International Journal of Research in Medical Sciences
Salman S et al. Int J Res Med Sci. 2015 Oct;3(10):2770-2774
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: http://dx.doi.org/10.18203/2320-6012.ijrms20150829

Research Article

Culture-bound addictions among low income workers of Karachi, Pakistan

Sara Salman[1], Rehana Khalil[2]*, Saadia Gul[1]

[1]Department of Community Medicine, Baqai Medical University, Karachi, Pakistan
[2]Department of Family & Community Medicine, College of Medicine, Qassim University, Saudi Arabia

Received: 27 August 2015
Accepted: 09 September 2015

***Correspondence:**
Dr. Rehana Khalil,
E-mail: dr.r.noman@gmail.com

ABSTRACT

Background: The self-efficacy of individuals is influenced by experiences in the community, in the workplace, and in broader civil society, all of which exert a collective influence on attitudes and behaviors. The low-income population is more likely to engage in the use of culture bound addictive substances which include tobacco, gutkha, betel nut/areca nut, alcohol and caffeine. The objective of the study was to identify the type of culture-bound substances used by low-income workers and also to determine the prevalence of substance use among low-income workers, in Karachi, Pakistan.
Methods: A cross sectional study was carried out in Karachi, Pakistan. Trained interviewers used a semi-structured questionnaire to interview 707 workers to collect information on socio-demographic characteristics, and addiction history. The data were analyzed using SPSS version 18.
Results: Majority (26.4%) of the participants were aged between 26 and 30 years. More than one-third (35.1%) were educated up to secondary level only. Half of the sample (50.8) had 6 to 10 house hold members whereas only one member was employed among 34.8% of the respondents. 39.5% participants reported a household income between Rs11000 and Rs 20000 per month. Half of the sample (50.4%) reported some sort of substance use in their daily routine. A significant number (39.5%) of workers were found to be addicted to tobacco, gutkha or betel nut alone, while another 10.5% were using these substances in combination.
Conclusions: Addiction to culture bound substances is prevalent among 50% of the low income workers of Karachi, Pakistan. The common culture bound addiction substances the workers were found to be using were tobacco, ghutka and betel nut. The findings of the present study cannot be generalized due to the limited sample. Still, the study provides evidence of this unhealthy behavior among workers that not only affects their productivity but plays a vicious role in poverty and poor health cycle. Future research should direct attention toward workers' health and working conditions to formulate effective public health interventions to reduce the risky behavior among low income workers. Moreover, there is a need to develop health education programs to create awareness and empowerment among low-income workers to prevent substance use.

Keywords: Low income workers, Addiction, Culture-bound addiction

INTRODUCTION

In Pakistan, 21% of the population lives below the poverty line of $1.25 a day.[1] Socioeconomic conditions along with the working environment create situations that can lead to ill health.[2,3] Low-income populations are more likely to engage in unhealthy behaviours such as cigarette smoking, physical inactivity and eating unhealthy diets.[4-7]

This unhealthy behaviour gives rise to serious, negative consequences for users themselves, by devastating their mental and physical health, and also for the society.[8] It is not important whether dependence exists or not when the pattern of use of a substance is such that it leads to significant morbidity and mortality.[9]

Some of the substances are culture-bound in South Asian countries including India and Pakistan, common amongst these being tobacco, gutkha, betel nut/areca nut, alcohol and caffeine. Betel nut is chewed by about 600 million people worldwide, and is the fourth most common addictive substance globally; the top three are tobacco, alcohol and caffeine.[10] Gutkha is a preparation of crushed areca nut, tobacco, catechu, paraffin wax, slaked lime and sweet or savoury flavourings that is used by placing a pinch of it between the gum and cheek and slowly sucking and chewing on it.[11] It has been found to be associated with oral cancer and other severe negative health effects besides being highly addictive and a known carcinogen.[12-15] People get addicted to it, as gutka is reported to have stimulant and relaxation effects.[13] While most consumers believe that the blend is not harmful, doctors, especially oncologists, say consumption of gutka is more harmful than any other form of tobacco.[16] Tobacco use is a global public health problem and the second major cause of death worldwide, with 70% of these deaths occurring in the developing countries.[17]

To maintain social and economic development, a healthy productive worker is very critical. A number of factors, within a person's occupational environment, can lead to or predispose them to develop unhealthy behaviors.[18] The productivity of a worker is lost when they use addictive substances through illness and diseases caused by these substances.

The aim of this study was to determine the prevalence and type of substance use among low-income workers in Karachi, Pakistan. Karachi is the largest and most populous metropolitan city of Pakistan and the 2nd-largest city in the world by population.[19] It is also the financial center of the country. Karachi metro has an estimated population of over 23.5 million people as of 2013 and area of approximately 3,527 km^2 (1,362 sq mi), resulting in a density of more than 6,000 people per square kilometre (15,500 per square mile). According to Price water house Coopers, In 2009 Karachi had a total GDP of $78 billion with conservative projections expecting it to rise to $193 billion in 2025.[20-24] This study will help in providing a linkage to formulate public health interventions to improve health for by preventing addictive substance use among low-income working population of Pakistan.

METHODS

A descriptive cross-sectional study was carried out on 707 employees of different organizations in Karachi, Pakistan. The study sample was conveniently selected from these organizations.

Table 1: Demographic characteristics of the participants (n=707).

Variable	Category	%
Gender	Male	649 (91.8%)
	Female	58 (8.2%)
Age (years)	15-20	4.7
	21-25	18.8
	26-30	26.4
	31-35	20.2
	36-40	12.4
	41-45	8.5
	46-50	4.5
	>50	4.4
Marital Status	Married	61.1
	Unmarried	36.5
	Divorced	2.4
Education level	Uneducated	8.2
	Primary	6.9
	Middle	17.1
	Secondary	35.1
	Intermediate	14.9
	Graduate	13.2
	Post-Graduate	1.8
	Others	2.8
House hold Members	3-5	31.8
	6-10	50.8
	11-15	8.8
	16-20	3.1
	>20	5.5
Employed Members	1	34.8
	2	27.6
	3	18.7
	4	10.7
	5	5
	6	1.7
	7	1.6
Transportation	None	48.7
	Cycle	5.8
	Motor Cycle	35.9
	Car	3.5
	Others	6.1
Household Income/month[+]	Rs.6000-10000	16.7
	Rs.11000-20000	39.5
	Rs.21000-30000	17.5
	Rs. 31000- 40000	7.2
	Rs.41000-50000	5.4
	Rs.51000-60000	8.3
	Rs.61000-70000	1.7
	Rs. 71000- 80000	1.7
	>Rs.80000/month	2

Sample size was calculated on the assumption that the prevalence of substance use among low-income workers would be 50%. The confidence level was set at 95% with a 10% acceptable margin of error. This required a sample

size of 702, which was increased by 5 to allow for any dropouts or withdrawals. Therefore, a total of 707 workers were recruited for the study. Men and women, at least 18 years of age, and willing to participate in the study were eligible to be included.

Data was collected through a semi-structured questionnaire. Ten interviewers were trained to collect information on factors including socio-demographic data, and addiction history of the selected sample. The interviews were held at participant's working place. The data were entered and analysed using SPSS for Windows, version 18.

Table 2: Responses of workers on addiction history (n = 707).

Use of an addictive Substance	Frequency	Percent
Yes	356	50.4
No	351	49.6
Total	707	100.0

Table 3: Demographic characteristics of the participants (n=707).

Organization		Frequency Distribution of Addiction									Total
		None	Betel Nuts	Smoking	others	Ghutka	Smoking & Alcohol	Smoking & Betel nut	Ghutka & Betel nut	Betel nut & others	
Frequency	Domestic	24	0	5	0	0	1	0	0	2	32
	Hospitality	202	34	89	8	76	26	2	2	0	439
	Multinational	61	3	19	0	19	4	5	1	1	113
	School	18	0	0	0	1	0	0	0	0	19
	Small and medium enterprises	49	7	14	0	12	7	8	6	1	104
Total		354	44	127	8	108	38	15	9	4	707

RESULTS

Demographic characteristics of the participants are shown in Table 1. The study sample was selected from different organizations of the city of Karachi, which included 32 (4.5%) domestic workers, 439 (62.1%) hospitality workers, 113 (16%) multinational organization workers, 19 (2.7%) school workers and 104 (14.7%) Small and medium enterprise workers.

Table 2 delineates the responses of 707 workers on addiction history, which bisects the sample clearly into two equal halves.

In our study, 44 (6.2%) workers used betel nuts as a substance of addiction, 127 (18%) workers were smokers, 108 (15.3%) workers used Ghutka, 38 (5.4%) workers used smoking along with alcohol, 15 (2.1%) workers smoked and also used betel nuts, 9 (1.3%) workers used ghutka plus betel nuts, and 4 (0.6%) workers used betel nut and other, and 8 (1.1%) worker used other addiction substances. (Table 3)

Tobacco, gutkha and betel nut addiction was found to be the most common substance of addiction among workers (Figure 1).

DISCUSSION

In the present study, the most commonly used substances were tobacco and gutka followed by betel nut addiction. In addition to smoking tobacco, the workers were using tobacco orally as well as an ingredient of gutka. Previous studies have reported that the South East Asia region of the WHO has a 90% prevalence of smokeless tobacco use.[25] In the present study, with a predominantly male sample, 41% were using tobacco in some form, with 18% smoking it in cigarettes. These figures are quite similar for the general male population in Pakistan, as according to the Pakistan Demographic and Health Survey (2012-13), 45% of men in the country use tobacco in some form, with 28% using it in cigarettes.[26] There is a need to create awareness about the hazards of using all forms of tobacco among the public. This can be done effectively through workplace interventions.

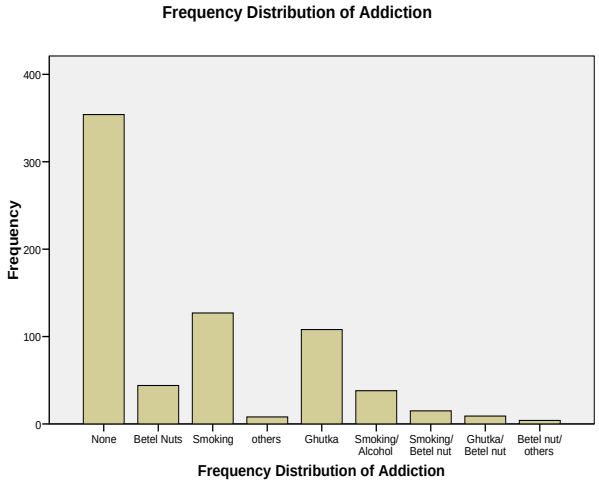

Figure 1: Frequency distribution of addiction.

In our study, 10% participants used areca nut either alone or in combination with smoking and gutka. This is lower than that reported by two recent studies in low-income areas in Karachi where 20-40% adults used betel nut either alone or with gutka. (27,28) Tobacco and gutka use puts these workers at a high risk of ill health on the one hand, while on the other the expenditure on these products takes away from their income. One study in India reported that more than 25% of the participants spent about 15-20% of their income on tobacco products. (17) This leaves them with even less to spend on basic necessities and also makes them highly vulnerable to health shocks that can push them into poverty.[29] In our study, about 35% participants were the only earning members in their family, so when they use substances that can lead to their ill health or even premature death, it puts the whole family at risk of economic hardship.[29]

Workers with low income have a higher prevalence of various forms of tobacco use.[30] Studies have reported that since low-income jobs are often associated with a low level of education, these workers are not aware of the risks associated with substance use.[30] In the present study, 35% participants were educated up to secondary level only, whereas another 32% had an education level even less than secondary. Therefore, there is a need to design health education and promotion programs specifically for low-income workers.

CONCLUSION

Addiction to culture bound substances is prevalent among 50% of the low income workers of Karachi, Pakistan. The common culture bound addiction substances the workers were found to be tobacco, ghutka and betel nut. The findings of the present study cannot be generalized due to the limited sample. Still, the study supports the notion that this unhealthy behaviour not only affects their productivity but play a vicious role in poverty and poor health cycle. Future research should direct attention toward workers' health and working conditions to formulate the effective public health interventions to reduce the risky behaviour among low-income workers.

Limitations

The results are based on self-reported rates of substance use. Due to a predominantly male sample, gender based analysis is not possible.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Informed consent was obtained from each participant before the interview. They were fully informed of the nature of the study and the use of the data. They were free to withdraw from the interview at any time or refuse to answer any particular question. Participants were also ensured of confidentiality

REFERENCES

1. United Nations. Human Development Report 2000; Trends in human development and per capita income. Retrieved from: http://www.nationsencyclopedia.com/economies/Asia-and-the-Pacific/Pakistan-POVERTY-AND-WEALTH.html#ixzz3fEzWxZn0.
2. Braveman P, Egerter S, Williams DR. The social determinants of health: coming of age. Annu Rev Public Health. 2011;32:381-98.
3. Diez Roux A, Chambless L, Merkin S, Arnett D, Eigenbrodt M, Nieto F, et al. Socioeconomic disadvantage and change in blood pressure associated with aging. Circulation. 2002;106:703-10.
4. Boone-Heinonen J, Diez Roux AV, Kiefe CI, Lewis CE, Guilkey DK, Gordon-Larsen P. Neighbourhood socioeconomic status predictors of physical activity through young to middle adulthood: the CARDIA study. Soc Sci Med. 2011;72(5):641-9
5. Booth KM, Pinkston MM, Poston WS. Obesity and the built environment. J. Am. Diet Assoc. 2005;105:S110-7
6. Gordon-Larsen P, Nelson MC, Page P, Popkin BM. Inequality in the built environment underlies key health disparities in physical activity and obesity. Paediatrics. 2006;117:417-24
7. Giles-Corti B, Donovan RJ. 2002. The relative influence of individual, social and physical environment determinants of physical activity. Soc. Sci. Med. 2002;54:1793-812.
8. Stewart J.: Pathways to relapse: the neurobiology of drug- and stress-induced relapses to drug-taking. J. Psychiat. Neurosci. 2000;25:125-36.
9. Winstock, A. (2002), Areca nut-abuse liability, dependence and public health. Addiction Biology, 7: 133–138. doi: 10.1080/13556210120091509
10. Khan MS, Bawany FI, Shah SR, Hussain M, Arshad MH, Nisar N. Comparison of knowledge, attitude and practices of betelnut users in two socio-

economic areas of Karachi. J Pak Med Assoc. 2013;63(10):1319-25.
11. Khanal V, Adhikari M, Karki S. Social determinants of tobacco consumption among Nepalese men: findings from Nepal Demographic and Health Survey 2011. Harm Reduction J. 2013;10:40.
12. CPAA: Quit Smoking Campaign, Anti-Tobacco & Quit Smoking Campaign". Retrieved 30 May, 2015.
13. CDC - Fact Sheet - Betel Quid with Tobacco (Gutka) - Smoking & Tobacco Use". Smoking and Tobacco Use. Retrieved 30 May, 2015.
14. MP becomes 1st state to ban Gutka products containing tobacco". Hindustan Times. 4 April 2012. Retrieved 16 August, 2013.
15. Amitabha B. (23 November 2011). Scheme to save Calcutta's Howrah Bridge from spit. BBC News. Retrieved 16 August, 2013.
16. Gutkha more harmful than other forms of tobacco. Retrieved from: http://www.thehindu.com/news/national/karnataka/gutka-more-harmful-than-other-forms-of-tobacco/article4769653.ece.
17. Ansari ZA, Bano SN, Zulkifle M. Prevalence of tobacco use among power loom workers: A cross-sectional study. Indian J Community Med. 2010;35:34-9.
18. Heitzmann K, Canagarajah S, Paul B. Guidelines for Assessing the Sources of Risk and Vulnerability, Social Protection Discussion Paper Series No. 0218, The World Bank, June 2002
19. Muhammad Hafeez, Poverty and Poor Health in Pakistan: Exploring the Effects of Privatizing Healthcare, Harvard International Review. 2014;35(4). Retrieved June 30, 2015 from: http://hir.harvard.edu/archives/5768.
20. Population explosion: Put an embargo on industrialisation in Karachi. http://tribune.com.pk. 6 October 2013. Retrieved 17 January, 2014.
21. Largest cities and their mayors in 2011". City Mayors. Retrieved 5 February, 2010.
22. About Karachi". Karachi Chamber of Commerce and Industry. Retrieved 10 February 2014.
23. Sindh population surges by 81.5 pc, households by 83.9 pc. Thenews.com.pk. 2 April 2012. Retrieved 21 April, 2013.
24. Global city GDP rankings 2008-2025. Price water house Coopers. Retrieved 12 February, 2010.
25. Sinha D, Gupta P, Ray C, Singh P: Prevalence of smokeless tobacco use among adults in WHO South-east Asia. Indian J Cancer. 2012;49:342-6.
26. National Institute of Population Studies (NIPS) [Pakistan] and ICF International. 2013. Pakistan Demographic and Health Survey 2012-13. Islamabad, Pakistan, and Calverton, Maryland, USA: NIPS and ICF International.
27. Mazahir S, Malik R, Maqsood M et al. Sociodemographic correlates of betel, areca and smokeless tobacco use as a high risk behavior for head and neck cancers in a squatter settlement of Karachi, Pakistan. Subst Abuse Treat Prev Policy. 2006;1:10.
28. Nisar N, Qadri MH, Fatima K, Perveen S. A community based study about knowledge and practices regarding tobacco consumption and passive smoking in Gadap Town, Karachi. J Pak Med Assoc. 2007;57:186-8.
29. Gupta PC, Ray CS. Tobacco, education and health. Indian J Med Res 2007;126:289-99.
30. Bala DV, Bodiwala IN, Patel DD, Shah PM. Epidemiological determinants of tobacco use in Gujarat state, India. Indian J Community Med. 2006;31:173-6.

Cite this article as: Salman S, Khalil R, Gul S. Culture-bound addictions among low income workers of Karachi, Pakistan. Int J Res Med Sci 2015;3:2770-4.