr>
<th>Belief Statements</th>
<th>Varimax Rotated Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>53. I know enough about the causes of drinking problems to carry out my role when working with problem drinkers.</td>
<td>I.  77 II. -13 III. -06 IV. -06 V. -10 VI. 10  h² 61</td>
</tr>
<tr>
<td>54. I know enough about alcohol dependence to carry out my role when working with problem drinkers.</td>
<td>I.  80 II. -12 III. -05 IV. 00 V. -03 VI. -04  h² 65</td>
</tr>
<tr>
<td>55. I know enough about the factors which put people at risk of developing drinking problems to carry out my role when working with problem drinkers.</td>
<td>I.  76 II. -21 III. -15 IV. 04 V. -12 VI. 29  h² 68</td>
</tr>
<tr>
<td>56. I can appropriately advise my clients about drinking and its effects.</td>
<td>I.  65 II. -15 III. -05 IV. -03 V. 19 VI. -03  h² 49</td>
</tr>
<tr>
<td>57. I have the right to ask a client for any information that is relevant to his/her drinking problem.</td>
<td>I.  40 II. 03 III. -29 IV. -01 V. 28 VI. 30  h² 41</td>
</tr>
<tr>
<td>58. I have a working knowledge of alcohol and alcohol-related problems.</td>
<td>I.  67 II. -09 III. -02 IV. -10 V. 23 VI. -07  h² 53</td>
</tr>
<tr>
<td>59. I have a clear idea of my responsibility in helping problem drinkers.</td>
<td>I.  72 II. -14 III. -11 IV. 14 V. 07 VI. 07  h² 58</td>
</tr>
<tr>
<td>60. I have the right to ask clients about their drinking when I believe it is necessary.</td>
<td>I.  38 II. 08 III. -32 IV. 11 V. 26 VI. 32  h² 44</td>
</tr>
<tr>
<td>61. On the whole, I am satisfied with the way I work with problem drinkers.</td>
<td>I.  58 II. -12 III. -07 IV. 10 V. 01 VI. 19  h² 40</td>
</tr>
<tr>
<td>62. If a person really wants to stop problematic drinking, he/she can do so on one's own.</td>
<td>I.  04 II. 27 III. 20 IV. -02 V. -26 VI. 28  h² 26</td>
</tr>
<tr>
<td>63. If I felt the need when working with problem drinkers, I could easily find someone who would help me clarify my professional responsibilities.</td>
<td>I.  19 II. -15 III. -02 IV. 07 V. 01 VI. 72  h² 58</td>
</tr>
<tr>
<td>64. I could easily find someone with whom I could discuss any personal difficulties that I might encounter while working with problem drinkers.</td>
<td>I.  22 II. -13 III. -01 IV. -09 V. -02 VI. 75  h² 52</td>
</tr>
</tbody>
</table>
Description of Factors

The scale scores derived from analysis of the 6 factors reflect information regarding the following research questions. (in addition to Major Research Questions 1 and 3):

Factor 1 - Minor Research Questions 1, 3, 4, & 5.
Factor 2 - Minor Research Questions 1 and 2.
Factor 3 - Minor Research Question 8.
Factor 4 - No Minor Research Questions.
Factor 5 - Minor Research Questions 8 & 12.
Factor 6 - Minor Research Question 6.

Factor 1. "Have Adequate Knowledge of Problems," reflects material drawn from eleven variables, each of which had a factor loading which ranged from .40 (Item 47 from Table 9) to .80 (Item 54 from Table 9). Scores on this factor could range from 11 to 55.

The highest loading items were all (with the exception of Item 42) variations of Cartwright's items, used in his overall attitude, support, and self-esteem scales. The eleven items loaded on this factor (in the order of highest loading) were Item numbers 54, 53, 55, 59, 58, 52, 56, 42, 61, 47, and 57.

The title for this factor, "Have Adequate Knowledge of Problems," was chosen in order to depict the overall content or thrust of these eleven statements. They reflected beliefs regarding the following areas: knowledge of A.F. treatment services; knowledge regarding courses of alcohol problems, long term work with problem drinkers, alcohol dependence, and at-risk factors; knowledge regarding the
practitioner's desire to work with problem drinkers, his/her responsibilities in this area and right to ask clients for alcohol-related information; beliefs about the practitioner's overall working knowledge of alcohol and alcohol-related problems in addition to his/her feelings of satisfaction in general; and regarding advice-giving abilities in the area of alcohol use and abuse.

The lowest score on this scale would be 11, reflecting a person who strongly disagrees with the statement "Have Adequate Knowledge of Problems," while the highest possible scale score would be 55, reflecting a person who strongly agrees with the statement "Have Adequate Knowledge of Problems."

The figures represent scores rounded to the nearest whole number (that is, 1, 2, 3, 4 or 5).

Table 10
Percent of N agreeing with Factor 1

<table>
<thead>
<tr>
<th>Scale Score</th>
<th>SD (11-14)</th>
<th>D (15-27)</th>
<th>U (28-38)</th>
<th>A (39-49)</th>
<th>SA (50-55)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>10</td>
<td>95</td>
<td>106</td>
<td>14</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>4.4%</td>
<td>42.2%</td>
<td>47.1%</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

The mean score on this factor was 3.56, or rounded to 4, thus indicating agreement with the belief that the practitioner has adequate knowledge of alcohol problems. The mode score was 3.27, or rounded to 3, thus indicating undecided feelings regarding this factor.
The median score was 3.56, or rounded to 4, thus indicating agreement with the factor.

It is evident that 53.3% of the sample scored from 39 to 55 on this scale thus indicating agreement or strong agreement with this factor. A significant 42.2% were undecided, but only 10 cases or 4.4% believed they did not have adequate knowledge regarding alcohol problems.

**Factor 2.** "Difficult Clients To Be Avoided," reflects material drawn from ten variables, each of which had a factor loading which ranged from .40 (Item 32 from Table 9) to .67 (Item 50 from Table 9.) Scores on this factor could range from 10 to 50.

Six of these statements, including the four highest loading ones, were variations of Cartwright's items used in his overall attitude, support, and self-esteem scales. The ten items loaded on this factor (in the order of highest loading) were Item numbers 50, 47, 49, 45, 14, 46, 6, 48, 16 and 32.

The title for this factor, "Difficult Clients To Be Avoided," was chosen in order to depict the overall content or thrust of these ten items. This factor seemed to reflect the following beliefs: weak will and alcoholism; unpleasantness of problem drinker clients; blame attributed to problem drinkers themselves; interest level and desire to work in this area; discomfort when working with problem drinkers; overall pessimism reflecting very little that the practitioner can do except referral; and the belief that relapsed patients are untreatable.
The lowest score on this scale would be 10, reflecting a person who strongly disagrees with the statement "Problem Drinkers Are Difficult Clients and to be Avoided," while the highest score would be 50, reflecting a person who strongly agrees with the statement. The figures represent scores rounded to the nearest whole number (that is, 1, 2, 3, 4 or 5).

Table 11
Percent of N agreeing with Factor 2

<table>
<thead>
<tr>
<th>Scale Score</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>(10-14)</td>
<td>(15-24)</td>
<td>(25-34)</td>
<td>(35-44)</td>
<td>(45-50)</td>
</tr>
<tr>
<td>N</td>
<td>3</td>
<td>104</td>
<td>109</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>%</td>
<td>1.3%</td>
<td>46.2%</td>
<td>48.4%</td>
<td>4%</td>
<td>0%</td>
</tr>
</tbody>
</table>

The mean score on this factor was 2.46, or rounded to 2, thus indicating disagreement with the belief that problem drinkers are difficult clients to be avoided. The mode score was 2.5, or rounded to 3, thus indicating undecided feelings regarding this belief. The median score was 2.47, or rounded to 2, thus indicating disagreement with this factor.

It is evident that only 4% of the sample scored from 35 to 50, indicating agreement or strong agreement. A highly significant 48.4% of the sample were undecided and 47.5% of the sample disagreed with the factor statement.
Factor 3. "Public Health Problem Perspective," reflects material drawn from eight variables. Each of these had a factor loading which ranged from .41 (Item 2 on Table 9) to .54 (Item 26 on Table 9). Scores on this factor could range from 8 to 40.

This factor reflects three items from the Standardized Survey of Attitudes Toward Substance Abuse (5th Revision), two items from Kilty (1975), and three items from this author's work. The eight items loaded on this factor (in the order of highest loading) were Item numbers 26, 8, 23, 35, 36, 43, 22, and 2.

The title for this factor, "Public Health Problem Perspective," was chosen in order to depict the overall content or thrust of these eight belief statements. They reflected beliefs regarding the following areas: the importance of public education about alcohol and alcohol-related problems; importance of parents teaching children the use of alcohol; importance of family involvement in treatment efforts; the question of whether sensitive people are more alcohol prone; and the importance of follow-up care for problem drinkers in the form of physician contact, A.A. involvement, and other support systems.

The lowest score on this scale would be 8, reflecting a person who strongly disagrees with the idea that one should take a broad public health problem perspective toward alcohol problems, while the highest score would be 40, reflecting a person who strongly agrees with the statement. The figures in the following table represent scores rounded to the nearest whole number (that is 1, 2, 3, 4 or 5).
Table 12
Percent of N agreeing with Factor 3

<table>
<thead>
<tr>
<th>Scale Score</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>138</td>
<td>86</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>0%</td>
<td>0.4%</td>
<td>61.3%</td>
<td>38.2%</td>
</tr>
</tbody>
</table>

The mean score on this factor was 4.31, or rounded to 4, thus indicating agreement with the belief that a public health problem perspective is warranted. The mode score was 4.25, or rounded to 4, thus indicating agreement with this factor. The median score was 4.31, or rounded to 4, thus indicating agreement with this factor.

It is evident that 99.5% of the sample scored from 28-40 on the scale thus indicating agreement or strong agreement with a public health problem perspective toward alcohol problems. Less than 1% were undecided regarding this issue, and no respondents disagreed with this factor statement.

Factor 4. "Alcoholism is a Treatable Disease," reflects material drawn from eight variables. Each of these had a factor loading which ranged from .41 (Item 11 on Table 9) to .62 (Item 18 on Table 9). Scores on this factor could range from 8 to 40.

This factor reflects six items from the Standardized Survey of Attitudes Toward Substance Abuse (5th Revision), one item from Kilty (1975) and one from this author's work. The eight items loaded on this factor (in the order of highest loading) were Item numbers 18, 31, 44, 12, 20, 19, 11, and 40.
The title for this factor, "Alcoholism is a Treatable Disease," was chosen in order to depict the overall content or thrust of these eight items. The belief statements included the following areas: alcoholism as a treatable disease; the use of hospitalization for alcohol treatment; the importance of group therapy in alcohol treatment; alcohol treatment and patients who have relapses of problems; involuntary commitment of chronic alcohol patients; and the question of blood alcohol tests for all hospital admissions.

The lowest score on this scale would be 8, reflecting a person who strongly disagrees with the idea that alcoholism is a treatable disease, while the highest score would be 40, reflecting a person who strongly agrees with the disease concept of alcoholism. The figures represent scores rounded to the nearest whole number (that is, 1, 2, 3, 4, or 5).

Table 13

<table>
<thead>
<tr>
<th>Scale Score</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0</td>
<td>8</td>
<td>134</td>
<td>78</td>
<td>5</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>3.6%</td>
<td>59.6%</td>
<td>34.7%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

The mean score on this factor was 3.31, or rounded to 3, thus indicating an undecided attitude regarding the factor of alcoholism as a disease. The mode score was 3.13, or rounded to 3, thus indicating an undecided attitude toward this factor. The median score was 3.23, or rounded to 3, thus indicating an undecided attitude toward this factor.
It is evident that 36.8% of the sample scored from 28 to 40 on this scale, thus indicating agreement or strong agreement with this factor, which states that they believe that alcoholism is a treatable disease. A significant 59.6% were undecided regarding this issue and 3.6% disagreed with this statement.

**Factor 5.** "Abstinence Is Necessary," reflects material drawn from four variables. Each of these had a factor loading which ranged from .51 (Item 39 on Table 9) to .70 (Item 40 on Table 9). Scores on this factor could range from 4 to 20.

This factor includes three items from this author and one item from the Standardized Survey of Attitudes Toward Substance Abuse (5th Revision). The four items loaded on this factor (in the order of highest loading) were Item numbers 40, 10, 38, and 39.

The title for this factor, "Abstinence Is Necessary," was chosen in order to depict the overall content or thrust of the items. They reflected beliefs regarding the following areas: lifelong abstinence as a necessary goal in alcohol treatment; the possibility of controlled drinking for severe problem drinkers and/or alcoholics; and the question of A.A. as a necessary part of alcohol treatment.

The lowest score on this scale would be 4, reflecting a person who strongly disagrees with the idea that abstinence from alcohol is necessary for problem drinkers/alcoholics, while the highest score would be 20. The figures represent scores rounded to the nearest whole number (that is, 1, 2, 3, 4 or 5).
Table 14

Percentage of N agreeing with Factor 5

<table>
<thead>
<tr>
<th>Scale Score</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>(4-5)</td>
<td>(6-9)</td>
<td>(10-13)</td>
<td>(14-17)</td>
<td>(18-20)</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>4</td>
<td>67</td>
<td>97</td>
<td>57</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>1.8%</td>
<td>29.8%</td>
<td>43.1%</td>
<td>25.3%</td>
</tr>
</tbody>
</table>

The mean score on this factor was 3.78, or rounded to 4, thus indicating agreement with the belief that abstinence is necessary for problem drinkers. The mode score on this factor was 4.00, thus indicating agreement with this factor. The median score was 3.80, or rounded to 4, thus indicating agreement with the factor.

It is evident that 68.4% of the sample scored from 14 to 20 on this scale, thus indicating agreement or strong agreement with the belief that abstinence is necessary in work with problem drinkers and/or alcoholics. Nearly thirty percent were undecided and 1.8% of the sample disagreed with this statement.

Factor 6. "Role Support Available," reflects material drawn from two variables, Items 63 and 64 (from Table 9) with respective factor loadings of .72 and .75. Scores on this factor could range from 2 to 10. Both items were from Cartwright's work.

The title for this factor, "Role Support Available," was chosen in order to depict the overall content or thrust of these two items. That is, these two items reflected beliefs by the practitioners regarding the following areas: availability of support for practitioner when
having professional and/or personal difficulties in dealing with problem drinkers.

The lowest score on this scale would be 2, reflecting a person who strongly disagrees with the belief that role support is available for the practitioner when working with problem drinkers, while the highest score would be 10 reflecting a person who strongly agrees with the belief that role support is available. The figures in Table 15 again represent scores rounded to the nearest whole number (that is, 1, 2, 3, 4, or 5).

<table>
<thead>
<tr>
<th>Scale Score</th>
<th>SD (1-2)</th>
<th>D (3-4)</th>
<th>U (5-6)</th>
<th>A (7-8)</th>
<th>SA (9-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>21</td>
<td>27</td>
<td>152</td>
<td>25</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>9.3%</td>
<td>12%</td>
<td>67.6%</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

The mean score on this factor was 3.73, or rounded to 4, thus indicating agreement with the belief that role support is available. The mode score was 3.8, or rounded to 4, thus indicating agreement with the factor. The median score was 3.93, or rounded to 4, thus indicating agreement with this factor.

It is evident that 78.7% of the sample scored from 7-10 on this scale, indicating agreement or strong agreement with this factor. Twelve percent were undecided and 9.3% of the sample disagreed with the belief that role support was available.
The following table provides a summary, reflecting the percent of total respondents and their level of agreement with each of the 6 factors.

**Table 16**

**SUMMARY TABLE**

<table>
<thead>
<tr>
<th>% of N with these responses</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1-Have adequate knowledge of problems</td>
<td>0%</td>
<td>4.4%</td>
<td>42.2%</td>
<td>47.1%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Factor 2-Problem drinkers are difficult clients and to be avoided</td>
<td>1.3%</td>
<td>46.2%</td>
<td>48.4%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>Factor 3-Public health problem perspective toward alcohol</td>
<td>0%</td>
<td>0%</td>
<td>0.4%</td>
<td>61.3%</td>
<td>38.2%</td>
</tr>
<tr>
<td>Factor 4-Alcoholism is a treatable disease</td>
<td>0%</td>
<td>3.6%</td>
<td>59.6%</td>
<td>34.7%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Factor 5-Abstinence is necessary for problem drinkers/alcoholics</td>
<td>0%</td>
<td>1.8%</td>
<td>29.8%</td>
<td>43.1%</td>
<td>25.3%</td>
</tr>
<tr>
<td>Factor 6-Role support is available</td>
<td>0%</td>
<td>9.3%</td>
<td>12%</td>
<td>67.6%</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

*N=225.*
The previous table reveals that, overall, the practitioners' responses were positive on Factors 1(53.3%), 3(99.5%), 5(68.4%), and 6(78.7%).

**Knowledge Tests**

In order to assess the current knowledge base of the sample, two knowledge tests were used. Knowledge Test 1 consisted of 14 items, with a YES/NO type answer format. The following table shows the entire set of questions in Knowledge Test 1 and the scores for the sample. The presentation here will consist of the actual listing of the questions for Knowledge Tests 1 and 2 accompanied by data showing the percentage of respondents answering correctly to each question. Additional analysis of data related to these knowledge tests and some commentary regarding the utility of such tests will then be presented.
### Table 17

**Knowledge Test #1**

<table>
<thead>
<tr>
<th>Knowledge Statements</th>
<th>Correct Answer</th>
<th>Responding Correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. As well as suffering adverse consequences from drinking, the alcoholic usually drinks according to different patterns than does the normal or social drinker.</td>
<td>Yes</td>
<td>93.8%</td>
</tr>
<tr>
<td>2. Alcoholism affects approximately 1% of our adult population.</td>
<td>No</td>
<td>67.1%</td>
</tr>
<tr>
<td>3. Approximately one-fourth of all alcoholics are on skid row.</td>
<td>No</td>
<td>91.1%</td>
</tr>
<tr>
<td>4. Research has failed to establish any genetic, environmental, social or personality factors as the single cause of alcoholism.</td>
<td>Yes</td>
<td>78.7%</td>
</tr>
<tr>
<td>5. A person who never consumes anything stronger than beer is probably not an alcoholic.</td>
<td>No</td>
<td>99.1%</td>
</tr>
<tr>
<td>6. One may be a reliable worker on the job and still be alcoholic.</td>
<td>Yes</td>
<td>95.6%</td>
</tr>
<tr>
<td>7. The ability to confine drinking to weekends suggests that a person is probably not alcoholic.</td>
<td>No</td>
<td>93.3%</td>
</tr>
<tr>
<td>8. The suicide rate among alcoholics is markedly higher than that for the general population.</td>
<td>Yes</td>
<td>88.0%</td>
</tr>
<tr>
<td>9. Coming from a family background of teetotalism (total abstinence from alcoholic drinks) is relative assurance that one will not develop alcoholism.</td>
<td>No</td>
<td>96.4%</td>
</tr>
<tr>
<td>10. Al-Anon is the companion group to Alcoholics Anonymous (A.A.) for female alcoholics.</td>
<td>No</td>
<td>85.8%</td>
</tr>
<tr>
<td>Knowledge Statements</td>
<td>Correct Answer</td>
<td>Responding Correctly</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>11. Alcoholism can be seen as a type of drug addiction.</td>
<td>Yes</td>
<td>98.2%</td>
</tr>
<tr>
<td>12. Cross-dependency (or &quot;cross addiction&quot;) to other sedative or tranquilizing drugs in the alcoholic may begin iatrogenically (i.e., due to a physician's prescription of the drug.)</td>
<td>Yes</td>
<td>97.8%</td>
</tr>
<tr>
<td>13. The incidence of alcoholism and drug dependence is lower among physicians than the general population.</td>
<td>No</td>
<td>98.2%</td>
</tr>
<tr>
<td>14. The most current information regarding the issue of whether alcoholics can return to &quot;controlled&quot; or &quot;non-problematic&quot; drinking totally supports the contention that most persons can return to this non-problematic drinking pattern.</td>
<td>No</td>
<td>89.8%</td>
</tr>
</tbody>
</table>
Table 18

Knowledge Test #2

<table>
<thead>
<tr>
<th>Knowledge Questions</th>
<th>Correct Answer</th>
<th>Responding Correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In addition to the one tri-service treatment facility at Bethesda, MD, the Air Force has the following number of in-patient alcohol treatment facilities.</td>
<td>10</td>
<td>20.4%</td>
</tr>
<tr>
<td>2. Disulfiram (Antabuse) is a drug - that, when taken prior to alcohol ingestion, causes discomfort to the drinking person.</td>
<td></td>
<td>96.9%</td>
</tr>
<tr>
<td>3. According to the June 1979 Rand Report Survey, the estimated prevalence of people with alcohol problems (in varying degrees) in the U.S. Air Force is approximately -</td>
<td>14%</td>
<td>37.8%</td>
</tr>
<tr>
<td>4. Alcoholics Anonymous is a self-help group which has been in existence since -</td>
<td>1935</td>
<td>53.3%</td>
</tr>
<tr>
<td>5. From a physiological point of view - alcohol is a sedative-hypnotic drug or alcohol is an anesthetic.</td>
<td></td>
<td>96.9%</td>
</tr>
<tr>
<td>6. Generally, one is considered to be under the influence of alcohol when the concentration of alcohol in the blood exceeds the minimum figure of -</td>
<td>0.10%</td>
<td>82.7%</td>
</tr>
<tr>
<td>7. The amount that is contained in two or three cocktails - is great enough to impair judgment.</td>
<td></td>
<td>97.8%</td>
</tr>
<tr>
<td>8. On a list of public health problems, the disease of alcoholism - would be ranked at least within the top four in the nation.</td>
<td></td>
<td>84.0%</td>
</tr>
</tbody>
</table>
Table 18 (continued)

<table>
<thead>
<tr>
<th>Knowledge Questions</th>
<th>Correct Answer</th>
<th>Responding Correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. The percentage of adults in the U.S. who use alcoholic beverages is approximately -</td>
<td>65% or 75%</td>
<td>80.9%</td>
</tr>
<tr>
<td>10. Although there are several kinds of alcohol, the kind of alcohol which is present in alcoholic beverages is - ethyl</td>
<td></td>
<td>96.9%</td>
</tr>
</tbody>
</table>

The data derived from analysis of the responses to Knowledge Test 1 (K. Test 1) may be looked at in the following manner.

Table 19

Knowledge Test 1 - Overall Breakdown

<table>
<thead>
<tr>
<th>(Score) Percent of answers correct on Knowledge Test 1</th>
<th>Percent of Respondents in this Category (100% = 225)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 40%</td>
<td>0 %</td>
</tr>
<tr>
<td>40 - 49</td>
<td>0</td>
</tr>
<tr>
<td>50 - 59</td>
<td>0</td>
</tr>
<tr>
<td>60 - 69</td>
<td>1.3</td>
</tr>
<tr>
<td>70 - 79</td>
<td>14.2</td>
</tr>
<tr>
<td>80 - 89</td>
<td>20</td>
</tr>
<tr>
<td>90 - 100%</td>
<td>64.4%</td>
</tr>
</tbody>
</table>

% of answers correct

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>mean</td>
<td>91 %</td>
</tr>
<tr>
<td>mode</td>
<td>100 %</td>
</tr>
<tr>
<td>median</td>
<td>92.5%</td>
</tr>
</tbody>
</table>
The data derived from analysis of the responses to Knowledge Test 2 (K. Test 2) may be looked at in the following manner.

Table 20
Knowledge Test 2 - Overall Breakdown

<table>
<thead>
<tr>
<th>(Score): Percent of answers correct on Knowledge Test 2</th>
<th>Percent of Respondents In this Category (100% = 225)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 40%</td>
<td>0 %</td>
</tr>
<tr>
<td>40 - 49</td>
<td>2.2</td>
</tr>
<tr>
<td>50 - 59</td>
<td>5.3</td>
</tr>
<tr>
<td>60 - 69</td>
<td>13.3</td>
</tr>
<tr>
<td>70 - 79</td>
<td>25.3</td>
</tr>
<tr>
<td>80 - 89</td>
<td>33.8</td>
</tr>
<tr>
<td>90 - 100%</td>
<td>20 %</td>
</tr>
</tbody>
</table>

% of answers correct

mean 74.8%
mode 80.0%
median 76.1%

Further analysis of Knowledge Tests 1 and 2 revealed the following. Eighty-four percent of the respondents replied correctly on 12 to 14 of the 14 knowledge statements on Knowledge Test 1. This high percent may be interpreted in several ways, one of which is that the test may be too easy for this sample. It appears that these health care practitioners do have a good knowledge base at least regarding the questions covered in this test.

Fifty-four percent of the respondents replied correctly on 8 to 10 of the 10 knowledge questions in Knowledge Test 2. The mean was 7.48 and
the median was 7.61. The standard deviation was 1.3. This second knowledge test appears to present a more usable distribution of scores, since there was a wider range. The questions here tend to represent a broader coverage of areas including knowledge of the following: alcohol itself; general societal drinking practices; problematic alcohol consumption in and out of the Air Force; treatment services in the Air Force; and Alcoholics Anonymous.

The Pearson Correlation Coefficient between Knowledge Tests 1 and 2 was 0.275. This shows a rather weak correlation, although it is statistically significant and positive. This weakness may be due to a restricted range on Knowledge Test 1, since 84.4% of respondents correctly answered 12 to 14 of the 14 questions.

These findings drawn from the two 'knowledge tests' data suggest the following.

An extended version of Knowledge Test 2 to include approximately 20 to 25 items would appear to be a better tool for measuring knowledge among professionals. The broader scope of Knowledge Test 2 should continue to consist of questions which reflect both general and more specific questions and require the respondent to be knowledgeable of non-problematic and problematic alcohol areas in and out of the Air Force.

The findings regarding the high scores on the knowledge tests are especially noteworthy when reviewing the writing of Youngblood and Fox in "Confronting Alcoholism in the Emergency Department." They dealt in a straightforward manner with the issue of alcohol problems in the
They described the two most important challenges there as being earliest possible diagnosis of the problem and the channeling of the patient to appropriate long-term help.

They further stated that alcoholism is a disease which most health care providers know very little about. In 1973, Dr. Joseph Pursch estimated that only about 1,000 physicians in the U.S. were really knowledgeable about the disease of alcoholism. There is little if any statistically supported research during the last ten years to challenge this estimate by Pursch.

**Practice Activities**

**Overview.** In order to explore the clinical practice responses employed by these professionals, the question of who raises the issue regarding the possibility of an alcohol problem was asked of the sample. The data revealed that 89% of the respondents stated they themselves raised the questions; 5% let the patient raise the question; in 4% of the cases, someone other than the patient/client or the professional raises it, with the alternative often being a family member; in about 4% of the cases the question is not raised.

In an accompanying question, the respondents were asked what technique they would use if they did raise the question about an alcohol problem and 76% stated supportive confrontation (presenting of alcohol-related facts in a straight-forward manner, while also providing some emotional support for the person) was their choice. The only other sizeable response was the 21% who stated they would use factually-related
questions without any direct confrontation. Only 2% of the respondents opted for aggressive confrontation and less than 1% for indirect comments as a technique. The results seemed to indicate an acceptable technique avoided the extreme of indirect comments and the extreme of aggressive confrontation.

Further clinical practice behaviors were delineated by a group of 7 questions, five of which will later be analyzed as a scale. Summary statistics reveal the following highlights. Over seventy-three percent of the sample agree that they would document a problem drinker's record with an alcohol specific treatment plan. Almost eighty percent of the respondents state they do use an alcohol-specific diagnosis when charting the case of an alcoholic or problem drinker seen in their practice.

Almost fifty-eight percent stated that they did not believe that a problem drinker could be treated just as well without the use of alcohol-specific terminology in his/her chart.

Fox and Youngblood claim there is a great deal of underdiagnosis. The physician may write all the secondary diseases on the chart in the differential diagnosis but may avoid "branding" the patient with the recording of the suspected primary disease. Their material contrasts with the finding in this health care practitioner study which shows that 79.5% of the respondent physicians and social workers state they do use alcohol-specific diagnoses when charting.

Almost seventy-five percent of this practitioner study stated that they recommend to their problem drinker patients that they attend at least one Alcholics Anonymous (A.A.) meeting.
Seventy-four percent stated they recommend problem drinker patients seek help at the Social Actions office. This statistic is especially noteworthy since the U.S. Air Force strongly encourages referral to Social Actions.

Over seventy percent of the sample state that, when they see patients/clients, questions about alcohol intake are routinely asked.

Only 6.7% of the professionals stated that they routinely order or recommend that another health care provider order a blood alcohol test for all adult hospital admissions. This is an interesting finding, especially considering some current physician-authors such as Lukash who do recommend such procedures.

The clinical practice discussion is further expanded upon by the finding that 90.7% of the sample either totally agree or agree with some reservations regarding the definitions of Alcohol Abuse & Alcohol Dependence provided by DSM III.

Proactive Treatment Stance. Reliability Analysis was used to help form a scale of items for a "Proactive Treatment Stance." The following seven items, which were questions 3 through 9 on Part D. of the questionnaire (See Appendix C.), were analyzed:

1. If I see an alcoholic or a problem drinker in my practice setting, I will record in his/her chart a specific treatment plan regarding that alcohol problem.

2. If I see an alcoholic or problem drinker in my practice setting, I will use an alcohol-specific diagnosis when charting the case.

3. A person with an alcohol problem can be treated just as well without the use of alcohol-specific terminology in his/her chart.
4. When I see a problem drinker in my practice, I recommend that he/she attend at least one Alcoholics Anonymous (A.A.) meeting.

5. When I see a problem drinker in my practice, I recommend that he/she seek assistance at the Social Actions Office.

6. When I see patients (clients), questions about alcohol intake are routinely asked.

7. I routinely order or recommend that another health care provider order a blood alcohol test for all adult hospital admissions, with whom I am involved.

All seven statements used a 5-point rating scale, where 1=strongly disagree and 5=strongly agree. The analysis of these seven items yielded an alpha of 0.631 and a standardized item alpha of 0.647 when only items 1, 2, 3, 6, and 7 were included in the scale.

Based on these findings, a scale was developed using those 5 variables. The items were summed, thereby the lowest possible score could be 5 and the highest possible score could be 25. The following table provides data regarding how well the respondents did on this scale of "Proactive Treatment Stance." Basically, a high score indicated a practitioner who would do the following when seeing a problem drinker or alcoholic in a practice setting:

1. record alcohol-specific treatment plans in charts/records;
2. use alcohol-specific diagnosis when charting a case;
3. would believe in using alcohol specific terminology throughout chart/record as necessary;
4. routinely ask questions regarding alcohol intake; and
5. routinely order or request blood alcohol test for all adult hospital admissions.
Table 21

Proactive Treatment Stance Scale

(Based on a 5 point scale)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
</tbody>
</table>

Percentage of Respondents in Category. 0 7.6% 55.1% 35.1% 2.2%

The mean score was 3.31, or rounded to 3, reflecting an undecided opinion toward these practice behaviors. The mode score was 3.6, or rounded to 4, reflecting agreement with this scale. The median score was 3.36, or rounded to 3, reflecting an undecided response toward this scale.

According to this 5 point scale, over half of the sample (55.1%) are undecided regarding taking a proactive treatment stance with problem drinkers and/or alcoholics. Only about one-third of the sample or 37.3% actually agree or strongly agree with a proactive treatment stance when working with problem drinkers and/or alcoholics.
Second Major Research Question: Differences between Social Workers and Physicians in Practice Activities and Attitudes.

Up to this point an attempt has been made to describe the sample in terms of their attitudes toward alcoholism and problem drinking, as well as their treatment activities. Now the focus will move more specifically toward answering other major and minor research questions and thus toward analyzing relevant correlational findings. That is, the focus will now become more analytical.

Practice Activities

The major focus of the first analysis was on whether differences exist between the social workers and the physicians. In order to control for other potentially important variables, the technique of multiple regression was used to analyze any possible associations.

"Multiple Regression is a general statistical technique through which one can analyze the relationship between a dependent or criterion variable and a set of independent or predictor variables." As a descriptive tool, it has among its uses the ability to find structural relations and to provide explanations for complex multivariate relationships.

The other variables that seemed potentially likely to affect practice activities were age, sex, etc. Pearson Correlation Coefficients
were computed to determine if there were any variables which were too highly correlated to be used in the multiple regression analysis. The results revealed that the correlation coefficient for the variable which reflected the total length of time treating alcohol abusing/dependent patients and for the variable of age itself was 0.8547. Consequently, the decision was made to delete the first of these two from the multiple regression analysis. It is to be noted that the item indicating the total length of time treating alcohol abusing/dependent patients in the Air Force setting provides data sufficiently descriptive to allow for the deletion of the previously mentioned item.

Multiple Regression analysis, Stepwise Method, using SPSS (Nie et al.) was used in this health care practitioner study to consider the following variables. The independent variables were Social Work designation (i.e., social worker or physician), number of alcohol courses taken, history of alcohol practice experience, history of both courses and practice experience, age, sex, Knowledge Test 2, and the variable which indicates the presence of an alcohol treatment facility at the base. These variables were regressed in separate equations on several dependent variables.

The following provides a listing of these dependent variables along with abbreviated identifiers (consisting of a 6 letter acronym for each): treating or the scale score from the Proactive Treatment Stance (PROACT), I Recommend A.A. (IRECAA), I Recommend Social Actions (IRECSA), I Agree with DSM III (AGRDSM), What Technique Is Used? (TECHNQ), Estimated Number of Female Problem Drinker Patients (FEMPTS), and the
Estimated Number of Male Problem Drinker Patients (MALPTS).

The N ranged from 204 to 216 for the following computations. The multiple regression analysis revealed the following. When PROACT was the dependent variable, the variables which were in the equation were Social Work designation (accounting for 19.2% of the variance) and Both Courses and Practice Experience (accounting for another 3% of the variance).

When IRECAA was the dependent variable, none of the independent variables were found to impact on it.

When IRECSA was the dependent variable, the variables which were in the equation were: presence of an alcohol treatment facility, accounting for 6.3% of the variance, (this being a negative association), and Social Work designation, which contributed another 4.7% of the variance.

When AGRDSM was the dependent variable, the variables which were in the equation were Social Work designation, accounting for 6.9% of the variance and Knowledge Test 2, accounting for 2.1% of the variance.

When TECHNQ was the dependent variable, the only other variable in the equation was a history of both alcohol courses and treatment experience. That controlled for 3.6% variance.

When FEMPTS was the dependent variable, the variables in the equation were Social Work designation, accounting for 13.9% of variance, history of both alcohol courses and experience, adding another 4.7% of variance, and presence of an alcohol treatment facility at the base which accounted for another 1.8% of variance.
When MALPTS was the dependent variable, the other variables in the equation were Social Work designation, accounting for 28.3% of the variance, Knowledge Test 2, accounting for 3.5% of the variance, and "presence of an alcohol treatment center" accounting for 1.4% of the variance.

The following table (Table 22) shows the variables which were statistically significant during the analysis of these cases.
### Table 22

**Analysis of Practice Activities**

<table>
<thead>
<tr>
<th>Dependent Variables</th>
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<th>AGRDSM</th>
<th>TECHNQ</th>
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The following can be said regarding these findings: When using such a multiple regression analysis with these variables, one sees that the Social Work-Physician contrast is significant in several ways. Social worker was a significant variable in regard to the Proactive Treatment Stance Score, (controlling for 19.2% of variance), in recommending Social Actions, (controlling for 4.7% of variance), in agreeing with the use of DSM III alcohol diagnostic criteria, (controlling for 6.9% of variance), in estimating the number of female patients with alcohol problems, (controlling for 13.9% of variance) and in estimating the number of male patients with alcohol problems, (controlling for 28.3% of the variance). Thus it is rather noteworthy that the designation of the health care practitioner in this study as being a social worker, as opposed to a physician, was statistically significant in the analysis of five out of seven dependent variables, even with potentially other important factors controlled for.

The analysis also revealed that the fact that a practitioner has a history of both alcohol courses and practice experiences was a significant variable in regard to the Proactive Treatment Stance Scale, (controlling for 3%), in regard to which treatment technique was used, (accounting for 3.6%) and in regard to estimating the number of female patients with alcohol problems, (controlling for 4.7% of variance).

The fact that a practitioner tended to score higher on Knowledge Test 2 was a significant variable in the equation along with the variable of agreeing with the use of DSM III alcohol diagnostic criteria, (accounting for 2.1%), and in estimating the number of male patients.
with alcohol problems, (contributing for 3.5% of the variance).

The existence of an in-patient alcohol treatment facility, appeared as a significant variable in the equation with recommending Social Actions to patients. This was a correlation which accounted for 6.3% of variance. That is, according to this multiple regression finding, there is a tendency for those practitioners who are at a base where there is an in-patient alcohol treatment center to recommend Social Actions less than those practitioners who are based where there is no in-patient treatment facility. The presence of an alcohol treatment facility also is a significant variable in regards to estimating the number of patients with alcohol problems. Although the control of variance ranges from 1.8% in estimating female problem drinkers to 1.4% in estimating male problem drinkers, it must be noted that it did show up significantly in these multiple regression equations. Here the association is positive in that, where there is an in-patient alcohol treatment facility, the practitioner tends to estimate that a somewhat higher percentage of his/her patients has an alcohol problem than does a practitioner based where there is no alcohol treatment center.

One may offer various possible interpretations of this finding. For example, perhaps practitioners located where treatment facilities exist have a closer relationship with the staff at the facility and may be more alerted to the possibility of alcohol problems among their patients. They may be less hesitant to identify patients as having problems if they indeed know that treatment is accessible. The fact that practitioners based where treatment facilities exist tend to recommend Social
Actions less, at first, appears somewhat perplexing. Again, here one may only conjecture regarding this negative association. One possible reason may be that more patients/clients are referred directly to the alcohol treatment center, instead of to the Social Actions Offices. This author's six years of experience at a base where an in-patient alcohol treatment facility existed tended to confirm this last possible explanation. Many individuals were referred directly to the treatment center without first being referred to the Social Actions Office.

Proactive Profile. Based on these multiple regression findings, a possible profile for a more proactive health care practitioner begins to arise. For example, it would seem that a social worker who has had both courses and practice experience in the field of alcohol treatment/prevention will be more proactive in treatment stance behaviors. Here these persons are tending to diagnose, document and perceive alcoholism as a public health problem which needs to be confronted aggressively in practice. These same social workers tend to recommend patients go to Social Actions more so than do physicians. The social workers based where there is an in-patient treatment facility tend to refer patients to Social Actions less than those social workers stationed where there is no in-patient facility. Social worker respondents tend to agree more with DSM III criteria than do physicians, even though, as already mentioned, over 90% of all respondents agree or agree with reservations to the DSM III criteria.

Another interesting discovery was the finding that the Social Worker designation is very significant when related to the estimating
of the number of female and male patients who are problem drinkers. This is supported by the fact that the component parts of the proactive treatment stance scale describe behaviors which would normally result in increased estimates of problem drinkers.

**Attitudes**

The following represents an analysis of 216 respondents in this health care practitioner study. (Nine from the original 225 cases had incomplete data.) The data was derived from the use of multiple regression techniques and it explores the differences between social workers and physicians on attitudes. The attitude scores were drawn from the six major factors which have already been described in this paper.

Social workers tended to be more apt than physicians to state that they believed they had adequate knowledge of alcohol problems. This variable of social work status accounted for 27.4% of the variance on this factor.

Social workers were less apt than were physicians to believe that problem drinkers were difficult clients that should be avoided. This variable of social work status accounted for 16% of the variance on this factor.

Social workers were more apt than were physicians to believe that a public health problem perspective is warranted toward alcohol problems. This variable of social work status accounted for 1.7% of the variance on this factor.
Social workers differed from physicians in that they tended to believe more strongly that alcoholism is a treatable disease. This variable of social work status accounted for 12% of the variance on this factor.

The regression analysis did not reveal any statistically significant difference between physicians and social workers regarding the belief that abstinence is a necessary goal in work with persons with serious drinking problems.

Social workers tended to believe more strongly than did physicians that role support was available when they encountered personal or professional problems in their work with problem drinkers. The variable of social work status accounted for 4% of the variance on this factor.

The following table shows the variables which were statistically significant during the analysis of these 216 cases.
## Independent Variables

<table>
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<tr>
<th>Factor 1. Have Adequate Knowledge of Problems</th>
<th>Factor 2. Difficult Clients and to be Avoided</th>
<th>Factor 3. Public Health Perspective</th>
<th>Factor 4. Alcoholism is a Treatable Disease</th>
<th>Factor 5. Abstinence is a Necessary Goal</th>
<th>Factor 6. Role Support is Available</th>
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</table>

\[ \text{\( r^2 \)} \]

\[ .379 \quad .211 \quad .135 \quad .120 \quad .045 \quad .339 \]
Third Major Research Question:  
Relationship between  
Attitudes and Practice Activities

The following represents an attempt to compare certain practice activities (identified by use of a 6 letter acronym) with certain attitudinal factors (identified by use of FACTOR 1 through FACTOR 6).

Each of the variables, Treating or Proactive Treatment Stance (PROACT), I Recommend A.A. (IRECAA), I Recommend Social Actions (IRECSA), I Agree with DSM III Diagnostic Criteria (AGRDSM), What Technique Is Used? (TECHNQ), Estimated Number of Female Problem Drinker Patients (FEMPTS), and Estimated Number of Male Problem Drinker Patients (MALPTS), was analyzed in equation form as dependent variables with the following variables: Have Adequate Knowledge of Problems (FACTOR 1), Problem Drinkers Are Difficult Clients and To Be Avoided (FACTOR 2), Public Health Problem Perspective toward Alcohol (FACTOR 3), Alcoholism Is a Treatable Disease (FACTOR 4), Abstinence Is a Necessary Goal (FACTOR 5), and Role Support Is Available (FACTOR 6) treated as independent variables.

The N (sample size) ranged from 212 to 225 for the following computations. The Stepwise method of multiple regression revealed the following. When PROACT was the dependent variable, the variable which was in the equation was FACTOR 1. This controlled for 19.2% of the variance.

174
When IRECAA was the dependent variable, the other variables which were in the equation were FACTOR 5, controlling for 11.8% of variance, and FACTOR 3, adding 2.4% of the variance.

When IRECSA was the dependent variable, the only other variable which was in the equation was FACTOR 1, which controlled for 6% variance.

When AGRDSM was the dependent variable, the other variables which were in the equation were FACTOR 1, accounting for 7.1% variance, and FACTOR 6, accounting for 4.1% variance. It must be noted that the correlation between AGRDSM and FACTOR 6 is a negative one.

When TECHNQ was the dependent variable, the other variable which was in the equation was FACTOR 2, accounting for 3% variance. Note that the correlation here is negative, which means that those practitioners who use supportive confrontation tend to believe less strongly that problem drinkers are difficult clients to be avoided.

When FEMPTS was the dependent variable, the other variables in the equation were FACTOR 1, controlling for 12.2% variance, FACTOR 4, controlling for 3.7% of variance, and FACTOR 2, controlling for 1.6% of variance.

When MALPTS was the dependent variable, the other variables in the equation were FACTOR 1, controlling for 20.7% variance, FACTOR 4, adding another 4.6% variance, and FACTOR 2, contributing an additional 2.4% variance. Note that the correlation between MALPTS and FACTOR 2 is a negative one, thus indicating that those practitioners who estimate higher rates of their male patients as having drinking problems tend to believe less strongly that problem drinkers are difficult clients to be
avoided.

Overall, after viewing the stepwise method results for these multiple regression analyses, the following may be postulated. That is, the following attitude/behavior correlations appear to surface. Those practitioners who believe they have an adequate knowledge base related to alcohol problems tend to be more proactive in their treatment stance, to recommend that patients seek help at Social Actions, to accept the DSM III definition for alcohol-related diagnoses, and to give higher estimates of male and female problem drinker patients than do practitioners who feel they have less adequate knowledge regarding alcohol problems.

Practitioners who believe problem drinkers are difficult clients and to be avoided tend to do the following: be negatively correlated with the type of therapeutic technique used (that is, tend not to use supportive confrontation), and to estimate lower numbers of problem drinkers among their male and female patients.

Practitioners who believe that alcohol problems warrant a public health problem perspective tend to recommend patients go to A.A. more than practitioners without these beliefs.

Practitioners who believe alcoholism is a treatable disease tend to display this in their behaviors by identifying higher rates of male and female patients as problem drinkers.

Practitioners who believe abstinence is a necessary goal tend to recommend attendance at A.A. more than practitioners who don't believe in abstinence as a necessary goal.
Practitioners who believe role support is available tend to agree with the DSM III diagnostic criteria for alcohol problems.

Thus, overall, it appears that beliefs or attitudes of the practitioners in this study are related to their practice behaviors. The extent of the relationships varies depending on the beliefs and the type of practices.
Summary of Findings and
Relevance to Research Questions

In reviewing the original research questions, one can see that the information gathered from the 64 item belief/attitude section helped answer Major Research Question 1, "What are the attitudes and practices of selected health care practitioners in the Air Force?" The analysis in this chapter helped describe some of the characteristics or variables which can be identified as possibly being predictive of positive attitudes toward working with problem drinkers. This begins to answer Major Research Question 2 regarding differences between social workers and physicians in practice activities and attitudes. Major Research Question 3, which seeks to identify possible correlations between attitudes of selected health care practitioners and rates of identification, diagnosis, and/or treatment, is also addressed in this chapter via the analysis of the proactive treatment stance, the 6 major attitudinal factors, the rates of identification of male and female problem drinkers and other related treatment techniques. It is obvious that although a great deal of descriptive and analytical data was presented, there is still room for much more intensive study with this and other health care practitioner groups.

In regards to the minor research questions, the following was revealed. The analysis of the 6 major attitudinal factors revealed information which addressed minor research question (m r q) 1 regarding practitioner's motivation to work with problem drinkers, m r q 2...
regarding worker's expectations of work satisfaction, M R Q 3 regarding feelings of adequacy about their knowledge base, M R Q 4 regarding right to work with problem drinkers, M R Q 5 concerning the practitioner's level of self-esteem, M R Q 6 regarding perception of role support, and M R Q 14 regarding the practitioner's attitude toward abstinence as a necessary goal.

The analysis of the data derived from respondent answers to Knowledge Tests 1 and 2 addressed conceptual questions covered in M R Q 2 regarding the possible association between characteristics of practitioners and the attitudes identified in the previously mentioned 6 factors. Knowledge Test 2 also revealed data regarding the professional's knowledge of A.A., which was the focus of M R Q 13.

The analysis of the descriptive data revealed in responses to the general information section of the survey, which were discussed in this chapter, addressed topics covered in M R Q 1, 2, and 3, and M R Q 7 regarding problem drinker identification rates, M R Q 10 and 11 regarding history of alcohol specific curricula and alcohol-related treatment experiences.

The analysis of the data gained from the clinical response section of the survey previously discussed in this chapter addressed material covered in M R Q 3 regarding possible association between attitudes and practice behaviors, M R Q 8 regarding the practitioner's definition of alcoholism, M R Q 9 regarding the potential utility of A.A., M R Q 12 regarding the use of therapeutically interventive techniques, M R Q 15 regarding the utility of the Social Actions Program, M R Q 16
concerning the variety of alcohol-specific clinical practice techniques used by practitioners, and m r q 17 regarding the significance of the presence of an in-patient Air Force alcohol treatment facility at the respondent's base.

Thus the analysis has addressed all Major Research Questions and all minor research questions included in this study. The question of the thoroughness or specificity of the answers which have been discovered in the course of this study requires further discussion. This will be part of the intent of Chapter 5 which will summarize, offer some conclusions, and discuss future implications and prescriptive recommendations.
Footnotes


V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The intent of this chapter is to restate the purpose of this research effort, summarize the methodology and findings, provide some conclusions as deemed appropriate, and to prescribe some future directions regarding research of attitudinal and behavioral studies of health care practitioners in relation to the field of alcohol use and abuse.

Purpose of the Study

The purpose of this research study was to explore a sample of Air Force health care practitioners, consisting of 168 physicians and 57 social workers, and to attempt to identify their attitudes and practices in regard to work with problem drinkers. The research questions in this study sought to further identify any specific characteristics which might be predictive of positive attitudes toward working with problem drinkers and to then explore the possibility of any correlations between the attitudes of these practitioners and certain practice behaviors such as rates of identification, diagnosis, and treatment techniques.
Summary of Procedures

The research design employed the use of an exploratory cross-sectional mail survey (consisting of 155 questions), which was distributed through Air Force channels to 48 Air Force medical facilities. Rigid guidelines were used to systematically select respondents from randomized lists. At all times it was necessary to adhere to protocol and established Air Force policies. The works of other authors such as Slonim and Polich and Orvis who have experience in sampling and researching military populations were used as guides in this research effort.\(^1\)\(^2\)

Dillman's Total Design Method was also used as a guide during the construction and implementation of the survey.\(^3\) This seemed to be especially well suited to a population where a number of components are involved which are often in a state of flux or constant change. Personalization via the use of preliminary and follow-up telephone calls to each medical facility was a key to this practitioner study and in retrospect provided a very accurate view of how well each part of the overall system was cooperating with the administration of the survey. This was discussed at length in Chapter 3 under Reflections on Sampling Design. Suffice it to say here that, considering all of the intricacies of the bureaucratic structure of the military, this researcher would still basically pursue a similar path in future research. The only differences in procedure might center around more
precise control over the selection of the person to be the project officer. For example, it appeared that both status (i.e., higher ranking medical officer) and interest level in the project facilitated the administration of such a research endeavor. The significance of the telephone contacts as evidenced in this study supports further use and fine tuning of this part of the design regarding the contact person.

Health Care Practitioner Questionnaire

For the most part, the questionnaire was well received by the participating respondents. Although some critical comments were received, they were often related to specific points which the survey was attempting to address. For example, a few respondents questioned the use of the term "problem drinker" instead of "alcoholic". However, it was felt by the Air Force Survey Approval staff that "alcoholic" should be infrequently used, and the term "problem drinker" was therefore inserted in the place of alcoholic throughout most of the survey. For the most part, this terminology did not receive any significant negative reaction from the respondents. A few respondents also questioned an illness-bias on the part of this researcher. Again, some illness-type statements were intentionally incorporated into the survey to get respondent's feelings and attitudes toward those types of concepts.

Overall, major changes (other than those noted in Chapter 3) would not seem to be necessary for this questionnaire, except for a
further refinement of the material regarding the demographics of the practitioners and their patients.

Summary and Discussion of Findings

In hopes of improving the readability of this paper, an attempt has been made to summarize specific findings as they have arisen. Now the purpose will be to offer some general summary comments.

Attitudes of Front-line Professionals

Most of the following data will be presented in regard to the mean scores of sample respondents. Reference to previous chapters can provide more specific material. On the first attitudinal factor, the mean score revealed a practitioner who was approximately midway between being undecided about and agreeing with the belief that he/she had adequate knowledge regarding alcohol problems.

This finding tends to support earlier comments by the author regarding the use of a longer form of Knowledge Test 2 (which was a broader based multiple-choice type test), since these same undecided respondents scored very highly on Knowledge Test 1. This finding also underscores the importance of strengthening the educational and inservice training offered to front-line professionals, especially to allow for discussion by practitioners regarding their feelings about their knowledge of alcohol-related issues.

On the second attitudinal factor, the average respondent scored about midway between disagreeing with and being uncertain about the
belief that problem drinkers are difficult clients and to be avoided. This implies a degree of ambivalence among these professionals. Although very few (4% of this sample) actually agree with the statement, almost half are undecided, while the others disagree but not strongly with the statement. The implication here seems to be that at least half of the practitioners are very uncertain regarding their attitudes about the nature of alcoholic clients. This uncertainty may definitely manifest itself in the way in which professionals employ or do not employ interventive behaviors when they deal with problem drinkers. This brings to mind the previously mentioned work by Trice and Belasco who suggest that the changing of negative attitudes to more positive or, at least more realistic, attitudes can help increase effectiveness of overall treatment efforts.4

The mean score on the survey for the third factor, that alcoholism or alcohol problems should be viewed from a public health perspective, was the highest for all scores on the six factors derived from the analysis of the 64 belief/attitude statements. The average practitioner scored less than midway between agreeing and strongly agreeing with this perspective. This is supported by the finding from Knowledge Test 2 that 84% of the sample correctly identified alcoholism as being at least within the top four public health problems in the United States. This strong finding points to an important fact. Although the results of this survey indicate some differences of opinion regarding the disease concept and the abstinence issue, there is almost total attitudinal agreement with the belief that alcohol problems warrant being viewed
as a major public health problem today, thus apparently giving sanction to further research in this area. This also fits well with the comments in the literature by Kissin and Begleiter, and Patricia Harris, who discuss alcoholism as a public health problem.\textsuperscript{5-6}

The mean score on the next attitudinal factor (alcoholism as a treatable disease) fell less than midway between being undecided and agreeing with the factor, thus leaning more toward an undecided stance. The fact that over half of the respondents were undecided in this area can, of course, be interpreted in a number of ways depending on one's theoretical bias. In order to avoid this as much as possible, this author recommends that the Air Force medical community recognize that, although most guidelines tend to support a disease concept, this does not mean that most practitioners actually believe that. This uncertainty by the practitioners regarding the disease concept may manifest itself in the ways they diagnose, treat, and make referrals. Again the point here is not to say that the disease approach is either right or wrong but rather to predict that certain inconsistencies will probably continue to be seen, if this issue is not openly addressed and dealt with. One possible recommendation could be the consideration of a modified illness approach. If explained, understood, and accepted, such an orientation might clear up some of the uncertainty presently existing in the health care arena. Further discussion of this should be dealt with as a follow-up to this exploratory/descriptive study.

The mean score on the factor that abstinence is necessary fell more than midway between being undecided and agreeing with the concept. This
indicates that over two-thirds of the sample at least agree or strongly agree that abstinence is necessary in working with persons with serious drinking problems. This shows a somewhat stronger stance regarding this factor than the previous disease concept factor. In fact, only one-third of the respondents were undecided about abstinence for problem drinkers, while over half of the respondents were undecided regarding the previous factor of alcoholism being a treatable disease. These findings together suggest that at least some of those who do not believe that alcoholism is a treatable disease still believe that abstinence is necessary for serious problem drinkers. One may deduce from this that caution should be taken in making generalizations based on certain attitudes or behaviors. For example, belief in the disease concept does not necessarily equate with belief in an abstinence orientation.

Certain distinct differences were noted. Some practitioners who do not accept the disease concept philosophy may still choose to recommend abstinence to problem drinkers. This may reflect a cautious treatment recommendation even by professionals who believe in controlled drinking or other behavioral perspectives.

The last factor was concerned with role support, and fell more than midway between being undecided and agreeing with the concept that role support is available for health care practitioners. Over three-fourths of the sample agreed or strongly agreed with the belief that role support, both of a professional and personal nature, was available when they were engaged in work with alcohol abusers.
Knowledge Base

Overall, the respondents showed a good knowledge base when tested by a fourteen item yes/no set of statements. In fact the mean score was 91% on this particular knowledge test.

When a 10 item multiple choice test was used with the respondents, the mean score was 74.8%. These two tests and their results tend to reflect a fairly good knowledge base for this sample. However, after reflecting on the overall merits of the two tests, it appears that an extended version of the second knowledge test would be more worthwhile.

This recommendation is being made partially due to the nature of alcohol problems in general and the fact that survey instruments should attempt to encompass as many relevant groups and issues involved in alcohol treatment as possible. For a practitioner to have credibility in this field, he/she should be knowledgeable of medical, behavioral, A.A., public health, and other related issues.

Aside from the details outlined in Chapter 4, the only additional point to be made at this point is to say that it does appear worthwhile to continue to include some method of evaluating the knowledge base of practitioners. This should always be viewed as only one part of the descriptive material regarding the professional, but it does reveal a very important part. It is also this author's opinion that, if replicated, the response scores to these knowledge tests may not be as high as they were with this sample, due to the fact that drug and alcohol-related directives have been a formal part of Air Force policies since the early 1970's.
The implication here seems to be that even among practitioners who appear knowledgeable and fairly positive in their attitudes toward working with problem drinkers, there is an uncertainty or a reluctance to translate that knowledge base and attitudinal stance into concrete action engaging persons with drinking problems in treatment. This is not to discount the finding that one-third of the total number of respondents do claim to take a proactive stance.

**Practice Behaviors**

The mean scores on the survey reveal a practitioner who does raise the question with his/her patients or clients regarding a possible alcohol problem and who does use supportive confrontation as a therapeutic technique. When looking at an overall proactive treatment stance among these practitioners, the mean score revealed a respondent who was undecided regarding the use of the five proactive practice techniques taken together to form a treatment stance.

It consequently appears more understandable that rates of identification of patients as problem drinkers are lower than what the literature would predict for such hospital populations. It appears to follow that practitioners who are undecided about documenting, diagnosing, and ordering alcohol-specific tests for patients or clients may tend to estimate lower percentages of their patients/clients as having alcohol problems. This is in keeping with previous literature by Solomon et al., who stated that emergency room physicians tended to identify less than one-half of their problem drinkers as actually having alcohol problems.
In this health care practitioner study, it is worth noting the differences in the estimates of problem drinkers in regard to the rates represented by the mean, mode, and median. Simply looking at the mean score on each estimate of males with alcohol problems (19.2%) or females with alcohol problems (12.8%) obscures the significance of the mode score, where 24% of the respondents indicated an estimate of only 5% of male patients as having alcohol problems and where 41% of the respondents indicated an estimate of only 5% of female patients as having alcohol problems. Considering the nature of the patient/client populations seen by these practitioners, one should carefully analyze these estimates in regard to what current authors in the field are saying. For example, Lukash commented that a review of charts showed less than 5% of the 40% to 50% of cases who had diseases caused or aggravated by excessive alcohol intake were annotated regarding the diagnosis of an alcohol problem.9

When viewing practice behaviors, the Social Work/Physician contrast appeared to be the most significant variable in predicting possible behaviors. That is, the social workers were found to be more proactive, to recommend A.A. and Social Actions more for patients, and to estimate higher rates of persons with alcohol problems. This finding is in keeping with the work by Wilma Knox, who found in her studies that social workers were more willing than were psychologists or psychiatrists to work with alcoholics.10

Another variable which was found to be associated with a more proactive stance in behavior was the practitioner having had a history
of both alcohol courses and practice experience. This was in no way as significant as the professional distinction but was still statistically relevant.

Other Significant Correlations

In comparing the attitudes of social workers and physicians, the only factor never to show this professional distinction as being significant was the factor of abstinence as a necessary goal in work with problem drinkers.

All of the other five attitudinal factors statistically showed that social workers were more positive in their attitudes toward work with problem drinkers than were physicians.

Significance of Alcohol Treatment Facility at Base. This variable has already been discussed in previous sections. The purpose here is to draw from current knowledge regarding such facilities, data from this study, and to make some possible recommendations for maximum utilization of such operations.

First, it is important to restate that there are seven A.F. inpatient alcohol treatment facilities in the continental United States (CONUS) and three such facilities overseas. This study was designed to sample practitioners stationed at all seven of the CONUS bases. Forty-six percent of the respondents in this total health care practitioner study were located at a base where such an in-patient facility exists. One should note that this alone does not mean that the practitioners worked at the facility, even though some did. The main point was
that access to in-patient treatment services and staff was available for that 46% of the sample, if they chose to avail themselves of it.

This treatment facility is usually located within or very close to a large regional hospital or medical center. The staffing for the program itself is of a team nature, usually consisting of a clinical social worker as the director, a clinical social worker or psychologist as deputy director, a psychiatrist as consultant to the program, and nursing staff as deemed necessary. Usually occupational therapy personnel are also involved on a part time basis with the program.

At each Air Force Base there is a Social Actions Office (referred to in the survey) with its staff who generally are of a paraprofessional nature but also with some professionals (usually non-medical type). The Mental Health Clinic staff in the base hospital provide outpatient and, at times, inpatient services. The medical staff (non-mental health) at the hospital provide support services including family practice medicine when possible. The civilian community has Alcoholics Anonymous chapters as well as other private in and outpatient alcohol services.

The following findings were found to be statistically related to whether an in-patient alcohol treatment facility existed at the base. The practitioners at bases where such facilities existed tended to recommend patients go to Social Actions less than do practitioners at bases without such facilities. There also was a slightly significant increase in the estimate of male and female patients with alcohol problems at bases with such facilities.
Conclusions

Does This Study Close Any Gaps?

What gaps have been narrowed or eliminated as a result of this study? One area concerns material in the alcohol literature by and about social workers. This social worker-authored study has contributed to the literature in providing some specifics regarding attitudes and behaviors of social workers in their dealings with problem drinkers, as well as in comparing social workers with other relevant professionals (in this case, physicians).

Another area which has been approached is the attempt to see possible linkages between attitudes and behaviors of practitioners. The data in this study tends to statistically support the associations here. There appears to be very little in the literature especially regarding self-reports of professionals' practice behaviors. It is felt that the contribution here is significant.

Another area which is only weakly covered in the literature concerns professionals and their relationship with Alcoholics Anonymous. This has tended to be a very difficult and a very sensitive area to research. The results of this study point to the importance of A.A. as a part of the entire system or arena where problem drinkers can seek assistance. The fact that about three-fourths of the respondents recommend A.A. to their patients/clients reinforces the belief that the use of A.A. is supported by a sizeable percentage of practitioners.

It is interesting to note that the research techniques utilized in this study were not able to identify any specific variables which significantly predisposed persons to recommend A.A. other than the fact that
those practitioners who believe in the public health perspective and who believe abstinence is a necessary goal for problem drinkers tend to recommend A.A. more than those who are in less agreement on those factors.

Other possible suggested areas which could help narrow the gaps in this specific area regarding the practitioner's experience or linkage with A.A. include additional questions regarding whether the practitioner had attended an A.A. meeting or had a working relationship with the support services of A.A.

It may be discovered that persons who are in the 75% recommending A.A. have either attended meetings or have been positively associated with an A.A. member. Information in this area could help further evaluate the significance of comments such as those by Ruth Engs (mentioned in Chapter 2), who suggested that medical students have access to work with recovering individuals including physicians and nurses.11

Another area where this study attempts to narrow a gap concerns the possible identification of specific traits which relate more to a proactive treatment stance. This has been amply covered in chapter 4. Here, it is only necessary to state that information in this area can be exceptionally important in future designs of professional continuing education programs and in assessing current treatment by professionals, especially from a team perspective.

Additional Air Force research in this area might pursue why approximately 26% of the respondents in this study do not recommend Social
Actions to their patients/clients. Since Social Actions is an Air Force program which receives much command level support it is important to explore possible variables which may account for this finding. If health care practitioners are truly going to function from a systems perspective and thus make maximum use of all subsystems, the answer to this type of question is extremely important.

It is interesting to note that no significance was found regarding age and sex in effecting statistically significant differences in attitudes and/or practice behaviors. This information can be used in several ways. One is to diffuse any unfounded explanations which may attempt to attribute proactive treatment stance or attitudinal leanings to either of these variables. Another is to continue to support the move against age or sex discrimination in selection of Air Force officers in the field of Social Work and/or Medicine.

Implications and Future Recommendations

Attitude Improvement Efforts

It appears that educational programs based on attitude improvement efforts probably will produce improvement in proactive treatment stance of practitioners, at least in regard to samples similar to this respondent sample. The findings here are statistically strong enough to warrant this type of a statement. Of course, caution is advised in not overgeneralizing from this finding. Additional studies should be completed, but the present study, along with the bulk
of the literature in this area, would confirm this type of a recommendation.

Focus on Broader Arena of Action

Previous A.F. studies have primarily focused on the Air Force community as the center from which treatment resources are drawn. This author also recommends policy which looks more toward utilizing a possible relationship with civilian counterparts.

Some prescriptive possibilities include the following: Advisory groups with representatives from all relevant civilian community agency sources. These persons could advise A.F. policy makers. They would be well aware of the reality of the bureaucratic system and of the fact that their suggestions may impact more at an implementation level, but that still could represent an improvement over the present set-up and, at least, establish a channel for communication.

Part of this research project has discovered that health care practitioners are not well versed on the availability in numbers of in-patient alcohol treatment programs. Therefore, it may be worthwhile to survey both the local civilian and military community about their knowledge of and attitude toward the Air Force alcohol treatment/education efforts. This is extremely important, when one considers that, for A.F. alcohol programs to work well, both civilian and military support are extremely beneficial. This has been exemplified by emergency situations requiring new prioritizing of programs which often impinge upon treatment programs.
For example, during the Vietnamese and Cuban Resettlement Projects in the 1970's and 1980 respectively, various support services were curtailed for the Eglin Alcohol Treatment Program, and the program director had to draw new supports from the civilian community in order to keep the program going at the same or similar level. This involved transportation to A.A. meetings and other miscellaneous support services. If the network of support with the local A.A. community had not already been organized, the shift to civilian support could not have been as expeditiously effected.

Public Relations. Improved public relations is another area of concern. This can be done by means such as direct involvement with media, celebrities, and local political and community leaders. An example in Fort Walton Beach, Florida near the Eglin A.F.B. Alcohol Treatment Center was a community all day workshop which was open to professionals (civilian and military) and lay persons. Such workshops can provide the means for necessary communication and can help form linkages that otherwise may remain undeveloped. Again this acknowledges the fact that major policy may not change, but strategies and techniques at an implementation level can be developed and networks of functional relationships can be improved upon. This type of an approach would seem to be in keeping with this study's support of a public health perspective toward alcohol problems.

The Navy Substance Abuse Program has greatly benefited from the assistance of persons such as actor, Dick VanDyke, former astronaut, Buzz Aldrin, Mrs. Betty Ford and others who have personally involved
themselves as spokespersons for alcoholism treatment efforts.

If prevention is truly to be a part of A.F. Policy, as its policy statement says, a formal program must be established to go to the schools (grade schools, as well as junior and senior high.) The difference here between what is and what is sought is the "formal" aspect. At most A.F. bases, "what is" is that alcohol treatment personnel go to schools "when they have time." A structured program designed to reach all children is a far better implementation of policy than a "hit-or-miss" effort.

The Use of a Health Advocacy Officer. Another recommendation would be a Substance Abuse Officer or a "Health Advocacy Officer" at each base. This person's responsibilities would include the previously mentioned prevention efforts. There is a precedent for this type of design in the A.F. in that in April 1975, Child Advocacy Officers were designated at each base to be the responsible coordinator and at times practitioner for all suspected child abuse and neglect cases. This has since been expanded to change the name to "Family Advocacy Officer" and now also involves spouse abuse areas. The reader should note that this would differ from the "Social Actions Drug-Alcohol Officer" who performs more of an administrative and educational role for active-duty personnel.

This would reflect planning regarding formalized programs and policies originating at the top but after that it would be up to the bases to help implement the guidelines within their own areas.
(This would appear to be somewhat in keeping with the current spirit of the times in the civilian arena.)

**Early Professional Intervention Efforts.** Another area for recommended change concerns early intervention in the form of secondary or at times primary prevention efforts. There is quickly accumulating a collection of research which supports this philosophy, not only from a quality of life point of view, but from an economically advantageous perspective. In addition to studies already mentioned, a New England Hospital trained its entire staff to identify patients suffering from alcohol-related health problems. In its first year of operation, 800 patients who otherwise would have gone undiagnosed were diagnosed and one-half of them entered an alcoholism treatment program.  

**Need for Increased Alcohol-Related Research.** The *Fourth Special Report* to the U.S. Congress recommended more basic research. It noted that heart and vascular disease cost society about the same as alcoholism, yet they receive 17 times more money for research. Cancer costs society less than alcoholism, yet cancer research receives 39 times more money. Approximately 85% of the population of alcoholics and problem drinkers are not receiving any formal treatment services. When services are offered, the primary philosophy is still that they be of an outpatient type. Over 75% of services received by alcoholics in NIAAA programs are outpatient services. This is very similar to a finding by the Air Force that 15% of the alcohol treatment is inpatient.  

In regard to other areas of research inquiry, this author feels that one real gap exists in not having acquired information regarding
the practitioner's own drinking pattern. This is an area which has received very little attention in the literature and which was not covered in this health care practitioner study. However, it is still felt that additional research could be done with those respondents who voluntarily agree to provide such data. Such follow-up could be done without violating the anonymity of the respondents. In fact, a letter could be sent to each medical facility indicating the possibility of a follow-up study. This could be done with minimal expense involved. This point is being brought up not merely for the sake of this study, but as a challenge to future researchers in this area to attempt to broaden the data regarding practitioners and their work with problem drinkers.

Training for Health Care Practitioners. Another prescriptive area concerns better training among health care providers. The success of this has already been seen in previously mentioned surveys. There are existing measures for doing this, and the cost need not be prohibitive, if the programs are well thought out and designed. The findings of this health care practitioner study seem to indicate benefits of past courses and experiences.

Additional research can be accomplished in the Air Force if a certain proportion of those individuals being sponsored for PhD Social Work, Public Administration, and other medical specialties were required or at least encouraged to explore the field of Alcohol Treatment and Prevention. There is a great possibility for linking this work to certain innovative programs. This is a controversial area of discussion
but certainly could lend itself to some changes in present policy. To the best of this author's knowledge, only two persons (including this author) in the last five years have voluntarily chosen the field of alcoholism for Ph.D. study. I am not aware of any of the other mentioned specialties which have chosen alcoholism areas of research. It would also be helpful if the Air Force would alter some policies so that research involving an Air Force population would be facilitated. The current reality is that it is much simpler to get research of a non-Air Force sample population approved than it is for an Air Force sample population.

**Need to Clarify the "Illness Concept."** One other area which receives little attention from the military almost takes us back to the quote by Seneca (4B.C. - A.D. 65) that "drunkenness is nothing but voluntary madness." There is a striking distinction between the way psychiatric problems (such as schizophrenia, manic-depressive illness, and others) and alcoholism and alcohol-related problems are viewed, especially from the point of financial compensation for disabilities. Individuals medically separated due to the former illnesses can be compensated up to and more than what would be the equivalent of a normal 20-year retirement pension. (This may occur even though the individual may have had only 8 to 10 years of active duty service time.) Individuals separated due to alcohol-related problems (from a behavioristic viewpoint) receive no financial compensation. The implicit message here may be that alcoholism is not as worthy a disease and is voluntarily contracted. As mentioned, there are certain paradoxical
questions that arise here and deserve further attention outside of the scope of this paper. This discussion tends to highlight the significant role played by the value screen that exists in regard to this topic of alcoholism and policy formulation.

This view of alcoholism as a noncompensable illness seems to receive support by most of the respondents in this health care practitioner study. The following represents the questionnaire attitude statement relevant to this topic.

The Air Force should begin to consider giving monetary compensation to retired persons who have developed serious alcohol problems during their active duty time.

Of the 225 respondents, 47.6% strongly disagreed with this statement; 38.2% disagreed with this statement; 9.3% were undecided; 4% agreed with the statement and .9% strongly agreed with this statement.

Statistics revealed a mean of 4.276, a mode of 5.000, and a median of 4.436. It is evident that 85.8% of the respondents disagreed with even beginning to consider monetary compensation for retired persons who developed serious alcohol problems during their active duty time.

Diagnosis Dialogue among Professionals. As with the previous discussion regarding the need to clarify the attitudes and beliefs among health care practitioners regarding the "illness concept", a dialogue among professionals, regarding criteria for diagnosis appears to be an important area for future efforts. This seems supported by the fact that, although 73% of the respondents in this study indicated unconditional agreement with DSM III alcohol diagnostic criteria, there was still a significant 23% who offered their reservations.
about DSM III diagnosis and 4% who totally disagreed with the DSM III diagnosis.

In this author's opinion, the DSM III diagnostic criteria are somewhat vague regarding the existence of "alcoholism". It is somewhat unclear where the DSM III authors stood, theoretically speaking, and that consequently allows for persons pro and con an "alcoholism concept" to have a place to safely and perhaps ambivalently make their diagnosis.

Utility of a Team Approach. Just as the previous discussion has encouraged a diagnosis dialogue among professionals, from a systems point of view the importance of a team approach must be stressed. This health care practitioner study has focused on front-line professionals and the importance of their linkages with each other and with other lay and professional persons in the alcohol field.

J. Rainaut (1979) wrote, in regard to attitudinal research, of the need of the doctor or counselor to continuously analyze his/her attitude toward the alcoholic, and to be pragmatic and available. Rainaut further stated that intervention "must collaborate with general hospital services and, particularly, with the general practitioner." 15

The team approach was also encouraged by S. Jaffe in a conference paper presented at Rutgers State University (1979). Jaffe's review of research studies of hospital admissions showed "low alcohol-related admissions were attributed to the attitude of professional avoidance among nurses and physicians and unsophisticated interviewing techniques." Collaboration through a team effort was considered the best way to
formulate strategies to promote an interest in alcoholism that could change staff attitudes in addition to improving the care for the alcoholic and his/her family. Jaffe's work is significant in that it highlights the importance of a team approach and does this within a systems analysis framework.16

This team approach philosophy is also supported in the literature by J. G. Cooney, (1980). Cooney explored the role of the psychiatrist in the changing alcoholism scene and in addition to stressing a systems perspective, stated that "constant contact with colleagues of different disciplines in the field of alcoholism will help to ensure an open-minded and flexible attitude on the part of the psychiatrist."17

Cooney's recommendation has dual relevance here in that it reinforces this health care practitioner study's call for increased linkages among treatment providers and also addresses the concept of role support, which was a variable in this survey.

The importance of these professional and community linkages for family practitioners is attested to by L. Goldman, (1978), who encourages family practitioners not to view alcoholism as a hopeless problem and who recommends that the practitioner utilize other resources such as A.A., ALANON and ALATEEN, in work with alcoholics.18

The importance of the nursing staff as an integral component of this team approach has been mentioned early in this paper. Even though this health care practitioner study did not specifically include nurses in the sample population, due to the focus and limits of the research design, the relevance of their roles must be mentioned again. Clement
and Notaro (1975) stressed a systems theory base in their discussion of the detoxification process and the need to look at psychological, physiological, and sociological factors impinging upon the patient.\textsuperscript{19}

Clement and Notaro stressed the significance of the attitudes of the nurses and possible behavioral displays of these attitudes in verbal, as well as non-verbal ways. They stated that the nursing staff who understands and controls its own attitudes and responses to alcoholic clients can participate in the initial stages of this process of intervention.\textsuperscript{20} Fox and Youngblood also stress the role of nurses and they recommend that nurses in the emergency medicine settings be early case-finders. "The emergency department physician must bear the primary responsibility of confronting the patient with the facts of the suspected diagnosis."\textsuperscript{21}

Their discussion regarding confrontation further amplifies the context in which confrontation takes place and highlights the importance of all persons involved. This is helpful when considering the context for this current health care practitioner study. Fox and Youngblood stated that confrontation is a difficult technique which usually occurs in a situation where the patient least expects it, such as in the emergency room. It is almost always poorly accepted, but the individual who has the foresight and empathy to confront the alcoholic and begin his/her slow recovery process, is usually referred to as "the person who saved my life."\textsuperscript{22}

The recommendation that the team approach including the nursing component receive careful attention in future research efforts is also
supported by Estes and Gurel (1979), who conclude their attitudinal discussion by stating that "favorable attitudes on the part of nurses toward alcoholic people could provide for more positive interpersonal relationships, leading perhaps to the increased possibility of sobriety for those whose alcoholism has been arrested."

Use of Social Worker as Key Professional Within the Alcohol Treatment Arena. The previous discussion which has focused on the importance of a broader arena of action in work with individuals with drinking problems has attempted to highlight a number of prescriptive recommendations involving professional and para-professional health care providers. At one point, Air Force-specific suggestions for better utilization of social work personnel were mentioned in regard to the concept of a Substance Abuse or Health Advocacy Officer. Now, an attempt will be made to suggest that Social Work offers a source of key professionals for the alcohol treatment/prevention arena. At first this will be discussed in regard to relevance for both civilian and military populations, and then some suggestions will be made for specific implementation within an Air Force structure.

H. L. Mowles provides a strong base for utilizing a systems analysis framework and for the contention that the social work profession is specifically well-suited for work in the alcohol field. This health care practitioner study seems to support the comments of Mowles by indicating that the social work profession is associated with more positive attitudes and a more proactive treatment stance, compared to the medical profession.
Mowles states that one trait of the social work profession is its "ability to view an agency as a system in need of change, and that the assessment techniques of systems theory can provide the social work practitioner with a method to determine if the target of change should be the individual client or the agency." 24

Mowles focused on a volunteer program and its utility for the network of services within a Veteran's Administration hospital in southern California. The social worker seemed well suited for functioning from a systems perspective in correcting the lack of continuity in the delivery of services to alcoholics. 25 This finding has relevance to both civilian and military settings.

The work of Mowles, Knox, and the findings in this study lend support to the suggestion that social workers be optimally utilized with in-service training programs for professionals, paraprofessionals and lay persons in the alcohol field. Although not possessing the medical training of physicians, they have strengths, a knowledge base, and attitudes which point to a more positive approach in working with problem drinkers. They may also share some of the specifics regarding their practice behaviors, such as rates of diagnosis, identification, etc., with other health care providers.

Since the history of having both practice experiences and courses seems correlated with higher identification rates, one could encourage the health care practitioners to get more training and coursework and also to experience a rotation through in-patient alcohol treatment programs. Within the Air Force, a program could be modeled after the
NAVY program at Long Beach, California. A possible location could be in conjunction with the current in-patient facility at the USAF Regional Hospital, Eglin AFB, Florida. The geographical area would be both an enticement and an encouragement for health care practitioners (including this study's front-line professionals) to attend such a program. A little therapeutic leverage never hurts in work with problem drinkers. It may also have its benefit in work with practitioners. Such a VIP (Visiting Practitioner) type program could provide both courses and training experiences and increase the professional's knowledge base. Building such a program onto an existing treatment facility could have its tradeoffs for all persons involved.
Footnotes

1. Slonim, Sampling.


3. Dillman, Total Design Method.


5. Kissin and Begleiter, Treatment.


7. Dept. of the Air Force, Social Actions Programs, pp. 5-1 to 5-12.


13. Ibid.

14. Myers, Medical Service Digest, p. 5.


20. Ibid.


22. Ibid.


25. Ibid.
Appendix A

Sampling Methodology
**Sampling Methodology**

The total population consists of all Air Force (A.F.) family physicians/residents, emergency room physicians, general medicine physicians, and clinical social workers assigned to A.F. bases in the Continental United States (CONUS). Professionals assigned overseas were not included due to feasibility considerations. The sample was derived in the following way.

Consideration of a number of strata or major commands in CONUS.

- MAC (Military Airlift Command)
- SAC (Strategic Air Command)
- TAC (Tactical Air Command)
- SYS (Systems Command)
- ATC (Air Training Command)
- LOG (Logistics Command)

Listing of all medical facilities in each command with designation as clinic, hospital, regional hospital, or medical center was done by randomization of medical facilities within each category. The following represent these randomized lists.

The dash (-) preceding a number indicates those facilities selected for the sample.
MAC
Randomized Listing

Clinics
- 1. McGuire
  2. Pope
- 3. McChord
  4. Norton
- 5. Charleston

Hospitals
- 1. Dover
  2. Kirtland
- 3. Little Rock
  4. Altus

Regional Hospitals
None

Medical Centers
- 1. Scott
  2. David Grant
- 3. Malcolm Grow
**SYS**

**Randomized Listing**

**Clinics**
- 1. L.A.
- 2. Brooks
- 3. Hanscom

**Regional Hospitals**
- 1. Eglin

**Hospitals**
- 1. Patrick
- 2. Edwards

**Medical Centers**
- 1. Wilford Hall

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**LOG**

**Randomized Listing**

**Clinics**
- 1. Kelly
- 2. McClellan

**Regional Hospitals**
None

**Hospitals**
- 1. Hill
- 2. Tinker
- 3. Robins

**Medical Centers**
- 1. Wright-Patterson

215
SAC
Randomized Listing

Clinics
- 1. Grissom
   2. Peterson

Medical Centers
None

Regional Hospitals
- 1. Carswell
   2. Ehrling-Berquist

Hospitals
- 1. Plattsburgh
   2. Vandenberg
   - 3. McConnel
   - 4. Pease
   - 5. March
   - 6. Minot
   - 7. Griffiths
   - 8. Ellsworth
   - 9. Loring
   - 10. Malmstrom
   - 11. Castle
   - 12. Blytheville
   - 13. Whiteman
   - 14. Beale
   - 15. Fairchild
   - 16. Dyess
   - 17. F. E. Warren
   - 18. Barksdale
   - 19. K.I. Sawyer
   - 20. Grand Forks
   - 21. Wurtsmith

216
TAC
Randomized Listing

Clinics
- 1. Hancock

Hospitals
- 1. England
  2. Nellis
- 3. Seymour Johnson
  4. Homestead
- 5. Bergstrom
  6. Mountain Home
- 7. Tyndall
  8. Luke
- 9. Davis-Monthan
  10. Moody
-11. Cannon
  12. George
-13. Holloman
  14. MacDill
-15. Myrtle Beach
  16. Shaw

Regional Hospitals
- 1. Langley

Medical Centers
None

217
ATC
Randomized Listing

Clinics
- 1. Lowry
  2. Goodfellow
- 3. Vance
  4. Randolph

Regional Hospitals
- 1. Sheppard

Medical Centers
- 1. Keesler

Hospitals
- 1. Reese
  2. Chanute
- 3. Maxwell
  4. Williams
- 5. Laughlin
  6. Mathew
- 7. Columbus
Appendix B

Cover Letter to Chief of Hospital Services
FROM: Capt John J. Cassidy  (614)263-9061  4 Feb 1983
SUBJECT: Health Care Practitioner Survey
TO: Chief of Hospital Services (or designate).

As I indicated in my telephone conversation with your facility, I am currently working on a doctoral dissertation at the College of Social Work, Ohio State University, Columbus, Ohio.

The enclosed questionnaires represent the sole source of data for this study. They are part of this Air Force approved project designed to learn more about the beliefs and practice techniques of family practice physicians, emergency room physicians, and clinical social workers toward persons with alcohol problems.

The intent of the study is twofold: (1) to improve the overall patient care of persons with alcohol problems, and (2) to provide feedback to the medical community regarding relevant concepts related to diagnosis and treatment efforts in this field.

I utilized a combined sampling method to determine the forty-seven medical facilities to be included in this project. The three professional specialties were selected because of their front-line positions in identification and treatment of persons with alcohol problems. I especially noticed the importance of the efforts of these three specialties during my last assignment as the Director of the in-patient alcohol treatment center at the USAF Regional Hospital Eglin, Eglin AFB, FL from 1977 to 1980.

Your cooperation in the distribution and return of these questionnaires will help to assure anonymity of respondents and a high return rate, thus increasing the validity of this research effort. In order to assure this confidentiality, would you please see that the enclosed questionnaires are distributed to each of the three sampled departmental or professional groups at your facility and ask that the completed forms be returned to your office for eventual return to me as a package? I hope to begin to organize the findings no later than 4 Mar 83.

I appreciate the time and effort which this project will require of you. The letter on page one of the survey explains the project somewhat further.

Sincerely yours,

John J. Cassidy, CAPT, USAF, BSC
Clinical Social Worker
AFIT PhD Student, Ohio State University

USAF SCN 83-6
30 June 83
Appendix C

Health Care Practitioner Questionnaire
HEALTH CARE PRACTITIONERS AND PROBLEM DRINKERS

This survey is designed to learn more about Air Force health care practitioners and their beliefs about and professional contacts with problem drinkers. Information in this area can be extremely helpful in policy, practice and research, especially in the fields of medicine and social work.

As either a physician or a social worker, your responses to this survey are important regardless of the extent to which you currently work with problem drinkers.

Please answer all of the questions. If you wish to comment on any questions or clarify your answers, please feel free to use the margins for this purpose.

Thank you for your help.

Health Care Practitioner Study
137 E. Dominion Blvd.
Columbus, Ohio 43214

USAF SCN 83-6
30 June 83
Dear Physicians and Social Workers:

For several years I have been studying professional health care practitioners in an attempt to understand better (1) what part various professionals can play in working with persons with alcohol problems and (2) what suggestions professionals in the field have regarding this area.

I would appreciate you taking the time necessary for completing the attached questionnaire related to these issues. It has been carefully designed to explore a number of potential factors which have an impact on a professional's career. All of your responses will be treated in the strictest confidence and only group data will be reported. In no case will the responses of any single individual be revealed. Please do not list your name or social security number on the form, in order to keep your answers confidential. (Questionnaire will probably take less than thirty minutes to complete.)

Your responses are extremely important to me. When you complete the questionnaire, please return it to your Chief of Hospital Services or the equivalent, who will then return all of the envelopes from your facility to me.

This study is part of my doctoral dissertation being conducted at Ohio State University (O.S.U.), Columbus, Ohio. It has the approval of the College of Social Work (O.S.U.), the Human Subject Review Committee (O.S.U.), and the U.S. Air Force (USAF SCN 83-6). I hope to begin to organize the findings no later than 4 Mar 83.

Thank you in advance for your time and cooperation. Upon completion of this study, I will be glad to send you a summary of the general findings and conclusions. A post card is enclosed to indicate whether you want such a summary.

Sincerely yours,

John J. Cassidy, CAPT, USAF, BSC
137 E. Dominion Blvd.
Columbus, Ohio 43214
(614)263-9061

USAF SCN 83-6
30 June 83
PRIVACY STATEMENT

In accordance with AFR 12-35, paragraph 8, the following information is provided as required by the Privacy Act of 1974:

a. Authority:

(1) 5 U.S.C. 301, Departmental Regulations, and/or

(2) 10 U.S.C. 0012, Secretary of the Air Force, Powers, Duties, Delegation by Compensation; and/or

(3) DOD Instruction 1100.13, 17 Apr 68, Surveys of Department of Defense Personnel; and/or

(4) AFR 30-23, 22 Sep 76, Air Force Personnel Survey Program.

b. Principal Purposes. The survey is being conducted to collect information to be used in research aimed at illuminating and providing inputs to the solution of problems of interest to the Air Force and/or DOD.

c. Routine Uses. The survey data will be converted to information for use in research of management related problems. Results of the research, based on the data provided, will be included in a written master's thesis or doctoral dissertation and may also be included in published articles, reports, or texts. Distribution of the results of the research, based on the survey data, whether in written form or presented orally, will be unlimited.

d. Participation in this survey is entirely voluntary.

e. No adverse action of any kind may be taken against any individual who elects not to participate in any or all of this survey.
Part A. This section is designed to find out something about your beliefs regarding alcohol-related situations and problem drinkers. There is no consensus among professionals about the correct response to these items. Our interest is in knowing your beliefs. Please circle only one answer for each item and complete all items.

Instructions: Please answer each item by indicating your degree of agreement or disagreement using the following format. (Circle your choice.)

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

1. The alcohol treatment services in this community (civilian military) are quite adequate. SA A U D SD

2. Parents should teach their children how to use alcohol. SA A U D SD

3. Any drug can be safely used by a person who is mentally healthy. SA A U D SD

4. Almost anyone would turn to drugs if their problems were great enough. SA A U D SD

5. Members of the clergy should not drink in public. SA A U D SD

6. Alcoholism is associated with a weak will. SA A U D SD

7. Angry confrontation is necessary in the treatment of alcohol abusers. SA A U D SD

8. Family involvement is a very important part of the treatment of alcohol abuse. SA A U D SD

9. Alcohol is so dangerous that it could destroy the youth of our country if it wasn't controlled by law. SA A U D SD

10. Lifelong abstinence is a necessary goal in the treatment of alcoholism. SA A U D SD

11. Alcoholism is a treatable illness. SA A U D SD

12. A hospital in the best place to treat an alcohol abuser. SA A U D SD

13. Group therapy is very important in the treatment of alcoholism. SA A U D SE

14. Most alcohol dependent persons are unpleasant to work with as patients. SA A U D SI

15. Paraprofessional counselors can provide effective treatment for alcohol abusers. SA A U D SI
16. An alcohol dependent person who has relapsed several times probably cannot be treated.

17. Physicians who diagnose alcoholism early improve the chance of treatment success.

18. Alcohol abusers should only be treated by specialists in that field.

19. The best way for a physician to treat alcohol dependent patients is to refer them to a good treatment program.

20. Chronic problem drinkers who refuse treatment should be legally committed to long-term treatment.

21. An alcohol dependent person cannot be helped until he/she has hit "rock bottom."

22. Once an alcohol dependent patient is abstinent and off all medication, no further contact with a physician is necessary.

23. The more extensive efforts to "educate the public" regarding alcoholism probably serve simply to increase alcoholism.

24. Spiritual guidance is the only sure cure for drinking.

25. Alcoholism is hereditary.

26. Only sensitive people are prone to become problem drinkers.

27. Even if problem drinkers could be rehabilitated by proper treatment, the cost would be prohibitive.

28. The facts of alcoholism are generally unknown to the public.

29. Many problem drinkers engage in criminal activities as a result of their drinking.

30. Private treatment facilities should be available to problem drinkers.

31. Alcoholism is a disease.

32. Problem drinkers have no one to blame for their troubles but themselves.

33. People who use alcoholic beverages are not as trustworthy as people who do not.

34. Drunk drivers should lose their driver's license.

35. The public has heard enough about alcoholism.
36. Alcoholics Anonymous is an important resource for persons with alcohol problems.  
37. The Air Force should begin to consider giving monetary compensation to retired persons who have developed serious alcohol problems during their active duty time.  
38. I would recommend controlled drinking (social or moderate drinking) to most persons who have had past serious problems with alcohol.  
39. Alcoholics Anonymous is a must for persons with alcohol problems.  
40. I believe there are some severe problem drinkers who can return to controlled (social or moderate) drinking.  
41. I think it is good that a number of professional persons and entertainers have spoken out about their alcohol problems.  
42. I feel that I am well informed about the alcohol treatment services which the Air Force has to offer.  
43. Some problem drinkers need more than Alcoholics Anonymous as a support system in order to refrain from problematic drinking.  
44. I believe a blood alcohol test should be routinely done on all hospital admissions.  
45. The best I can offer problem drinkers is referral to somebody else.  
46. Pessimism is the most realistic attitude to take toward problem drinkers.  
47. I want to work with problem drinkers.  
48. I am interested in the nature of alcohol-related problems and the responses that can be made to them.  
49. There is little I can do to help problem drinkers.  
50. In general, one can get satisfaction from working with problem drinkers.  
51. I often feel uncomfortable when working with problem drinkers.  
52. I know how to counsel problem drinkers over the long term.  
53. I know enough about the causes of drinking problems to carry out my role when working with problem drinkers.
54. I know enough about alcohol dependence to carry out my role when working with problem drinkers.  
55. I know enough about the factors which put people at risk of developing drinking problems to carry out my role when working with problem drinkers.  
56. I can appropriately advise my clients about drinking and its effects.  
57. I have the right to ask a client for any information that is relevant to his/her drinking problem.  
58. I have a working knowledge of alcohol and alcohol-related problems.  
59. I have a clear idea of my responsibilities in helping problem drinkers.  
60. I have the right to ask clients questions about their drinking when I believe it is necessary.  
61. On the whole I am satisfied with the way I work with problem drinkers.  
62. If a person really wants to stop problematic drinking, he/she can do so on one's own.  
63. If I felt the need when working with problem drinkers, I could easily find someone who would help me clarify my professional responsibilities.  
64. I could easily find someone with whom I could discuss any personal difficulties that I might encounter while working with problem drinkers.  

Part B. Understanding Alcohol Abuse. Please circle your answer of choice. The purpose of this section is to help determine the need for further alcohol-related information in the field.

1. As well as suffering adverse consequences from drinking, the alcoholic usually drinks according to different patterns than does the normal or social drinker.  
2. Alcoholism affects approximately 1 per cent of our adult population.  
3. Approximately one-fourth of all alcoholics are on skid row.  
4. Research has failed to establish any genetic, environmental, social or personality factors as the single cause of alcoholism.
5. A person who never consumes anything stronger than beer is probably not an alcoholic.  
6. One may be a reliable worker on the job and still be alcoholic.  
7. The ability to confine drinking to weekends suggests that a person is probably not alcoholic.  
8. The suicide rate among alcoholics is markedly higher than that for the general population.  
9. Coming from a family background of teetotalism (total abstinence from alcoholic drinks) is relative assurance that one will not develop alcoholism.  
10. Al-Anon is the companion group to Alcoholics Anonymous (A.A.) for female alcoholics.  
11. Alcoholism can be seen as a type of drug addiction.  
12. Cross-dependency (or "cross addiction") to other sedative or tranquilizing drugs in the alcoholic may begin introspectively, (i.e., due to a physician's prescription of the drug.)  
13. The incidence of alcoholism and drug dependence is lower among physicians than the general population.  
14. The most current information regarding the issue of whether alcoholics can return to "controlled" or "non-problematic" drinking totally supports the contention that most persons can return to this non-problematic drinking pattern.

Part B, Section II.  
1. In addition to the one tri-service treatment facility at Bethesda, MD, the Air Force has the following number of in-patient alcohol treatment facilities:
   A. 4
   B. 0
   C. 10
   D. 14
   E. 16
2. **Dilaudid** (Antabuse) is a drug:
   A. that is employed in supporting persons who are stopping the use of heroin.
   B. that has considerable mind-elevating effect.
   C. that has a relatively potent tranquilizing effect.
   D. that, when taken prior to alcohol ingestion, causes discomfort to the drinking person.
   E. that is frequently abused.

3. According to the June 1979 Rand Report Survey, the estimated prevalence of people with alcohol problems (in varying degrees) in the U.S. Air Force is approximately:
   A. 14%
   B. 20%
   C. 2%
   D. 5%
   E. 10%

4. Alcoholics Anonymous is a self-help group which has been in existence since:
   A. 1945
   B. 1935
   C. 1933
   D. 1975

5. From a physiological point of view:
   A. alcohol is a stimulant.
   B. alcohol is a narcotic.
   C. alcohol is a sedative-hypnotic drug.
   D. alcohol is an anesthetic.

6. Generally, one is considered to be under the influence of alcohol when the concentration of alcohol in the blood exceeds the minimum figure of:
   A. 0.05%
   B. 0.10%
   C. 0.15%
   D. 0.17%
7. The amount of alcohol that is contained in two or three cocktails:
   A. is not enough to reduce sensitivity.
   B. is great enough to impair judgment.
   C. should not be looked upon as having the ability to incapacitate.
   D. would produce the same effects in all individuals.

8. On a list of public health problems, the disease of alcoholism:
   A. would not appear.
   B. would be ranked at least within the top four in the nation.
   C. would not be considered as great enough to be of any consequence.
   D. may or may not be so classified, depending on one's interpretation.

9. The percentage of adults in the U.S. who use alcoholic beverages is approximately:
   A. 35%
   B. 50%
   C. 65%
   D. 75%

10. Although there are several kinds of alcohol, the kind of alcohol which is present in alcoholic beverages is:
    A. methyl
    B. amyl
    C. ethyl
    D. butyl

Part C. General Information. This section provides a means for gathering general information about health care providers. The findings will only be used in aggregate form.

(Please fill in answers 1 & 2.)

1. Today's Date: __/__/____.
2. Your age: _______ years.
(Please circle the answer which best applies to you.)


4. Please circle the answer(s) which best describe(s) your training and or status. Several answers may apply for one person.
   General or Family Practice Medicine
   Emergency Room Medicine
   Internal Medicine or Subspecialty
   Surgery or Subspecialty
   Obstetrics and Gynecology
   Pediatrics
   Psychiatry
   Other Specialty (Specify) ____________________
   Medical Resident (Specify year of residency) _____
   Administration
   Social Work
   Psychology
   Medical Technology
   Paraprofessional counseling
   Others: (Specify) ____________________

5. Religion:
   A. Catholic
   B. Jewish
   C. Protestant
   D. None
   E. Other (Specify) ____________________

6. Education (circle level completed):  Bachelor's degree
                                      Master's degree/ equivalent
                                      Ph.D./M.D./ equivalent
Answer questions 7 through 12 with respect to your current clinical or counseling experience.

7. General estimate of the percentage of my patients with alcohol related problems (circle one value):
   - Female: 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
   - Male: 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%

Please fill in correct answers.

8. Total length of time treating alcohol abusing/dependent patients.
   Years/Months __________ / __________ N/A

9. Total length of time treating alcohol abusing/dependent patients in the Air Force setting.
   Years/Months __________ / __________ N/A

10. What is your usual patient load/or average number of patients seen per day? __________

11. Please estimate (to the nearest 5%) the % of your patients (all patients seen) within these categories. Total should equal 100%.
   - Active duty (A.D.) enlisted - Male_________ Female_________
   - Active duty (A.D.) officers - Male_________ Female_________
   - Dependents of active duty officers - Male_________ Female_________
   - Dependents of active duty enlisted - Male_________ Female_________
   - Retired - Male_________ Female_________
   - Dependents of retired - Male_________ Female_________
   - Other - Male_________ Female_________

12. Please estimate (to the nearest 5%) the % of problem drinkers (among your patients/clients) who fall within these categories. Total should equal 100% of problem drinkers seen.
   - A.D. enlisted - Male_________ Female_________
   - A.D. officers - Male_________ Female_________
   - Dependents of A.D. officers - Male_________ Female_________
   - Dependents of A.D. enlisted - Male_________ Female_________
   - Retired - Male_________ Female_________
   - Dependents of retired - Male_________ Female_________
   - Other - Male_________ Female_________

233
13. Please characterize if you have had any special training/education regarding alcohol-related problems or symptoms. (Circle your choice.)

A. No specific alcohol-related classes or training.
B. One alcohol-related class or training experience.
C. Two or more alcohol-related classes or training experiences.
D. No specific alcohol-related courses or training but some practical experience.
E. Extensive alcohol education and training (including at least some practice experience with patients with alcohol problems).
F. Other (specify) ________________________________

Part D. Clinical Practice Responses. (Please circle your choice.)

1. If you see a patient/client whom you believe to have an alcohol problem, who generally raises the question regarding the possibility of this problem?

A. You
B. The patient/client
C. It is not raised
D. Other (specify) __________________

2. If you were to raise the question regarding a possible alcohol-related problem with a patient/client, what technique best approaches the one you would use?

A. Aggressive confrontation (presenting of alcohol-related facts in a straight-forward manner, with minimal concern for person's ability to tolerate such interaction.)
B. Supportive confrontation (presenting of alcohol-related facts in a straight-forward manner, while also providing some emotional support for the person.)
C. Factually-related questions without any direct confrontation.
D. Indirect comments without confrontation or any specific alcohol-related questions.
E. Not applicable. (I wouldn't raise the question.)
1. If I see an alcoholic or a problem drinker in my practice setting, I will record in his/her chart a specific-treatment plan regarding that alcohol problem.

2. If I see an alcoholic or problem drinker in my practice setting, I will use an alcohol-specific diagnosis when charting the case.

3. A person with an alcohol problem can be treated just as well without the use of alcohol-specific terminology in his/her chart.

4. When I see a problem drinker in my practice, I recommend that he/she attend at least one Alcoholics Anonymous (A.A.) meeting.

5. When I see a problem drinker in my practice, I recommend that he/she seek assistance at the Social Actions office.

6. When I see patients (clients), questions about alcohol intake are routinely asked.

7. I routinely order or recommend that another health care provider order a blood alcohol test for all adult hospital admissions, with whom I am involved.

10. As mentioned in the introduction to this survey, the following is the Diagnostic and Statistical Manual of Mental Disorders (Third Edition) (DSM III) definition for "Alcohol Abuse" and "Alcohol Dependence."

"The essential feature of Alcohol Abuse is a pattern of pathological use for at least a month that causes impairment in social or occupational functioning.

The essential features of Alcohol Dependence are either a pattern of pathological alcohol use or impairment in social or occupational functioning due to alcohol, and either tolerance or withdrawal. Alcohol Dependence has also been called alcoholism."

Do you agree with this definition? (Please circle and elaborate if necessary.)

YES, definitely

YES, with some reservations. (specify)______________________________

NO, (specify what you believe.)____________________________________

That concludes this survey. Thank you for your cooperation and time. If you have any questions regarding this project, please contact me (Captain John Cassidy) at (614)263-5061. (Address: 137 E. Dominion Blvd. Columbus, Ohio 43214)

If you would like to receive a summary of the results of this survey, please fill out the attached post card and mail it to me separately.

235
Is there anything else you would like to tell us about your beliefs or contacts with problem drinkers? If so, please use this space for that purpose.

Also, any comments you wish to make that you think may help us in future efforts to understand this topic area will be appreciated, either here or in a separate letter.
Now that you have completed this survey, please return it to SG or the designated office. You may wish to further insure your confidentiality by stapling your survey or enclosing it in a plain sealed envelope before returning it to SG. Your contribution to this effort is greatly appreciated.

“Swamp Fox” Francis Marion, 1782

Health Care Practitioner Study/Cassidy
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Bibliography


239


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