### The prevalent of tobacco use Among health workers in Juba Teaching Hospital

## Akway M. Cham, Gai Mabil De Awar, Madut Mayen Buk, , Chol Deng John, David Alew Ngor, Patrick Odong, Albert Juma Samuel

### Akway M. Cham, Assistant Professor/Head of Department

Department of Community Medicine, College of Medicine University of Juba

Correspondence: Akway M. Cham: acham41@gmail.com

### ABSTRACT

Smoking continues to be a public health threat despite the progress that has been made. Health care staff should lead the fight in term of educating public about health hazard of tobacco and advising people to quit smoking. The objective of this study is to understand the epidemiology of smoking among Juba Teaching Hospital health workers in Juba city South Sudan

**Methodology**: A cross-sectional study using semi- structured questionnaires administered to a selected sample of respondents at Juba Teaching Hospital (JTH). Participants were asked about demographics, activities, reason for smoking and attitude toward smoking.

**Results**: From the 171 respondents (with response rate of 85.5%) smoking prevalence was 23.39%. The majority of respondents were male 60% while the remaining percentages were female (40%). The prevalence was highest in males compared to females. Age specific percentage of smoking was highest in the age group 26–35 years. Motive for smoking include: Concentration, Peer pressure, relaxation and stress release were the major factors mentioned by participants.

**Conclusions**: Smoking prevalence is high among health care workers in JTH. The majority of HCWs who smoke were aware of the negative impact of tobacco use and yet continue to smoke. This study highlights the need for different approach to control and prevent tobacco use among health workers.

### Introduction

The World Health Organization (WHO) stated that Tobacco use continues to be the leading global cause of preventable death killing nearly 6 million people (1). Most of these deaths occur in low and middle-income countries, including Republic of South Sudan. Tobacco use will cause around 10 million deaths each year by 2020 with approximately 650 million over all if such trends continue (2). Smoking had also become a key problem in medical profession as physicians play a leading role in tobacco prevention in the community, and a key role in development of overall public health policy. Medical professionals are on the first row of battle field in primary health care and the research has shown that medical intervention can be effective in helping patients to quit smoking (3). In that regard, physicians are widely viewed as exemplars by the patients, their colleagues and the community at large. The physicians' offices and hospital should be a smoke-free environment so that they will be in better position to persuade the smoker to quite if they themselves don't smoke. Apart from its significance impact on patients' health, tobacco use also presents an important occupational health issue in medical profession. According to the International Labor Office (ILO), the promotion of smoke free environment forms a key part of any health and safe work place (4). Interestingly some of the epidemiological research demonstrating adverse health effects of tobacco smoking was actually conducted among Cohort of British Physician (4). Although the dangers of smoking are now well-known throughout the medical profession, physicians have not always set a good example for patients.

The prevalence of tobacco use among health care workers at Juba teaching Hospital in particular and south Sudan at large is not known. A recent study in Bahrain showed that 26.6% of male physicians and 3% of female physicians were current smokers (5). In another study conducted in Lao, among medical students 5.07% were smokers (5). It is from such background that this study was conducted for the first time in this hospital.



### **RESEARCH METHODOLOGY**

#### Study method and design

The study targeted health care workers in Juba teaching Hospital Jubek State. A cross-sectional study using semi- structured questionnaires administered to a selected sample of respondents at Juba Teaching Hospital (JTH). The questionnaires asked information on demographics, activities, reason for smoking, attitude toward smoking, and professional category.

### **Study population and sample size**

The study populations were health care workers in Juba Teaching hospital which is located in the heart of capital Juba, Republic of South Sudan. The hospital has more than 10 departments: Surgery, Medicine, Obstetrics and Gynecology, Pediatrics, Ophthalmology, mortuary, laboratory, physiotherapy, Dental and administration with 14 wards. A sample of 171 HCWs in different departments regardless of their smoking status was randomly selected.

Consent from the respondent was sought and they were assured of the confidentiality of the data collected. Then data were analyzed using Microsoft excel.

## RESULTS

Out of 171 health care workers responded 131 (76.6%) were non-smokers and 40 (23.4%) were smokers. Thus the smoking prevalent is 23.4% among health workers.

Table 1. Smo	king prevalent	t according to	Department
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Department	Current	Ex-	Total	Total number	Smoking %
	smoker	smoker	smokers	of workers	
Internal Medicine	5	0	5	20	25%
Surgery	5	4	9	31	29%
Dental	2	0	2	14	14.2%
Physiotherapy	2	2	4	10	40%
Lab and x-ray	2	0	2	7	28.6%
Administration	0	2	2	9	22.2%
Mortuary	4	1	5	8	62.5%
Ophthalmology	3	0	3	20	15%
Obs &gynecology	2	2	4	27	14.8%
Pediatrics	3	1	4	25	16%
Total	28	12	40	171	100%

The mortuary department had the highest prevalence of 62.5% followed by physiotherapy 40%, surgery 29%, Lab & X-ray 28.6% and Internal medicine 25%. The least was in dental section (14.2%) followed by obstetrics &gynecology and ophthalmology. Former smokers were higher in surgery department compared to other department.

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## Table 2. Smoking percentage by Age group

Age group	Frequency	Percentage
18-24	0	0%
25-35	16	40%
36-50	14	35%
Above 51	10	25%
Total	40	100%

The percentage was highest among those of 25-35 age group followed by 36-50.the least prevalence were recorded in those who above the age of 51.

Table 3. Smoking percentage according to marital status

Mari	tal status	Frequency	Percentage
Singl	e	11	27.5%
Marr	ied	27	67.5%
Wide	ower	2	5%
Divo	rced	0	0%
Total		40	100%

The percentage was highest among married category (67.5%) followed by single. With the least among widowers (5%)

 Table 4. Smoking percentage According to Educational level

Educational level	Frequency	Percentage
Less than	6	15%
Secondary school		
Secondary	5	12.5%
College	13	32.5%
University	16	40%
Total	40	100%

In the above table, the highest prevalence was among university graduates 40.0% followed by college 32.5% and the least was among secondary 12% and less than secondary was at 15%.

## Table 5. The percentage of tobacco use according to sex

Gender	Frequency	Percentage
Male	37	92%
Female	3	8%
Total	40	100%

Most of the respondents who smoked were males (92.5%), females had very low prevalence

(7.5%) compared to males

Figure 1.



Figure 1. Presents the percentage of smokers by gender the male smokers were 37 (92.5%) with female smokers representing three (7.5%).

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This figure shows how tobacco was used by the HCWs. Most of health workers were smoking cigar (90%) respondents ,while 8% respondent were smoking shisha (water pipe) and only 2% smoker were using sublingual snuff

## Figure 4.5 Factors for Smoking



This figure 4.3 shows the reasons why the health care workers smoke. During data analysis we found out that the leading motive was concentration and focus which was observed in the mortuary department the second leading motive was that smokers were raised in environment were smoking habit was common so influence for smoking was high the rest reasons were relaxation and physical and mental stress during work. The least motive was pleasure.

### Discussion

The health care workers play important role in enhancing tobacco control. They are responsible for provision of essential information about negative impact of tobacco use to the public in general and their patients in particular and help them quit this habit. Therefore it is important to know the smoking prevalence among this important group. Our study found that the prevalence of smokers among health workers is 23.39% which is high compared to other studies conducted in Switzerland 12.6%, Melbourne Australia (7%), and Nigeria (3%) (2 3,7). However the prevalent in this finding is lower compared to study conducted in China 45%, Kuwait 38%, and

Saudi Arabia 26.3% (1, 2). This might be attributed to cultural practices and religious beliefs where smoking is accepted as norm. This study also indicated that the smoking percentage was highest among those of 25-35 age group followed by 36-50. This relates to the fact that most employees are under the age of 40 years. This is relevant because life expectancy in South Sudan is about 54.6 years (7). The majority of smokers were married (67.5%). By education the highest smoking percentage was among university graduates 40.0% followed by college 32.5%. This implies the importance of education and the skill require for the job. Most of the respondents who smoked were males 92.5%, and females only represent (7.5%). This simply means that women are still behind in term of education and employment opportunities. The literacy rate for women in South Sudan is 16% (8)

We inquired to find out the reasons for smoking. We found that the main reasons or motives for smoking were: concentration (27%), peer pressure (23%), relaxation (22%), stress relieve (18%) and pleasure (10%). As for the ex-smokers, the reason for quitting was health problem. For current smokers a good number of them were interested in quitting smoking if working conditions were improved. This only applies to those who smoke due to stress in the work environment. Most of respondent were smoking cigarettes compared to other forms of tobacco use (i.e. Shisha (water pipe) or sublingual snuff).

### CONCLUSION

There is high prevalence of tobacco use amongst health care workers in JTH. Most of the smokers were males and highly educated. Motives for smoking include: concentration, peer pressure, relaxation, and poor working conditions in the hospital. The majority of HCWs who smoke were aware of danger and negative impact of tobacco use and yet they continue to smoke. Therefore health agencies should maximized public awareness campaigns particularly to the health care workers on the danger of tobacco use since they are exemplars to the general public.

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