



## Prevalence of Nurses' Smoking Habits in Psychiatric and General Hospitals in China



Feng-Rong An <sup>a,1</sup>, Yu-Tao Xiang <sup>b,\*</sup>, Liuyang Yu <sup>c,1</sup>, Yan-Ming Ding <sup>d,1</sup>, Gabor S. Ungvari <sup>e,f</sup>, Sally Wai-chi Chan <sup>g</sup>, Doris S.F. Yu <sup>h</sup>, Kelly Y.C. Lai <sup>b</sup>, Yun-Ke Qi <sup>b,i</sup>, Jiao-Ying Zeng <sup>b,i</sup>, Ping-Ping Wu <sup>a</sup>, Zhi-Jiaolong Hou <sup>a</sup>, Christoph U. Correll <sup>j</sup>, Robin Newhouse <sup>k</sup>, Helen F.K. Chiu <sup>b</sup>

<sup>a</sup> Beijing Anding Hospital, Capital Medical University, China

<sup>b</sup> Department of Psychiatry, Chinese University of Hong Kong, Hong Kong SAR, China

<sup>c</sup> University of Iowa College of Nursing, Iowa City, IA, USA

<sup>d</sup> First Hospital of Peking University, Peking University, Beijing, China

<sup>e</sup> University of Notre Dame Australia/Marian Centre, Perth, Australia

<sup>f</sup> School of Psychiatry and Clinical Neurosciences, University of Western Australia, Perth, Australia

<sup>g</sup> Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, National University of Singapore, Singapore

<sup>h</sup> The Nethersole School of Nursing, Chinese University of Hong Kong, Hong Kong SAR, China

<sup>i</sup> Shenzhen Mental Health Centre, Guangdong Province, China

<sup>j</sup> Division of Psychiatry Research, The Zucker Hillside Hospital, North Shore-Long Island Jewish Health System, Glen Oaks, NY, USA

<sup>k</sup> University of Maryland School of Nursing, Baltimore, MD, USA

### ABSTRACT

This study determined the prevalence of lifetime and current smoking and the correlates of current smoking in nurses working in psychiatric and general hospitals in China. Of 807 distributed questionnaires, 799 nurses who were working in two psychiatric hospitals ( $n = 387, 48.4\%$ ), and one general hospital ( $n = 412, 51.6\%$ ) had analyzable data. Socio-demographic, alcohol use and smoking data were collected with a self-reported questionnaire. Work-related stress was evaluated with the Nurse Stress Inventory. In the whole sample, the lifetime smoking prevalence was 7.6% (females = 2.1% vs. males = 48.9%,  $p < 0.0001$ ; psychiatric nurses = 14.5% vs. non-psychiatric nurses = 1.2%,  $p < 0.0001$ ). The prevalence of current smoking was 7.1% (females = 2.1% vs. males = 44.7%,  $p < 0.0001$ ; psychiatric nurses = 13.4% vs. non-psychiatric nurses = 1.2%,  $p < 0.0001$ ). In a multiple logistic regression analysis, age 30 years or older, male gender, having children, being a psychiatric nurse and alcohol consumption were positively associated with smoking, while being a nursing officer was negatively associated with smoking ( $r^2 = 0.513, p < 0.0001$ ). Considering the harmful effects of smoking as well as second-hand smoking in the presence of children, effective measures to promote smoking cessation for male, older and psychiatric nurses and those with children are warranted.

© 2014 Elsevier Inc. All rights reserved.

Smoking is the leading preventable cause of chronic ill health and a major environmental factor contributing to mortality worldwide (Baumann et al., 2007). More than 400,000 people die from cigarette smoking each year in the USA, and approximately 20% of all deaths could be attributable to smoking (Tobacco information, prevention source (TIPS) (TIPS) (2008)). As the largest group of the healthcare workforce, nurses play an important role in helping patients stop smoking (Beletsoti-Stika & Scriven, 2006). In the past decades, nurses' potential in promoting smoking cessation has been largely underutilized. One of the important reasons was the common use of smoking in nurses (O'Donovan, 2009), which has become a barrier to the delivery of

smoking cessation interventions to patients (Jenkins & Ahijevych, 2003). Therefore understanding nurses' smoking patterns and their correlates is necessary in order to implement effective strategies and appropriate measures to reduce the harmful consequences in this group and to enable nurses to carry out effective smoking cessation programs for patients.

Most studies on nurses' smoking were conducted in western countries. A recent survey conducted in Ireland showed that 21% of nurses were current smokers; psychiatric nurses had the highest smoking rate (47.4%) rate among nurses (O'Donovan, 2009). Generally, the prevalence of western nurses' smoking habit was comparable or slightly lower than that in the general population (Rowe & Macleod Clark, 2000). Few recent studies examined nurses' smoking patterns in China. In two surveys, involving 1,214 and 218 female nurses, each, the prevalence of current smoking was 7.4% (Wu & Weng, 1997) and 2.3% (Yan et al., 2003). The lack of male nurses in these study samples and the failure to explore factors related to smoking limited the generalizability and utility of these findings.

\* Corresponding Author: Yu-Tao Xiang, MD, PhD, Department of Psychiatry, Chinese University of Hong Kong, Ground Floor, Multicentre, Tai Po Hospital, Tai Po, N.T., Hong Kong.

E-mail address: [xyutly@gmail.com](mailto:xyutly@gmail.com) (Y.-T. Xiang).

<sup>1</sup> These authors contributed equally to the paper.

The current study set out to (1) determine the prevalence of nurses' lifetime and current smoking in two psychiatric hospitals and in one general hospital in China; and (2) explore the socio-demographic correlates of current smoking in this population.

## METHOD

### Study Participants and Settings

This cross-sectional survey was conducted between March 1 and 31, 2012 in three conveniently selected hospitals: a large psychiatric hospital (Beijing Anding Hospital) and a general hospital (Peking University First Hospital) from the northern part, and another psychiatric hospital (Shenzhen Kangning Hospital) from the southern part of China. Eligible participants included all frontline qualified nurses.

### Measurements

#### Prevalence of Smoking

Lifetime smoking was defined as smoking at least 1 cigarette daily for at least 1 month at some time in the past (Lasser et al., 2000; Ma et al., 2009). Current smoking referred to smoking at least 1 cigarette daily during the past month (Lasser et al., 2000). Smoking cigarettes is the most common way of consuming tobacco in China (Chen, Luo, Chen, & Xiong, 2004; Gonzalez-Pinto et al., 1998). Hence, only cigarette smoking was investigated.

#### Socio-Demographic Data

Socio-demographic data including age, gender, marital status, level of education, job rank, shift pattern, working experiences and monthly income were collected.

#### Work Related Stress

Work-related stress (WRS) was measured by the 35-item Nurse Stress Inventory (NSI) (Li & Liu, 2000). The NSI was

developed from the Nurse Stress Scale (Gray-Toft & Anderson, 1981) and the Source of Stress Inventory (Wheeler & Riding, 1994), and has been widely used in recent studies with good validity and reliability (An, Wang, & Wang, 2005; Yau et al., 2012). A 5-point Likert scale (0 = never, 1 = seldom, 2 = sometimes, 3 = often and 4 = always) was used with higher scores indicating higher level of stress. The mean score of each item was calculated for statistical analysis.

#### Alcohol Use

Current alcohol use was defined as having at least one alcoholic beverage per month during the past year (Xiang et al., 2009).

#### Ethical Considerations

The study was approved by the clinical research and ethics committee of the respective hospitals. Written consent was obtained from each participant.

#### Data Collection

All eligible participants were identified from the hospitals' record. The questionnaires were distributed to all nurses by the managers of the nursing departments of the three hospitals and then collected anonymously in a sealed box within 2 weeks. A letter introducing the purpose of the survey and giving assurances about confidentiality and anonymity was attached to the questionnaires.

#### Statistical Analysis

The data were analyzed with SPSS 13.0 for Windows (SPSS Inc., Chicago, IL, USA). The comparisons between current smokers and non-smokers in terms of socio-demographic characteristics and WRS

**Table 1**  
Basic Demographic and Clinical Characteristics of the Sample by Current Smoking Status.

|  | Total sample<br>(n = 799) |      | Non-smokers<br>(n = 742) |      | Smokers<br>(n = 57) |      | Statistics |                |         |
|--|---------------------------|------|--------------------------|------|---------------------|------|------------|----------------|---------|
|  | n                         | %    | n                        | %    | n                   | %    | $\chi^2$   | df             | p       |
| Age (year)                             |                           |      |                          |      |                     |      | 0.3        | 2              | 0.9     |
| <30                                    | 402                       | 50.3 | 373                      | 50.3 | 29                  | 50.9 |            |                |         |
| 30–39                                  | 272                       | 34.0 | 254                      | 34.2 | 18                  | 31.6 |            |                |         |
| >=40                                   | 125                       | 15.6 | 115                      | 15.5 | 10                  | 17.5 |            |                |         |
| Men                                    | 94                        | 11.8 | 52                       | 7.0  | 42                  | 73.7 | 226.7      | 1              | <0.001  |
| Married/Cohabiting                     | 467                       | 58.4 | 432                      | 58.2 | 35                  | 61.4 | 0.2        | 1              | 0.6     |
| Having children                        | 368                       | 46.1 | 333                      | 44.9 | 35                  | 61.4 | 5.8        | 1              | 0.02    |
| Education                              |                           |      |                          |      |                     |      | 36.1       | 2              | <0.0001 |
| Professional school                    | 76                        | 9.5  | 58                       | 7.8  | 18                  | 31.6 |            |                |         |
| Junior college                         | 525                       | 65.7 | 493                      | 66.4 | 32                  | 56.1 |            |                |         |
| College or above                       | 198                       | 24.8 | 191                      | 25.7 | 7                   | 12.3 |            |                |         |
| Work shift                             |                           |      |                          |      |                     |      | 0.5        | 1              | 0.5     |
| Fixed day                              | 138                       | 17.3 | 130                      | 17.5 | 8                   | 14.0 |            |                |         |
| Rotating                               | 661                       | 82.7 | 612                      | 82.5 | 49                  | 86.0 |            |                |         |
| Duration of nursing experience (years) |                           |      |                          |      |                     |      | 1.4        | 2              | 0.5     |
| <5                                     | 246                       | 30.8 | 231                      | 31.1 | 15                  | 26.3 |            |                |         |
| 5–9                                    | 190                       | 23.8 | 173                      | 23.3 | 17                  | 29.8 |            |                |         |
| >=10                                   | 363                       | 45.4 | 338                      | 45.6 | 25                  | 43.9 |            |                |         |
| Job rank                               |                           |      |                          |      |                     |      | 1.4        | 2              | 0.5     |
| Nursing assistant                      | 275                       | 34.4 | 242                      | 32.6 | 33                  | 57.9 |            |                |         |
| Registered nurse                       | 405                       | 50.7 | 383                      | 51.6 | 22                  | 38.6 |            |                |         |
| Nursing officer                        | 119                       | 14.9 | 117                      | 15.8 | 2                   | 3.5  |            |                |         |
| Psychiatric nurse                      | 387                       | 48.4 | 335                      | 45.1 | 52                  | 91.2 | 45.0       | 1              | <0.0001 |
| Alcohol use <sup>b</sup>               | 234                       | 29.3 | 191                      | 25.7 | 43                  | 75.4 | 63.1       | 1              | <0.0001 |
|  | Mean                      | SD   | Mean                     | SD   | Mean                | SD   | T/Z        | df             | p       |
| Monthly income (CNY)                   | 4056                      | 4054 | 4083                     | 4199 | 3705                | 864  | −0.3       | — <sup>a</sup> | 0.8     |
| Work-related stress (NSI score)        | 2.4                       | 0.6  | 2.4                      | 0.6  | 2.5                 | 0.6  | −0.8       | 797            | 0.5     |

NOTE. a = Mann-Whitney U test; b = defined as at least one alcoholic beverage per month during the past year; NSI = Nurse Stress Inventory.

Download English Version:

<https://daneshyari.com/en/article/315676>

Download Persian Version:

<https://daneshyari.com/article/315676>

[Daneshyari.com](https://daneshyari.com)