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ABSTRACT

Background: Doctors should portray examples of health behavior for the population. Doctors are often confronted with financial and social problems that make it sometimes difficult to work in the public and private sectors. This pressure of the workload has repercussions on their health, behavior and family. The aim of our study was to describe physician health behavior.

Materials and methods: We conducted a descriptive cross-sectional study in sight and took part to the University Hospital of Treichville. Our sample consisted of 120 physicians selected randomly from different services.

Results: The physicians were mainly male (79%) and had an average age of 46 years. 53% of them were overweight. They had some activities outside of their services (83%) principally in private clinics (95%). 81. 7% of them were affirming not to spend enough time with their families.

Among the surveyed physicians, 67. 5% did not practice sports, 38.9% did not use any means of protection against mosquito bites in their homes. 48. 3% brush their teeth, but only in the morning, 41.7% had no vaccine record, 82.5% did not do any annual medical check-up, (25%) did not do their HIV screening test. Most of them adopted risky sexual behavior, meaning that they had multiple sexual partners (56.4%) and had sex with casual partners (53. 8%).

More than half of the physicians (55%) used to drink alcohol; among them, only 12.1% was planning to stop drinking. In the case of illness, 77. 5% would practice self-medication while 37.8% would often resort to traditional medicines. In addition, 46.7% of the physicians were declared to be bad in term of observing dosage and treatment duration.

Conclusion: These results underline the need to develop strategies for health promotion with regard to the physicians.

Key word: health behavior, physician, Abidjan, Côte d'Ivoire.

INTRODUCTION

Health behavior is defined as all attitudes and activities developed by a person which have an influence on his state of health by contributing or not to uphold this state of health [1]. As an educator, a communicator, and an influential member of the community, the physician must absolutely be an example in terms of health behavior, for his patients, his entourage and the community in which he lives. Might it be at his workplace or not, he must promote a safe way of life and give to individuals and groups of people the means to improve and protect their health. In short, he must be a perfect person anytime, anywhere in all circumstances in terms of health behavior [2]. Therefore, it is important to look into the beliefs and practices of physicians, since they are supposed to convey prevention and favorable behavior to health messages. [3] Indeed, since health promotion activities are intended for patients and communities, most impact surveys attempt to measure the knowledge and the community attitudes as far as health problems are concerned, assuming that doctors are neutral transmission belts [3].

Do Doctors adopt health behavior? Do they put what they teach in practice? Are they convinced by the health promotion messages? It is because we would like to give an answer to the preceding questions that we dealt with the current study.

MATERIALS AND METHODS

This was about a cross-disciplinary descriptive study which took place from May 20th to July 20th 2010. It took place in the University Hospital Center (CHU) of Treichville, one of ten municipalities of Abidjan. The CHU of Treichville is the biggest and the oldest of the 4 CHUs of Côte d'Ivoire.

Its mission is to provide cares, to assure the initial and further training of health agents and guarantee medical research. This study involved 120 randomly selected physicians from a total of 306 physicians working in the CHU of Treichville. For each selected physician for the study, the survey integrated the socio-demographic and professional characteristics, the pathogenic and immunogenic health behaviors which protect and improve health [1]. The collected data were typed and processed with a computer, using the following software: Epi-Info 2008 version 3.5.1 and Excel. These software helped us in achieving a simple description of the different studied variables.

RESULTS

Socio-demographic and professional characteristics

The average age of the surveyed physicians was 46, with extremes of 27 and 66. The median and the mode were 38 and 40 respectively. The sex ratio was 3:8 which was in favor of men (79%). More than a half of the physicians (53.3%) were overweight (including 7.5% obese). Majority (90.8%) of the physicians were living outside of the CHU location. Among these, 55.9% were living in the municipality of Cocody (34.2%) while 21.7% were living in the municipality of Yopougon (21.7%). Only 11% were singles. The others were either married (46%) or living a free union relationship (43%). The average number of children per physician is 2 with a maximum of 6 children. It must be said that 15% of physician didn't have children. The average number of people in charge apart from their own children and spouse 3,8 people per physician. Physicians having a health agent as a spouse were 21,5%. The average of years of professional experience was 6.9 with a maximum of 27 years. Each physician used to work during 3 and 12 hours on average. As to 45% of physicians, the workload was high. Among the surveyed physicians, 100 meaning 83% used to work in other health facilities, mainly in private clinics (95%). The majority of physicians (87,5%) used to take a annual time off during which 66.7 would keep on dealing with their consultation activities. Therefore, 56,2% of those physicians didn't think themselves rest after their annual time off. The average of hour of sleep per physician is 6.4 hours, with extremes of 3 hours and 9 hours. The majority of physicians (81,7%) thought not devote enough time to their entourage (family and friends) did not hesitate to reproach them their unavailability (75%).

Health immunogenic and protective behavior of the physicians

More than two out of three physicians (67,5%) did not practice sports. The main reasons given were the lack of time (72.8%) and tiredness after work (29.6%). The majority of physicians acknowledged not to be protected against mosquito bites (94.2%). Among these, 41,5% did not use any means of protection. Only 11.5% used the insecticide treated bed-net. Among the physicians (58,3%) who did not have any vaccination record, 62% mentioned negligence. Exception made of the vaccine against yellow fever (55,8%), more than half of the surveyed physicians did not have their vaccinal status updated (Table I). As to HIV, 25% of surveyed physicians did not know their serological status. Being not ready to accept a positive result (90%) was the main reason mentioned. Among those who were not HIV-ignorant, the last HIV screening test goes back to one year in 67,8% of the cases. To avoid HIV, the main preventive methods used were the condom (46,7%), faithfulness (35,8%), the association of condom and faithfulness (16,7%) and sexual abstinence (0,8%). Multiple partnerships were noticed in 56,4% of physicians. Furthermore, 40,3% did not know the HIV serological status of their regular partners. Among these, 14, meaning 29,2% did not use condoms during their sexual intercourses. Furthermore, 53,8% had sexual intercourses with casuals partners including sex workers (3,4%). Over the last twelve months, it sometimes happened to 35,6% physicians to have non protected sexual intercourses with their regulars partners (46,9%), the partners in apparent good health (46,9%) and HIV-negative (6,2%).

Furthermore, 11% of the physicians acknowledged that they had sometimes had sexual intercourses under the influence of alcohol. As far as hand hygiene is concerned, 72.5% of the physicians affirmed not to have sometimes washed their hands before eating, especially during snacks (97%).

Nearly half of the physicians did not brush their teeth in the morning (48.3%). Therefore, those who brushed their teeth both in the morning and in the evening represented 51.7%. Most of the physicians in our study did not have any health record (78.3%) and did not do any annual medical check-up (82.5%). To choose their diet, 95% of the physicians did not resort to the advice of a dietician. Among these, 53.3% ascertained not to have a balanced

diet. The majority of the physicians (60%) admitted to live in a polluted environment (especially noisy). However, 76.4% were not taking any steps to no longer live in that unhealthy environment. According to 70.8% of the physicians, the working environment is polluted. It was essentially related to an insalubrious environment (94.1%).

Table I: Distribution of physicians according to the vaccination or not against infectious diseases

Vaccination against some infectious diseases		Frequency	Percentage
Do you have a vaccination record?	Yes	70	58,3
	No	50	41,7
Why, if no ? (n=50)	Carelessness	31	62
	Does not need it	10	20
	Lost	9	18
What are the vaccines yet received? (n=120)	Vaccine against yellow fever	70	58,3
	Vaccine against hepatitis B	65	54,2
	Vaccine against tetanus	62	51,7
	Vaccine against typhoid	55	45,8
	Vaccine against meningitis AC	54	45
	Vaccin against meningitis ACYW135	4	3,3
Diseases for which the the vaccinat status is valid (n=120)	Yellow fever	67	55,8
	Tetanus	50	41,7
	Typhoid	30	25
	Meningitis AC	29	24,2
	Hepatitis B	23	19,2
	Meningitis ACYW135	4	3,3

Health pathogenic behavior of the physician

More than one physician out of two (55%) was an alcohol consumer. Among these, only 12.1% were planning to stop this consumption (Table II). As to tobacco, its consumption was found in 10 doctors meaning 8.3%. Among these physicians, 6 were among the excessive smokers and 2 were not intending to quit for the moment. In case of illness, 77.5% of the physicians were practicing self-medication while 62.2% were resorting to traditional medicines. They were observant bad follower of the treatment in 46.7% of the cases (Table III).

Table II: Distribution of physicians according to the consumption of alcohol or not

Alcohol consumption		Frequency	percentage
Do you drink alcohol?	Yes	66	55
	No	54	45
If yes, what kind of production? (n=66)	Industrial	42	63,6
	Handmade	3	4,5
	The two types	21	31,8
In what group do you rank yourself?	Occasional	37	56,1
	Regular	27	40,9
	Excessive	2	3
Are you planning to quit that consumption?	No	58	87,9
	Yes	8	12,1

Table III: Distribution of physicians according to their attitude face to illness

Attitude face to illness		Frequency	Percentage
In case of illness what do you initially do ?	Self-medication	93	77,5
	To see a doctor	27	22,5
Do you sometimes resort to traditional medicine in case of illness?	Yes	74	62,2
	No	46	37,8
Why, if yes ?	Effetive	22	46,7
	By complementarity	15	33,3
	Psychological interest	9	20
If yes, do you use those medicine in association with those sold in drugstore?	Yes	31	67,4
	No	15	32,6
In case of illness, do you sometimes use the medicine sold on streets as your treatment ?	Yes	4	3,3
	No	116	96,7

DISCUSSION

This qualitative study is based on the statements made by physicians, with no possibility to verify the sincerity of the surveyed physicians or the truth of the facts. Therefore, our results should be interpreted with the inherent reservation implied by this kind of survey. However, it favors the collection of interesting information related not only to the sociodemographic and professional characteristics, but also to the protective and pathogenic behaviors for the promotion of health in physicians.

In Côte d'Ivoire, the population is made up of 51% of men and 49% of women. [4] This almost balanced distribution which is not reflected in the different levels of education, nor in the different sectors. Even if the number of students, the level of financing and the regular adaptations are increasing, the Ivorian educational system does not succeed in meeting all the expectations. Therefore, this study revealed the weak proportion of physician women (21%) that could mostly be justified by under-qualification which itself derives from the weak level of instruction of women and the under-education of girls. It is important to note that in Europe, there is a feminization of the profession. This will certainly speed up in the years to come as more than a third (36%) of the physicians at least aged 40 are women [5]. The physicians to whom our study is dedicated had an average age of 46, and a service average length of 6.8. In a study achieved in Dakar, Senegal, Ndiaye [6] reported an average age of 42 and a service average length of 11. In France, the average age of general practitioners is increasing, going from 41.3 in 1992 to 47.9 in 2003 [5]. In Côte d'Ivoire, the aging of the medical corps could be explained by the length of medical studies (8 years without any repetition) and the delay or the freeze the recruitment of physicians due to economic problems. Family life has a positive impact on the mental health and is in correlated with job satisfaction. [7] Among the physicians of our study, only 11% were singles and 15% had no children. However, the time given to one's family is not enough. Indeed, 81.7% of the physicians acknowledged not devoting enough time to their family circle. The fact

of working outside of their service, but generally in the private clinics during their annual leave or not, as they are looking for additional income, could be the main reason. However, rest is essential for any worker. It allows to better perform daily tasks and mistakes, especially in the medical field. Rest also allows avoiding the burnout.

"There is nothing more ridiculous than a doctor who does not die of old age," ironically said Voltaire who was quoted by the French newspaper Figaro. [2] And yet, like shoemakers, doctors are not always examples of immunogenic health behaviors. In this study, 67.5% of the physicians did not devote time practicing sport. This percentage is significantly higher than Estryn-Behar's [8] which was 24.4%. This inactivity could partly explain the overweight observed in 53.3% of our respondents. It is important to note that many publications including those of Stampfer [9] and Bairati [10] have shown that a regular and moderate physical activity has beneficial effects on health. It is in this context that the National Center for Chronic Disease Prevention and Health Promotion recommends to American adults, the practice of daily physical exercise. [11] How to promote vaccination with physicians in Côte d'Ivoire? This question needs to be put. Indeed, there are worrying elements when we notice very low rates of vaccination coverage for the different studied vaccine antigens. For example, the physicians of our study who had a valid vaccination status against hepatitis B, meningitis and typhoid fever respectively accounted for 19.2%, 24.2% and 25%. Evidence, indeed that knowledge of the risk is not necessarily an engine for action [2]. In other words, as said by Delga who was quoted by Biencourt [12] *"If the fact of knowing the risk appears to be more deterrent to the doctor, prevention means less to him"*. In these circumstances, the competent authorities must develop strategies to improve vaccine protection by promoting the access to vaccinations but also supporting the promotion of vaccinations among health professionals in general and physicians in particular. Indeed, the practice of medicine exposes, like any profession, to several professional risks such as infectious one. Though simple and effective, the means of protection such as vaccination are often overlooked by health workers. Face to HIV / AIDS, physicians had unsafe sex practices. These include, among other, multiple sexual partners (56.4%) and unprotected sexual intercourses (35.6%) in particular with partners in apparent good health (46.9%) and HIV-negative partners (6.2%). Furthermore, our results relating to HIV testing help showing that physicians are far from applying the technical recommendations which they promote. [1] In fact, the physicians of our study who did not know their HIV status and that of their usual sexual partner respectively accounted for 25% and 40.3%. In a study carried by Wognin [13], 44.3% of physicians surveyed were HIV-ignorant. A larger percentage (76%) was observed in Congo Brazzaville. [14] In Côte d'Ivoire, Diarra [15] noted that 33% of the caregivers would refuse the screening if they were made the proposal. The health staff who is supposed to know the benefits of early and voluntary testing for the public health does not give himself an example and is reluctant to take the test. This is the real paradox that can necessarily and possibly be corrected through training and supervision as pointed out by Mouanga [14]. Regarding malaria prevention, only 10.8% of the physicians were sleeping under an insecticide-treated net. This percentage is significantly lower than the one reported by Comolet [3] which was 24%. It is important to note that the ITN is an effective way to fight against malaria and arboviroses such as yellow fever. Given the risks to which physicians are exposed, they should make an annual health check-up. In our study, only 17.5% physicians were making an annual health check-up. This is non-preventive attitude. In fact, the physician identically behaves like the general population, confirming then the maxim which says that *"The consensus is what is collectively agreed upon by a lot of people but individually rejected"* [3]. The pathogenic behaviors studied in our work were both the consumption of tobacco and alcohol, and also the attitude face to disease. As to the consumption of tobacco, 8.3% of the physicians were regular consumers. This rate is lower than those of Tredaniel [16] and Fayonin [17] who respectively found 36.9% and 14%. This is a significant proportion if we consider the double tacit role played by those physicians. Not only are they health educators, but they are also tobacco addiction fighters, meaning that they are aware of the harmful effect of smoking [3]. Alcoholism represents a major health problem because of its somatic, socio-professional and economic consequences. In this study, 55% of the physicians were alcohol consumers. Among these, 36.3% used to consume traditionally manufactured alcohol including "koutoukou" which production and selling are prohibited in Côte d'Ivoire since 1964. This represents a potential danger for consumers [18,19, 20]. Should we see the consumption of this traditionally made alcohol a revival in the African identity quest? Indeed, the quest for liberation, out of the socio-cultural area, shows the difficulty a human being faces when trying to get rid of an addictive behavior. [20] In case of illness, more than three-quarter of the physicians systematically resorted to self-medication. This behavior could be explained by the feeling that a self-monitoring and self-treatment is sufficient. It could also be explained by a denial one's own vulnerability or by a discomfort vis-à-vis colleagues. [13] When the physicians were consulting, 46.7% did not correctly observe the prescribed treatment especially in terms of dosage and treatment duration. Faced to this poor observance of the treatment by the physicians, a specialized unit was created in Spain for the care of ill physicians qualified as *"very bad patients because they are demanding and difficult to treat"*. [13] To treat themselves, 37.8% of the physicians used traditional medicines that they often combine with those sold in pharmacies (67.4%). But according to WHO, there is little scientific data resulting from tests performed to evaluate the harmlessness and the efficacy of traditional medicine products. [21] With regard to those medicines, the physician should adopt a cautious attitude or mind a careful principle even if some of the products of the

pharmacopoeia are known to be effective. The consumption of drugs sold on the street was found in 4 respondents. It is important to note that the majority of these medicines are counterfeit and poorly kept. Therefore, the physician as an example and a community leader should refrain from any consumption of medicine sold by unqualified persons. Furthermore, it is important to adopt appropriate and effective strategies against the illegal trafficking and counterfeiting of medicines. Indeed, these medicines sold on the street are harmful not only in the health terms, but also in the economic terms with considerable loss of tax revenue by the state.

CONCLUSION

This study showed that the physicians of Treichville CHU are not examples in terms of good attitudes and practices for health. However, further studies on representative samples including medical and paramedical staff are needed. They will allow developing effective health promotion strategies for the benefit of health workers in Côte d'Ivoire. In addition, it is important to improve their knowledge, attitudes and practices concerning education for the health of patients. [22] All in all, what must be done is the reorientation of medical education as well as medical practice for health for all as recommended by the WHO [23].

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