



Imperative training need of health professionals for improved smoking cessation services

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Abstract: Mauritius is one of the twelve sub-Saharan countries which participated in the African Tobacco Situation Analysis initiative, whereby the need to survey health professionals on their knowledge, attitudes, beliefs and practices with respect to tobacco use and smoking cessation was identified. A national cross-sectional survey of Mauritian health professionals was carried out, with stratified random sampling of health professionals. Data was collected by means of a self-administered instrument, which was an adapted version of the Global Health Professionals Students Survey questionnaire. Ethical clearance was obtained from the relevant Research Ethics Committee. This survey reveals that even though the majority of health professionals were taught about the dangers of smoking, only a minority had ever received any training in smoking cessation techniques during their professional studies. Findings of this survey in Mauritius constitute new knowledge, for the country, which needs to be shared on a global aspect. This is because Mauritian doctors undergo professional training in various countries of the world. To improve the status of human society, there is need for all health professions education institutions to include formal training within the curriculum and to provide continuing professional development training session in smoking cessation approaches and techniques.

Keywords: Health professionals; smoking cessation; training needs; Mauritius.

I. Introduction

Mauritius is one of the twelve sub-Saharan countries participating in the African Tobacco Situation Analysis initiative, supported by the International Development and Research Centre and the Bill and Melinda Gates Foundation. The need to survey health professionals on their knowledge, attitudes, beliefs and practices with respect to tobacco use and smoking cessation was identified as Mauritius was implementing comprehensive tobacco control policies including smoking cessation services. In fact, Mauritius ratified in May 2004 the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC), which is the first international public health treaty on tobacco control [1]. In conformity with the FCTC, Mauritius passed new regulations on tobacco known as the Public Health (Restrictions on Tobacco Products) Regulations 2008 in November 2008 and these regulations have been effective as from 1 March 2009 [2]. Moreover, "The Role of Health Professionals in Tobacco Control" was the theme of the World Health Organization (WHO) World No Tobacco Day in 2005 [3]. Health professionals are not only responsible for primary health care and education for tobacco related problems, but are also role models in the community [3]. The preamble of the WHO Framework Convention on Tobacco Control (WHO-FCTC) emphasizes the role of health professional bodies in efforts to include tobacco control in the public health agenda and contribute actively to the reduction of tobacco consumption [1]. This survey was therefore designed with three objectives: 1) To determine tobacco use prevalence among health professionals working in the public health sector of Mauritius, 2) To explore their knowledge, attitudes, beliefs and practices with respect to tobacco use and smoking cessation and 3) To assess their skills and training needs in smoking cessation techniques. This survey will thus inform policy-makers on the need of health professionals to be empowered to help smokers to quit smoking successfully.

II. Methodology

This is a national cross-sectional survey of Mauritian health professionals working in the public service. The study population consists of health professionals in the fields of medicine, nursing/midwifery and dentistry, working in the public sector of Mauritius. Stratified random sampling was used; the strata consisted of various categories of health professionals, namely Medical Officers (doctors), Specialist Doctors, Dental Officers (dentists) and Qualified Nurses/Midwives. Considering a margin of error of 5%, at a confidence level of 95%, a minimum sample size of 370 was targeted. In case of refusal to participate in the survey, non-respondents were

substituted by the next selected health professional within the same category and hospital. Ethical clearance and authorization from the relevant ethics committee and health authorities were obtained prior to start of the survey. The self-administered questionnaire was sent to each of the selected health professionals together with a *Covering Letter*, a *Participation Information Sheet* and an *Informed Consent Form* to be signed prior to start of questionnaire. Anonymity has been respected by allocating a code number to each questionnaire. The list of identification numbers is known only by the investigators and is kept in a secure place. Confidentiality of data has been assured throughout the research process. Data was collected by means of an adapted version of the self-administered Global Health Professional Students Survey (GHPSS) questionnaire, which required about 15 minutes for completion. Two experienced data collectors were recruited for delivery and collection of questionnaires for obtaining a better response and understanding of the objectives of the study. Data entry and statistical analysis were done using SPSS 17.0.

III. Results

A. Characteristics of the sample population

The sample population constitutes of 17.5% of doctors, 7.8% of specialist doctors, 1.3% of dentists and 73.4% of nurses/midwives. The overall percentage of women and men among the health professionals surveyed was 53.5% and 46.5% respectively. About 10 respondents, mainly doctors and specialist doctors, refused to participate and were immediately replaced by the next health professional within the same category and hospital.

B. Tobacco use prevalence and quitting attempts

The overall prevalence of tobacco use among health professionals is 11.9%. 6.5% of health professionals are ex-smokers while 81.5% are non-smokers. The prevalence of tobacco use among health professionals is 23.8% among men and 1.5% among women. The highest prevalence is noted among male doctors (32.6%) followed by male nurses/midwives (24.7%) and male specialist doctors (8.0%). There are no smokers among the five dentists who were surveyed.

75.0% of smokers report having less than 21 years when they tried the first cigarette. 55.6% of smokers report that they are daily smokers. Among the health professionals who smoke, 77.8% report having smoked cigarettes on work premises during the past six months. 84.4% of health professionals who smoke report that they actually want to stop smoking and 83.7% had tried to stop smoking cigarettes during the past year. A little less than 10% of health professionals who smoke have ever received help or advice to quit smoking cigarettes.

C. Attitudes and beliefs of health professionals

Table 1 provides information on the attitudes and beliefs of participants by category of professionals.

Table 1: Attitudes/Beliefs of health professionals about smoking cessation

Category of health professional Question	Percentage answering "Yes"				
	All health professionals (n = 370)	Medical Officers (n = 65)	Specialist Doctors (n = 29)	Dental Officers (n = 5)	Nurses / Midwives (n = 271)
Are health professionals who smoke less likely to advise patients to stop smoking?	75.8	73.8	75.9	80.0	76.2
Should health professionals get specific training on smoking cessation techniques?	96.0	95.3	8.1	80.0	96.0
Do health professionals serve as "role models" for their patients and the public?	77.8	77.8	77.8	50.0	78.3
Should health professionals routinely advise their patients who smoke to quit smoking?	98.6	100	96.3	100.0	98.5

Do health professionals have a role in giving advice about smoking cessation to patients?	98.9	98.4	100	100.0	98.9
Are a patient's chances of quitting smoking increased if a health professional advises him or her to quit?	91.2	89.1	96.3	80.0	91.4
Do you think you have the knowledge and skills to help smokers to quit in your practice?	34.9	53.2	44.4	50.0	29.5
Do you think tobacco cessation techniques are effective?	77.9	74.2	88.5	100.0	77.3

D. Knowledge, practice and training needs of health professionals

Table 2 provides details on the knowledge and training needs of participants by category of health professionals. More than 90% of health professionals, irrespective of their categories, think they need training in smoking cessation techniques and are willing to receive such training.

Table 2: Knowledge and training needs of health professionals

Question	Percentage answering "Yes"				
	All health professionals (n = 370)	Medical Officers (n = 65)	Specialist Doctors (n = 29)	Dental Officers (n = 5)	Nurses / Midwives (n = 271)
Learned about the dangers of smoking during professional training	87.4	98.4	96.3	100.0	83.6
Learned the importance of recording tobacco use history as part of patients' general medical history	55.7	96.9	96.3	100.0	41.1
Received formal training on smoking cessation during professional training	9.6	20.6	14.8	0.0	6.7
Received training in smoking cessation techniques during period of service	8.2	20.6	7.4	0.0	5.6
Think they need training in smoking cessation techniques	95.1	93.8	92.6	100.0	95.6
Are willing to receive formal training in smoking cessation techniques	94.3	93.7	86.2	100.0	95.2
Do you routinely advise your patients about the dangers of smoking?	63.4	76.9	66.7	80*	59.6

Considering the current practice of health professionals with respect to smoking cessation, 58.5% of health professionals report they provide individual counseling, 35.3% provide brochures and pamphlets and 10.3% prescribed medication or Nicotine Replacement Therapy (multiple answers were possible).

IV. Discussion

A. Tobacco use and smoking cessation

The findings of the GHPSS indicated that current cigarette smoking among health-profession students was higher than 20% in seven of the 10 countries surveyed [3]. This research work shows that in Mauritius, 12% of health professionals currently smoke, the prevalence being 23.8% among males and 1.5% among females. The male predominance of smokers is in line with data from GHPSS which showed a general trend of more male than female students as current smokers [3]. The current prevalence of tobacco use among health professionals is considered high in Mauritius and needs to be addressed by providing them with the necessary skills and support to quit smoking successfully. Even the lowest prevalence of current smokers among health professionals is a matter of concern. This is because for health professionals who smoke the ability to deliver effective anti-tobacco counselling to patients decreases [4]. Thus, health professions education institutions needs to take the lead to request students to embrace the WHO code of practice on tobacco control, whereby health professionals are expected to be role models by not using tobacco and by promoting a tobacco-free culture [5]. Moreover, the WHO MPOWER package which constitutes of the six most important and effective policies for tobacco control includes *offering help to smokers to quit* [5]. In line with this policy, health professions education institutions should encourage students who smoke to quit smoking by providing them with the necessary support and environment.

B. Role of health professionals in tobacco control

WHO is encouraging health professionals to provide patients with information about the health consequences of smoking, help their smoking patients to quit and act as role models who promote tobacco free lifestyles [6]. The perception that health professionals serve as “role models” for their patients and the public is being confirmed in this Mauritian study by 77.8% of doctors and 75% of dentists. Referring to the GHPSS, the majority of medical students agreed that health professionals act as role models: 97.1% Indonesian, 87.3% Bangladeshi, and 80.3% Nepalese students; Similar attitudes and beliefs prevail among dental students: 97.5% Indonesian and 97.2% Indian and 93.3% Bangladeshi students [7]. The findings of the GHPSS indicated that 87% - 99% of the students surveyed believed they should have a role in counseling patients to quit smoking [5]. In Mauritius, 99% of the health professionals surveyed believe they have a significant role in giving advice or information about smoking cessation to patients; 99% of health professionals perceive that they should routinely advise their patients who smoke to quit smoking. The WHO Health Professional Code of Practice on Tobacco Control draws the attention of health professionals about the need give advice on how to quit smoking and ensure appropriate follow-up of their cessation goals [5].

C. Training needs of health professionals

This survey reveals that less than 10% of them had received any training in smoking cessation approaches during their professional studies and less than 10% had received any training on smoking cessation techniques during their period of service. There is thus an urgent need to address the training of health professionals, even more because Lancaster et al. (2000) demonstrated that healthcare professionals who had received training were more likely to perform tasks of smoking cessation than untrained controls [8]. It is observed that the percentage of medical students who have received formal training in cessation counseling spans from 5.2% in Argentina to 32.6% in Republic of Serbia, Belgrade [9]. Investigation by GHPSS research coordinators of curricula in the four target disciplines of the GHPSS revealed that, in 25 of the 31 countries surveyed, there was no formal training at any time [10]. The current survey of health professionals in Mauritius confirms that many health professionals who have been trained in Mauritius and other countries in the world do not have the necessary knowledge and skills with respect to smoking cessation techniques.

In line with recommendations from the GHPSS, schools for health professionals and health organizations should work together to incorporate training in smoking cessation for all health professions students [7]. Health professions curriculum should include in-depth, updated and effective training sessions to empower health professionals to take an active role in providing smoking cessation services. They should also be sensitized on the importance of prevention of tobacco uptake and on the importance of history-taking. It is noted with concern that only 55.7% of health professionals in this study learnt about the importance of taking history on tobacco consumption. Health professionals should ask all their patients about smoking status, as expected from the WHO Health Professional Code of Practice on Tobacco Control which reminds health professionals about the need to routinely ask patients and clients about tobacco consumption and exposure to tobacco smoke [3]. Moreover, according to this code of practice, health professional organizations are expected to influence health institutions and educational centers to include tobacco control in their health professionals' curricula, through continued education and other training programs [3].

D. Health professionals practice towards smoking cessation

One of the strategies to reduce the number of smoking related deaths is to encourage the involvement of health professionals in tobacco use prevention and smoking cessation counseling [5]. Counseling by itself or especially in conjunction with medication can greatly increase a person's success in quitting. In particular, quit lines have been found to be effective and can reach a large number of people [11]. Moreover, there is convincing evidence that smoking cessation interventions delivered in primary care settings increase the proportion of smokers who successfully quit. Longer counseling is more effective than brief counseling, but even brief counseling (< 3 minutes) can increase quit rates [12]. Therefore, health professions education institutions have to provide formal training on smoking cessation techniques so as to empower health professions students with the necessary knowledge and skills. In parallel, these institutions should endeavor in the context of continuing medical education to address training of health professionals in smoking cessation approaches for medical update.

V. Conclusion

This study revealed that health professionals in Mauritius need to be trained for improved practice with respect to smoking cessation approaches. Findings from this Mauritian survey present implications which need to be considered by Mauritius and other countries in the world. This is because Mauritian doctors undergo professional training in various countries of the world. A lack of training of health professionals in smoking cessation interventions is the main barrier to implementation of effective smoking cessation services for patients. Therefore, health professions education institutions have to include in their curriculum formal training on smoking cessation techniques so as to empower health professions students with the necessary knowledge and skills. Moreover, the organization of workshops by experts in the field of smoking cessation is recommended in the context of continuing professional development. These measures will develop a critical mass of empowered health professionals who will work towards the provision of improved smoking cessation services, leading to a decrease in the prevalence of smokers in the world. In turn, a reduction in tobacco-related morbidity and mortality will be in the interest of the human society.

References

1. World Health Organization. "WHO Framework Convention on Tobacco Control," Geneva, Switzerland: World Health Organization; 2003. Available at <http://www.who.int/tobacco/framework>.
2. Ministry of Health and Quality of Life, Republic of Mauritius. "The Public Health Act 2008," Available at: <http://www.gov.mu/portal/gov/moh/file/tobacco1.pdf>
3. World Health Organization (2005), "WHO urges health professionals to engage in tobacco control," <http://www.who.int/mediacentre/news/releases/2005/pr22/en/index.html>
4. B.K. Lenz 2008. "Beliefs, knowledge, and self-efficacy of nursing students regarding tobacco cessation," American Journal of Preventive Medicine, 35, pp. 494-500.
5. World Health Organization (Regional Office for South-East Asia Region) (2006). "Report on Global Health Professional Survey," Myanmar, http://www.searo.who.int/LinkFiles/GHPS_2006Myanmar.pdf
6. GTSS Collaboration Group, 2006. "A cross-country comparison of exposure to second-hand smoke among youth," Tobacco Control, 15 (Suppl. 11), pp. 4-9.
7. World Health Organization (2010), "WHO-CDC Global health professional survey," Tobacco free initiative.
8. T. Lancaster, L. Stead, C. Silagy, et al. "Effectiveness of interventions to help people stop smoking: findings from the Cochrane Library," BMJ 2000, 321, pp. 355- 358.
9. Centers for Disease Control and Prevention. "Tobacco use and cessation counselling - Global health professionals survey pilot study, 10 countries, 2005," MMWR Weekly, May 27, 2005/ 54 (20); 505-509. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5420a2.htm>
10. C.W. Warren, N.R. Jones, J. Chauvin, A. Peruga: GTSS Collaborative Group. "Tobacco use and cessation counselling: cross-country data from the Global Health Professions Student Survey, 2005-2007," Tobacco Control, 2008 Aug, 17(4), pp.238-47.
11. M.C. Fiore, C.R. Jaen, T.B. Baker, W.C. Bailey, N.L. Benowitz, S.J. Curry et al. "Treating tobacco use and dependence: 2008 Update. Clinical Practice Guideline," Rockville, MD: U.S. Department of Health and Human Services, Public Health Service; 2008. Accessed at <http://www.surgeongeneral.gov/tobacco/> on 24 September 2008.
12. U.S. Preventive Services Task Force. "Preventing Tobacco Use and Related Diseases in Adults and Pregnant Women," USPSTF Reaffirmation Recommendation Statement, 21 April 2009, Volume 150, Issue 8, pp. I-46

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