

Research Article

University Preventive Medicine: The Case of Ankatso University Housing Estates in Antananarivo Madagascar

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Abstract

Background: In Madagascar, few studies have been carried out on the health needs of students and university preventive medicine which have an important role in the conduct of studies. This study consists in determining the activities of university preventive medicine in Ankatso Antananarivo and the

factors linked to this service allowing students to have a better living condition.

Methods: This is a retrospective, cross-sectional and descriptive study, representative of students residing in Ankatso university housing estates.

Results: A total of 101 students were interviewed. Among them, only 56.4% knew of the existence of university preventive medicine with female predominance. Among those who knew of the existence of preventive medicine, 48.50% knew of its activities. The frequency of illness has been rare in almost all university housing estates. The main health problems declared by the students were fatigue (89.1%), headache (78.2%), digestive pain (62.4%) and depression (51.5%). The majority of the students had not commented on preventive medicine. Nevertheless 42.9% and 16.7% of the students coming from Ambolokandrina and Ambatomaro noticed respectively a lack of information and an insufficiency of the preventive medicine service of Ankatso.

Conclusion: Students require good care in the event of illness, information about preventive medicine and the availability of this service in all university campuses.

Keywords: Madagascar; Disease prevention; Student health services

1. Introduction

Preventive medicine is a branch of medicine aimed at preventing the appearance, aggravation or extension of collective or individual diseases. Its purpose is to protect, promote and maintain health and well-being and to prevent illness, disability and death [1]. The scope of "preventive" medicine is prevention, which consists in avoiding, as far as possible, that a known risk does not concretize [2-3]. In developed countries, students do not attend university preventive medicine services, possibly because they are unfamiliar with them. For example, the university service for

preventive medicine and health promotion (SUMPPS) at the University of Caen Basse-Normandie receives an average of 6,000 to 7,000 students each year for a total population of over 25,000 students. Students attending SUMPPS came for consultations in general medicine, gynecology (follow-up and care), and psychiatry [4]. In Africa, Ivory Coast, only 3.5% of students have attended the university health center in the past 12 months. This service was only known by 50.4% of male students and 30.5% of female students [5]. In Madagascar, Ankatso University has two health centers, the medico-social service which is intended for students and university staff and provides their health coverage, as well as preventive medicine, which takes care of the medical protection and health education of students of Ankatso university residences and of the staff of CROU-A (Regional Center for University Works of Antananarivo). This preventive medicine service receives 1,800 students every year. For students, entering higher education is a period of transition that changes the environment, the city and even the country. Likewise, the student is far from his family and meets new people. At this age, many consider themselves to be in good health [6]. According to numerous studies, this population is young and in better health than other older subjects [7]. In addition, new students also do not know where to go to see health professionals. However, the university must guarantee favorable conditions for this entry of new students into their new life [8]. Does Ankatso's preventive medicine really meet the needs demanded by students? Thus, preventive medicine plays an important role in improving the course of study within the university. The specific objectives of this study are to determine the activities of preventive medicine and the factors that allow students to have better study conditions.

2. Materials and Methods

The study framework was represented by the university campuses of Ankatso in Antananarivo and their preventive and curative medicine services (Ankatso I, Ankatso II, Ambolokandriana, Ambohipo). These curative medicine services receive an average of 5,500 students each year. This study lasted 8 months, from January 2018 to August 2018. The period studied concerned the 6-month period preceding the survey. The study population was represented by students at the University of Ankatso Antananarivo residing at least 6 months in university housing estates. This is a simple random sample of which the lists of students formed the sampling frame. The minimum sample size was 96 students, spread across 5 housing estates including Ankatso I, Ankatso II, Ambohipo, Ambolokandrina and Ambatomaro. There are 46 students in Ankatso II, 21 students in Ankatso I, 21 students in Ambohipo, 7 students in Ambolokandrina and 6 students in Ambatomaro. A total of 101 students were selected. The following parameters were studied: gender, place of residence, knowledge of the existence and activities of preventive medicine, city environment, major problem in university residences, use of contraception, wish of students to improve service, student satisfaction with service personnel, frequent health problem among students living in university residences, training and motivation for preventive medicine personnel. Data was collected from a pre-established and pre-tested questionnaire. The data were entered into the Excel software and were processed and analyzed with the EPI info version 7 Software. The Chi-square or the Fisher tests were

used to compare the proportions. The significance threshold chosen was 0.05.

3. Results

This study included 101 students residing in Ankatso university housing estates. In this study, 56.40% of students knew the existence of university preventive medicine with predominance of women (61%), students from Ankatso I (71.4%) and from Ambatomaro (66.7%). Among them, 48.50% knew of its activities. These activities consist of free general medical consultations, nursing care, advice in order to prevent various illnesses, annual medical examination, issuance of medical certificates for disabled students, production of supporting documents for reimbursement of medical expenses, health education and hygiene. It was found that 81.60% of the students who knew about the existence of preventive medicine had already attended it. However, it was reported that there is no community hygiene and health awareness program in all university housing estates. In addition, it was reported that there is no health education program in the cities according to 62.40% of the students.

In addition, 42.9% and 16.7% of students coming from Ambolokandrina and Ambatomaro, respectively, spoke of a lack of information and an inadequate university preventive medicine service. During the survey, only 12 students consulted university preventive medicine (for illness) and these 12 students are all domiciled in Ankatso I. In addition, only 30 students (29.70%) used a contraceptive method, and 16 female students of the 30 who use the contraception are aged 25 and over.

Variables	Knowledge of preventive medicine		Total
	Yes	No	
	n (%)	n (%)	n (%)
	57(56.4)	44 (43.6)	101 (100)
Gender			
Male	32 (53.3)	28 (46.7)	60 (100)
Female	25 (61)	16 (39)	41 (100)
University housing estates			
Ankatso I	15 (71.4)	6 (28.6)	21 (100)
Ankatso II	30 (65.2)	16 (34.8)	46 (100)
Ambohipo	7 (33.3)	14 (66.7)	21 (100)
Ambolokandrina	1 (14.3)	6 (85.7)	7 (100)
Ambatomaro	4 (66.7)	2 (33.3)	6 (100)

Table 1: Distribution of students according to knowledge of preventive medicine.

Age (year)	Contraception		Total
	Yes	No	
	n (%)	n (%)	n (%)
<18	0 (0)	1 (100)	1 (100)
18-24	14 (22.2)	49 (77.8)	63 (100)
≥ 25	16 (43.2)	21 (56.8)	37 (100)
Total	30 (29.7)	71 (70.3)	101 (100)

Table 2: Distribution of female students by age and contraceptive use.

Among the health problems mentioned by the students were the problem of alcoholism and smoking (17.8%), depression (51.5%), attempted suicide (6%), digestive pain (62 , 4%), fatigue (89.1%), sleep problem (60.4%) and headache (78.2%). Regarding student satisfaction, it was reported that around 70% of Ankatso I and II students were satisfied with the location of preventive medicine, and almost 50% of Ambohipo, Ambolokandrina and Ambatomaro are not. In addition, 64.4% of the students were not

satisfied with the reception of the preventive medicine staff. Regarding the opening hour, 17.8% wanted preventive medicine to open from 7 a.m. to 6 p.m. It was pointed out that 50.50% of the students were not satisfied with the preventive medicine working hours.

4. Discussion

4.1 Knowledge of preventive medicine service

According to the survey, 56.40% of students residing in university residences in Ankatso were aware of the

existence of university preventive medicine. It was reported that students were not educated about hygiene or health according to 97% of students and there was also no health education program according to 62.40% of students. University preventive medicine is insufficiently known to students, a survey of Sorbonne Universités students showed that many students had no experience in university preventive medicine [9]. This lack of knowledge is due to the lack of actions to make students aware of the care services provided in the center such as periodic health education programs, hygiene and health awareness campaigns, a plaque indicating the site of the service, medical visits [10]. In our opinion, this ignorance means that health is not their primary goal. Regarding the knowledge of the service, it was observed a predominance of women (61%) and predominance of students residing in Ankatso I (71.4%). On the other hand, according to a study carried out at a university in Côte d'Ivoire [5], 50.4% of men were aware of the center compared to 30.5% of women. According to the study by Mary H et al [10], female students were more likely than male students to visit the service (75% and 65%). In addition, being a resident of Ankatso I university campus requires them to know what preventive medicine is, since the department of preventive medicine is located next to it.

4.2 Attendance of preventive medicine service

The resident students in Ankatso I were mostly among the students who already consulted preventive medicine. In fact 5 students among the 12 who have already consulted preventive medicine are all residents of Ankatso I. Indeed, preventive medicine is located near Ankatso I. According to this study, the frequency of illness is rare in almost all university housing estates. Moreover, sick students consult

elsewhere. Thus, few students attend preventive medicine. A survey carried out at the University of Nantes showed that only 13% of students were affected by health problems, somatic or psychological problems [11]. Previous studies have shown that students have been reluctant to seek treatment at university health centers because of their concern about the technical competence of health personnel and the quality of care they can receive at the centers [12-14]. In Africa, studies carried out on barriers to access to health care among young people have indicated three main types of barrier: opening hours unsuited to student schedules, the lack of information about available health care offers [15, 16], the high cost of services [17], poor reception of students and stigmatization [18]. According to the study carried out at the University of Houphouët Boigny in Côte d'Ivoire, 58.3% of students decided not to attend the preventive medicine service when they needed it. The main reason is the high cost of services followed by the preference for self-medication [5].

Finally, 10% of the reasons were due to too long a queue or unsuitable hours. The center should therefore increase its opening hours, especially at times when students have the most free time, such as between 12 p.m. and 2 p.m. or after 5 p.m. In addition, it was noted that only 29.70% of students benefited from contraceptive products and the majority were aged 25 and over. A study carried out in Côte d'Ivoire showed that the demand for contraceptive drugs was lower among female students compared to women aged 20 to 24 in the general population. The main reason for not using contraception was fear of repercussions on health or fertility [5].

Thus, the various officials at the university, especially the chief medical officer of preventive medicine, should improve students' confidence in the university's health center by making it more attractive. The service should seek funding or an endowment to renew its old equipment, to give training to improve their competence, to open necessary services and available every day such as a pharmacy so that patients do not go to find them elsewhere, a biology or screening service for diseases common to young people such as STIs, and a specialized social service where students with disabilities can find information and help for the organization and smooth running of their studies. Good information and better communication on the availability of contraceptive means in the university health center could improve access. Finally, it is also necessary to make vaccinations against the most common diseases in young people.

4.3 Health problem

The health problems of the students are represented by alcoholism and smoking (17.8%), depressive state (51.5%), suicide attempt (6%), digestive pain (62.4%), fatigue (89.1%), sleep problem (60.4%) and headache (78.2%). The first year of university studies is a delicate period due to many changes, new ways of learning, the acquisition of autonomy, the massification of this higher education [19]. Students must change their work habits and have to keep pace at university [20]. At the same time, the student has new responsibilities which concern his habitat, his transport, his food, his social life, his health, his new freedom, his professional life and his married life. This is why these young people have difficulty getting used to their new life, and may have health problems, sleep disorders, nutrition, addictive behaviors

(tobacco, alcohol, drugs) or suffer from stress [1]. Another study mentioned that some students reported environmental problems such as noisy premises affecting the quality of their sleep and smoking in college or communal areas. They also complained about financial problems. Other subjects spoke of isolation or even depression, especially during the summer period, or expressed difficulties adapting to student life, especially for foreign students [21]. In addition, a study carried out at the University of Nantes showed that stress will be expressed by psychogenic disorders, headaches, back and muscle pain, diffuse pain and symptoms specific to stress (digestive, cardiac, respiratory). Among these symptoms, headache, digestive pain and lower back pain are the most common in young women [11]. Students' health problems are therefore due to their socio-professional situations, their poverty, difficulty in accessing drinking water and health services [12]. Thus, the creation of a psychology service is necessary to deal with these psychological problems and limit their negative consequences.

5. Conclusion

Frequent health problems among students of Ankatso university residences mainly concerned fatigue, headaches, digestive pain and psychological problems. In addition, they wished to obtain information on sexuality and common diseases among young people. Some of these problems are taken care of by the university's preventive medicine department, which is not well known to the students. Few of the students have visited the center to see a doctor during the illness. They say the staff and service were insufficient. Improving the provision of care, education about youth health (sexuality, Sexually Transmitted Infections, contraception, nutrition) and

the psychology service could improve the care of university students. Compulsory annual medical visits by residents of the estates would be essential to improve the care of these students.

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Conflict of Interest

The authors do not declare any conflict of interest.

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