

Assessing smoking cessation services and pharmacotherapy in Namibia; findings and implications for future policy initiatives

Ester Hango¹, Kristofina Amakali², Anna Shilunga³, Dan Kibuule¹, Brian Godman^{4,5,6*}, Francis Kalemeera¹

¹Department of Pharmacy Practice and Policy, School of Pharmacy, Faculty of Health Sciences, University of Namibia, Namibia. Emails: ehango@unam.na; dkibuule@unam.na; fkalemeera@unam.na

²School of Nursing, Faculty of Health Sciences, University of Namibia, Namibia. Email: kamakali@unam.na

³School of Public Health, Faculty of Health Sciences, University of Namibia, Email: ashilunga@unam.na

⁴Strathclyde Institute of Pharmacy and Biomedical Science, Strathclyde University, Glasgow, UK. Email: Brian.Godman@strath.ac.uk

⁵Division of Public Health Pharmacy and Management, School of Pharmacy, Sefako Makgatho Health Sciences University, Ga-Rankuwa, Pretoria, South Africa

⁶School of Pharmaceutical Sciences, Universiti Sains Malaysia, Penang, Malaysia

*Author for correspondence: Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde, Glasgow G4 0RE, United Kingdom. Email: brian.godman@strath.ac.uk. Telephone: 0141 548 3825. Fax: 0141 552 2562

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ABSTRACT

Background: Tobacco smoking is a considerable barrier to reducing morbidity and mortality associated with non-communicable diseases (NCDs). However, few studies in sub-Saharan Africa have explored access to smoking cessation programs including smoking cessation pharmacotherapy (SCP). This needs to be addressed given the growing burden of NCDs across sub-Saharan Africa including Namibia. **Methods:** Multi-facility cross sectional survey among physicians in both public and private sectors in Namibia. **Results:** Of the 106 physicians recruited, 69% practiced in public health facilities and 92% were non-smokers. 67% offer smoking cessation services, with 64% of these offering SCP. This was mainly nicotine replacement therapy (53%) and bupropion SR (41%). Overall, all physicians had a low knowledge score of SCP (<50%). The mean knowledge score though was 77% lower among physicians in public versus private sectors (OR=0.23, 95%CI: 0.14-0.35, p<0.001). Principal barriers to prescribing SCP were inadequate knowledge and/or lack of smoking cessation guidelines. This is not surprising with SCP medicines not currently listed within the public medicine list in Namibia. **Conclusion:** Despite good attitudes towards SCP, there are concerns with physicians' knowledge and practices especially in the public sector. There is an urgent need to address this and integrate services to reduce NCDs in Namibia.

KEY WORDS: Smoking Cessation; Pharmacotherapy; Physicians, Namibia, Guidelines

1. INTRODUCTION

Tobacco smoking is well recognised as an independent risk factor for premature death [1]. In 2017, tobacco smoking was linked to more than 8 million deaths globally, with the vast majority of deaths in low- and middle-income countries (LMICs) [1-3]. Whilst the African region currently has the lowest number of tobacco users among the different World Health Organization (WHO) regions, the number of users is growing [1]. Having said this, prevalence rates for tobacco smokers are falling in this WHO Region, estimated at a relative reduction of 24.8% between 2010 and 2025 [1].

Falling prevalence rates are welcomed as tobacco smoking associated morbidity and mortality is a public health concern in sub-Saharan Africa. This is because the region already has a high prevalence of non-communicable diseases (NCDs) particularly cardiovascular diseases (CVD), with up to three quarters of all deaths in Africa likely to be due to CVD in the future exacerbated by smoking [4-7]. Reduced access to both preventative and remedial health care among many patients in sub-Saharan Africa, particularly the poor, helps partly explain the high burden of CVD in Africa [8-10]. Lack of education can also adversely impact on patients' understanding of a healthy lifestyle and the need for compliance with any medicines prescribed [11]. Alongside this, smoking is associated with higher mortality in patients with COVID-19 [12-14].

The prevalence of tobacco smoking is currently higher in Namibia than among other African countries at 22% of the population in 2010, equating to 33% among men and 11% among women [2]. This is expected to rise to

27% of the population by 2025 if not addressed [1], further exacerbating morbidity and mortality related to NCDs in Namibia [15]. Whilst, the smoking rate among adults in Namibia declined from 17.7% in 2016 to 14% in 2019, this remains a substantial public health concern for a population of 2.3 million people, with the highest burden of CVD in southern Africa.

There are ongoing programmes across countries to reduce tobacco smoking [3,16]. These include the MPOWER approach of the WHO (M: monitor use; P: protect people; O: offer help; W: warn about the dangers of tobacco; E: enforce bans on advertising and promotion; R: raise taxes) [16]. In most African countries, integration of tobacco smoking cessation programmes into other public health policies has received little attention as smoking related morbidities were perceived to be low with a greater focus on infectious diseases and NCDs such as hypertension and type 2 diabetes [4,16-18]. This is starting to be addressed with comprehensive government action plans for NCDs in Namibia and wider [6,18].

However to date, there has been variable funding of smoking cessation programmes, including nicotine replacement therapy (NRT), among African countries, and only half of African countries have either small or no warnings at all on cigarette packs. An appreciable number of African countries also currently have weak bans on tobacco advertising and promotion [16]. There is also currently considerable variation in taxes on cigarettes across Africa [16]. However, the impact of instigating such activities on subsequent smoking rates is variable, although enhanced if activities are combined [3,19-21].

Smoking cessation pharmacotherapy involves the use of medicines that smokers can take to assist quitting smoking [22]. The medicines licenced for use for smoking cessation in Namibia include NRT, bupropion and varenicline. Currently NRT is available in Namibia as an “over-the counter” medication whilst bupropion and varenicline are prescription only medicines [23]. This is important since previous research undertaken in Namibia has shown that pharmacists in Namibia do adhere to regulations not to dispense medicines without a prescription unlike a number of other African countries [24-27].

We are aware that direct physician contact, coupled with pharmacotherapy, can enhance smoking cessation, with additional education potentially addressing negative concerns with available pharmacotherapy, although concerns if physicians are themselves smokers [28,29]. Having said this, smoking cessation medicines are currently not listed in the Namibian essential medicine list (Nemlist) that guide the availability and use of medicines in public health facilities in Namibia [30,31]. Consequently, smoking cessation services are not currently systematically offered to pertinent patients, and usually only on an *ad hoc* basis depending on where patients present, i.e., public or private clinics. In addition, at the doctor’s discretion, particularly in public healthcare facilities, depending on what physicians perceive as appropriate management for their patients.

We believe there is currently limited access and implementation of smoking cessation treatments in Namibia similar to other African countries [32]. In view of this, and given the rising rates of smoking and NCDs in Namibia, we believe there is an urgent need to instigate national smoking cessation services building on national initiatives in Namibia to reduce morbidity and mortality associated with NCDs [6].

The first step is to assess access to, and practice of, smoking cessation pharmacotherapy (SCP) among physicians in both the private and public health sector in Namibia, which was the objective of this paper. The findings can subsequently be used to suggest future policies if pertinent in Namibia. We also believe our findings will be of interest to other sub-Saharan African countries seeking to reduce their smoking rates given rising rates of cardiovascular disease across Africa.

2. MATERIALS AND METHODS

2.1 Design, population and sample

This multi-facility cross-sectional survey sought to assess access to, and practice of, SCP among physicians in both the private and public health sectors in Windhoek, the capital city of Namibia. Windhoek was purposively chosen for this initial study because of a high number of practicing physicians compared to other regions in Namibia coupled with a high prevalence of smokers estimated at 17% of the population.

Currently, in Namibia over 80% of patients access healthcare services at public health facilities, and 16% at private healthcare through medical insurance. In both sectors, there are co-payments, which are significantly higher in the private versus public sector.

A list of practicing physicians was obtained from the register at the health regional directorate office in Windhoek and/or respective health facilities, and subsequently stratified by public and private sectors. The sample size was determined for a one sample proportion using Cochran's method using Epi Info 7 StatCalc®, with the confidence interval and statistical significance set at 95% and 0.05 respectively.

A systematic sampling method was used to draw the sample of physicians from the lists to attain the target sample size of 183. A ratio of 3:1 for physicians was used to stratify the physicians by the sector in which they practice, i.e. public versus the private sector (122 versus 61). The study, only included physicians working in health facilities (clinics, health centres or hospitals) as this was seen as important to guide future strategies.

2.2 Questionnaire design, validation and collection

An English version of a semi-structured questionnaire was used to collect data on the physicians' practice of smoking cessation pharmacotherapy (SCP). First, the questionnaire was piloted among 10 prescribers in the Oshana region, and then face validated by a specialist physician providing smoking cessation services and standardized prior to data collection. Secondly, the internal reliability of the 12-knowledge items was determined using the Cronbach alpha test, which showed an internal consistence of 0.785. Lastly, dimension reduction of the 12-knowledge items was determined using factor analysis, and showed construct validity with a KMOMSA of 0.791, and Bartlett's score of $p < 0.00$, respectively, and with four distinct constructs.

The data collected included; physician's demographics, practices and smoking cessation services, knowledge towards SCP - particularly treatment options, dosage schedule and adverse effects (Supplement A). Data were collected by five trained fieldworkers over a four-month period.

2.3 Data analysis

Quantitative data were entered in Epi data v3.1 for management and subsequently exported to SPSS statistics v23, for statistical analysis. The access and practice of SCP were analysed using descriptive statistics. The knowledge score on SCP was determined per prescriber as a percentage score of the 12-question knowledge items. A correct answer to a knowledge question item was awarded 1 point, and 0 points for an incorrect answer. This was summed and a total score was determined for the 12-items, and was expressed as a percentage. In this study, a knowledge score of $\geq 50\%$ was considered satisfactory given the current absence of structured pre-service and in-service smoking cessation training programmes for healthcare professionals in Namibia.

A five-item Likert scale was used to determine the physician's attitude towards SCP services, and, as mentioned, a scores $\geq 50\%$ were judged as satisfactory. The drivers of access to SCP were determined by bivariate analysis using the Chi-square test or crude binary logistics at a level of significance of p -values of 0.05 for a 95%CI.

2.4 Ethics

The study was approved by the research and ethics committees of the University of Namibia (ref: SOM/89/2016) and the MoHSS (ref: 17/3/3). All participants gave written informed consent prior to participation in the study. All the questionnaires were kept confidential and securely stored by the researchers throughout the period of data collection and analysis.

3. RESULTS

3.1 Characteristics of the Physicians

A total 115 physicians were recruited, and 92.2% ($n=106/115$) completed and returned the questionnaires. Of the 106 respondents, the majority were general practitioners (61%), practicing at public facilities (69%), and non-smokers (92%) (Table 1). Overall, 51% ($n=54$) physicians had work experience of less than 5 years. This was greater in the public sector constituting 67% ($n=49/73$) of public-sector physicians vs. 6% ($n=2/33$) among physicians working in the private sector. Most physicians (67%) offer smoking cessation services to their patients.

There was a significantly higher number of male and female ($p=0.0337$), non-smoking ($p=0.048$), and junior or less experienced physicians ($p < 0.001$) in the public compared to private sector (Table 1). However, there was no significant association between the practice setting and/or physician's age with the provision of smoking cessation services with the type of practice setting, i.e., private versus public ($p > 0.05$).

Table 1: Characteristics of physicians and practice setting

Demographics	Frequency (%)	Practice setting		χ^2	df	p-value
		Public	Private			
Practice setting		73 (69%)	33(31%)			
Gender						
Male	51(48)	33 (65%)	18(35%)	0.79	1	0.0337
Female	55(52)	40 (73%)	15(27%)			
Designation						
Intern doctors	26 (25)	26(100%)	ND	16.8	2	0.000*
General practitioner	65 (61)	40 (62%)	25(38%)			
Specialist physician	15 (14)	7 (47%)	8 (53%)			
Smoking status						
Active smoker	1 (0.9%)	1(100%)	ND	6.05	2	0.048*
Ex-smoker	7 (7%)	2 (29%)	5 (71%)			
Non smoker	98(92%)	70 (71%)	28(29%)			
Provide Smoking cessation services						
Yes				3.02	1	0.082
No	71 (67%) 35 (33%)	45 (63%) 28(80%)	26(37%) 7 (20%)			

NB: ND= No Data (i.e. a value of zero)

3.2 Access to smoking cessation services and pharmacotherapy

Although, 85% of the physicians routinely take patient's smoking history during pertinent consultations, only 67% (n=71/106) currently offer smoking cessation services at their facilities (Table 1). This includes assessing patient's willingness to quit smoking (60%, n=43/71) and prescribing of SCP (62%, n=44/71). Physicians in private sector facilities were more likely to assess their patient's willingness to quit smoking or prescribe SCP ($p<0.05$). NRT (53%), antidepressants (bupropion) (41%) and sympathomimetics (varenicline) (15%) were the most prescribed classes of SCP when pharmacotherapy was offered.

However, a limited number of physicians referred smokers to smoking cessation experts (31%, n=33/106), or recommend clients to use OTC medications such as nicotine replacement gum (27%, n=29/106) to aid smoking cessation. Alongside this, the scope of smoking cessation services did not significantly differ between general practitioners and specialist physicians. Physicians in private facilities were also more likely to arrange follow-up visits and refer smokers to more specialized units; however, this difference was not statistically significant (Table 2).

Table 2: Comparison of smoking cessation services between private and public sector (n=71)

	Private (N=26)	Public (N=45)	p-value
Ask about smoking status	24 (92%)	39 (87%)	0.621
Advise patients to stop smoking	26 (100%)	40 (89%)	0.113
Assess patients willingness to quit	22 (85%)	23 (51%)	0.006*
Recommend over-the-counter medicines	7 (27)	2 (4%)	0.007*
Prescribe "prescription only" medicines	16 (62%)	1 (2%)	0.000*
Arrange follow-up visits with patients to address smoking	8 (31%)	6 (13%)	0.083
Refer smokers to others for appropriate cessation treatment	8 (31%)	9 (20%)	0.285

4.

3.3 Drivers of access to smoking cessation services and pharmacotherapy

3.3.1 Knowledge of physicians on smoking cessation pharmacotherapy

Overall, the mean percentage knowledge score on SCP for the 12- knowledge items was 15%. Prescribers in the public sector are 77% less likely to have knowledge on smoking cessation pharmacotherapy than those in the private sector, OR=0.23, (95%CI: 0.07, 0.77, $p=0.017$)

All physicians irrespective of their sector had a knowledge score on SCP of less than 50%, and only 25% ($n=18$) had a score of 40% or more. The scores per knowledge-item were typically low, i.e. range: 0%-32% and 6%-55% for physicians in the public and private sectors respectively (Table 3). However, the mean knowledge score on SCP was 77% lower among physicians in public versus private sector (OR=0.23, 95%CI: 0.14-0.35, $p<0.001$).

Of the 106 physicians, 88% ($n=93/106$) had a positive attitude (score $\geq 50\%$) towards the use of SCP. Encouragingly 76% of physicians with poor knowledge on SCP had a favourable attitude towards smoking cessation services. However, over 60% of the physicians did not support the use of medicines to improve cessation success rates.

Table 3: Physicians' Knowledge on smoking cessation pharmacotherapy ($n = 64$)

Knowledge question item	% Physicians knowledgeable on Smoking Cessation Pharmacotherapy		Total
	Public	Private	
1. Which patient(s) should receive pharmacotherapy for smoking cessation?	32%	30%	31%
2. What is the first-line pharmacotherapy recommended for smoking cessation?	3%	12%	6%
3. What is the recommended second-line pharmacotherapy for smoking cessation?	0%	16%	15%
4. Which pharmacotherapy should be considered with patients particularly concerned about weight gain	1%	6%	3%
5. Which pharmacotherapy should be considered with patients with a history of depression	16%	55%	28%
6. How long after the "target stop date" do you prescribe the pharmacological interventions	0%	12%	11%
7. A high dose of Nicotine Replacement Therapy (NRT) is recommended for a patient who is highly nicotine dependent.	15%	24%	15%
8. A combination of NRT therapy is recommended for a patient who is highly nicotine dependent.	11%	9%	10%
9. Nicotine patch has been demonstrated to be safe in cardiovascular patients.	12%	45%	23%
10. Combining Varenicline with NRT agents is associated with lower rates of side effects such as nausea and vomiting.	10%	15%	11%
11. Patients on Bupropion SR should begin treatment 1-2 weeks before the quit date.	14%	6%	11%
12. NRTs should be avoided in patients with a history of cardiovascular disease	11%	9%	10%
Mean knowledge on SC Pharmacotherapy	10%	20%	15%
% of knowledge items with $\geq 50\%$	0%	1 (8.3%)	0%

3.3.2 Programmatic drivers of access to smoking cessation pharmacotherapy

Most physicians recognize tobacco smoking as a priority public health concern that requires them to be competent in providing smoking cessation services. Among the physicians that currently do not offer smoking cessation services, the lack of pre-service training on SCP (30%), low demand for such services among their

patients (25%), and the unavailability of guidelines (14%), were the main drivers of limited access to SCP services.

Physicians identified three strategic areas towards improving access and competency regarding SCP. These included; policy, education, and accessibility related interventions. *Educational interventions*: Over 70% of the physicians surveyed recommended the inclusion of smoking cessation services in pre-service and in-service medical training. *Policy related interventions*: 90% of the physicians surveyed recognized a national treatment guideline as critical education tool to advance smoking cessation efforts. The incorporation of smoking cessation medicines into the Namibia Standard Treatment Guidelines (STG) and the NEMLIST, as part of the primary health care package, would enhance their prescribing. 73% of surveyed physicians stated that their use of smoking cessation medicines would improve if they were added to the NEMLIST. *Accessibility*: 88% of the physicians indicated that the availability of smoking cessation guidelines within their facilities would improve their competency and confidence in prescribing these medicines. 45% of surveyed physicians suggested it would be necessary to have separate clinics that would deal with smoking related issues. It was believed this would help with the successful implementation of smoking cessation programs to specifically focus on pertinent issues during consultations thereby helping to improve patient outcomes and reduce subsequent morbidity and mortality.

4. Discussion

We believe this is the first study to assess access and practice of SCP in Namibia, a country with a growing burden of NCDs alongside high prevalence rates of infectious diseases. We are aware that others have previously assessed tobacco use and smoking cessation practices among physicians in LMICs [28,32,33]. However, none have specifically focused on Namibia.

Encouragingly, physicians in both sectors typically asked about the smoking status of their patients where pertinent during consultations, with generally a high percentage assessing patients' willingness to quit and advising patients to quit (Table 3). This is a positive trend compared to findings in other countries [33], and is important as the success of quitting smoking is affected by the knowledge of health care practitioners, their willingness to engage with patients, and their smoking practices [28,34].

We have also seen physicians in other countries routinely documenting patients' smoking habits [35]. There were though subtle differences between physicians working in the public versus private sectors, which included recommending OTC medicines and assessing patients' willingness to quit. In addition, private sector physicians were more knowledgeable on smoking cessation medicines (p-value <0.05). This may be due to a greater vested interest among physicians working in the private sector, with similar differences seen in other countries and situations [36,37]. In addition, private physicians have better access to smoking cessation education offered by pharmaceutical companies potentially influencing their behaviour [38]. In addition, SCP is currently unavailable in the public sector impacting on co-payments which may reduce the extent to which physicians in the public sector offer and prescribe them. We cannot say this though with certainty at this stage.

However, there were considerable concerns with the lack of knowledge on SCP among physicians in both sectors (Table 2), mirroring findings in other countries [33,34,39]. This is a concern in view of the influence of physicians in enhancing the effectiveness of pharmacotherapy for smoking cessation [29]. This might be due to inadequate education in medical schools coupled with a lack of exposure to smoking cessation services when practicing [40]. This belief is endorsed by approximately 80% of the surveyed physicians advocated for the inclusion of SCP training into medical curriculums and beyond. Moreover, only two-thirds of the physicians surveyed actively provide smoking cessation services, and only 30% knew the eligibility criteria for prescribing SCP in our study. These findings are different from those in Saudi Arabia and Nigeria where the majority of the physicians were knowledgeable on tobacco and smoking cessation services; however, this may be due to the fact that our study predominantly focused on pharmacotherapy compared with broader smoking cessation services [32,41]. The production of treatment guidelines on smoking cessation guidelines could also help instigate appropriate treatments to enhance smoking cessation whilst enhancing standardization of care across all sectors, building on the positive attitude towards the provision of SCP in our study. This is important as we know there has been good adherence to evidence-based guidelines among physicians in Namibia in the past to improve the standard of care offered [42,43].

Of concern is that less than a third of physicians had been involved in the provision of smoking cessation services and the prescribing of SCP given the rise in the number of smokers and cardiovascular diseases

(CVD) in Namibia. The main barriers to the provision of such services appear to be a lack of training regarding potential interventions, a lack of exposure to potential treatment approaches during clinical practice and a lack of smoking cessation guidelines, similar to other studies [32,34]. Our findings justify the need to integrate smoking cessation education in medical schools and in-service training along with other initiatives including arranging follow-up visits during abstinence, which can be a concern [32]. The low referral rate is also a concern, and may be attributed to currently inadequate specialized smoking cessation facilities in Namibia as well as education of public sector physicians. We recommend the MoHSS to reclassify SCP as essential medicines that are accessible and fully compensated in all public and private health care facilities. We will be following this up in future research projects to enhance the opportunities for smokers to quit in Namibia.

Another area to research and address is the potential instigation of outreach pharmacists to encourage the use of, and adherence to, smoking cessation treatments due to the current long waiting times to see physicians in public healthcare clinics in Namibia. We have seen community pharmacists be proactive during the current COVID-19 pandemic in Namibia compared with a number of other African countries, and this proactivity can be harnessed to reduce smoking rates in Namibia by offering preventative measures as well as giving advice [25,44]. This is particularly important at this time given concerns with current prevalence rates for NCDs in Namibia including CVD coupled, as mentioned, with smoking increasing morbidity and mortality in patients with COVID-19 [14,45].

We are aware of a number of limitations with this study. The main one is that we only conducted the study in only one region, the capital city of Namibia, for the reasons given. However despite this, we believe our findings are robust providing good direction for the authorities in Namibia as a whole and for the future.

5. Conclusion

Overall, physicians in Namibia had inadequate knowledge regarding pharmacotherapy for smoking cessation although better knowledge was seen among those in the private sector. Consequently, there is a need to strengthen physician competencies to address rising smoking rates especially among men in Namibia. Encouragingly, the majority of surveyed physicians had an excellent attitude towards smoking cessation services to build upon. However, a significant number did not believe that pharmacotherapy is an effective smoking cessation intervention, which needs addressing.

Whilst a high proportion of physicians in Namibia currently offer smoking cessation services, only a relatively small fraction currently offer smoking cessation services including pharmacotherapy. This is a concern especially among physicians working in the public sector potentially enhanced by the current need for patients in the public sector to cover the costs of pharmacotherapy themselves. Consequently, we believe there is an urgent need for a comprehensive package on smoking cessation management that can be implemented in both sectors. This alongside enhancing physician education as well as potentially instigating pharmacy outreach clinics. Suggested activities also include adding smoking cessation medicines to the NEMLIST. These are considerations for the future to reduce the growing burden of NCDs in Namibia.

LIST OF ABBREVIATIONS AND ACRONYMS

CVD	Cardiovascular diseases
COVID-19	Coronavirus disease of 2019
LMIC	Lower Middle-Income Countries
MOHSS	Ministry of Health and Social Services
NCDS	Non Communicable Diseases
Nemlist	Namibia Essential Medicines List
NRT	Nicotine Replacement Therapy
OTC	Over The Counter
SR	Slow Release
SC	Smoking Cessation
SCP	Smoking Cessation Pharmacotherapy
STG	Standard Treatment Guideline
WHO	World Health Organisation

Conflicts of interest

The authors declare they have no conflicts of interest to declare

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Author contributions

EH, DK and FK developed the concept for the paper and the methodology including the questionnaire; EH, KA, AS and FK were involved with data collection and analysis; EH and BG undertook the literature review; EH, DK, BG and FK undertook the analysis and all authors were involved with writing the initial paper with EH, BG and FK involved in updating the paper following reviewer and editor comments.

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Appendix – Questionnaire

QUESTIONNAIRE

ASSESSMENT OF THE KNOWLEDGE, ATTITUDES AND PRACTICES OF SMOKING CESSATION PHARMACOTHERAPY AMONG MEDICAL DOCTORS IN KHOMAS REGION, NAMIBIA

Consent form

Introduction and Purpose:

Hello. My name is Ester Naikaku. I am an MPH candidate at the University of Namibia. I am hereby inviting you to participate in my research study. The purpose of this exercise is to assess the knowledge, attitudes and practice of smoking cessation pharmacotherapy among medical doctors in the Khomas region, Namibia. The findings from the study will document the current practices, highlight the gaps in practice (if any) and provide necessary background to design appropriate recommendations expected to improve quality of smoking cessation pharmacotherapy prescribing habits/patterns among prescribers.

Procedures:

Please answer the following questions about your knowledge, attitudes and practice of smoking cessation pharmacotherapy in the spaces provided. Your genuine responses will be greatly appreciated. Your participation is absolutely voluntary and there is no penalty for refusing to take part.

Confidentiality:

All information recorded will be kept strictly confidential; your name and address will not be used and you will not be identified in any way, they shall remain anonymous.

Risks/discomfort and Benefits:

There is no serious risk to you if you agree to participate in this survey activity. I want to assure you that all information collected will be kept confidential. This study will help the health care providers to better the smoking cessation pharmacotherapy services to assist Namibian population whose health is exposed to risk due to smoking. We will use this information to identify best practices for smoking pharmacotherapy and identify strategies for improving the smoking cessation pharmacotherapy services, thus reduce smoking related morbidity and mortality.

Persons to contact:

If you have any questions you would like to ask about the purpose or procedure of this questionnaire, I can be contacted on the following number: 081 4091875.

Are you able to proceed with the questionnaire? Yes _____ No _____

The participant's signature below verifies that informed consent has been obtained

Sign _____ Date ____/____/2016

Please Contact me for any further question

Ms. Ester Naikaku (Principle Investigator)

Box 13301, University of Namibia,

School of Pharmacy

Telephone: +264 61206 5058

Mobile: +264 814091875

Email: enaikaku@unam.na

Serial #: _____ Date: ___/___/____ Data collector initials: _____

SECTION A: PRACTICE OF SMOKING CESSATION PHARMACOTHERAPY

1. Do you offer smoking cessation services in your practice(s)?

Yes	1	No	2
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If you answer NO to question 1, continue with question 2.

If you answer YES to question 1, please continue from question 3.

2. What is the main reason why you do not offer smoking cessation services? (Tick only one box)		
2.1	Low demand for smoking cessation service by my clients.	
2.2	Smoking cessation services are time demanding/consuming.	
2.3	I have no capacity to offer smoking cessation services.	
2.4	Not profitable to offer smoking cessation services (low clientele).	
2.5	Very difficult to achieve positive outcomes in these clients.	
2.6	Smoking cessation is not a priority health service in Namibia.	
2.7	I do not have training and exposure to offer smoking cessation service.	
2.8	No legal frame work/guidelines/policies for smoking cessation in Namibia.	
2.9	Not sure of what interventions/guidelines to follow.	
2.10	Medical aid programmes will not pay for smoking cessation services.	
2.11	Other reason:	

If you have answered question 2, please go to question 12 on page 3.

3. Approximately how many patients do you see in a month: _____

4. Approximately how many of these patients smoke: _____

5.	Have you ever prescribed any medicine(s) to assist with smoking cessation?	Yes	1	No	2
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If Yes, please specify the name of the medicine _____

10. How do you come about choice of medicine in Q5?		Yes	No
5.1	Treatment guidelines	1	2
5.2	Prior knowledge / Experience	1	2
5.3	Prior training	1	2

11. Please indicate by putting a tick to how frequently you practice the following: (Tick (v) where appropriate)		Never	Rarely	Often	Always
11.1	I ask my clients/patients about the use of tobacco.	1	2	3	4
11.2	I advise my clients who are smokers to quit smoking.	1	2	3	4
11.3	I assess my client's willingness to make a quit smoking attempt.	1	2	3	4
11.4	I prescribe over-the-counter medicines for smokers willing to quit smoking? Mention: _____	1	2	3	4
11.5	I prescribe ' prescription only ' medicines to smokers who are willing to quit smoking? Mention: _____	1	2	3	4

11.6	I arrange follow-up visits for smoking-cessation.	1	2	3	4
11.7	I refer smokers to cessation experts or specialized services who are willing to quit to smoking.	1	2	3	4

SECTION B ATTITUDES TOWARDS SMOKING CESSATION PHARMACOTHERAPY

12.	(Tick (v) where appropriate)	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
12.1	Smoking is a priority public health concern in Namibia.	1	2	3	4	5
12.2	It is my professional responsibility to offer smoking cessation services.	1	2	3	4	5
12.3	Smokers are more likely to quit if helped by a doctor.	1	2	3	4	5
12.4	Doctors play a lesser role in smoking cessation.	1	2	3	4	5
12.5	Smoking cessation services in Namibia are well structured.	1	2	3	4	5
12.6	Smoking cessation success rates are significant when pharmacotherapy (medicines) is used.	1	2	3	4	5
12.7	All doctors should use pharmacotherapy in all patients for smoking cessation.	1	2	3	4	5
12.8	All doctors need to be trained on smoking cessation pharmacotherapy.	1	2	3	4	5
12.9	There is need for a national guideline on smoking cessation in Namibia to be used at all levels of care.	1	2	3	4	5
12.10	Smoking cessation services should be accessible only at a doctor's practice.	1	2	3	4	5

13. In your opinion, what tools do you think will improve your comfort with prescribing pharmacotherapy for smoking cessation? (Tick (v) where appropriate)		Yes	No
13.1	Addition of smoking cessation pharmacotherapy to the Essential Medicines List (NEMLIST).	1	2
13.2	Health education sessions.	1	2
13.3	Availability of standardized guidelines at health care facilities.	1	2
13.4	Separate smoking-cessation facility.	1	2
13.5	Pre-service training on smoking-cessation pharmacotherapy.	1	2
13.6	In-service training on smoking-cessation pharmacotherapy.	1	2

If other, please specify: _____

SECTION C: LEVEL OF KNOWLEDGE ON SMOKING CESSATION PHARMACOTHERAPY

14. Are you aware about the **pharmacotherapy** for smoking cessation? Yes 1 No 2

If **NO**, skip to Section D.

15. What pharmacotherapy is recommended for smoking cessation?		Yes	No
15.1	Nicotine replacement therapies	1	2
15.2	Antidepressant based therapies	1	2
15.3	Sympathomimetic based therapies	1	2
15.4	Other	1	2

If other, please specify: _____

All smokers	1
All smokers who are trying to quit	2

16. Which patient(s) should receive pharmacotherapy for smoking cessation? (Tick only one box)

All smokers who are trying to quit except in the presence of special circumstances	3
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17. What is the **first-line pharmacotherapy** recommended for smoking cessation? (Tick only one box)

Bupropion SR, Varenicline, Nicotine replacement therapy (NRT)	1
NRT, Bupropion SR, Clonidine	2
NRT, Varenicline, Clonidine	3
NRT, Clonidine, Nortriptyline	4
I do not know	5

18. What is the recommended **second-line pharmacotherapy** for smoking cessation? (Tick only one box)

NRT, Bupropion SR	1
Varenicline, Clonidine	2
Nortriptyline, Clonidine	3
I do not know	4

19. Which pharmacotherapy should be considered with patients particularly concerned about **weight gain**? (Tick only one box)

NRT, Bupropion SR	1
Bupropion SR, Nortriptyline	2
NRT, Varenicline	3
I do not know	4

20. Which pharmacotherapy should be considered with patients with a history of **depression**? (Tick only one box)

NRT, Bupropion SR	1
Bupropion SR, Nortriptyline	2
NRT, Varenicline	3
I do not know	4

21. Typically, in smoking cessation, a “**target stop date**” is set. For how long after the “target stop date” do you prescribe the pharmacological interventions? (Tick only one box)

Two weeks after the “Target stop date”	1
Four weeks after the “target stop date”	2
Six weeks after “target stop date”	3
No duration	4
I do not know	5

22. State whether the following statements are TRUE or FALSE.		True	False
22.1	A high dose of Nicotine Replacement Therapy (NRT) is recommended for a patient who is highly nicotine dependent.	1	2
22.2	A combination of NRT therapy is recommended for a patient who is highly nicotine dependent.	1	2
22.3	A combination of different NRT formulations is recommended for a patient who is highly nicotine dependent.	1	2
22.4	Nicotine patch has been demonstrated to be safe in cardiovascular patients.	1	2
22.5	Combining Varenicline with NRT agents is associated with lower rates of side effects such as nausea and vomiting.	1	2
22.6	Patients on Bupropion SR should begin treatment 1-2 weeks before the quit date.	1	2
22.7	NRTs should be avoided in patients with a history of cardiovascular disease.	1	2

SECTION D: SOCIODEMOGRAPHIC CHARACTERISTICS

23. Sex of the respondent:

Male	1	Female	2
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24. Professional designation:

Medical intern	1
Medical officer/General practitioners	2
Specialist	3

If Specialist, state area of specialization: _____

25. Type of current practice:

Public sector	1
Private sector	2
Non-profit organisation	3
Other:	4

26. Level of health care categorization of practice:

Primary health care (Clinic/ health centre)	1
Secondary care (Hospital)	2
Tertiary care (referral hospital)	3
Other:	4

27. How many years have you been practicing as a medical doctor:

28. How many years have you been practicing as a medical doctor in Namibia?

29. Age in years: _____

30. What is your smoking status?

Current smoker	1
Ex-smoker	2
Never-smoker	3

Thank you for taking time to complete this questionnaire