University of Michigan students from 32 different countries were surveyed regarding their perceptions of health and illness; information seeking and health service utilization behavior; satisfaction with University Health Service; and perception of stress and its effects on health. Results were examined for foreign students in the aggregate as well as by region and gender. The results indicate that the majority of foreign students consider themselves to be healthy, engage in preventive health behaviors and would like to be in better health if possible. Most foreign students say that they have sought treatment on at least one occasion and that they know how to use the Health Service. However, it appears that foreign students utilize the Health Service less efficiently than other students. Areas of concern cited by foreign students include: insurance, information about available health care services, and patient/provider communication. Based on this survey, the report concludes that foreign students may benefit from more education with regard to: appropriate use of health care facilities, scheduling appointments, and strategies for coping with stress. (Author/JD)
INTERNATIONAL STUDENTS AND HEALTH:
THEIR PERCEPTIONS, BEHAVIORS AND HEALTH CARE UTILIZATION

Diane M. McClaran, MA, MPH
Coordinator of Health and Continuing Education

Robin A. Sarris, MPH
Health Educator

Health and Continuing Education
University Health Service
University of Michigan
207 Fletcher Street
Ann Arbor, Michigan 48109
(313) 763-1320
INTERNATIONAL STUDENTS AND HEALTH: THEIR PERCEPTIONS, BEHAVIORS AND HEALTH CARE UTILIZATION

Diane M. McClaran, MA, MPH
Robin Sarris, MPH

Abstract

Foreign students come to the University with a variety of previous health care experiences and definitions of health and illness. Some or all of these factors may influence health and illness behavior, and utilization of health care facilities. Students from 32 different countries were surveyed regarding their perceptions of health and illness; information seeking and health service utilization behavior, satisfaction with University Health Service; and perception of stress and its effects on health. Results were examined for foreign students in the aggregate as well as by region and gender.

The results indicate that the majority of foreign students consider themselves to be healthy, engage in preventive health behaviors and would like to be in better health if possible. Most foreign students say that they have sought treatment on at least one occasion and that they know how to use the Health Service. However, it appears that foreign students utilize the Health Service less efficiently than other students. Areas of concern cited by foreign students include: insurance, information about available health care services and patient/provider communication.

Based on this survey, the authors conclude that foreign students may benefit from more education with regard to: appropriate use of
health care facilities, scheduling appointments, and strategies for coping with stress.

Introduction

Increasing numbers of foreign students are coming to American colleges and universities. Currently, foreign students comprise approximately 7% of the total University of Michigan enrollment (3% of the undergraduates and 14% of all graduate students). These students come to the university with a variety of previous health care experiences and definitions of health and illness. Some or all of these factors may influence health and illness behavior as well as utilization of health care delivery services.

A review of the literature reveals that foreign students have not been studied extensively. Mental health issues have received the most attention\(^1,2,3,4\). In addition, health service utilization data of foreign students and other students have been compared\(^5,6\). Specific health problems such as intestinal parasitism have also been addressed by several authors\(^6,7\). However, the health behaviors and beliefs of foreign students have yet to be examined.

Given the contribution of overutilization of services to the problem of rising medical costs, as well as the university health services' responsibility to respond to the needs of foreign students, it seems appropriate to assess foreign student needs, perceptions, behaviors and health care utilization.

Methods

Students from thirty-two different countries were surveyed regarding: their perceptions of health and illness, information seeking...
and Health Service utilization behavior, satisfaction with University Health Service, and perceptions of stress and its effects on health. Each respondent was interviewed in person by a trained graduate student using a 31-item open-ended questionnaire. It was hoped that in-person interviews would minimize possible misinterpretation of questions due to language differences. The subjects were obtained on a voluntary basis through the International Center, a campus based organization whose goal is to facilitate foreign students' assimilation into the University community.

In addition to the information collected through the questionnaire, anecdotal comments were obtained from students as well as from faculty and staff who work with them.

Results

Demographics

Of the students surveyed (n=39), 33% were female and 67% were male; 49% were married and 26% had children. Seventy-two percent of these students were graduate students and 28% were undergraduates, which is consistent with the population of the university as a whole. The students surveyed came from five geographical regions. Thirty-one percent were from India/Asia, 28% from Africa, 26% from the Middle East, 13% from the Mediterranean and 2% from Central/South America.

Health Beliefs and Behaviors

The majority of foreign students surveyed consider themselves healthy (95%). Only 21% felt that their health had ever interfered with their studies. Those who felt their health had interfered with their studies cited the cause of the problem as pressure, stress or headaches. All of the students (100%) said that when they were not feeling well
they tried to do something to make themselves feel better.

With regard to health maintenance, 67% said that they do things to improve their health even when they are feeling well. The most commonly mentioned activity was exercise, followed by eating properly. In addition, 54% said that they would like to be in better health. The most commonly mentioned sources of health information were friends and journals.

Stress

Stress-related problems appear to be common among foreign students. Anecdotal information collected from clinicians and administrators indicates that foreign students tend to come to medical facilities such as Health Service and the University Hospital with problems that might be more appropriately handled at Counseling Services.

On a four-point scale where 4=alot, 3=some, 2 is a little, and 1=none, 21% of the students surveyed felt that they were under "alot" of stress and 41% felt that they were under "some" stress. Thirty-three percent felt that "pressure" interfered with their health or studies and the most often cited way of dealing with pressure was to talk with friends. When asked if they had time for visiting and relaxing with friends 69% said that they did.

Health Service Utilization

Ninety percent of the international students surveyed said they would go to the University Health Service (UHS) if they felt ill. Other sources of treatment mentioned included University Hospital, friends and physicians from their own countries. Health Service was most often mentioned as the source for care for a spouse who was ill, while children were usually taken to the University Hospital. This is appropriate as the University Health Service does see spouses of
students but not children or dependents under 10 years of age.

Most foreign students (74%) said that they knew how to use UHS and 77% said that they had visited the Health Service at least once. Treatment was the most commonly cited (67%) reason for visiting the Health Service, followed by check-ups (28%), information (15%) and pregnancy testing (3%). Seventy-two percent said they were satisfied with the service they received and 89% said that they would go to UHS again for care. The location of the Health Service and transportation to it were not seen as problems by 87% of the students surveyed. Sixty-four percent of the students said that they would walk in-and wait to see a clinician whereas only 36% said that they would make an appointment before coming in.

When asked how Health Service could better meet their needs, students said that they would like more information about UHS in general and its available services as well as how to use them. Other comments students made about services included: long waits for appointments (the average wait to schedule an appointment varies from 2 to 5 days depending on the time in the semester; waiting time for specialty clinics may be longer); problems communicating with clinicians and receptionists; and the expense of dental and eye care services. In an effort to determine students' awareness of services, or whether they would seek treatment or self-treat when appropriate, students were given a list of hypothetical conditions and asked what they would do. For those who said they would neither use the Health Service nor treat themselves, the question distinguished among those who would seek care elsewhere and those who believed that Health Service did not offer the service.

Between 64-79% of the respondents said they would use the health
service for "acute" conditions (e.g. sprains, lacerations, rashes, allergies). Seventy-seven percent said they would use the Health Service for immunizations. For self-limited conditions such as diarrhea, colds and flu, between 33-38% said they would use the health service. The majority of those who would not use UHS stated that they would not seek care for these problems.

While 59% of the students surveyed said they would use the Health service for headaches, only 26% said they would do so if they were having trouble sleeping. Fifty-six percent said they would use the eye care facilities and 6% would fill a prescription at UHS Pharmacy. Few (15-18%) would use the Health Service for emotional problems, to quit smoking or to lose weight.

Aggregate Health Service utilization data shows that overall, foreign students do not utilize the health service as frequently as other students. During the 1982-83 academic year the average number of visits was .66/student for foreign students compared to the overall rate of 1.39 visits/student. Foreign student utilization is comparable to the total student body for URI's (.84% of foreign student visits vs. .85% of other student visits) and rhinitis (.11% of foreign student visits vs. .17% other visits). Foreign student utilization for tension headaches is lower than for other students (.13% vs. .65%).

Insurance

Foreign students were also surveyed regarding their medical insurance coverage. There seems to be concern among administrators who work with foreign students that they are not adequately covered or that they discontinue coverage soon after arriving here.

Seventy-two percent of the students surveyed said that they did have medical insurance. Of those, 42% paid for it themselves. The
remainder were covered by their sponsors, by the university due to employment or through some other employer. Of the 28% who did not have insurance coverage, most (55%) felt that it was too expensive. Others stated that they had not thought about insurance or that they didn't need it. Fifty-five percent had never made a claim while they were in the U.S. However, 69% said that they had paid their own medical expenses — in most cases, things not covered by their insurance.

Students felt that there should be more description of insurance coverage, more options in the insurance plan and that the Health Service pre-paid fee should be covered by the student insurance plan. Compulsory student insurance and coverage for students who are temporarily not enrolled were also mentioned.

Gender Differences

There were several items on the questionnaire in which males and females differed in their responses. Women were more likely than men (30% vs. 4%) to say that their health had interfered with their life or studies. However, when asked what health issues concerned them, men were more likely (58% vs. 31%) to identify a specific interest (i.e. exercise, hypertension).

With regard to health service utilization, men were more likely than women (62% vs. 46%) to visit the health service on a walk-in basis rather than making an appointment. Women expressed a somewhat higher level of satisfaction with the services they had received (77% vs. 65%). A larger majority of the women surveyed had medical insurance coverage (85% vs. 65%). However, of those who had insurance, men were more likely to have made a claim while here (35% vs. 23%). Fifty-three percent of the women felt they were under "alot" or "some" pressure, while 69% of the men fit into these categories.
Regional Differences

To assess regional differences, respondents were grouped by geographical region. Five distinct regions were identified: Africa, Middle East, India/Asia, Mediterranean and Central America. For most topics there was not a large discrepancy among the groups. However, there were a few questions for which differences did exist.

In terms of health beliefs and behaviors, Middle Eastern students were more likely than other groups to include "mental health" in their definition of health. African and Asian students were more likely to do things to improve their health even when they were feeling well (i.e. health promotion behaviors).

Stress seems to be greater for those from African and Middle Eastern countries than those from other regions. Ninety percent of the African students and 70% of the Middle Eastern students felt they were under "alot" or "some" pressure. In agreement with this finding, Indian/Asian students were much less likely than the other groups to feel that pressure was interfering with their health or studies and African students were most likely to feel this interference.

Regarding insurance coverage, Middle Eastern students were least likely to have medical insurance coverage. The majority of the other four groups said that they did have insurance.

Discussion

Health Beliefs and Behaviors

The interests and concerns of foreign students regarding health maintenance appear to be similar to those of other students as indicated by previous interest surveys on campus. Personal contact with students through teaching and advising have also shown that the areas of health
maintenance most often chosen for self-improvement are exercise and nutrition. Foreign students appear to seek information on health topics from written sources as well as from friends. Possible opportunities to disseminate health information through these channels might include pamphlet racks or a health resource center in the International Center and residence halls. In addition, workshops or classes might be offered through the International Center on nutrition, exercise and other health-related topics.

**Stress**

Foreign students report a high level of stress. Pressure, stress and headaches were most often cited as the source of interference with health. Not only are these students exposed to the same pressures as other college students but they must deal with the additional stresses of communicating in a foreign language, being separated from their families and a familiar cultural environment, economic difficulties, religious differences from the general population and special medical problems such as parasites and tropical diseases.

A study by Ickikawa\(^2\) found that the absence of family, cultural differences and communication problems contribute to the high stress levels of foreign students. Torrey et. al.\(^4\) also found high levels of stress among foreign students and noted that foreign students with emotional turmoil come in for medical attention with physical symptoms and tend to somaticize mental health problems. In addition, Torrey et. al. determined that an important source of mental health support comes from friends from the students' own countries or area of the world. The data collected in the present study appears to support these previous findings if only anecdotally. Utilization data and patient encounter forms were not tabulated in a way that would yield numbers regarding
"stress-related" physical symptoms but clinicians do feel that this may be a concern.

It is possible that even though high levels of stress are evident among foreign students, they do not use mental health facilities because there is a stigma associated with them in their own countries. Furthermore, they may not have been exposed to these services or may have a high index of suspicion regarding their status as aliens in this country. In addition some students surveyed mentioned feeling guilty about seeking help for emotional problems as they consider this a luxury given the acute health and other problems which may exist in their home countries.

Stress appears to be another possible area of intervention that might include workshops on stress management, relaxation techniques and managing tension headaches. It may also be necessary to increase the visibility of existing services on campus (i.e. counseling services) to foreign students and most importantly, to work toward dispelling the negative feelings that may be associated with utilizing these services.

Health Service Utilization

Previous studies have found that foreign students tend to be higher utilizers of health services on campus. A study by Maha at the University of Illinois found that foreign students were more frequent visitors to the Student Health Service and had a higher rate of admission to the university hospital. In addition, a study by Rice found that foreign students made an average of 3.7 visits/year to the health service at Northern Colorado University as compared to the general university population average of 2.8 visits/year. Data collected in the present study do not support these past studies. Aggregate data shows that overall foreign student utilization is 110%
lower than the general student body. In specific diagnostic categories (e.g. rhinitis, upper respiratory infections), foreign student utilization is comparable to or lower than the overall student body. It is interesting to note that foreign students come to the Health Service for tension headaches much less often than the students overall, despite the fact that tension headaches were frequently mentioned as a health problem by foreign students. These students may either be seeking other sources of care, doubt the efficacy of treatment, or do not consider this a problem that warrants treatment. This issue deserves further study.

Foreign students appear to have accurate knowledge about the availability of Health Service for spouses and dependents and 90% said that they would go there if they were ill. In addition, the majority said that they know how to use UHS, have visited here at least once, and were satisfied with the care they received.

The students surveyed commented on the long wait for appointments but did not mention waiting on a walk-in basis as a problem. Perhaps in their own countries it may not be unusual to wait to be seen once the individual is in the system. However the idea of having to wait a week or two for a specialty appointment may be new to them. In fact, two-thirds of the students said that they would walk in and wait to see a clinician rather than make an appointment. Coming to the Health Service may not be a less efficient way of using the system if the reasons for coming in are emergent. It is possible that foreign students may not have had ready access to care in their home countries and perhaps treat themselves for minor conditions.

Foreign students utilize specialty services such as weight control less often than other students. A possible explanation is that they may
not be accustomed to paying fees for these services if they come from a country with a different type of medical care system (i.e. national health insurance, socialized medicine). Comments from students regarding specialty services indicate that they consider these to be expensive.

Student comments also included requests for more information on the services provided at UHS. At present, students do receive written information regarding services available; however, this is distributed during orientation at the beginning of the fall semester. It may be that this information is not regarded as important by the students at that time as they are receiving other more urgent materials and are probably feeling well. In addition, the Health Service offers an audio-visual orientation program to foreign students at the International Center. The program discusses health care in the U.S., the importance of health insurance, and services provided by the University Health Service. Again, it is possible that students do not realize the importance of this information when they receive it. It may be necessary to offer this program more than once or at different times throughout the semester to increase its impact. Furthermore, the program might be more effective if it were delivered by a foreign student.

Insurance

Students have several concerns regarding insurance. While the majority of students have some insurance, many appear to have questions regarding coverage, what they are required to pay and the distinction between Health Service fees and insurance premiums. Again, some of the misunderstandings may be due to differences in medical systems between countries.
Students who did not have insurance explained that it was too expensive or they hadn't thought about it. For this group, more information concerning the overall savings of purchasing insurance versus paying medical bills for a severe illness or accident might be helpful. This, again, might most appropriately be addressed in the Health Service orientation program for foreign students.

Gender Differences

Responses, when stratified by gender, are consistent with the findings of other studies. This study shows that women were more likely to feel that their health interfered with their studies/life here. In general, previous studies have found that women visit physicians more often than men and are more likely to admit to being ill. On the other hand, the men were more likely to feel that they were under "alot" or "some" pressure. Further study would be necessary to determine whether this difference is one of perception, coping strategies, or other factors.

Regarding health service utilization, women were more likely to schedule appointments rather than coming in on a walk-in basis. One of the busiest clinics in our health service is the Gynecology Clinic, which requires appointments. This may account for this difference.

Although fewer men than women reported having insurance, men had made a greater number of insurance claims. A purely speculative explanation might be that men have more sports-related injuries or accidents and consequently make more claims.

Regional Differences

The high levels of stress reported by African and Middle Eastern students may be accounted for by the external pressures related to their homelands. In these areas, war and poverty at home as well as concern
for family members may add to the pressures which these students are experiencing here. This points to the importance of the need to be sensitive to these extra pressures which foreign students experience.

Conclusions

Based on these data, it appears that foreign students' perceptions of health and illness are not markedly different from those of other students. As regards their health behaviors foreign students are also interested in being as healthy as possible with diet and exercise being important ways of achieving this. Health Service utilization data shows that foreign students on this campus are less frequent users than has been indicated in previous studies. Further research is needed to explain these differences.

Based on students' comments specific to their needs, the following health education interventions seem viable: expanded Health Service orientation programs at the International Center, health education workshops on specific health topics for foreign student groups, and written materials on UHS and specific health topics made available through the International Center.
References


