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Drug Problem and Social Change in Saudi Arabia: A Study of the Attitude of Saudi Students Studying in the U.S.A. towards Drug Use in Saudi Arabia

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DRUG PROBLEM AND SOCIAL CHANGE IN SAUDI ARABIA: A STUDY OF THE ATTITUDE OF SAUDI STUDENTS STUDYING IN THE U.S.A. TOWARDS DRUG USE IN SAUDI ARABIA

by

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The main focus of this study is the relationship between level of income, level of education, length of stay in U.S.A., frequency of contact with foreigners, and level of religiosity on student attitudes towards smoking cigarettes and hashish, and drinking alcohol.

A sample of 110 students was randomly drawn from three areas: Kalamazoo, Ann Arbor, and Lansing, Michigan. Data were collected through administering a questionnaire.

Analysis of the data revealed the following: income, level of education, length of stay in the U.S., frequency of contact with foreigners, and level of religiosity were associated with student attitudes towards drug use.

DEDICATION

To my wonderful wife Nora for her love, support, sacrifice, and encouragement that were needed to bring this study to completion.

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CHAPTER I

INTRODUCTION

Statement of the Problem

The purpose of this research is to study the attitudes of Saudi students studying in U.S.A. towards drug use.

To accomplish this task, the following questions have been proposed.

1. What is the relationship between level of income and student attitudes towards drug use?

2. What is the relationship between level of religiousness and student attitudes towards drug use?

3. What is the effect of education in student attitudes towards drug use?

4. To what extent does contact with foreigners affect students' attitudes towards drug use?

5. To what extent does length of time staying in the U.S.A. affect student attitudes towards drug use?

Historical Background

The history of Saudi Arabia goes back to 1703 when an alliance was formed between Prince Muhammad Ibm Sau'id and Sheik Muhammad Ibm Adjulla'ahab. During this period many struggles and setbacks threatened the Saudi dynasty,

leading to a breakdown in political continuity and control over the region (the central part of what is known as Saudi Arabia today). The starting point for the present unified kingdom began only in 1902, when Abdul Aziz al Saudre captured the city of Riyadh from Ibn Rashid. At the time the country was divided into three regions. The eastern province was under the control of the Ottoman Empire, the central region was under tribal rule and experienced disputes among tribal leaders for territorial control, and the western province was under Hashimiak control. Abdul Aziz undertook the difficult task of uniting the regions and their inhabitants under one nation, a task which required about 20 years of continuous effort to accomplish. This dream was finally realized in 1932, when the Arabian peninsula was unified under one officially recognized name, the Kingdom of Saudi Arabia (Rajehi, 1981).

When King Abdul Aziz unified Saudi Arabia in 1932, he established his family as rulers of Saudi Arabia. He fathered 37 sons and passed the reins of power to them (Abbondante, 1980).

King Abdul Aziz' sons inherited authority after he passed away in 1953 with the crown prince as president, and his second oldest brother as second president. They continued in the Saudi tradition of their father, using the Quran as the constitution of the country. Power is now in the hands of King Fahed, the oldest son of Abdul Aziz.

The Land

Saudi Arabia is located in the extreme southwestern part of Asia and

embraces about 8% of the Arabian peninsula. Saudi Arabia covers 2,240,000 square kilometers--nearly four times the area of France (Al-Zahrani, 1986). Jordan, Iraq, and Kuwait are her northern neighbors, while Qatar, Oman, and United Arab Emirates line the Saudi Arabian eastern borders. North Yemen, South Yemen, and Oman are the southern neighbors. The Red Sea forms her western boundary.

Population

The first comprehensive and accurate census, carried out in 1974, indicated that the total population of the Kingdom was 7,012,642 (Saudi Arabia, Internal Information Department, 1979).

The Economic System

Saudi Arabia had a closed economy until about 1935. Livestock, limited farming, and small handicrafts were the main sources of income. Very small numbers of people migrated to neighboring countries like Iraq and Sudan to make their living, and some were traders between India and the Middle East (Al-Zahrani, 1986).

Urban development and expansion started after the discovery of oil. Today the Saudi Arabian economy is deeply involved in the production and exportation of crude oil. However, the government is trying to develop other resources, such as wheat and petro chemicals.

The Importance of This Study

The world trade volume of narcotics and drugs, as estimated today, amounts to three hundred million U.S. dollars (Riyadh, 1987). This fact indicates the increasing worldwide circulation and large consumption of these detrimental drugs. There is no doubt that abuse of narcotics is one of the major and most serious diseases of modern time, and a perpetual menace to society. It is catastrophic for human growth, leads the human being to slow, euphoric death, and the destruction and dismantling of the whole social structure. The government of the Kingdom of Saudi Arabia led a wide campaign against the spread, use, and smuggling of narcotics and drugs within the Kingdom. The drug problem has been aggravated by rapid social change and economic growth occurring in the past half century. This rapid change started with the discovery of oil in 1935. The most dramatic changes occurred in 1973, when the increases in oil production and oil prices led the government of Saudi Arabia to establish many new projects and many new government jobs. The government had to employ more foreign workers to accomplish its goals, and had to send more people abroad for further studies. In 1980, there were 15,000 Saudi students in the U.S.A. alone (Ibrahim, 1982). This phenomenon produced rapid changes in every aspect of society. Smith (1978) described this rapid change with the following analogy: "A well-designed car may start to shake at a hundred miles an hour, and come apart at some time above that. Saudi Arabia is already travelling at a hundred miles an hour" (p. 46).

Students abroad are exposed to values and attitudes different from those they learned at home. This study will provide some helpful information about the attitudes of Saudi students studying in the U.S.A. towards drug use in Saudi Arabia. Hopefully, this information will be useful to those in charge of drug-related issues, and important to those who work in the public sector to plan future programs.

CHAPTER II

REVIEW OF LITERATURE

Definition of Social Change

According to Wilbert E. Moore (Madan, 1971), "Social change is the significant alteration of social structure (that is of patterns of social action and interaction), including consequences and manifestations of such structure embodied in norms (rule of conduct), values, and cultural products and symbols" (p. 2).

Another definition for social change was made by Nordskog (1960): "Social change means simply the process of becoming different in any sense" (p. 7).

Analysis of social change must answer three questions: (1) How did the change originate? (2) By what mechanism did the events produce the change? and (3) What form did its effects take in the pattern or unit under consideration? (Smith, 1975, p. 14).

Fine distinguishes between the rate of change as objective or subjective, and the way such a rate could be measured was given by Attir and Suda (1981). A crucial distinction is made between the rate of change as measured by quantitative indicators, and the rate as experienced by participant observers in the given social environment. The first could be defined as the objective or the absolute rate. It can be expressed by the number of technological or social innovations implemented over a certain period by the length of lead time necessary for the

diffusion of innovations, or by the frequency of institutional reforms carried out in a given society. The second should be classified as the subjective or relative rate of change. This rate does not lend itself to quantitative measurements but is reflected in the perception by the social actor of what appears to him or her as noticeable change in his or her social world (p. 172).

Theories of Social Change

In the socio-theoretical tradition, such men as Sponies, Durkheim, Weber, Spencer, Comte, Marx, and many other social thinkers have contributed significant ideas about the process of change. For instance, Sponies contrasted "Gemeinschaff" with "Gessellschaff"; Durkheim "Mechanic," "Organic," and "Charisma legal authority"; Spencer and Comte saw society as a process of evolution. Marx saw society as a "class struggle" between the "bourgeoisie" and the "proletariat." The role of economics, education, contact with foreigners, and religion in social change is discussed in the following sections (Al-Ghamdi, 1981, p. 7).

Economics and Income as an Agent of Social Change

There are three ways of viewing interaction between economic factors and social structure, and the impact of economic structure on changes in social structure. One view holds that political and social institutions fully determine the economic structure, and that the economic structure has little or no effect on the social structure.

The second view maintains that the economic structure determines the social structure and that cultural ideas and institutions have little or no effect on the economic structure. This view may be called economic determinism. In its extreme form some advocates see technology alone determining everything, and are called technological determinists.

The third view is called historical materialism. It maintains that there is a reciprocal dialectic, two-way relation between the economic structure and social structure. Economic forces and relations help determine cultural ideas, value, and social and political institutions. However, it is equally true that cultural ideas, values, and institutions help determine economic forces and relations (Sherman, 1987).

Economics plays a very important part in social change. Ogburn (1964) explains why economic factors are very important in social change.

> The economics may determine the location of a community such as in a fertile valley, or near the fish beds of the ocean, or perhaps where the person lives, such as in a city or the open country, or in a mining community in the hill. The economic factor provides a standard of living of a family either of wealth or poverty. It is a source of power, socially, politically, and militarily. It is a factor in the choice of a mate, in the rearing of children, in the provision of recreation, in safeguarding against life's adversities, and affects status in society (p. 176).

In Marxian analysis, economics play a major role in society. The real driving force of change for the Marxist is located in the economic foundation of society.

> The level of the productive forces of a given society is said to determine the general level of culture, of knowledge, and of ideology. Changes which take place in the economic basis are primary. They depend on scientific laws of a causal determined character. Economic changes are first in order of time,

> and of importance they are succeeded by changes in the super structure. These super structure changes have to do with ideas such as religion, law, literature, and theory. These are more reflections of changes in the basis. The economic order is decisive as regards both the rate and the nature of change in our ideas (Mcleish, 1969, p. 4).

Education as an Agent of Social Change

Education facilitates the process of social change in society. However, some argue that universities in the Third World face several obstructions that limit their effectiveness as agents of social change. The most important factor is the type of education the universities are able to provide. "Poor training and hard living conditions of the teacher confronting large numbers of students who themselves are ill-prepared for university study contribute to the low quality of education" (Waisanan, 1971, p. 86).

Others view education as an instrument which is only as good as the person wielding it. Its influence and efficiency in terms of social change depend largely on its orientation and content, as well as those who import and receive it. "It is a two-edged weapon, it can serve the aim of traditionalists just as well as it can serve the aim of modernizers" (Dube, 1976, p. 505).

Education, according to Durkheim, is an agent for conceiving society rather than changing it.

> A society in which there is pacific commerce between its members, in which there is no conflict of any sort, but which has nothing more would have a rather mediocre quality. Society must in addition have before it an ideal toward which it reaches...it must go on to new conquests. It is necessary that the teacher prepare the children who are in his trust for these necessary advances. He must be on his guard against transmitting the moral gospel of our elders as a sort of closed book. On the contrary, he must excite in

> them a desire to add a few lines of their own and give them the tools to satisfy this legitimate ambition (Thompson, 1982, p. 162).

Although it remains to be determined whether education plays a relatively large or small role in attitudes toward the social change process, research clearly indicates that students' attitudes do change as a result of the information, ideas, and experiences they receive at universities. However, not all students undergo the same degree of attitude change, and the amount of change experienced appears to be determined by field of study. Many studies suggest that students become more liberal in college, particularly those who major in social sciences (Wylie, 1982).

Contact With the Outside as an Agent of Social Change

Structural and technological changes influence thinking, attitudes, and behavior of people, and these are crystallized through different mechanisms. For example, modern transportation developments make it easier to travel between countries whose cultures are totally different from each other. As a result people's attitudes toward foreigners and foreign customs are probably more tolerant than they once were.

For some social thinkers, such as Simmel, the image of society is more than the sum of individuals making it up. In addition, there are patterns of reciprocal interaction whereby they are linked together and influence one another. The interaction between people who have different ideas and backgrounds will produce changes in the attitude of people and their knowledge.

> With a larger population there will simply be more people adding their various creative contributions to the cultural base. This in itself makes it more unlikely that any one person will be aware of or able to absorb the contributions of all members. But beyond this as population grows and becomes more heterogeneous, not everyone will share the same social experience or cultural base, thus cultural innovation in one specialized area may be neither understood nor appreciated by persons in other areas. Indeed many creative contributions to the cultural base are simply unknown outside a narrow specialty (Johnson, 1981, p. 81).

As Malinowski describes the sequence of change, there are three phases of culture contact.

> First of all, we have a reservoir of indigenous customs, beliefs, institutions. This culture complex is relatively stationary, passive, in stable equilibrium. Impinging on it we have a second active, probably predatory, certainly intrusive, culture. This second culture has its own characteristic interests, intentions, institutions. Thirdly, there is the process of contact and change. This may take any of three forms: Conflict, cooperation, compromise. As a result, changes occur which affect both the indigenous and the intrusive culture (Mcleish, 1969, p. 27).

Religion as an Agent of Social Change

Religion plays a major role in social changes. The role of religion in attitudinal and social changes is described by Marx, Durkheim, Weber, and others.

Marx had argued that:

> The traditional religious emphasis on a transcendental, nonmaterial realm and the hope for a life after death in this realm, helped divert people's attention from their physical suffering and material hardship in this life. Furthermore, traditional religious ideals actually reverse natural priorities by suggesting that suffering and hardship are positive spiritual values if endured patiently, perhaps even increasing individuals' chances for rewards in the hereafter. Material wealth, worldly status, and power are viewed in the religious consciousness as illusionary, transitional, and as posing grave dangers with respect to an individual's spiritual well-being and rewards in the next life. Thus, poverty is transformed into a virtue and wealth into a spiritual liability (Johnson, 1981, p. 130).

The function of religion is to divert people's attention from their physical suffering and material hardship in this life.

In the written works of both Weber and Durkheim, religion is a key element and a basic context of social change.

> The interest both Weber and Durkheim had in Protestantism as a seed bed for modern individualism and secularism was a wide one in the nineteenth century, and it in turn was but a part of a still wider interest in the relation of religion to social movement and other forces in history involved in historical change (Nisbet, 1974, p. 165).

Weber, in his study of religion, emphasizes the effect of religious ideas on economic activities. His major argument in Protestantism Ethic and the Spirit of Capitalism, is that the kind of motivations that result from acceptance of beliefs and ethical demands of Protestantism helped to stimulate the type of behavior that was involved in the origins of modern bourgeois capitalism.

> Both Protestantism and capitalism involved a rational and systematic approach to life. The Protestant ethic emphasized avoidance of idle and impulsive pleasure and diligence in the performance of one's duties in all aspects of life, including especially one's occupational calling and economic activities generally. Similarly, the development of modern capitalism required limitation of consumption for purpose of reinvestment and capital growth, a willingness to submit to discipline of systematic planning for future goals of regular employment in an occupation, and the like (Johnson, 1981, p. 231).

Social Changes in Developing Countries

Saudi Arabia is one of the developing societies which experienced tremendous social change. Examining changes in developing countries from the 1950s to the 1980s will help in understanding the changes Saudi Arabia experienced.

Developing societies experienced tremendous social, economic, demographic, and political changes during the 1950s through the 1980s. This rapid social change and modernization had some negative results in Third World countries, despite attempts to avoid them.

> As a social phenomenon, modernization is typically associated with the Western world. As a result, modernization frequently possesses negative connotations among third world counties. Such connotations include increasing crime rates, weakening of family and kinship ties, and growing rates of environmental pollution. Because of such connotations, many third world countries in their attempts to modernize, try to borrow only the positive aspects of modernization. Unfortunately, this selectivity does not appear possible. It does not seem possible to selectively transfer positive societal characteristics without transferring the values associated with them (Attir & Suda, 1981, pp. 197-198).

The Arab countries were affected by social change. Some basic ideology was changed, or at least broken down, by those changes.

> The ideological changes taking place in the Arab countries reflect deep structural changes in their society. The principles and institutions that held together the traditional Arab society have broken down (Thompson & Reischaur, 1966, p. 13).

The Arab countries most affected by social changes may be the oil rich countries. No matter what the loss, those countries are heading toward more and more modernization. Patterns and standards of living have been changed--some new ideas have emerged. Oil production is the most important factor contributing to the rapid changes in these countries.

> Oil production in these countries however does provide the drive behind the forces making for modernity and westernization in patterns and standard of living for emancipation and for anti traditionalism in societies and politics. Whatever the loss (as some may feel) in authentic tradition, local pride and dignity (incontinuity of), and respect for family or community life, and possibly also in inherited moral standards, the new fashions of life thus reinforced will never revert to the old. This must involve a gradually or

> even rapidly emerging new type of electorate with anti-feudal egalitarian, largely socialist and even Marxist ideas. These conceptions in no way preclude a chauvinist nationalism and a high self confidence, but they are clearly inimical to the permanence of the "old regimes" of government based on Islamic culture of seemingly decreasing validity. Such feelings thrive among a new class in these territories, the industrial proletariat, which today contains thousands of rootless, restless, and ambitious expatriates from other countries (Thompson & Reischaur, 1966, p. 113).

Social Change in Saudi Arabia

This section deals with social change in Saudi Arabia during the post-oil discovery period. This section focuses on social change in the post-oil period as most of the changes occurred during this time, while only small changes, if any occurred, in Saudi Arabia during the pre-oil period.

Some writers, such as Peretz (1971), think that discovery of oil is the most important phenomenon driving Saudi society from a primitive tribal society to modern society. Without the momentous royalties from oil, Saudi Arabia would probably have remained a primitive tribal society for generations. Petroleum income has created revolutionary changes. The hundreds of millions of dollars in oil revenues have enabled the country to acquire many Western technological innovations to use more or less productively, and to develop a Western type of governmental apparatus. Around the oil camps and management centers, temporary villages grew into towns now dependent on imports. Wells, pipelines, and water purification installations had to be brought into the country. In new urban centers government-initiated public works established educational and medical services; and, in rural areas, experimental farms were set up with the most

modern equipment and railroads connected towns that had previously been accessible only by camel caravan (Peretz, 1971).

Others, such as Thornburg, explained the political, social and economic changes which occurred in Saudi society as follows:

> For thirty years, Ibn Saud ruled his desert kingdom of Saudi Arabia with its highly dispersed population through the traditional mechanism of its tribal organization which he understood well. Today, the transition from that tribal organization to modern political, economic, and social institutions presents one of the most complex problems in social change in the Middle East (Thornburg, 1964, p. 44).

Al-Zahrani (1986) divided post-oil social change in Saudi Arabia into six phases, as follows:

1. The first phase occurred when the first group of Americans came to the country to explore for oil in 1934. This was the first contact between Saudis and the outside on a large scale.

2. Phase two started with oil production in 1938 and continued until the late 1940s. Workers coming to the country were mostly Americans employed by oil companies, and teachers from other Arab countries.

3. Phase three began in the late 1940s and continued until about 1964. This was the period of integration of the Saudi economy into the world market.

4. Phase four lasted from 1964 to 1973. A large number of people from rural areas began to migrate into urban areas, which began to expand rapidly.

5. Phase five of social transformation in Saudi Arabia took place following the oil embargo of 1973, and continued until about 1976. During that phase, the country was undertaking its first development plan and the economic expansion

made the country more dependent on guest workers to carry out its development projects.

6. Phase six lasted between 1976 and 1980. Guest workers' influx and social transformation in Saudi Arabia witnessed change in the government and institutions of higher education. The Council of Ministers was expanded to include 20 ministries. Seven of its members held doctorates from western universities (pp. 157, 159, 163, 165).

7. The seventh phase, starting from 1980 to the present, is the last phase. In 1980, as a result of their improved income, many Saudis began to employ what became known in Saudi Arabia as soft labor, which includes maids, chauffeurs, and babysitters. During this period many young Saudis travelled outside the country.

Saudi Arabian society will witness serious social changes in the coming years. Two very real and important sociological factors have been introduced to Saudi society.

First, the emigration of more than 120,000 Kuwaitis with their families and children to Saudi Arabia after the Iraq invasion of Kuwait on August 2, 1990. Despite the fact that Kuwaitis have similar cultural backgrounds, the signs of differences are everywhere. Most of Kuwait's women go unveiled in public, or even if veiled, don't cover their faces. Most of them also drive cars. In contrast, Saudi women cannot move about outside their own homes without being completely veiled, nor can they drive a car.

The second, and more important factor which has been introduced to Saudi

society, is the presence of international troops, most of them from Western countries (the majority are Americans).

Some of the consequences have been seen already. The march of 50 girls and women in early November, 1990, driving their cars in Riyadh, the capital of Saudi Arabia, and demanding their right to drive in Saudi Arabia is an example of the influence of Western culture. Saudi society will very likely witness profound social changes in the coming years. These changes will deeply affect people's attitudes and beliefs.

Contact With the Outside Through Traveling and Studying Abroad

Before the discovery of oil, Saudi Arabian societies had little or no contact with the outside world. People lived in their small villages. As a result of the discovery of oil, income of citizens of Saudi Arabia has increased. A great many Saudis now spend their holidays outside the Kingdom with or without their families.

Psty (1959) explains that "most Saudi men who go abroad do so for recreational purposes and have found that they could purchase pleasures that are not available in Saudi Arabia" (p. 58).

Al-Munahi (1983) noticed the effectiveness of contact with the outside when he stated,

> with the increase in wealth in the country, many innovations have been introduced affecting the society and the family-life pattern. The people have more money to spend which enables them to travel to neighboring Middle Eastern countries or to Europe, the United States, and Canada.

> These people make contact, which inevitably affects their old way of living (p. 34).

Another example of contact between Saudi families and outside, and the impact of that contact, was given by Al-Munahi (1983).

> As a result of growing income, one sees that most Saudi families and individuals spent their holidays and summers outside their country. They traveled extensively and were deeply interested in contacts with other cultures. They saw Western modernization, including music, cinema, and theater, and in addition to that some families and the government sent their youth to be educated in Europe, America, Canada, and other countries. Naturally, they carried with them new cultural patterns and new ideas, and they returned to their own country demanding social and internal changes in their own lifestyles (p. 19).

Ibrahim (1982) believes there is an incidence of social breakdown in Saudi society as a result of massive contact with the outside through traveling outside the Kingdom of Saudi Arabia, and students studying abroad.

As many as 900,000 Saudi citizens travelled outside Saudi Arabia in 1979. That is nearly one-fifth of the total native Saudi population. In 1975, estimates of the population in Saudi Arabia varied between 5 to 5.5 million. (The official Saudi estimates are 7.5 million.). It would be equivalent to about 50 million Americans traveling outside the U.S. in one year. Of the Saudis who travelled abroad, about 15% were females. To appreciate the social implications of this, we must remember that a woman still cannot move about outside her own home in Saudi Arabia without being veiled, nor can she drive a car. However, these taboos are not observed while she is abroad. In many ways such contact with the outside world, for people who were culturally insulated until very recently, amounts to another "silent revolution" (Ibrahim, 1982, pp. 107-108).

The number of Saudis traveling abroad is still growing, as reported in Tables 1 and 2.

Contact With the Outside Through Guest Workers

Other forms of contact with the outside occurred through guest workers in Saudi Arabia. The first and the most influential contact between Saudi society and Western culture occurred through Arabian-American oil companies. "The chief westernizing influence has been the recruitment of Bedouin tribesmen into the labor force of Arabian-American oil companies and its contractors" (Nolte, 1963, pp. 66-67).

The influence of Western culture in Saudi society touched every aspect of the community. The number of Americans living in Saudi Arabia in 1980 was 40,000 (Quandt, 1981). Despite Saudi efforts to keep the Western presence from being particularly visible, the signs of westernization are everywhere. Video cassette recorders have flourished, allowing Saudi Arabians to see Western films in the privacy of their homes that could never be seen in public or on Saudi television. Western fashions have made their way to Saudi Arabia, and strong pressure can be expected from the younger generation, especially women, to relax the stricture on veiling. The consumption of alcohol in private is substantial, but is totally forbidden in public. It is this gap between public morality, which is strictly defined by Saudi religious authorities, and private behavior sharply influenced by Western habits, that lends such an air of unreality to Saudi life (Quandt, 1981).

Table 1

Number of Saudis Traveling Abroad in 1979

Leaving to or Entering from	Leaving			Entering		
	Males	Females	Total	Males	Females	Total
Arab countries	683,224	112,371	795,595	721,842	117,057	838,399
Europe and the Americas	43,626	17,179	60,805	38,749	14,805	53,554
Asian and African countries	19,635	5,323	24,958	16,875	4,479	21,354
Totals	746,485	134,873	881,358	777,466	136,341	913,807

Source: Ibrahim, S. E. (1982). The new Arab social order: A study of the social impact of oil wealth. London: Croom Helm, p. 109.

Table 2

Number of Saudis Traveling Abroad in 1984

Gender	Leaving	Entering
Male	893,041	868,249
Female	222,196	231,385
Total	1,115,237	1,099,534

Source: Saudi Arabia, Ministry of Interior. (1984). Statistics book, Riyadh, Saudi Arabia: Author, pp. 278-280.

Saudi Arabia does not have the manpower to accomplish all the development projects which its financial resources enable it to afford, without extensive imports of foreign labor and expertise though it is sending more students to study in Western societies. After completion of the first development plan took place in 1975, Saudi Arabia was more dependent on guest workers. Al-Zahrani (1986) describes it as follows: "When the country was undergoing its first development plan (1976), its oil income increased sharply as a result of high prices and high production which made the country more dependent on guest workers to carry out its development projects" (p. 163).

The problem in Saudi Arabia is not only a shortage of workers, but is also in part a problem of social attitudes. Many Saudis find working with their hands demeaning. Long (1976) explains,

> Many Saudis, particularly those of a Nomadic tribal origin, find manual labor, and even some skilled professions to be demeaning. For example,

> such jobs as plumbers, painters, and construction workers are almost impossible to fill with Saudis (p. 50).

In spite of some change in attitudes in Saudi Arabian society, this problem still persists in Saudi Arabia.

Another problem of manpower in Saudi Arabia is the woman's role. In the West, for example, a much greater proportion of women work than in Saudi Arabia.

> The employment possibilities are severely limited. Girls are now encouraged by the government to work in girls schools and colleges as teachers or, more popular, administrators and in women's hospitals as doctors or nurses. They are not allowed to work in any place where they will meet men (Niblock, 1982, p. 176).

The effect of contact between Saudi society and the outside through guest workers was well illustrated by Ibrahim (1982) as follows:

> The volume and diversity of cultural contact between Saudis and the outside world may be inferred from Table 3. The number of foreigners visiting Saudi Arabia in 1979 was about 2.5 million from 72 countries. This number equals about half of the total native Saudi population. It is equivalent to 120 million foreigners visiting the U.S. in one year. In other words, on the average, one of every two Saudis equals one foreigner that year (Ibrahim, 1982, pp. 107-8).

Table 4 suggests that the numbers of foreign workers entering Saudi Arabia are growing. Needless to say, those foreigners came with different values and cultural backgrounds which affect the country in many ways.

Education as an Agent of Social Change in Saudi Arabia

Al-Said (1982) explains the significance of the unified educational system in Saudi Arabia as follows:

Table 3

Number of Foreigners Entering and Leaving
Saudi Arabia in 1979

Nationality Groups (Number of countries)	Number of Entering	%	Number of Leaving	%
Arab (20)	1,555,171	62.6	1,543,404	63.7
Asian (16)	556,353	22.4	452,910	18.7
African (18)	21,441	.8	24,097	1.0
European (18)	232,049	4.8	278,731	11.5
American/Australian (11)	112,690	9.4	124,405	5.1
Total	2,484,749	100.0	2,423,547	100.0

Source: Ibrahim, S. E. (1982). The new Arab social order: A study of the social impact of oil wealth. London: Croom Helm, p. 108.

> Students for the first time were reading the same curriculum and were thus being socialized along the same lines. This aspect of the socialization process represented radical departure from that to which their parents were exposed and can be seen as a catalyst leading to the emergence of a new national consciousness. The government's extensive scholarship programs have allowed thousands of students (some of them leaving their hometown for the first time) to live and study as colleagues and roommates, exposing them to each other and enabling them, at a crucial stage in their lives, to draw on shared experiences. In a land where people were identified either through their tribes of their town and villages, the forging of a new identity superceding the old and familiar one is a matter of high priority on the road to national homogenization and national statehood) (p. 104).

Ibrahim (1982) explained how education generated a new class of modern Saudis as follows:

> Despite all claims and obviously wishes of the Saudi leadership (both secular

Table 4

Number of Foreigners Entering and Leaving Saudi Arabia
Between 1981-1985

	1981		1982		1983		1984		1985	
	Leave	Enter	Leave	Enter	Leave	Enter	Leave	Enter	Leave	Enter
Arabian Countries	2,061,066	1,558,004	1,707,734	1,777,132	1,888,246	2,073,708	2,469,355	2,750,132	2,514,427	2,515,709
Asian Countries	923,899	885,108	829,817	1,075,919	953,405	1,232,696	1,189,895	1,389,260	1,216,242	1,294,866
European Countries	378,278	231,817	287,117	264,060	299,066	269,462	263,456	282,562	222,093	237,919
African Countries	29,939	31,418	21,163	31,660	43,181	21,163	44,984	42,482	20,196	37,109
American Countries	225,904	138,209	176,223	169,231	181,630	173,543	180,156	193,568	141,767	146,571
Grand Total	3,610,086	2,844,356	3,022,054	3,318,002	3,374,481	3,792,590	4,147,846	4,658,004	4,114,725	4,332,194

Source: Ibrahim, S. E. (1982). The new Arab social order: A study of the social impact of oil wealth. London: Croom Helm, p. 82.

> and religious) of modernizing on "Islamic bases," there is a steady erosion of traditional culture. New and diverse lifestyles introduced by Westerners and Asians as well as Northern Arabs may be disdained, avoided, or admired, but they are being constantly watched by young Saudis. The growing number of Saudi scholars (1.3 million in 1980, nearly one fourth of the entire native population) means exposure to modern science and to living human models (teachers) from various backgrounds. The impact of such experiences may not be instant but "the sleeper effect" is no doubt constantly at work. Such effects are further reinforced by increasing travel abroad for study (in 1980 there were 15,000 Saudi students in the U.S. alone). The growing population of modern educated Saudis means an emerging "world view" at marked variances with that of their elders, and that of their uneducated counterparts (Ibrahim, 1982, p. 107).

The most important form of contact between Saudi society and the outside came through students studying abroad, especially in Western countries. In 1980 there were 15,000 Saudi students in the U.S. alone. Students who have returned from other countries introduced new and diverse lifestyles in Saudi Arabia.

Impacts of Social Changes in Saudi Arabia

Among the many changes taking place in Saudi Arabia today is a growing drug problem, both in terms of usage and attitudes toward drugs. The attitude toward drugs, as indicated earlier, is the major focus of this thesis.

The drug problem in Saudi Arabia is not very serious when compared with Europe or America. Even as we compare the use of drugs in Saudi Arabia with other Middle Eastern countries, the use of drugs is relatively low. Powell (1982) emphasized this when he said:

> In contrast to Turkey, Morocco, and some other Middle Eastern countries there is very little hashish or marijuana in Saudi Arabia. All intoxicating drugs are strictly prohibited by law and the penalty for possession of even a small quantity of cannabis is severe (p. 160).

Al-Zahrani (1986) views drug use as a new phenomenon which has emerged as a result of outside contact.

> Drug abuse was non-existent in Saudi Arabia in the pre-oil period. But with the contact with the outside world through traveling, media, and guest workers, drug use has become a problem (p. 182).

What supports Al-Zahrani's (1986) argument is that, the first law about drug consuming and smuggling in Saudi Arabia was passed in 1954, 20 years after the first contact between the Saudis and the outside in 1934 (Tables 5 and 6).

Table 5

Comparison Between Saudis and Non-Saudis Who Were Caught Dealing in Drugs During 1987

	Saudi		Non-Saudi		Total Number of	
Cases	Males	Females	Males	Females	Persons	%
Users	3,371	18	713	29	4,131	63
Dealer	964	7	1,177	32	2,180	33
Smugglers	59	4	206	9	278	4
Totals	4,394	29	2,069	70	6,589	100

Source: Saudi Arabia, Ministry of Interior. (1987b). Statistics book, Riyadh, Saudi Arabia: Author, p. 88.

Tables 5 and 6 indicate that there is just a small number of Saudi females working in the drug trade. There are more non-Saudi smugglers than Saudi smugglers.

Table 6

Comparison Between Saudis and Non-Saudis Who Were Caught Dealing in Drugs in 1988

Cases	Saudis		Non-Saudis		Total Number of Persons	%
	Males	Females	Males	Females		
User	2,576	20	504	31	3,131	51.9
Dealer	1,402	9	1,107	65	2,583	42.8
Smugglers	82	6	210	21	319	.3
Totals	4,060	35	1,821	117	6,033	100.0

Source: Saudi Arabia, Ministry of Interior. (1988). Statistics book, Riyadh, Saudi Arabia: Author, p. 95.

In 1987, there were more non-Saudi dealers who were caught than Saudi. On the other hand, in 1988 there were more Saudi dealers than non-Saudi.

In both 1987 and 1988 (Tables 6 and 7), more Saudi citizens were caught using drugs than non-Saudis. These statistics have some limitations.

1. These statistics reflect the number of people caught by the Saudi police. There are many people who were not caught and are not included in these statistics.

2. These statistics are official data collected by the Ministry of Interior. There are several shortcomings in official statistics. Some of them are: (a) Usually the reported crime is not the same as the actual crime, and (b) most of the official statistics have been developed for administrative purposes and not to

Table 7

Comparisons Between Saudis and Non-Saudis Who Were Caught Dealing in Drugs in 1987 and 1988

	1987				1988			
	Saudis		Non-Saudis		Saudis		Non-Saudis	
	Male	Female	Male	Female	Male	Female	Male	Female
User	3,371	18	713	29	2,576	20	504	31
Dealer	964	7	1,177	32	1,402	9	1,107	65
Smugglers	59	4	206	9	82	6	210	21
Total	4,394	29	2,096	70	4,060	35	1,821	117

Source: Saudi Arabia, Ministry of Interior. (1988). Statistics book, Riyadh, Saudi Arabia: Author, p. 96.

satisfy research interests.

The first law about drug consuming and smuggling in Saudi Arabia was introduced in 1954. The law emphasizes the following points: Anyone who is caught by police with drugs in their possession will be subject to the following punishment:

1. Five year jail sentence.
2. Police will confiscate all of the drugs and destroy them.
3. Pay a fine of twenty thousand Rials (equivalent to 7,000 American dollars).
4. If he/she is a Saudi citizen, he/she will be prohibited from traveling outside the Kingdom for three years.

In 1987 a new law was passed stating, "Any person who shall be caught smuggling drugs, he/she will be subject to capital punishment" (Saudi Arabia, Ministry of Media, 1988, pp. 45-50).

Alyamamah, Saudi Arabia's weekly magazine, interviewed Mr. Howery, Vice President of the Drug Department at the Ministry of Interior. Mr. Howery said that, "Most of the drugs and alcohol in Saudi Arabia are coming from outside, and the economic gain is the main motive behind this behavior" (Interview with Mr. Howery, 1986, pp. 106-109).

A conference was held in Riyadh in February, 1987. Several interesting suggestions were made in that conference including:

1. We must raise public awareness of drug use.
2. We must have very harsh punishment of drug dealers and smugglers.
3. We should include some information in public school books about the danger of drugs (Saudi Arabia, Ministry of the Interior, 1987a).

Abdurhaman, in Drugs and Youth in Gulf Countries (1985), devoted one chapter to the problem of drugs in Saudi Arabia. He said that in 1979, Saudi Arabian police seized 460 kilos of hashish in Saudi Arabia. In 1980, police seized 554 kilos of hashish. This is an increase of 20% of hashish in 1980 from 1979. In 1979, police seized 5,490 kilos of Qhat. In 1980 they seized 2,501 kilos (p. 188). This shows a decrease of Quat use in 1980 from 1979.

Abdurhaman (1985) thinks that Saudi Arabia faces a very serious problem with drugs compared to other Gulf countries. Table 8 shows the amounts of drugs confiscated in Gulf countries in comparison with Saudi Arabia for 1979 and

Table 8

Comparison Between Saudi Arabia and Other Gulf Countries
in Amounts of Drugs Confiscated in 1979-1980

Country	Year	Hashish by kilo	Afyun by kilo	Heroin by kilo	Qhat by kilo	Cocaine by kilo
Saudi Arabia	1979	554.000	19.400	-	5,490.30	-
	1980	640.039	23.100	-	2,501.00	-
Iraq	1979	18.349	0.063	-	-	-
	1980		12.628	-	-	-
Kuwait	1979	36,186	5.526	0.693	-	0.700
	1980	264,443	2,314	0.330	-	-
United Arab	1979	187.211	34.560	0.851	119.670	-
Emirates	1980	340.946	31.160	0.480	63.870	0.022
Bahrain	1979	4.894	1.874	0.011	-	-
	1980	10.363	3.670	-	-	-
Qatar	1979	27.719	7.796	-	-	-
	1980	12.755	2.697	-	-	-
Oman	1979	27.719	0.011	-	-	-
	1980	12.755	1.000	-	-	-

Note: - = no data
Source: Abdurhaman, M. (1985). Drugs and youth in Gulf countries. Kuwait City, Kuwait: Alaragan Press, p. 177.

1980.

From Table 8 it may be concluded that there is more hashish use in Saudi Arabia compared to other Gulf countries. It can further be concluded that there is more Qhat use in Saudi Arabia. This is attributable to the fact that Saudi Arabia borders Yemen, where Qhat use is legal.

Al-Zahrani (1985) explains that "the smuggling of hashish and other drugs into Saudi Arabia is motivated by economic gain" (p. 182).

It must be clarified that there is not controversy between the Abdurhaman (1985) findings and Powell's (1982) observation. Powell says that there is little hashish and marijuana in Saudi Arabia in contrast with other Middle Eastern countries and Turkey. In comparison to Egypt or Turkey, there is less hashish in Saudi Arabia. Abdurhaman, on the other hand, is comparing Saudi Arabia with only the other Gulf countries, and found more hashish in Saudi Arabia than the other Gulf countries such as Kuwait or Qatar.

There are three explanations for Saudi Arabia having a more serious drug problem compared to the other Gulf countries.

1. Saudi Arabia is the largest of the Gulf countries. It covers 2,240,000 square kilometers. The Saudi police are faced with great difficulty in controlling this large area and making sure there is no drug smuggling.

2. Saudi Arabia faces very rapid social change. This rapid change has some negative impact. One of these negative aspects is the drug problem.

3. In the 1980s, Saudi Arabia had more than two million guest workers from different parts of the world. These workers carry with them different values

and behaviors than do the Saudi Arabians.

When we look at the drug problem in Saudi Arabia from another angle, we find drug offenders are distributed equally among all classes and all levels of education (Tables 9 and 10).

It has been mentioned that social changes in Saudi Arabia caused by the oil boom affected every aspect of Saudi life. The greatest impact was in the percentage of drug use and in the increasing crime rate in the kingdom of Saudi Arabia in general.

Ibrahim (1982) interprets the increased crime rate after the 1973 oil boom as a sign of social breakdown in Saudi society. The category of crimes involving alcohol and drug offenses increased by more than 1,400% (Table 11).

Although Saudi officials keep a tight lid on figures pertaining to crime, divorce, alcoholism, and other indicators of social problems, observers with a long-standing interest in Saudi Arabia have reported a rapid increase in all such phenomena. From scattered published official sources, we may infer this rapid increase.

Between 1971 and 1975 (two years before and two years after the 1973 oil boom) the administrative manpower in Saudi prisons more than doubled. It grew from a total of 2,255 policemen and civilians to 5,541, a 196% increase in five years, indicating a possible doubling of the number of prison inmates. Substantiation of this inference became explicit by the late 1970s. As Table 11 shows, in the span of a single year the number of crimes officially reported increased by 169. This does not include political crimes or crimes possibly committed, but not

Table 9

Number of Drug Users Who Were Caught by Saudi Police in Riyadh (Saudi Arabia) Distributed by Profession, Marital Status and Educational Level for Years 1987, 1988

Years	Offenders	Profession					Marital Status		Educ. Level	
		Unemp.	Student	Unskilled Labor	Private Business	Employee	S	M	Illit.	Lit.
1987	1684	213	48	605	367	413	879	767	767	879
1988	1337	181	56	359	328	413	728	609	537	879
TOTAL	2983	394	104	964	695	826	1607	1376	1304	1679

Source: Saudi Arabia, Ministry of the Interior. Statistics book. Riyadh, Saudi Arabia: Author. (1987b, pp. 50-51; 1988, pp. 16-17).

Table 10

Number of Drug Users Who Were Caught by Saudi Police in Riyadh (Saudi Arabia) Distributed by Profession, Marital Status and Educational Level for Years 1984, 1987, and 1988

Years	Total Offenders	Profession					Marital Status		Educ. Level	
		Unemp.	Student	Unskilled Labor	Private Business	Employee	S	M	Illit.	Lit.
1984	5971	1053	338	2262	1225	1093	3099	2872	2729	3242
1987	6589	1214	221	2116	1427	1566	3383	3206	2836	3753
1988	6033	1214	188	1551	1626	1454	3349	2684	2511	3522
Total	18,593	3481	747	5929	4323	4113				

Source: Compiled from Saudi Arabia, Ministry of the Interior. (1984, 1987b, 1988). Statistics book. Riyadh, Saudi Arabia: Author.

Table 11

Number and Type of Crime in the Kingdom of Saudi Arabia in 1978 and 1979

Year	Murder	Economic	Moral	Fraud	Other	Total
1978	70	1186	546	28	23	1853
1979	136	3006	1368	117	353	4980
% increase	94.3	153.5	150.3	317.9	1434.8	168.8

Source: Ibrahim, S. E. (1982). The new Arab social order: A study of the social impact of oil wealth. London: Croom Helm, p. 110.

reported. A close examination of Table 11 indicates that the traditional crime of murder which is usually related to honor and vendetta, increased by 95%, and showed the slowest rate of growth. In contrast, economic and financial crimes grew by 154%, and those involving fraud more than tripled (318%). These offenses are no doubt related to the tremendous influx of money and the relentless scrambling over it.

What is labeled in Table 11 as "other crimes" includes alcohol and drug offenses, which increased phenomenally by more than 1400% in one year. Along with moral crime (i.e., sexual) these "other crimes" reflect the stress and strain of the Saudi individuals and society" (Ibrahim, 1982, p. 108).

There are not enough data about drug use in Saudi Arabian society in comparison to other crime in recent years. This is due to the fact that some information is not released for political and social reasons. Powell (1982) noted

this difficulty when he said that with the possible exception of acutely xenophobic Albania, Saudi Arabia is probably the world's most difficult country to write about. The difficulty is a simple one--the paucity of accurate, up-to-date information.

Despite this shortage of data, it can be asserted that crimes involving drugs have increased in recent years in comparison with other crimes. Several sociological factors support this assumption.

1. In 1985, Saudi Arabia established the first hospital for drug addiction in the Kingdom of Saudi Arabia. The hospital is located in Riyadh. Now, most of the big cities in Saudi Arabia have hospitals for drug addiction.

2. In 1986 an anti-drug department was established within the Ministry of Interior.

3. In 1987 there was a big conference in Riyadh about drug problems. Shortly after that conference, the Saudi government passed a law which specifies, "Any person who shall be caught smuggling drugs, will be subject to capital punishment."

Now, almost every day, there are articles in newspapers or programs on television about the drug problem. The concern among Saudi authorities reflects that there is a serious drug problem.

Social Change and Attitude Change

The concept of anomie is used here to explain the rapid changes in Saudi Arabian society and the attitudes of Saudi students studying in the U.S.A. toward

drug use in Saudi Arabia.

There are two related versions of the anomie perspective. The first version was developed by Emile Durkheim, and the second by Merton. Durkheim saw anomie as a result of the state of normalcy, in which nobody knows the rules. Following Durkheim's view of anomie (Pfohi, 1985), when something disrupts the normative structure during periods of severe economic crisis, or sudden prosperity and growth, anomie would occur as a result.

There was sudden prosperity and growth in the Saudi economy in the post-oil period. People had more wealth to spend as a result of the oil boom in 1973. A significant sociological change has emerged in Saudi society. Most of the Saudi families formerly lived in the lower or middle class, but now things have changed. New upper class families have emerged, and their new wealth enables them to be exposed and be tolerant to lifestyles different from what they experienced in the past.

The following hypothesis has been proposed and is supported by the literature dealing with Saudi society: Those students who have higher incomes will have a more positive attitude toward drug use in Saudi Arabia than those who have lower incomes.

The context of anomie in Durkheim's work is a transition from the traditional to the modern world. During this period, the common religious beliefs and rituals which promoted solidarity lose their power, and new rules and regulations are needed. Rapid but imbalanced changes have occurred in Saudi society since 1973, resulting in a weakening of common religious beliefs.

In Saudi society, the dominant religion is Islam, and all people are supposed to believe in Islam. The teaching of Islam forbids drinking alcohol or using any kind of drug. The law of Saudi Arabia, which follows the Islamic teaching, strictly prohibits the use of any kind of drug or alcohol, and the penalty for possession of even a small quantity of either is severe. Despite all that, the number of people using drugs and alcohol in Saudi society is growing. This suggests the common religious beliefs are losing their power. The following hypothesis is proposed:

Religious students have a more negative attitude towards drug use in Saudi Arabia than non-religious students.

Merton (Pfohi, 1985) suggested that some of an addict's behavior could be viewed as a retreatise reaction on the part of a person who finds the path to success blocked, and who has inhibitions against the use of illegitimate or criminal means of seeking success or status.

The literature on Saudi Arabian society does not support Merton's assumption. Drug and alcohol offenses are not exclusive to lower educational and lower socio-economic class people who have less opportunity, as Merton suggested, to accomplish their goals. In fact, drug offenses are distributed equally among all classes. Students' attitudes towards major social problems such as drugs change as a result of the opportunity available to them as college students. Students exposed to different levels of information, ideas, and experiences will be able to deal with the new social problems they face in their society in more liberal ways. Wylie (1982) found that "many studies suggest that students become more

liberal in college, particularly those who major in social science" (p. 411). The following hypothesis is proposed:

Students with high levels of education have more positive attitudes towards drug use in Saudi Arabia than students with lower levels of education.

Symptoms of anomie manifested in Saudi society as a result of several factors. One of them is the contact between the isolated culture and the outside. As Reckless (Faris, 1955) found in his survey of the literature dealing with social disorganization and crime,

> there is a world-wide occurrence of disorganization often expressed in criminality as well as other forms of demoralization where an isolated culture has been destroyed or partially destroyed by contact with civilization (p. 197).

Saudi society has had a massive contact with the outside world through traveling and guest workers, and a large number of young students studying in Western universities. Any such large-scale cultural and human contact in a relatively short period of time is bound to create stress and strain on the local culture and population.

Saudi Arabia is one of only two Arab countries without a direct colonial experience. (The other is Yemen.) As a result, most of its society remained locked in the hinterland of the Arabian peninsula until mid-century, the exception being the western, and to a lesser extent, the eastern peripheries of Arabia.

This insular geographic existence was compounded by a puritan fundamentalist belief system and practice brought about by the Wahhabi movement of the late eighteenth century. The fact that King Abdul Aziz had to battle with his religious establishment in the 1930s and 1940s to introduce the automobile, radio,

religious establishment in the 1930s and 1940s to introduce the automobile, radio, and telephone testifies to the degree of insularity, and the deep suspicion toward technology and the modern world. It took another 30 years to persuade the same establishment to open the first girls' school in 1960, and only with the provision that it would be under the supervision of the religious ulama (Ibrahim, 1982).

It must therefore be appreciated how actually and potentially stressful it must have been as the outside world was suddenly thrust upon such a simple fundamentalist, quasi-tribal social structure. The consequence was major change in people's attitudes towards social problems. The following hypotheses have been proposed:

Students who have spent long periods of time in the U.S.A. have a more positive attitude towards drug use in Saudi Arabia than those who have spent short periods of time in the U.S.A.

Students who have more frequent contact with foreigners have a more positive attitude towards drug use in Saudi Arabia than those who have less frequent contact with foreigners.

CHAPTER III

CONCEPTUAL FRAMEWORK, METHODOLOGY, MEASUREMENT OF VARIABLES

The purpose of this chapter is to outline a conceptual framework, provide operational definitions for the variables in this study, and to explain the methodology employed for analyzing the proposed inter-relationships among the variables.

Attitude towards three types of drug use in Saudi Arabia and its relationship with five important independent variables is shown in Figure 1. The variables are level of income, level of education, length of stay in U.S.A., frequency of contact with foreigners, and religiosity. The choice of these variables was made on the basis of the review of the literature.

As indicated earlier in the review of the literature, the increase in level of income achieved by Saudi Arabia in a short period of time as a result of the oil boom in 1973, has enabled the Saudi government and Saudi citizens to send their students to be educated in Western countries. They are exposed to different cultures and values by foreign friends and their culture, and more effectively, by a foreign education. These values can be in contradiction with the basic beliefs of Islam. Because of high levels of contact with Western society and culture, religion may lose its strong hold gradually, and is likely to be replaced by new ideas and attitudes as a consequence.

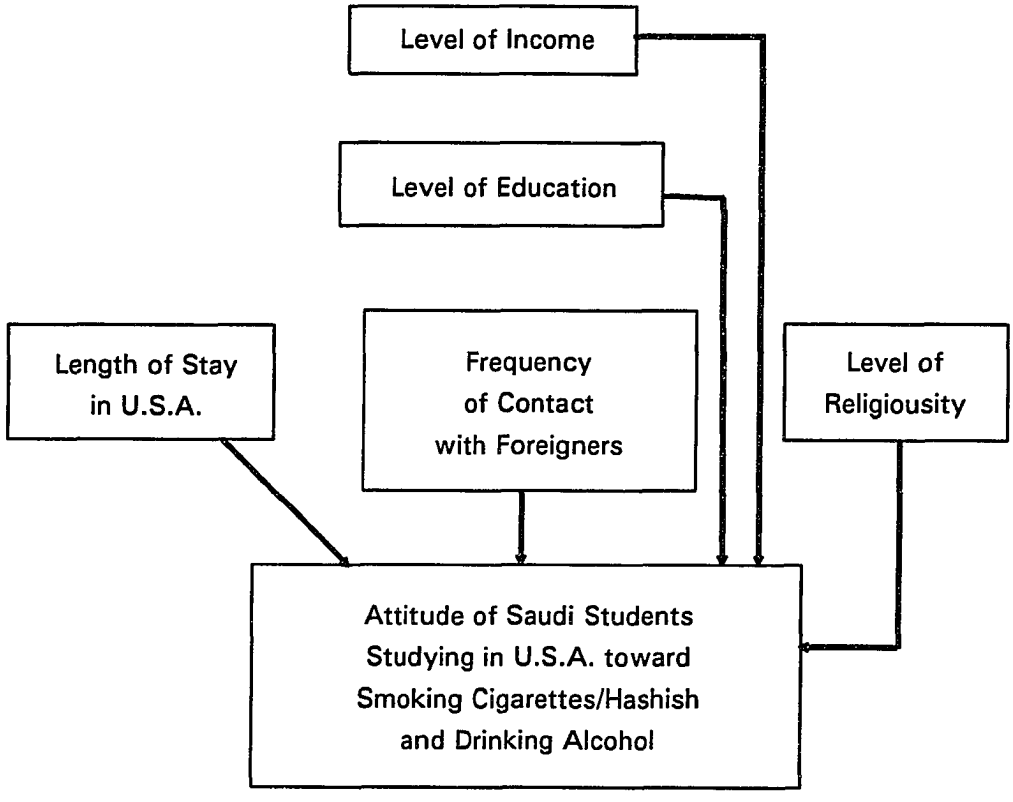

Figure 1. Conceptual Model for Attitudes Towards Drugs.

Methodology

This study is about the effect of level of income, level of education, length of stay in the U.S.A., frequency of contact with foreigners, and level of religiosity on the attitude of Saudi students studying in the U.S.A. towards smoking cigarettes, drinking alcohol, and smoking hashish.

Research Method and Description of the Questionnaire

This section deals briefly with four subsections: data collection, instrument,

pilot study, population and sampling, and follow-up.

Data Collection

This study was intended to measure the different attitudes toward drug use in Saudi Arabia. A questionnaire was designed to collect data in this study.

The questionnaire was divided into two major parts. The first dealt with general information and the second with attitude towards drug use.

Pilot Study

The questionnaire was pre-tested before being distributed to the respondents. The purpose of this pre-test was (a) to verify the accuracy and consistency of the questionnaire, (b) to identify any unclear or difficult items in the questionnaire, (c) to find out if the respondents experienced any reservations or could offer any suggestions about improving the questionnaire, and (d) to estimate the length of time respondents would require to complete the questionnaire.

A sample of ten students was randomly selected to pre-test the questionnaire. The questionnaires were administered during a meeting at the Saudi Students House in Kalamazoo, Michigan. The items in the questionnaire were then reviewed for discrepancies through the use of mean, median, and standard deviation. The pilot study resulted in minor changes in questions 8, 12, and 14 in order to clarify some statements. Those three questions were clarified by adding "compared to the majority of the Saudis."

Population and Sampling

The sample for this study was drawn from Saudi student populations in three areas: Kalamazoo, Ann Arbor, and Lansing, Michigan. The majority of Saudi students in Michigan are studying in these areas. Forty-five students were chosen from each area. A complete list of addresses and telephone numbers of all Saudi students in those areas was obtained.

The subjects were chosen by systematic sampling of addresses at random, starting from the list of addresses obtained from both Saudi Education Mission (SEM) and Saudi Students House in Kalamazoo, Michigan. A stamped and pre-addressed return envelope was provided with the questionnaire for the respondents' convenience.

Follow-up

During the first 12 days, 80 students out of 135 responded by returning the questionnaire. When the subjects were contacted by telephone 12 days after the original mailing, 30 more students responded, thereby increasing the total to 110, which is 81.4% of the sample. When you call someone from Saudi Arabia, you have already identified him. Thus, his family or friends put pressure upon him to answer and return the questionnaire.

Hypotheses

To investigate the attitude of Saudi Arabian college students towards drug

use, the following hypotheses were tested.

1. Students who have a higher income have a more positive attitude towards drug use than those who have a lower income.

2. Religious students have a more negative attitude towards drug use than non-religious students.

3. Students with a higher level of education have more positive attitudes towards drug use than students with a lower level of education.

4. Students who have spent longer periods of time in the U.S.A. have a more positive attitude towards drug use than those who have spent shorter periods of time in the U.S.A.

5. Students who have more frequent contact with foreigners have a more positive attitude towards drug use than those who have less frequent contact with foreigners.

Independent and Dependent Variables

This study has the five independent variables: (1) income, (2) level of education, (3) length of stay in U.S.A., (4) frequency of contact with foreigners, and (5) religiosity.

The dependent variable, attitude towards drug use in Saudi Arabia, is divided into three categories.

The first category is smoking cigarettes and/or sheesh (hookah):

> Sheesh is a smoking device widely used in the Arabian peninsula to smoke Jurak, which is a tobacco fruit mixture cooked to produce a dark colored paste. Jurak may be burnt by an electrical device or, much more commonly,

> by charcoal. The produced smoke passes through water at the base of the sheesha and a long tube before it is inhaled (Zahran, 1988, p. 10).

The second category is drinking alcohol. The third category is smoking hashish.

The responses in all three categories were coded as follows: (1) strongly disagree, (2) disagree, (3) undecided, (4) agree, and (5) strongly agree. Nine questions were included in each category of the dependent variable. The range of total scores for all nine questions in one category was from a low score of 9 to a high score of 45.

Coding the Data

The data was coded as follows: strongly agree = 1, agree = 2, undecided = 3, disagree = 4, and strongly disagree = 5.

Because some of the questions were designed with a reverse order to check for reliability, the scores were reversed to maintain conformity with the coding indicated above.

Analytical Tools

Four types of analyses were used in this study:

1. Cronbach's alpha reliability test was run on relevant items. The values of alpha for all items were all above .8.

2. Descriptive statistics were generated for each item in the questionnaire along with mean and standard deviations.

3. Attitude items were analyzed using Pearson's correlation to determine the correlation between dependent and independent variables.

4. Pearson's chi-square was used to test the hypotheses.

Pearson's Chi-square

Chi-square is a nonparametric measure of the relationship between two variables (dependent and independent), where each variable can be put into many categories.

The level of significance used in this study is .05.

The decision rule for this test is reject H_0 if X^2 - value > the critical value of X^2 (Capon, 1988).

Cronbach's alpha test was conducted to measure the association between the dependent and independent variables in this study. Pearson's correlation test was conducted to measure the association between the dependent and independent variables.

Table 12 shows the reliability test for items measuring religiosity. Cronbach's alpha for those items was .84. Cronbach's alpha for items measuring contact with foreigners was .85. For attitude items it was .86, for smoking cigarettes .92, for alcohol drinking and smoking hashish .91.

Missing values were coded as = -1 and omitted from evaluations when the reliability test was run.

In short, the reliability test was conducted for five sets of variables, and all of them were above .80. These are well above the .50 suggested by Nunnally

Table 12

Reliability Test for Items Measuring Religiosity, Contact With Foreigners, Attitude Towards Smoking Cigarettes, Drinking Alcohol, and Smoking Hashish

Variables	Number of Items	Cronbach's Alpha
Religiosity	4	.84
Contact With Foreigners	4	.85
Attitude Towards Smoking Cigarettes	9	.86
Attitude Towards Drinking Alcohol	9	.92
Attitude Towards Smoking Hashish	9	.91

(1978) for acceptable reliability.

CHAPTER IV

RESULTS AND ANALYSIS

In this chapter the empirical results of the study and an analysis of results are presented. This chapter is divided into four sections: (1) the description and demographic characteristics of respondents, (2) statistical analysis of data, (3) relationship between the independent and dependent variables, and (4) a summary of the findings.

Characteristics of Respondents

It is assumed that background characteristics influence respondents' attitudes. This study deals with five independent variables which are demographic in nature: (1) socio-economic status, (2) level of education, (3) length of stay in U.S.A., (4) contact with foreigners, and (5) religiosity.

Table 13 presents the distribution of respondents by age. A total of 45 or 40.9% are between the ages of 26 and 30 years which is the modal category; 30 or 27.3% are 21-25 years old; and 18.2% are between 31-35 years of age. There are 6.4% under 21 years of age and 7.3% are in the 36 and over age group.

Table 14 shows that 39% of the respondents were pursuing an engineering education, 29% were art students, and 21% were in the education curriculum. Only 4% of the respondents were in health studies.

Table 13

Distribution of Respondents by Age

Age Group	Number	Percentage
Under 21 years	7	6.36
21-25 years	30	27.27
26-30 years	45	40.90
31-35 years	20	18.18
More than 36	8	7.27
Total	110	100.00

Table 14

Distribution of Respondents by Major

College	Number	Percentage
Engineering	43	39.09
Art	32	29.09
Education	23	20.90
Business	8	7.27
Health	4	3.60
Total	110	100.00

Table 15 indicates that 42.7% were bachelor's degree students. Training programs consisted of 1.8%, which is the smallest percentage. A total of 29% were in master's degree programs, and 26% were studying for their Ph.D. degrees.

Table 15

Distribution of Respondents by Degree

Degree	Number	Percentage
Bachelor	47	42.70
Master	32	29.09
Ph.D.	29	26.36
Other (Training)	2	1.80
Total	110	100.00

Table 16 indicates that the modal category respondents (19%) stayed in the U.S.A. 13 to 24 months, followed by those who stayed 1 to 12 months (18.1%). The lowest percentage was for those who stayed in the U.S. more than 97 months (1.8%).

Table 17 shows that the highest percentage of the sample (34.5%) had a monthly income between 3001 to 6000 Saudi Riyal (3.75 Saudi Riyal = 1 U.S. dollar). The lowest percentage (.9%) had a monthly income of more than 15001 Saudi Riyal. The percentage of those with income less than 3000 was 22.7%.

Table 18 shows that 43.6% did not perform any prayers in the mosque.

Table 16

Distribution of Respondents by Length of Stay in U.S.A.

Length of Stay in U.S.A. by Month	Number	Percentage
1 to 12	20	18.1
13 to 24	21	19.0
25 to 36	14	12.7
37 to 48	6	5.4
49 to 60	16	14.5
61 to 72	16	14.5
73 to 84	12	10.9
85 to 96	3	2.7
More than 97	2	1.8
Total	110	100.0

Less than 1% performed all prayers in the mosque. Thirty-nine percent of the respondents performed some prayers in the mosque, and 15.4% of the respondents performed most prayers in the mosque.

Table 19 shows the highest percentage of the sample read the Quran 0-2 times a week (65.4%). This was followed by those who read the Quran 3-5 times a week (22.7%). The lowest percentage were those who read the Quran more than eight times a week (2.7%).

Table 17

Distribution of Respondents by Monthly Income

Income (Saudi Riyal)	Number	Percentage
Less than 3000	25	22.70
3001 to 6000	38	34.50
6001 to 9000	16	14.50
9001 to 12000	23	20.90
12001 to 15000	2	1.80
More than 15001	1	.90
Missing	5	4.50
Total	110	100.00

Table 18

Distribution of Respondents by the Frequency of Prayers Performed in the Mosque

Status	Number	Percentage
All prayers in the mosque	1	.90
Most prayers in the mosque	17	15.40
Some prayers in the mosque	43	39.09
Not able to perform any prayers	48	43.60
Missing data	1	.90
Total	110	100.00

Table 19

Distribution of Respondents by Number of Readings of the Quran in One Week

Number of Readings	Number of Respondents	Percentage
0-2	72	65.40
3-5	25	22.70
6-8	9	8.10
More than 8	3	2.70
Missing data	1	.90
Total	110	100.00

Table 20 shows the overall mean, median, and standard deviation for the above mentioned variables. The overall mean for income exceeded the overall median which indicates that some resondents have very high incomes in comparison with others.

Index construction for level of religiosity was measured by taking the average of four items. Missing values were omitted from the average.

Index construction for frequency of contact with foreigners was measured by taking the average of four items. Missing values were omitted from the average.

Index construction for attitude towards smoking cigarettes was measured by taking the average of nine items. Missing values were omitted from the average.

Table 20

Mean Values of Scaled Scores

	Mean	Median	SD
Level of Religiosity (4 items)	3.20	3.50	1.00
Frequency of Contact with Foreigners (4 items)	3.30	3.20	.98
Income	6162.30	5000.00	3736.00
Length of Stay in U.S.A. (by month)	43.20	43.00	27.70
Level of Education	1.80	2.00	.86
Attitude Towards Smoking Cigarettes (9 items)	3.20	3.20	.34
Attitude Towards Drinking Alcohol (9 items)	3.20	3.30	.44
Attitude Towards Smoking Hashish (9 items)	3.10	3.10	.45

Index construction for attitude towards drinking alcohol was measured by taking the average of nine items. Missing values were omitted from the average. Index construction for attitude towards smoking hashish was measured by taking the average of nine items. Missing values were omitted from the average.

In the next section correlations between dependent and independent scales and the significance levels for each of the correlations are indicated. This consists of one series of tests of significance. In the next section chi square tests of significance are provided using the same variable.

Correlation and Level of Significance Between
Independent and Dependent Variables

Level of income has a positive significant effect on attitude towards drinking alcohol and smoking hashish (Table 21). However, there was no significant relationship between level of income and students' attitude towards smoking cigarettes.

Table 21

Correlation and Level of Significance Between
Independent and Dependent Variables

	Categories of Dependent Variables		
Independent Variables	Smoking Cigarettes	Drinking Alcohol	Smoking Hashish
Level of Income	.1229	.2872**	.4038**
Level of Religiosity	-.0335	-.4591**	-.6053**
Level of Education	.1321	.2500**	.3564**
Length of Stay in USA	.0903	.2536**	.4861**
Frequency of Contact With Foreigners	.148	.2570**	.4217**

**Significance LE .01

In short, attitude towards drug use in Saudi Arabia was significantly correlated with overall level of income. For hashish it was ($\underline{R}$ = .4038, $\underline{p}$ < .01) and for alcohol it was ($\underline{R}$ = .2872, $\underline{p}$ < .01).

Table 21 shows that religiosity has a significant negative effect on student

attitude towards alcohol and hashish. However, there was no significant effect of religiosity on student attitude towards smoking cigarettes.

Attitude towards drug use was significantly correlated with overall level of religiosity as follows: For alcohol it was ($\underline{R}$ = -.4591 < .01). For hashish it was ($\underline{R}$ = -.6053, $\underline{p}$ < .01).

As Table 21 reveals, level of education has a significant positive effect on attitudes towards drinking alcohol and smoking hashish. However, there was no statistical significance between level of education and students' attitudes towards smoking cigarettes.

Attitudes towards drug use were significantly correlated with overall level of education as follows: For alcohol it was ($\underline{R}$ = .2500, $\underline{p}$ < .01) and for hashish it was ($\underline{R}$ = .3564, $\underline{p}$ < .01).

Table 21 shows that length of stay in the U.S.A. has a significant positive effect on attitude towards drinking alcohol and smoking hashish. However, there was no significant effect between length of stay in U.S.A. and students' attitudes towards smoking cigarettes.

Attitude towards drug use was significantly correlated with overall length of stay in the U.S.A. as follows: For alcohol it was ($\underline{R}$ = .2536, $\underline{p}$ < .01), and for hashish it was ($\underline{R}$ = .4861, $\underline{p}$ < .01).

Table 21 shows that frequency of contact with foreigners has a positive significant effect on students' attitude towards alcohol and hashish. However, there was no significant effect of frequency of contact with foreigners on students' attitude towards smoking cigarettes.

Attitudes towards drug use were significantly correlated with overall

frequency of contact with foreigners as follows: For hashish it was ($\underline{R}$ = .4217, $\underline{p}$ < .01), and for alcohol it was ($\underline{R}$ = .2570, $\underline{p}$ < .01).

Analysis and Testing of the Hypotheses

This section presents the outcomes of testing the five hypotheses of chi square analysis.

Hypothesis 1: Students who have higher incomes have a more positive attitude towards drug use than those who have lower incomes.

The index for attitude towards smoking cigarettes varies from 1 to 5. The frequency plot is shown in Figure 2 (Appendix C). The mean and standard deviation were 3.2 and .34. Note that missing data were omitted from the table (22).

For the cross tab negative attitude is defined as being equal to or less than 3.0, neutral attitude as 3 through 3.5, and positive attitude as over 3.5.

It can be noted that the level of income has a significant relationship with attitude towards smoking cigarettes at the .05 level. Chi-square value was 11.62. With 4 degrees of freedom, it has p-value of .02 < significant level of α = .05. However, attitude towards smoking cigarettes was not significantly correlated with level of income (Table 21).

The index for attitude towards drinking alcohol ranges from 1 to 5. The frequency plot is shown in Figure 3 (Appendix C). The mean and standard deviation were 3.2 and .44 respectively. Missing data were omitted from the table (23).

Among those students who have low income, 35.6% express negative

Table 22

Level of Income and Attitude
Towards Smoking Cigarettes

Attitude Towards Smoking Cigarettes	Income Level: Low Income (1000-4500 SR/mo.) (N) %	Medium Income (4501-9000 SR/mo.) (N) %	High Income (9000-15000 SR/mo.) (N) %
Positive	(10) 24.40	(18) 54.50	(9) 36.00
Neutral	(23) 56.10	(6) 18.20	(10) 40.00
Negative	(8) 19.50	(9) 27.30	(6) 24.00
Total	(41) 100.00	(33) 100.00	(25) 100.00

	Value	DF	Level of significance
Chi-square	11.62	4	.02
Missing 11			

attitudes toward drinking alcohol. However, none of those students who have high incomes express any negative attitudes toward drinking alcohol (Table 23). It is concluded that level of income has a significant effect on students' attitude towards drinking alcohol, since chi-square value was 13.53, with 4 degrees of freedom, has a p-value of 0.008 < level of significance at $\alpha = .05$. Similarly, attitude towards drinking alcohol was significantly correlated with level of income ($R = .2872$, $p < .01$) (Table 21).

Mean values in the index for attitude towards smoking hashish range from 1 to 5. The frequency plot is shown in Figure 4 (Appendix C). The mean and standard deviation were 3.1 and .45.

Table 23

Level of Income and Attitude Towards Drinking Alcohol

Attitude Towards Drinking Alcohol	Income Level: Low Income (1000-4500 SR/mo.) (N) %	Medium Income (4501-9000 SR/mo.) (N) %	High Income (9000-15000 SR/mo.) (N) %
Positive	(11) 24.40	(13) 40.60	(12) 48.00
Neutral	(18) 40.00	(9) 28.10	(13) 52.00
Negative	(16) 35.60	(10) 31.30	------
Total	(45) 100.00	(32) 100.00	(25) 100.00

	Value	DF	Level of Significance
Chi-square	13.53	4	.008

Missing 8

Level of income has a significant effect on student attitude towards smoking hashish (Table 24). Chi-square value was 28.78. With 4 degrees of freedom, it has p-value of .00001 < level of significance at $\alpha = .05$. This finding was also supported by the correlation findings. Attitude towards smoking hashish was significantly correlated with level of income ($R = .4038$, $p < .01$) (Table 21). In short, level of income has a significant effect on the attitude of Saudi students studying in the U.S.A. towards drug use except smoking. That effect was very clear, especially in attitude towards smoking hashish. Level of income also has a significant positive correlation on Saudi students' attitude towards drug use except smoking, especially on attitude towards drinking alcohol and smoking

Table 24

Level of Income and Attitude Towards Smoking Hashish

Attitude Towards Smoking Hashish	Income Level: Low Income (1000-4500 SR/mo.) (N) %	Medium Income (4501-9000 SR/mo.) (N) %	High Income (9000-15000 SR/mo.) (N) %
Positive	(3) 7.00	(4) 12.90	(13) 61.90
Neutral	(39) 90.70	(25) 80.60	(8) 38.10
Negative	(1) 2.30	(2) 6.50	-----
Total	(43) 100.00	(31) 100.00	(21) 100.00

	Value	DF	Level of Significance
Chi-square	28.78	4	.00001

Missing 15

hashish (Table 21). This finding verifies the first hypothesis.

Hypothesis 2: Religious students have a more negative attitude towards drug use than non-religious students.

There is no significant relationship between religiosity and attitude towards smoking cigarettes (Table 25). Chi-square value was 1.33, and with 4 degrees of freedom it has a $\underline{p}$ - value of .858 > level of significance at $\alpha = .05$. Also, there was no significant correlation between smoking cigarettes and level of religiosity (Table 21).

It can be concluded from Table 26 that level of religiosity has a significant

Table 25

Level of Religiosity and Attitude Towards Smoking Cigarettes

Attitude Towards Smoking Cigarettes	Religiosity Level		
	Low 1-2.5 (N) %	Medium 2.6-3.5 (N) %	High 3.6-5 (N) %
Positive	(11) 44.00	(12) 36.40	(14) 30.40
Neutral	(9) 36.00	(13) 39.40	(20) 43.50
Negative	(5) 20.00	(8) 24.20	(12) 26.10
Total	(25) 100.00	(33) 100.00	(46) 100.00

	Value	DF	Level of Significance
Chi-square	1.33	4	.858

Missing 6

effect on students' attitude towards drinking alcohol. Chi-square value is 21.84, and with 1 degree of freedom, it has p-value of .0002 level of significance at α = .05. Similarly, there was a significant correlation between attitude towards drinking alcohol and level of religiosity ($R = -.4591$, $p < .01$). (See Table 21.)

Table 27 shows that among those who have a low level of religiosity, 72.7% have a positive attitude towards smoking hashish. However, among those who have a high level of religiosity, only 6.5% have a positive attitude towards smoking hashish. It was concluded that level of religiosity has a significant effect on attitude towards smoking hashish. Chi-square value was 51.44. With 4 degrees

Table 26

Level of Religiosity and Attitude Towards Drinking Alcohol

Attitude Towards Drinking Alcohol	Religiosity Level		
	Low 1-2.5 (N) %	Medium 2.6-3.5 (N) %	High 3.6-5 (N) %
Positive	(16) 64.00	(12) 35.30	(8) 16.30
Neutral	(9) 36.00	(13) 38.20	(21) 42.90
Negative	---	(9) 26.5	(20) 40.80
Total	(25) 100.00	(34) 100.00	(49) 100.00

	Value	DF	Level of Significance
Chi-square	21.84	4	.0002
Missing 2			

of freedom it has p-value of .00000 < level of significance at $\alpha = .05$. Similarly, attitude towards smoking hashish was correlated with level of religiosity ($R = -.6053$, $p < .01$). (See Table 28.)

In short, level of religiosity has a negative effect on Saudi students' attitude towards drug use. The effect was very clear in attitude towards alcohol and hashish. Attitude towards drinking alcohol and smoking hashish were correlated significantly with level of religiosity. This finding verifies the second hypothesis.

Hypothesis 3: Students with higher levels of education have more positive attitude towards drug use than students with lower levels of education.

Table 27

Level of Religiosity and Attitude Towards Smoking Hashish

Attitude Towards Smoking Hashish	Religiosity Level		
	Low 1-2.5 (N) %	Medium 2.6-3.5 (N) %	High 3.6-5 (N) %
Positive	(16) 72.70	(1) 3.20	(3) 6.50
Neutral	(6) 27.30	(30) 96.80	(40) 87.00
Negative	00.00	00.00	(3) 6.50
Total	(22) 100.00	(31) 100.00	(46) 100.00

	Value	DF	Level of Significance
Chi-square	51.44	4	.00000

Missing 11

There is no significant relationship between level of education and attitude towards smoking cigarettes (Table 28). Chi-square value was 4.92 and with 6 degrees of freedom has a p-value of .55 > level of significance at $\alpha = .05$. Also, level of education was not significantly correlated with attitude towards smoking cigarettes (Table 21).

It is concluded that level of education has a significant effect on students' attitude towards drinking alcohol (Table 29). Chi-square value was 13.34. With 6 degrees of freedom it has p-value of .037 < level of significance at $\alpha = .05$. Similarly, drinking alcohol was significantly correlated with level of education (R

Table 28

Level of Education and Attitude Towards Smoking Cigarettes

Attitude Towards Smoking Cigarettes	Education Level		
	Low Bachelor's (N) %	Medium Master's (N) %	High Ph.D. (N) %
Positive	(13) 27.30	(1) 36.70	(14) 48.30
Neutral	(19) 43.20	(1) 50.00	(11) 37.90
Negative	(12) 29.50	00.00	(4) 13.80
Total	(44) 100.00	(2) 100.00	(29) 100.00

	Value	DF	Level of Significance
Chi-square	4.92	6	.55

Missing 5

= .2500, $p < .01$) (Table 21).

It is concluded that level of education has a significant effect on students' attitude towards smoking hashish (Table 30). Chi-square value was 33.93. With 6 degrees freedom it has p-value of .00001 < level of significance at $\alpha = .05$. This finding was confirmed by correlation findings. Level of education was significantly correlated with attitude towards smoking hashish ($R = .3564$, $p < .01$) (Table 21).

In short, level of education has a positive effect on Saudi students' attitude towards drug use. Also level of education correlated significantly with Saudi

Table 29

Level of Education and Attitude
Towards Drinking Alcohol

Attitude Towards Drinking Alcohol	Education Level		
	Low Bachelor's (N) %	Medium Master's (N) %	High Ph.D. (N) %
Positive	(12) 25.50	00.00	(17) 58.60
Neutral	(20) 42.60	(1) 100.00	(8) 27.60
Negative	(15) 31.90	00.00	(4) 13.80
Total	(47) 100.00	(1) 100.00	(29) 100.00

	Value	DF	Level of Significance
Chi-square	13.34	6	.037

Missing 1

students' attitude towards drug use in Saudi Arabia (Table 21). This supports the third hypothesis.

Hypothesis 4: Students who have spent longer periods of time in the U.S.A. have a more positive attitude towards drug use than those who have spent shorter periods of time in the U.S.A.

There is no significant relationship between length of stay in the U.S.A. and attitude towards smoking cigarettes (Table 31). Chi-square value was 3.30. With 6 degrees of freedom, it has a p-value of .913 > level of significance at $\alpha = .05$.

It was concluded that length of stay in the U.S.A. has a significant effect on

Table 30

Level of Education and Attitude Towards Smoking Hashish

Attitude Towards Smoking Hashish	Education Level		
	Low Bachelor's (N) %	Medium Master's (N) %	High Ph.D. (N) %
Positive	(3) 7.10	------	(15) 60.00
Neutral	(37) 88.10	(2) 100.00	(10) 40.00
Negative	(2) 4.80	------	------
Total	(42) 100.00	(2) 100.00	(25) 100.00

	Value	DF	Level of Significance
Chi-square	33.93	6	.00001

Missing 10

Saudi students' attitude towards drinking alcohol (Table 32). Chi-square value is 18.11 with 8 degrees of freedom, has a p-value of .020 < level of significance at $\alpha = .05$. This finding is also supported by correlation findings. Attitude towards drinking alcohol was significantly correlated with length of stay in the U.S. ($R = .2536$, $p < .01$) (Table 21).

It was concluded that length of stay in the U.S.A. affects students' attitude towards smoking hashish (Table 33). Chi-square value was 32.69. With 8 degrees of freedom, has a p-value of .00007 < level of significance at $\alpha = .05$. Also, length of stay in the U.S.A. has a significant correlation with attitude towards

Table 31

Length of Stay in the U.S.A. and Attitude Towards Smoking Cigarettes

Attitude Towards Smoking Cigarettes	Length of Stay in U.S.A.				
	Very Short 1-20 Months	Short 21-40 Months	Low Medium 41-60 Months	High Medium 61-80 Months	High 81-100 Months
Positive	(9) 31.00%	(7) 29.20%	(9) 47.40%	(6) 33.30%	(7) 46.70%
Neutral	(13) 44.80%	(11) 45.80%	(6) 31.60%	(8) 44.40%	(4) 26.70%
Negative	(7) 24.10%	(6) 25.00%	(4) 21.00%	(4) 22.20%	(4) 26.70%
Total	(29) 100.00%	(24) 100.00%	(19) 100.00%	(18) 100.00%	(15)100.00%

Chi-Square	Value	DF	Significance
	3.30	8	.913

Missing 5

Table 32

Length of Stay in the U.S.A. and Attitude Towards Drinking Alcohol

Attitude Towards Drinking Alcohol	Length of Stay in U.S.A.				
	Very Short 1-20 Months	Short 21-40 Months	Low Medium 41-60 Months	High Medium 61-80 Months	High 81-100 Months
Positive	(9) 10.30%	(7) 25.90%	(9) 45.00%	(6) 50.00%	(7) 53.30%
Neutral	(13) 65.50%	(11) 37.00%	(6) 25.00%	(8) 33.30%	(4) 26.70%
Negative	(7) 24.10%	(6) 37.00%	(4) 30.00%	(4) 16.70%	(4) 20.00%
Total	(29) 100.00%	(24) 100.00%	(19) 100.00	(18) 100.00	(15) 100.00%

Chi-Square	Value	DF	Significance
	18.11	8	.020

Missing 5

Table 33

Length of Stay in the U.S.A. and Attitude Towards Smoking Hashish

Attitude Towards Smoking Hashish	Length of Stay in U.S.A.				
	Very Short 1-20 Months	Short 21-40 Months	Low Medium 41-60 Months	High Medium 61-80 Months	High 81-100 Months
Positive	(1) 3.60%	(1) 4.20%	(2) 11.10%	(8) 50.00%	(8) 57.10%
Neutral	(25) 89.30%	(22) 91.70%	(16) 88.90%	(8) 50.00%	(6) 42.90%
Negative	(2) 7.10%	(1) 4.20%	----	----	----
Total	(28) 100.00%	(24) 100.00%	(18) 100.00%	(16) 100.00%	(14) 100.00%

Chi-square	Value	DF	Significance
	32.69	8	.00007

Missing 10

smoking hashish ($\underline{R}$ = .4861, $\underline{p}$ < .01) (Table 21). In short, length of stay in the U.S.A. has a significant effect on Saudi students' attitude towards drug use. Length of stay in the U.S.A. has a significant correlation with students' attitude towards drug use (Table 21). This finding supports hypothesis four.

Hypothesis 5: Students who have more frequent contact with foreigners have a more positive attitude towards drug use than those who have less frequent contact with foreigners.

The differences in the levels of contact with foreigners and smoking cigarettes were not significant (Table 34). Also, frequency of contact with foreigners was not correlated significantly with Saudi students' attitude towards smoking cigarettes (Table 21).

It was concluded that frequency of contact with foreigners had a significant effect on students' attitude towards drinking alcohol (Table 35). Chi-square value was 8.71 with 1 degree of freedom, has a p-value of .068 < level of significance at α = .05. Similarly, attitude towards drinking alcohol was significantly correlated with frequency of contact with foreigners ($\underline{R}$ = .2570, $\underline{p}$ < .01).

It was concluded that frequency of contact with foreigners has a significant effect on students' attitude towards smoking hashish (Table 36). Chi-Square value was 27.29 with 4 degrees of freedom, and it has p-value of .00002 < level of significance at α = .05. Also, smoking hashish was significantly correlated with frequency of contact with foreigners ($\underline{R}$ = .4217, $\underline{p}$ < .01) (Table 21).

A high level of contact with foreigners had a significant effect on Saudi students' attitude towards drug use. Frequency of contact with foreigners was

Table 34

Contact With Foreigners and Attitude Towards Smoking Cigarettes

Attitude Towards Smoking Cigarettes	Frequency of Contact		
	Low 1-2.5 (N) %	Medium 2.6-3.5 (N) %	High 3.6-5 (N) %
Positive	(10) 38.50	(11) 32.40	(17) 39.50
Neutral	(12) 46.20	(12) 35.30	(16) 37.20
Negative	(4) 15.40	(11) 32.40	(10) 23.30
Total	(26) 100.00	(34) 100.00	(43) 100.00

	Value	DF	Level of Significance
Chi-square	2.56	4	.63

Missing 7

significantly correlated with students' attitude towards drug use. This finding supports Hypothesis 5.

Summary of the Findings

Saudi Arabia is presently experiencing rapid social change as a result of increased oil revenues. From both the anomie perspective developed by Durkhiem and Merton and literature review, the following hypothesis was generated: Students who have higher incomes have a more positive attitude towards drug use than those who have lower incomes.

Table 35

Contact With Foreigners and Attitude Towards Drinking Alcohol

Attitude Towards Drinking Alcohol	Frequency of Contact		
	Low 1-2.5 (N) %	Medium 2.6-3.5 (N) %	High 3.6-5 (N) %
Positive	(4) 15.40	(10) 27.80	(8) 46.70
Neutral	(13) 50.00	(14) 38.90	(16) 35.60
Negative	(9) 34.60	(12) 33.30	(21) 17.80
Total	(26) 100.00	(36) 100.00	(45) 100.00

	Value	DF	Level of Significance
Chi-square	8.71	4	.068

Missing 3

The finding of this study supported this hypothesis. Level of income has a significant affect in student attitude towards drinking alcohol and smoking hashish. Chi-square value for alcohol was 13.53, with 4 degrees of freedom, has a p-value of 0.008 < level of significance at $\alpha = .05$. Chi-square value for hashish was 28.78 with 4 degrees of freedom, it has p-value of .00001 < level of significance at $\alpha = .05$. This finding is also supported by the correlation findings ($R = .2872$, $p < .01$) for hashish.

The sudden increase in oil wealth in a short period of time changed Saudi Arabia from traditional to a modern society. As a consequence of that change,

Table 36

Contact With Foreigners and Attitude Towards Smoking Hashish

Attitude Towards Smoking Hashish	Frequency of Contact		
	Low 1-2.5 (N) %	Medium 2.6-3.5 (N) %	High 3.6-5 (N) %
Positive	(1) 3.80	0.00	(18) 43.90
Neutral	(24) 92.30	(30) 96.80	(22) 53.70
Negative	(1) 3.80	(1) 3.20	(18) 2.40
Total	(26) 100.00	(31) 100.00	(41) 100.00

	Value	DF	Level of Significance
Chi-square	27.29	4	.00002

Missing 12

as anomie theorie and the literature emphasizes, the common religious beliefs were losing power, and new attitudes and ideas were emerging. The second hypothesis was generated.

Religious students have a more negative attitude towards drug use than non-religious students.

The findings of this study supported this hypotheses. Level of religiosity had a significant effect on students' attitude toward drinking alcohol and smoking hashish. Chi-square value for alcohol was 21.84 and with 1 degree of freedom it has p-value of .0002 level of significance at $\alpha = .05$. This finding is also

supported by the correlation findings ($\underline{R}$ = -.4591, $\underline{p}$ < .01), for alcohol and ($\underline{R}$ = -.6053, $\underline{p}$ < .01) for hashish.

The wealth that Saudi Arabia acquired in the past 20 years enabled the government to extend and improve the level of education for its citizens. More Saudis have been sent abroad to pursue higher education and the country now has seven universities. Increase in the level of education, as indicated in the review of literature, has affected attitudes and values. The following hypothesis has been formed:

Students with higher levels of education have a more positive attitude towards drug use than students with lower levels of education.

Level of education had a significant effect on students' attitude towards drinking alcohol and smoking hashish. Chi-square value for alcohol was 13.34, with 6 degrees of freedom it has p-value of .037 < level of significance at α = .05. Chi-square value for hashish was 33.93. With 6 degrees of freedom it has p-value of .0001 < level of significance at α = .05. This finding is also supported by the correlation findings ($\underline{R}$ = .2500, $\underline{p}$ < .01), for alcohol ($\underline{R}$ = .3564, $\underline{p}$ < .01).

Review of the literature shows Saudi Arabians had more contacts with foreigners during the last 20 years from foreign workers living in Saudi Arabia, and students studying in Western countries. Such massive contact in a short period of time has caused changes in people's attitudes. The following hypotheses were generated:

Students who have spent longer periods of time in the U.S.A. have a more

positive attitude towards drug use than students who have a shorter period of time in the U.S.A.

Students who have more frequent contact with foreigners have a more positive attitude towards drug use than those who have less frequent contact with foreigners.

The findings supported these hypotheses.

Length of stay in the U.S.A. had a significant effect in students' attitude towards alcohol and hashish. Chi-square value for alcohol is 18.11 with 8 degrees of freedom has p-value of .020 < level of significance at $\alpha = .05$.

Chi-square value for hashish is 32.69 with 8 degrees of freedom has a p-value of .00007 < level of significance $\alpha = .05$. This finding is also supported by the correlation findings ($R = .2536$, $p < .01$ for alcohol and $R = .4861$ $p < .01$ for hashish).

Contact with foreigners has a significant effect on students' attitudes towards alcohol and hashish. Chi-square value for alcohol is 8.71 with 1 degree of freedom has p-value of .068 < level of significance at $\alpha = .05$. Chi-square value for hashish is 27.29 with 4 degrees of freedom it has p-value of .0002 < level of significance at $\alpha = .05$. This finding was also supported by correlation findings ($R = .2570$, $p < .01$ for alcohol, and $R = .4217$, $p < .01$ for hashish).

Level of income, level of religiosity, level of education, length of stay in the U.S.A., and frequency of contact with foreigners do not significantly affect attitudes towards smoking cigarettes. Similarly, they are not correlated significantly with attitudes toward smoking cigarettes.

This finding can be explained from cultural background. Smoking cigarettes is not considered as a major deviant behavior in Saudi society, especially when compared with smoking hashish or drinking alcohol, which are considered as major deviant behaviors.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was undertaken to explore the attitude of Saudi students studying in the U.S.A. towards drug use in Saudi Arabia. The sample in this study consisted of 110 Saudi Arabian students drawn from three areas in Michigan: Kalamazoo, Ann Arbor, and Lansing. The study was designed to answer the following questions:

1. What is the relationship between level of income and students' attitudes towards drug use?

2. What is the relationship between level of religiosity and students' attitudes towards drug use?

3. What is the effect of education on students' attitudes towards drug use?

4. To what extent does contact with foreigners affect students' attitudes towards drug use?

5. To what extent does length of stay in the U.S.A. affect students' attitudes toward drug use?

General Findings

The general findings of this study are as follows:

1. Students who have a higher level of income expressed a more positive

attitude towards drug use than students who have a lower level of income.

2. Religious students have more negative attitudes towards drug use than non-religious students.

3. Students with a higher level of education expressed a more positive attitude towards drug use in Saudi Arabia than students with a lower level of education.

4. Higher frequency of contact with foreigners was associated with a more positive attitude towards drug use.

5. Length of stay in the U.S.A. affected students' attitudes positively toward drug use.

Attitude towards drinking alcohol and smoking hashish (finding number 1 above) was correlated positively with level of income, level of education, length of stay in the U.S.A., and frequency of contact with foreigners. However, it correlated negatively with level of religiosity. Level of income plays a major role in attitude toward drug use. Students who have a higher level of income expressed more positive opinions toward drug use than students who have a lower level of income.

In the following pages, the correspondence among each of the five major findings in this study and selected theoretical literature on change is very briefly presented.

Durkheim and Marx (as cited in Pfohi, 1985, pp. 208-209) have addressed the question of the impact of economy on the society. Durkheim pointed out that anomie would occur when the normative structure of a society is disrupted during

periods of severe economic crisis or sudden prosperity and growth. Marx has also emphasized very strongly the impact of the economic structure on the rest of the social institutions and ideologies. As indicated earlier in this study, it was found that the changes in students' level of income affected their attitude toward drug use. The findings in this study tend to correspond with the statements of both Durkheim and Marx.

Durkheim (as cited in Pfohi, 1985, pp. 208-209) also pointed out that when there is a transition from a traditional to a modern society, the common religious beliefs and rituals which promoted solidarity lose their power and new rules and regulation would be needed. Students sampled in this study have witnessed rapid and unbalanced changes in the last twenty years. The result of that, as this study shows (finding number 2 above), is a weakening of common religious beliefs, new attitudes, and ideas among those who have lower levels of religiosity, e.g., students with lower levels of religiosity expound more positive attitudes towards drug use than students with higher levels of religiosity.

Weber and Marx (as cited in Johnson, 1981, p. 130) have emphasized the effect of religious ideas on economic activities. Although their ideas about the interaction between religion and economic activities do not apply directly to the findings in this study, they provide general background statements about the direct and indirect power and effect of religion in a society.

Durkheim (as cited in Thompson, 1982, p. 162) viewed education as an agent for conserving society rather than changing it. The findings of this study (finding number 3 above) indicate that students who have a higher level of

education expressed more positive attitudes toward drug use than students who have a lower level of education. The findings in this study support the idea that education is an agent of change in a society rather than an agent for conservation. Ideas presented by Wylie (1982) and Dube (1976) regarding the impact of education on the attitudes of students correspond with the findings in this study. Both of these researchers view education as a vehicle of change in attitude and behavior.

Simmel (as cited in Johnson, 1981, p. 81) believes that when there is interaction between people who have different ideas and backgrounds, the interaction produces changes in peoples' attitudes. Malinowski (as cited in Mcleish, 1969, p. 27) describes three phases of culture contact as follows: conflict, cooperation, compromise. Although those three phases were used by Malinowski to explain cultural contact, they could also be used to explain the contact between an individual and a new culture. When an individual encounters a new culture he/she tends to reject the culture; when he/she spends some time in the culture, he/she compromises and starts to cooperate with the culture, and later he/she starts adopting the new attitudes and values. The findings of this study (finding number 4 above) are that students who lived in the U.S.A. for a longer period of time have more positive attitudes toward drug use than students who lived in the U.S.A. for a shorter period of time. Thus, the findings in this study support ideas of Simmel directly and ideas of Malinowski indirectly.

Ibrahim (1982) believes that there is social breakdown in Saudi society as a result of massive contact between Saudi students and western culture. Al-

Munahi (1983) believes that students who stayed in the west for a long time would naturally carry back with them new cultural patterns and new ideas; they would return to their own country demanding social and internal changes in their lifestyles. The findings of this study (finding number 5 above) support the idea expressed above. Students who have spent longer periods of time in the U.S.A have a more positive attitude toward drug use than those who have spent shorter periods of time in the U.S.A.

Recommendations

1. Further study is needed to investigate attitudes of Saudi Arabian students towards drug use. However, other important independent variables such as marital status should be added.

2. Researchers who wish to further study the attitudes towards drug use should conduct comparison studies between those who study abroad and those who study in Saudi Arabia.

Appendix A

Questionnaire

Questionnaire

I am conducting a study about the attitude of college students towards drug use in Saudi Arabia. Please answer each question as accurately as possible. Your answer will be treated completely confidential. Thank you very much.

Part One

1. What is your age? _____
2. What is your major field of study?_____
3. What degree are you studying for?
   a. Ph.D. _____
   b. Masters _____
   c. Bachelor's _____
   d. Other (please specify)_____
4. How long have you lived in the U.S.?

   Years _____ Months _____
5. During the last 7 days how many times did you read the Quran?

   _____
6. Which of the sentences below best describe how you performed your prayers in mosque in the last two days?

   _____ performed all prayers in mosque

   _____ performed most of the prayers in mosque

   _____ performed some of the prayers in mosque

   _____ was not able to pray in mosque

7. What is the average amount of your income in one month? _____

S.R.

8. Your economic status compared to other Saudi students would be:

_____ above average

_____ average

_____ below average

9. How would you describe the area you live in now?

_____ lower class area

_____ middle class area

_____ upper class area

10. Do you have any contact with foreigners?

_____ No

_____ Yes

If yes, answer the following questions

11. How often do you have contact with foreigners?

_____ Regularly

_____ Often

_____ Sometimes

_____ Seldom

Part Two

Please circle your choice of answers as the following:

SA Strongly Agree

A Agree

U Undecided

D Disagree

SD Strongly Disagree

12. I practice my religious duties more regularly compared to the majority of the Saudi students. SA A U D SD

13. The majority of my close friends practice their religious duties. SA A U D SD

14. Compared to the majority of the Saudi students I practice my religious duties less regularly. SA A U D SD

15. Majority of my close friends don't practice their religious duties. SA A U D SD

16. Compared to the majority of the Saudi students I have more contact with foreign students. SA A U D SD

17. I spend a lot of my time with foreign friends. SA A U D SD

18. Compared to the majority of the Saudi students, I have less contact with foreign students. SA A U D SD
19. I have no foreign friends. SA A U D SD
20. Smoking cigarettes and/or sheesha (hookah) is a very bad habit. SA A U D SD
21. A smoker can be a good citizen. SA A U D SD
22. Those who smoke cigarettes and/or sheesha should not really be blamed for what they do. SA A U D SD
23. Those who smoke cigarettes and/or sheesha should go to jail. SA A U D SD
24. I would be disappointed if one or more of my relatives smoke cigarettes. SA A U D SD
25. I would not like a person who smokes cigarettes and/or sheesha to marry any of my relatives, even if that person meets other criteria, such as social respectability. SA A U D SD
26. A person who smokes a cigarette and/or sheesha can be a successful man. SA A U D SD
27. It wouldn't bother me to have a smoker as a friend. SA A U D SD

28. I can respect people who smoke cigarettes or sheesha. SA A U D SD
29. Alcohol drinking is a very bad habit. SA A U D SD
30. Alcohol drinkers can be good citizens. SA A U D SD
31. Those who drink alcohol should not really be blamed for what they do. SA A U D SD
32. Those who drink alcohol should go to jail. SA A U D SD
33. I would be disappointed if one or more of my relatives drank alcohol. SA A U D SD
34. I would not like a person who drinks alcohol to marry any of my relatives, even if that person meets other criteria, such as social respectability. SA A U D SD
35. A person who drinks alcohol can be a successful man. SA A U D SD
36. It wouldn't bother me to have a friend who drinks alcohol. SA A U D SD
37. I can respect people who drink alcohol. SA A U D SD

38. Smoking hashish is a very bad habit. SA A U D SD

39. A person who uses hashish can be a good citizen. SA A U D SD

40. Those who use hashish should not really be blamed for what they do. SA A U D SD

41. Those who use hashish should go to jail. SA A U D SD

42. I would be disappointed if one of my relatives used hashish. SA A U D SD

43. I would not like a person who uses hashish to marry any of my relatives, even if that person meets other criteria, such as social respectability. SA A U D SD

44. A person who uses hashish can be a successful man. SA A U D SD

45. It wouldn't bother me to have a friend who uses hashish. SA A U D SD

46. I can respect a person who uses hashish. SA A U D SD

Thank you for answering the questions.

Appendix B

Description and Discussion of Attitude Towards Smoking Cigarettes, Drinking Alcohol, and Smoking Hashish

Description and Discussion of the Attitude Towards Smoking Cigarettes, Drinking Alcohol, and Smoking Hashish

The Attitude Towards Drug Use in Saudi Arabia Among Saudi Students Studying in the U.S.A.

Tables 37, 38, and 39 present the mean and standard deviation for respondents' attitudes toward smoking cigarettes, drinking alcohol, and smoking hashish.

The three tables (37, 38, and 39) indicate that respondents tend to have a more negative attitude towards drinking alcohol and smoking hashish than towards smoking cigarettes. Those negative attitudes were very clear regarding questions related to family matters such as marriage or relatives' behavior. For example, in response to the statement, "I would not like a person who drinks alcohol (or smokes hashish) to marry any of my relatives, even if that person meets other criteria such as social respectability," (Question 34 and 43), the overall mean for the alcohol question was 3.9, and for the hashish question, 4.3, both in the agreement category. When a respondent was also presented with the statement, "I would be disappointed if a relative drank alcohol (or smoked hashish)," (Questions 33 and 42), the overall mean was 3.7 for alcohol, which falls near agreement and 4.2 for hashish, which falls in the agreement category. Those two questions reflected negative attitudes towards smoking hashish and drinking alcohol.

When the same questions were asked for smoking cigarettes, the overall

mean for the first question was 2.3, which falls near disagreement, and the overall mean for the second question was 2.7, which is close to the neutral attitude.

The difference in the attitude towards smoking cigarettes and smoking hashish and/or alcohol in questions related to family matters could be explained from cultural background. In Saudi Arabia it is considered deviant and abnormal for a person to drink alcohol or smoke hashish. Also it is considered deviant for a person to allow his daughter to marry a person who drinks alcohol and/or smokes hashish. On the other hand, smoking cigarettes is considered by Saudi society as a bad habit but acceptable behavior. People in Saudi Arabia allow their daughters to marry smokers without fear that others would look down on them.

The other major difference between the three categories was in terms of punishment. When asked if a person who smokes cigarettes/drinks alcohol/smokes hashish should go to jail (Questions 23, 41, and 32), the overall mean for cigarettes was 1.5 which falls in the strongly disagree category. The overall mean for alcohol was 2.8, which falls near the neutral category, and the overall mean for hashish was 3.6, which falls close the agreement category.

The similarity between these three categories was greatest in the respondents' attitudes towards this statement: "Smoking cigarettes/hashish/drinking alcohol is a very bad habit" (Questions 20, 29, and 38). The overall mean for cigarettes was 3.6, the overall mean for alcohol was 4.2, and the overall mean for hashish was 4.4, all in the agreement category.

Table 37

Attitude of Saudi Students Studying in the U.S.A.
Towards Smoking Cigarettes

Attitude Towards Smoking Cigarettes	Mean	SD
20 Smoking is a very bad habit	3.6	1.4
21 A smoker can be a good citizen	2.3	1.2
22 A smoker should not be blamed	3.0	1.2
23 Smokers should go to jail	1.5	.8
24 I would be disappointed if a relative smoked	2.7	1.3
25 I would not like a smoker to marry any of my relatives	2.3	1.1
26 A smoker can be a successful man	2.0	1.0
27 It would not bother me to have a smoker as a friend	2.2	1.1
28 I can respect people who smoke	1.9	.9

Table 38

Attitude of Saudi Students Studying in the U.S.A.
Towards Drinking Alcohol

Attitude Towards Drinking Alcohol	Mean	SD
29 Drinking alcohol is a very bad habit	4.2	1.0
30 An alcohol drinker can be a good citizen	3.1	1.4
31 Those who drink should not really be blamed	3.5	1.3
32 Those who drink should go to jail	2.8	1.3
33 I would be disappointed if a relative drank alcohol	3.7	1.2
34 I would not like a person who drinks to marry any of my relatives	3.9	1.1
35 A drinker can be a successful man	2.7	1.2
36 It would not bother me to have a friend who drinks	3.0	1.4
37 I can respect people who drink	2.8	1.4

Table 39

Attitude of Saudi Students Studying in the U.S.A.
Towards Smoking Hashish

Attitude Towards Smoking Hashish	Mean	SD
38 Smoking hashish is a very bad habit	4.4	.97
39 A person who smokes hashish can be a good citizen	3.6	1.4
40 Those who smoke hashish should not really be blamed	3.7	1.3
41 Those who smoke hashish should go to jail	3.6	1.3
42 I would be disappointed if a relative smoked hashish	4.3	1.0
43 I would not like a person who smoked hashish to marry any of my relatives	4.2	1.0
44 A person who smokes hashish can be a successful man	3.4	1.3
45 It would not bother me to have a friend who smoked hashish	3.7	1.5
46 I can respect a person who smokes hashish	3.5	1.5

Appendix C

Figures 2 to 9

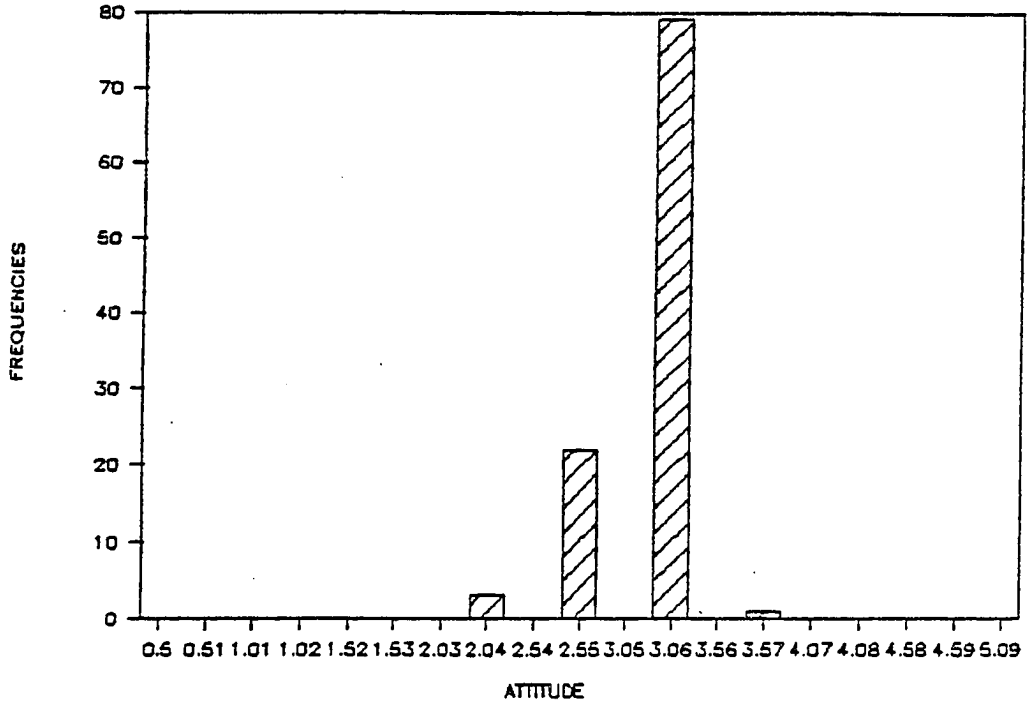

Figure 2. Attitude Towards Smoking Cigarettes.

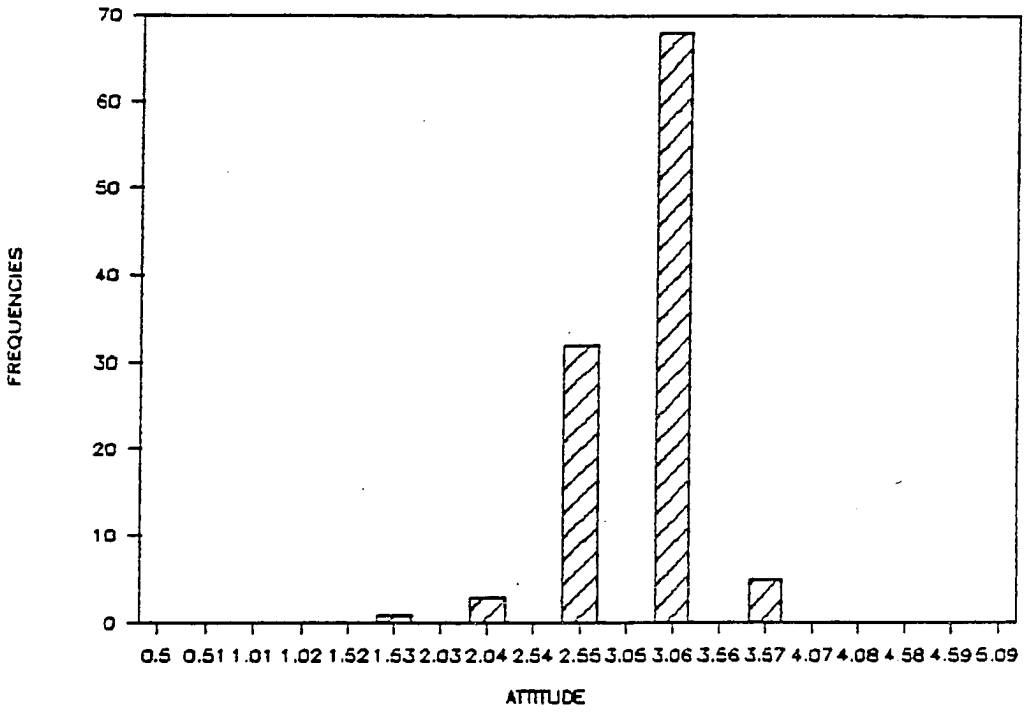

Figure 3. Attitude Towards Drinking Alcohol.

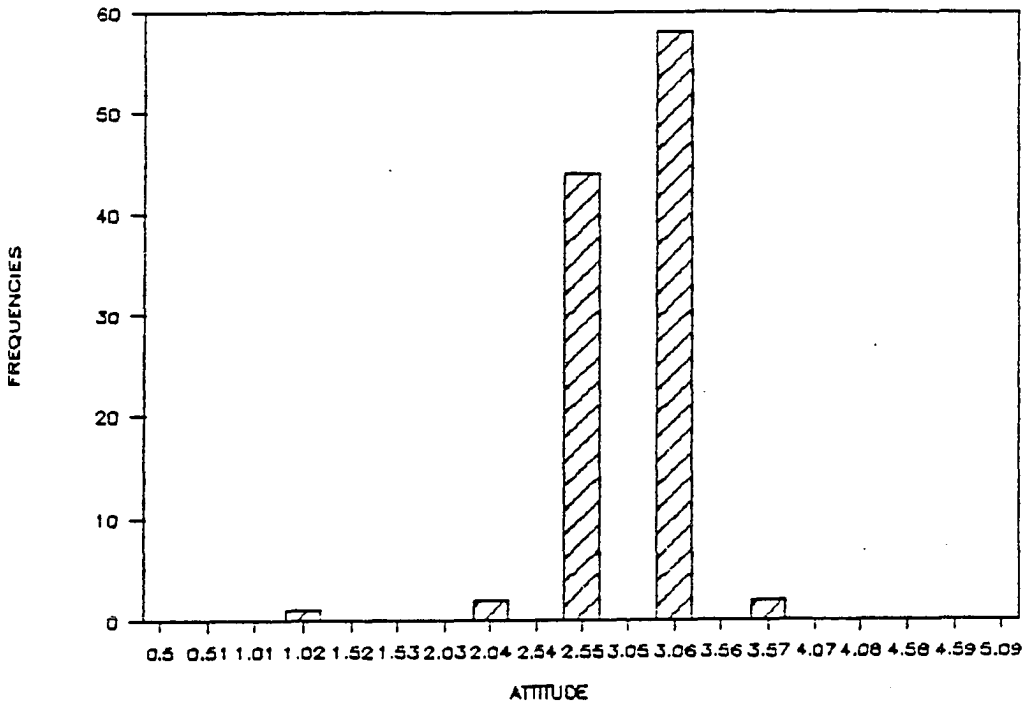

Figure 4. Attitude Towards Smoking Hashish.

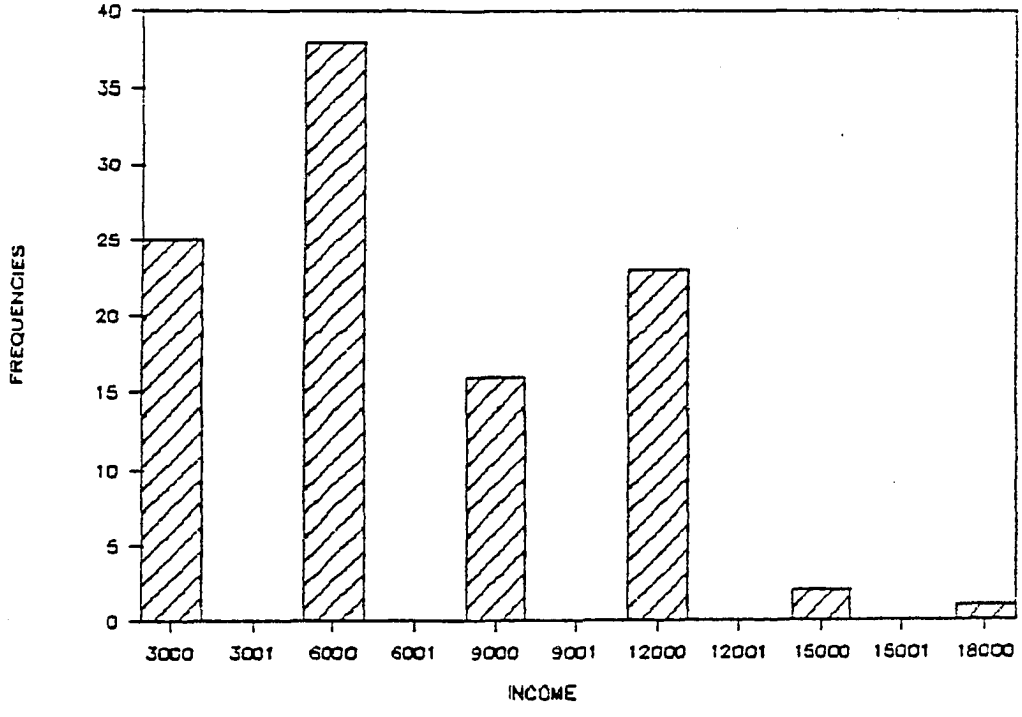

Figure 5. Level of Income.

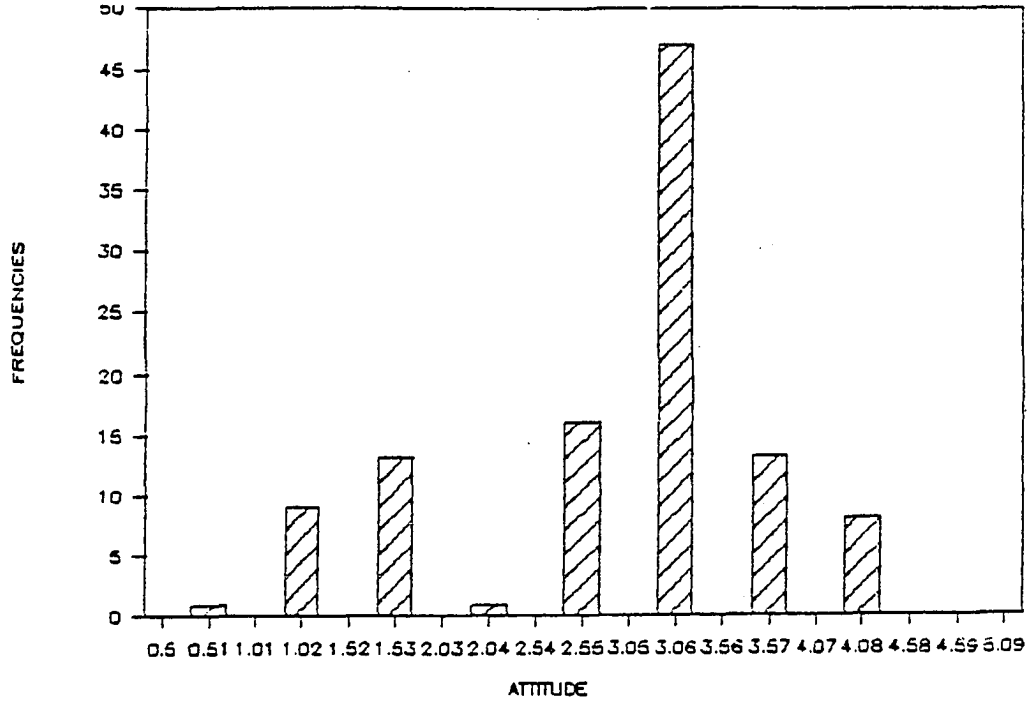

Figure 6. Level of Religiosity.

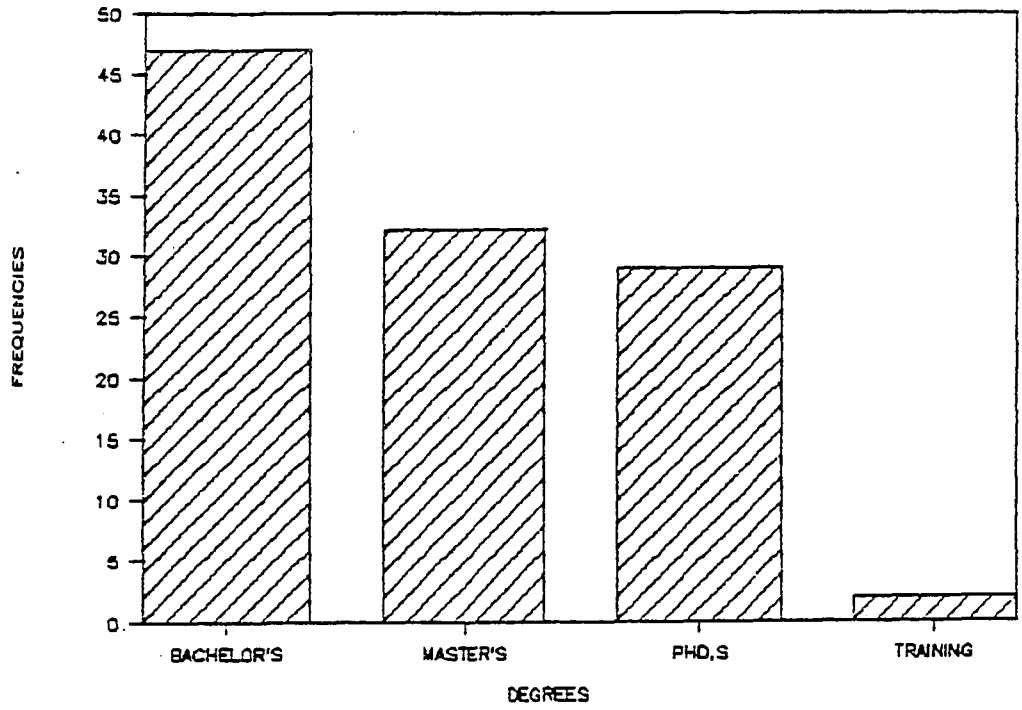

Figure 7. Level of Education.

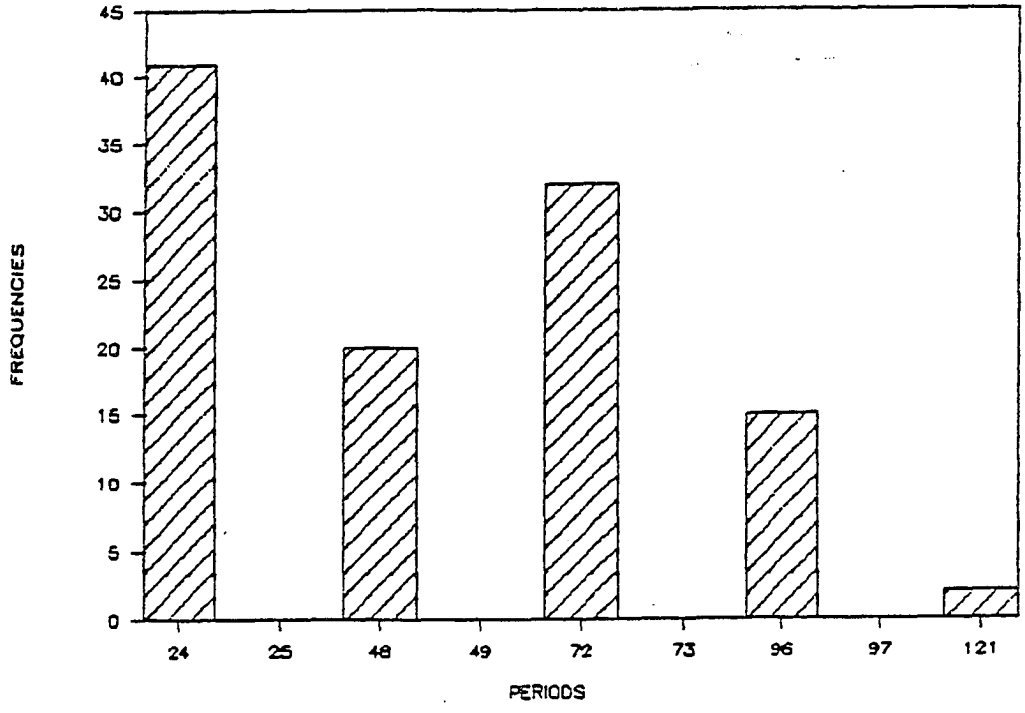

Figure 8. Length of Stay in the U.S.A.

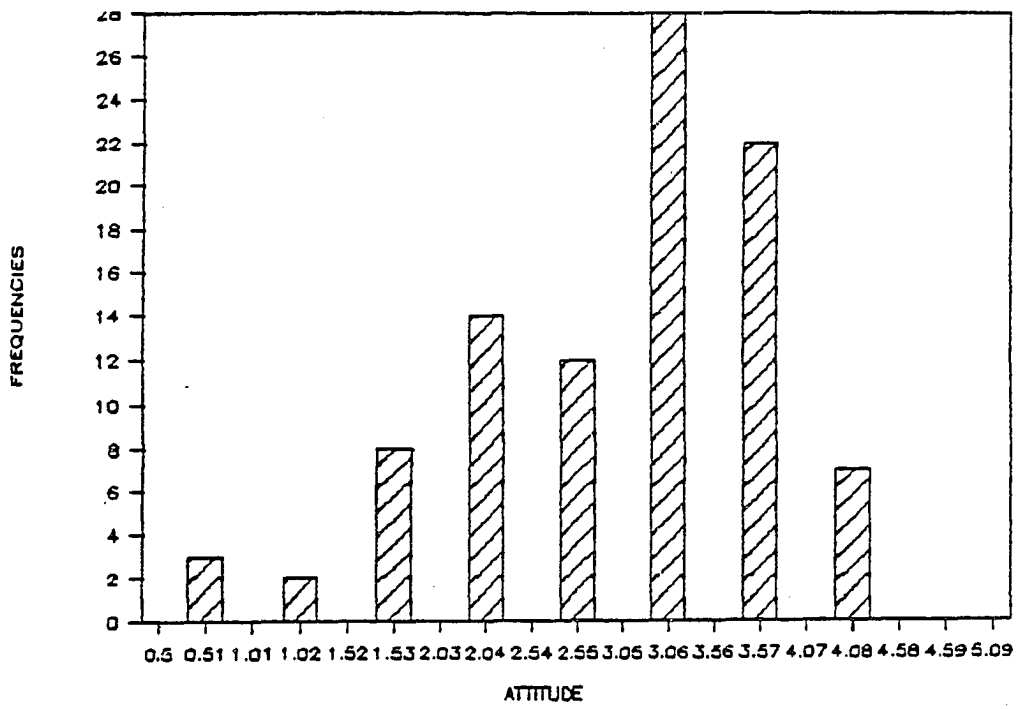

Figure 9. Frequency of Contact With Foreigners.

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