

Contextualizing Smoking among Saudi Nurses: Risk Factors, Effects and Desire for QuittingMagda A.M. Mansour¹, Hanan.A. M. Youssef² and Dalal M. Nemenqani³¹ (Associate Professor)of Adult Nursing department –Assiut University, Taif University,²Head of Nursing Department, (Assistant Professor)of Critical Care Nursing, Taif University³Vice dean-College of Medicine – Supervisor of College of Pharmacy & Applied Medical Sciences- Girls Section (Associate Professor)of Clinical Pathology department -Taif University, Laboratory Director, King Abdul Aziz Specialist Hospital, Taif, KSAdr_h_911@hotmail.com, Magda_albeah@hotmail.com, dnemenqani@hotmail.com

Abstract: Tobacco control represents a key area in which nurses can make a significant positive impact on their patients' lives. Despite this fact, however, nurses in certain countries are known to smoke tobacco at rates similar to or even exceeding those seen within the general population. **The aim** of the present study was to: 1) Identify factors that contribute for smoking among Saudi nurses in selected hospitals. 2) Explore the effects of smoking in the nurses' health status & 3) Estimate the nurses' desire for quitting smoking. **Method(s):** Descriptive cross-sectional study using a calculated sample of 200 Saudi nurses, were chosen by systematic random method from king Fahad hospital in Alkhobar (60 nurses); Maternity & Children Hospital in Makkah (100 nurses) & King Faisal Hospital in Taif (40). Tool of data collection: An interview questionnaire sheet, - Data on smoking profile, Questions about desired for smoking,, Question about previous smoking cessation trials & intention to quit smoking. **Results:** Results of the present study revealed that, Most of sample age range between 20-<30(64%) years old, single women represent the highest percentage smoker 48% then married women 38%, half of the sample have the reason of smoking represented in the friends & 58% reported that, the increased of desire of smoking with the friends, majority of the nurses (90%) are used to smoke more than 7 cigarettes per day, & majority of the Smoking Saudi Nurses have the desire for quitting (80%). **Conclusions & Recommendations:** The present study concluded that smoking prevalence was relatively high among our hospital workers. The study was the first to explore smoking-related attitudes and behavior among the hospital nurses in Saudi Arabia. The findings indicate a critical need for raising healthcare Providers' preparedness for implementing smoking cessation interventions in hospital settings and there is a need for higher quality evidence to determine with confidence all the health effects of tobacco smoking. [Magda A.M. Mansour, Hanan.A. M. Youssef and Dalal M. Nemenqani. **Contextualizing Smoking among Saudi Nurses: Risk Factors, Effects and Desire for Quitting.** *J Am Sci* 2013;9(11):332-338]. (ISSN: 1545-1003). <http://www.jofamericanscience.org>.43

Keywords: Smoking; Contextualizing; Nursing**1.Introduction:**

World Health organization (2013) reported that there are around one billion smokers in the world today and up to half of them will eventually die because of their habit. Tobacco use kills over 5 million people per year and is the single most important cause of preventable death. Tobacco use will kill more than 8 million people per year by 2030.

Past surveys in the UK and the USA reported that the tobacco consumption of female nurse is comparable or slightly lower than the pattern of smoking among other females in their respective general populations. Most smoking habits will have been well established prior to becoming a nurse. The fact however, that they continue to smoke more or less to the same extent as females in the general population is very disturbing particularly in relation to their own health and their health promotion role and responsibilities (Rowe & Macleod, 2000 & McKenna *et al.*, 2001;). Smoking by nurses themselves represents a critical issue in role modeling, as patients

may be inclined to ask 'how bad could smoking be...if so many nurses smoke? Smoking prevalence is considerably high among hospital workers. It is not only dangerous for the smokers itself but for the patients who idealize the behavior of hospital staff (Warren *et al.*, 2008).

Smoking damages every organ in the body. When individuals inhale cigarette smoke, either directly or secondhand, they are inhaling more than 7,000 chemicals. Hundreds of these are hazardous, and at least 69 are known to cause cancer. The risk and severity of many adverse health outcomes caused by smoking are directly related to the duration and level of exposure to tobacco smoke (Nagy *et al.*, 2004 & U.S. Centers for Disease Control and Prevention, 2008). Smoking causes cancer, heart disease, stroke, lung diseases (including emphysema, bronchitis, and COPD), pregnancy complications, and other diseases. For every person who dies from a smoking-related disease, 20 more people suffer with at least one serious tobacco-related illness. The consequences of

smoking continue to be felt among nonsmokers as well. Thousands of nonsmokers die in the United States each year due to heart disease and lung cancer caused by secondhand smoke. There is no risk-free level of exposure to tobacco smoke (United States, Department of Health and Human Services, 2004 & Illinois Department of Public Health, 2013).

Nurses have a major role to play in addressing this threat by providing primary care, quit smoking advice, tobacco related education and so on. As a result, tobacco control represents a key area in which nurses can make a significant positive impact on their patients' lives. Despite this fact, however, nurses in certain countries are known to smoke tobacco at rates similar to or even exceeding those seen within the general population [Smith, *et al.*, 2008 & Smith and Leggat, 2011].

Movsisyan *et al.* (2012) reported that data from the Global Health Professions Student Survey 2005–2007 (GHPSS) showed that the use of tobacco remained widespread (up to 40%) among medical, dental, pharmacology and nursing students in many Eastern European countries. Although Saudi Arabia does not grow tobacco or manufacture cigarettes, an average of 600 million SR (approximately US\$ 150 millions) are spent annually on tobacco also no nationwide studies on the prevalence of tobacco have been performed and this, coupled with a lack of data regarding the pattern of smoking, may conceal serious tobacco-related problems [Al-Mohamed & Amin, 2010]. Nurse are highly respected in their community, they act as role models in issues related to health, people turn to them for advice and consultation, for this reason they are very important in advancing any tobacco control policies.

There is clearly a need for the nursing profession to send out strong messages to nurses about smoking, to develop a systematic approach to monitoring their smoking behavior and to provide support for all nurses who smoke to quit. In Saudi Arabia evidence of smoking prevalence in nursing is limited (Rowe & Macleod, 2000 & McKenna *et al.*, 2001;). SO, the present, aimed to:

- 1- Identify factors that contribute for smoking among Saudi nurses in selected hospitals.
- 2- Explore the effects of smoking in the nurses' health status.
- 3- Estimate the nurses' desire for quitting smoking.

2. Subjects and Methods:

Research design:

Cross-Sectional descriptive design was used to Assess the main reason that make the Saudi nurses used to be smoker and estimate the real percentage of the Saudi smoker nurses.

Settings:

The study was conducted between October 2011 to January 2012, In king Fahad hospital in Alkhobar, Maternity & Children Hospital in Makkah & King Faisal hospital in Taif.

Subjects:

A total of (200) Saudi nurses were selected by systematic random methods from, king Fahad hospital in Alkhobar (60 nurses); Maternity & Children Hospital in Makkah (100 nurses) & King Faisal Hospital in Taif (40).

Tool of data collection:

An interview questionnaire sheet was developed based on the relevant literature: it included **the following:**

Socio demographic data included (age; marital status; economic status, motive you to smoke, medical problem, relation between smoking & previous disease)

Data on smoking profile:

Smoking status (current, ex or lifelong nonsmoking, smoking index (SI), age of starting smoking, duration of smoking, type of tobacco used (cigarette, goza, or combined), number of cigarettes smoked daily, & intention to quit smoking among smoker. Smokers were classified according to the packet /year SI (17) (No. of cigarettes x years / 20) into mild (SI <10), moderate (SI=10-20) & heavy smokers (SI >20). As regard hubble-bubble (Goza) smoking, A typical 1-hour-long hubble-bubble (Goza) smoking session involves inhaling 100–200 times the volume of smoke inhaled from a single cigarette. (Akl, *et al.*, 2011)

Questions about desired for smoking, relation between smoking, appetite, Ideal body weight & height.

Question about previous smoking cessation trials & intention to quit smoking.

Methods of data collection included:

A written permission to carry out the study was obtained from the directors of each hospital to collect the necessary data for the present study. The period of data collection was about 3 months from (October 2011 to January 2012). Interview by the prepared sheet to asses knowledge, Each nurse was interviewed individually, the questionnaires were filled by the researcher who was asking the nurse & documenting their answer & the sheet was filled & completed in one session. The total number of sessions was (10) the duration of each session was 30 minutes, it was difficult to gather all the nurses in each shift at the same time & leave the work in the unit so the nurses were divided into 4 groups. Each group was separately selecting its suitable time for nurses where the intensity of work decreased.

Ethics and human rights:

An informed consent was obtained from all the participants before collecting any data. Explanation of the study aim in a simple and clear manner was done to each participant. No harmful maneuvers and no hazards were anticipated. All data were considered confidential. Participants were informed about their right to withdraw from the study at any time without giving any reason.

Statistical Analysis:

Data entry and statistical analysis were done using SPSS14.0 statistical software packages. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations and medians for quantitative variables.

3.Results:

Figure (1) represent that the women between age 20-<30 years old. are representing the highest percentage of the Saudi smoker nurses, then women between 30- <40Y.O. while the lowest percentage is the women between 40-50 Y.O.

Figure (2) shown that the single women represent the highest percentage 48% then married women 38%, the divorced women 12% & lowest percentage are widow women 2%.

According to economic status Figure (3) shown that moderate status is highest percentage 66%,after that middle 16% & high 18%.Also most of the Smoking Saudi Nurses agree that the smoking affect the economic status 60%,and the other disagree 40% as shown in Figure (4).

Table (1) represent that half of the sample have the Reason of Smoking Represented in the friends while the husband and stress is playing a reason for smoking among Saudi nurses by 24% & 14% respectively.

Table (2) shows that the Smoking Saudi Nurses are complaining of some diseases as hypertension, asthma & anemia (30%), (28%) & (15 %) respectively.

Graph (1) clarified that almost half of the sample (48%) of the Smoking Saudi Nurses. are not following the regular checkup while about third of the sample (22%) are following the regular checkup.

Table (3) represent that highest percentage 58% are representing the increased of desire of smoking with the friends, after that coming the sadness status, which represent 20%.

Table (4) This table shows that the majority of the nurses(90%) are used to smoke more than 7 cigarettes per day,

Graph (2) represent that the majority of nurses know the Effects of smoking on appetite, ideal body weight & height.

Table (5) this table shows that most of the Smoking Saudi Nurses have the desire for quitting (50%) while the rest was between sometimes & No (30%), (20%) respectively.

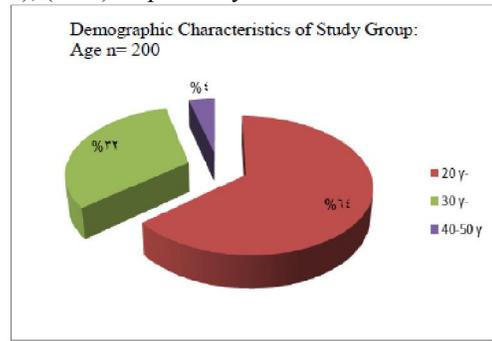


Figure (2)

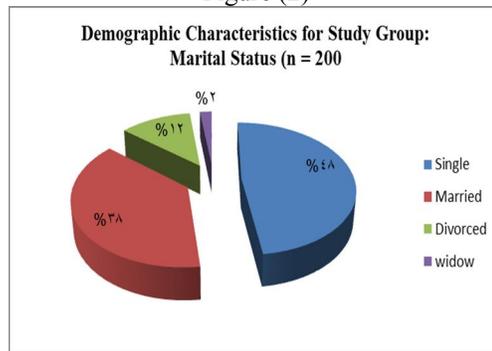


Figure (1)

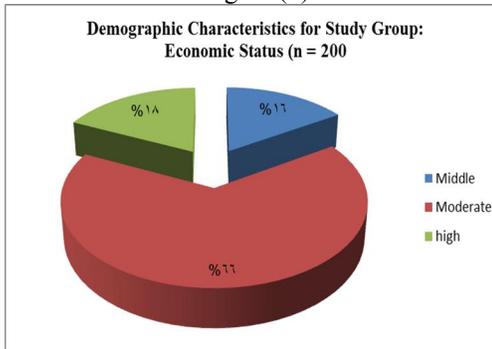


Figure (3)

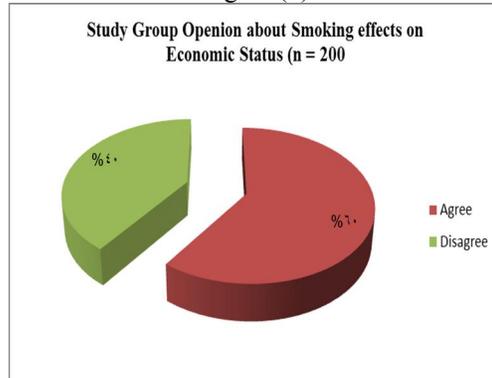


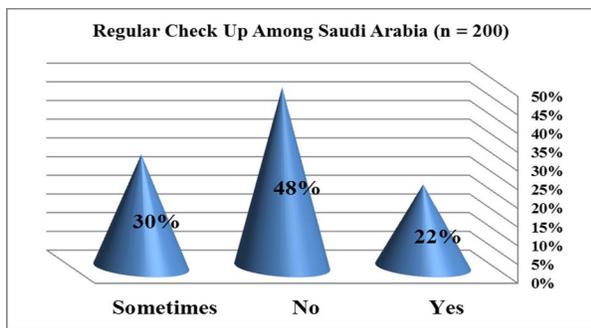
Figure (4)

Table (1) Reason of Smoking among Saudi Nurses (N= 200)

The reason of smoking	N	%
Mother	4	2%
Father	8	4%
Brother	12	6%
Husband	48	24%
Friends	100	50%
Stress	28	14%
Total	200	100%

Table (2) Health Status among Saudi Nurses (N= 200)

Items	Yes	%	NO	%
Asthma	56	28%	36	72%
Heart disease	20	10%	45	90%
Diabetic	12	6%	47	94%
Hypertension	60	30%	35	70%
Anemia	20	15%	45	90%
Chronic cough	4	2%	49	98%



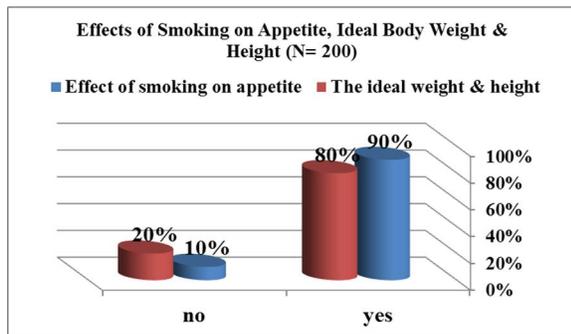
Graph (1)

Table (3) Desire of Smoking among Saudi Nurses (N= 200)

Variables	N	%
Happiness	12	10%
Sadness	40	20%
Stress	24	12%
With friends	116	58%

Table (4) Frequency of Smoking Cigarettes / day among Saudi Nurses (N= 200)

Cigarettes/day	N	%
1-3	8	4%
3-5	4	2%
5-7	8	4%
More than 7	180	90%
Total	200	100%



Graph (2)

Table (5) Desire for Quitting Smoking among Saudi Nurses (N= 200)

Variables	N	%
Desire for quitting smoking		
Yes	100	50%
No	40	20%
Sometime	60	30%
Total	200	100%

4. Discussion:

Despite that this study's findings are based on data from health professionals working in three of large hospitals in Saudi Arabia, they may not be representative of all healthcare providers in Saudi Arabia. Regarding the current study most of participants' age was between 20-<30years old then 30- <40 years old and this congruence with the **Pennsylvania (2009&2011)** which reported that the mean age of initiation to be 18.3 years among medical and nursing students In concurrence to results reported by in **al-Mohammed & Amin** study who found that 66.5% initiated below age 16 years. In general, most of the studies agree that Saudi smokers start as early as first years of the teenage and continue (Siddiqui *et al.*, 2001, Al-Yousaf, Karim, 2001& Al-Haddad, 2003). Other study documented the next common smoking starting age was late childhood and the least was above 35 years. This may highlight the importance of a planned age-dependent intervention and education. (AL-Mobeeriek *et al.*, 2007, & Vohra, 2009). The study was shown that the single women represent the highest percentage 48% then married women 38%, the divorced women 12% & lowest percentage are widow women 2% which is converse with **Thomas et al.** (2006) & **AL-Mobeeriek et al.**, 2007, reported that high prevalence of smoking among married individuals and those with technical education.

In the present study, most of the Smoking Saudi Nurses agree that the smoking affect the economic status 60% and the other disagree 40% in (Figures, 3 &4). **This result congruence with** Illinois Department, 2013, the economic costs of tobacco use are equally devastating. In addition to the high public health costs of treating tobacco-related diseases, tobacco users are also less productive due to increased sickness, and those who die prematurely deprive their families of much-needed income. Tobacco use and poverty are inextricably linked.

Many studies have shown that in the poorest households in some low- and middle-income countries, more than 10% of total household expenditure is on tobacco. This means that these families have less money to spend on such basic items as food, education and health care. In addition to its

direct health effects, tobacco use leads to increased health-care costs (WHO,2013)

Our results have also ascertained earlier findings pertaining to the influence of friend on the decision to begin smoking table. This is properly due to lack of experience along with psychological and mental changes and preference of leisure. It is, thus, the most appropriate age to install programs on tobacco-related issues at schools, mosques & areas of gatherings by experts and authorities. Al-Turki, 2006, reported that, the common reason given for the smoking behavior was the influence of friends (35.6%).

A study in the Syrian Arab Republic demonstrated that about half of male current smokers were introduced to smoking by a friend and they smoked because their friends did so. Mohammed et al. in Kuwait found that about half of male water pipe smokers and 70% of female water pipe smokers reported that water pipe smoking was either accepted or very much accepted by their friends, and both males and females tended to have friends whose behavior and attitudes reflected their own behavior [Al-Mohammed&Amin, 2010].

The majority of nurses in the current study agree that the smoking has a direct effects on both appetite and body weight which is supported by John *et al.*, 2005 & Chiolero *et al.*(2007,2008) which reported that Smoking's effect on body weight could lead to weight loss by increasing the metabolic rate, decreasing metabolic efficiency, or decreasing caloric absorption (reduction in appetite), all of which are associated with tobacco use. The metabolic effect of smoking could explain the lower body weight found in smokers show in Graph 2.other studies findings indicate that smoking is most often positively related to body weight and that heavy smokers are more likely to be overweight or obese than are light smokers..One explanation could be that heavy smokers are more likely to adopt behaviors favoring weight gain (e.g, low physical activity, unhealthy diet, and high alcohol intake), that correlated with the level of cigarette consumption (Kvaavik *et al.*, 2004, Chiolero *et al.*, 2006).

The results Shows that the Smoking Saudi Nurses are complaining of some diseases as hypertension, asthma & anemia (30%), (28%) & (15 %) respectively, shown in table 2, and regarding to the effect of smoking on health status it is estimated,More than 1,000 people die every day from cigarettes and one-half of all long-term smokers die from smoking-related diseases. A large proportion of these deaths are from cancers, early heart attacks, and chronic lung diseases (Illinois Department of Public Health, Office of Health Promotion,2013)

Furthermore, the study was conducted in the largest hospitals in the country, where one would

presume that the providers have the most knowledge of and first-hand experience with the consequences of smoking. Contradict this we found that the majority of nurses included in the study (90%) were light & moderate smokers in one hand it is congruence with Perrin, (2006), who found that Nurses smoked fewer cigarettes at work than physicians, and thus may be due likely due to the lack of private space and time afforded, and in other hand it is generally agreed that nursing is a stressful occupation, the emotional impact of dealing with critically ill or dying patients, the necessity of making life or death decisions, and the sheer physical exertion make this occupation a particularly demanding and taxing one. In addition, all is not well in the nurse-doctor relationship, where the conflict between the old conception of the nurse as the doctor's helper and her modern role as a health professional in her own right has surfaced table 4.

John *et al.* (2005) & AL-Mobeeriek (2007), reported that, The majority of the sample was light smokers consuming 1-10 cigarettes/day. This may point out the relatively low smoking prevalence and consumption of our sample when compared to universal prevalence and figures obtained from Saudi.Consequently, there is a reasonable opportunity for smoking intervention. More health awareness is required among health professionals and our general population.

Movsisyan *et al.* (2012) reported that smoking was often seen as a habit not an addiction. Many suggested that if a person wanted to quit smoking, s/he could do it without any additional assistance. Few participants acknowledged that smokers might not be able to quit on their own because of dependence and formal training on smoking cessation was lacking in the majority (25/31) of surveyed countries while in current study 50% of nurses reported that they have the desire to quit smoking while other half are between sometimes they have the desire and have not desire at all to quit and this give us a great hope that the majority of nurses in the study (%50 and 30%) could quit smoking which support the Jindeel (2010) who reported that health care professionals who've quit smoking are particularly effective at convincing patients to do the same; they have an intimate knowledge of the power of nicotine addiction and the challenges involved in quitting shown in Table (5)

Conclusion:

In Conclusion smoking prevalence was relatively high among our hospital workers. The study was the first to explore smoking-related attitudes and behavior among the hospital nurses in Saudi Arabia. The findings indicate a critical need for raising healthcare Providers' preparedness for implementing smoking cessation interventions in hospital settings and there is

a need for higher quality evidence to determine with confidence all the health effects of tobacco smoking. Based on the evidence that nurses had positive attitudes on cessation counseling and more often reported having training on cessation approaches, we conclude that nurses have been an untapped resource to be more actively engaged in smoking cessation interventions in healthcare settings, and may highlight the importance of policies, implementation of early age health education. Tutoring should also explain the risks for both the smokers and passive smokers.

Recommendations:

Nurses should be knowledgeable about community smoking cessation resources, for referral and follow-up. Further studies for smoking among nursing in different areas in Saudi Arabia are needed for accurate estimating of the prevalence of smoking. Also study for comparison of this prevalence and factors contributing for smoking among different health care professionals are necessary based on that counseling and educational program will be formulated to help in quitting smoking.

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