WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 7.523
Volume 6, Issue 17, 9-20. Research Article ISSN 2277–7105

KNOWLEDGE OF PARAMEDICAL STAFF REGARDING DRUG ADDICTION IN BAGHDAD CITY/ IRAQ

Shymaa H. Najm[1]* and Dr. Atta. Abd Al-Hussein Mousa[2]

[1]Midd Middle Technical University.

[2]College of Health and Medical Technology-Baghdad.

Article Received on
24 Oct. 2017,

Revised on 15 Nov. 2017,
Accepted on 06 Dec. 2017,

DOI: 10.20959/wjpr201717-10197

***Corresponding Author**
Shymaa H. Najm
Midd Middle Technical University.

ABSTRACT

Background: Addiction is one of the complicated problems in Iraqi young population. The social and cultural dimensions of this social disease are less considered. So considering socio-cultural and environmental resources, this study investigated the substructures of addiction according to the viewpoints of paramedical staff of Baghdad, Iraq in 2015-2016. **Objectives:** To determine the level and to determine association of different demographic variables with Knowledge paramedical staff Regarding Drug addiction. **Subject and methods:** A cross-sectional study was conducted in Baghdad on health personnel for the period from 1 June 2016 to 30 September 2016. The sample included 510 health professionals. There are 9 sectors in center of Baghdad, 5 0f them in Al- Kurkh side of the city and 4 in Al-Russafa side. The sample was selected from 49 primary health care centers and 8 public hospitals through a multi-stage sample Using a simple random sampling technique. The information was collected through the design of a questionnaire whose stability and reliability were determined. Data analysis was done using descriptive and indicative descriptive statistical methods. **Results:** The results of the study showed that 21.8% of the health staff in the age group (40-44) were the majority of the study sample for males (51.2%) and about (85.9%) of the married while the majority (87.1% Of the city's population. The educational level was the majority of graduates of medical institutes (62.4%). No significant association was found between level of education and knowledge about drug addiction for paramedical staff. No significant association had been found between gender, marital status, and residence with knowledge about drug addiction for paramedical staff. **Conclusions:** The studied sample of paramedical staff had good and acceptable score for

knowledge toward drug addiction and concerning preventive measures regarding drug addiction the studied sample had good knowledge score.

KEYWORDS: Knowledge, Drug Addiction, Paramedical Staff.

INTRODUCTION

Addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences. It is considered a brain disease because drugs change the brain; they change its structure and how it works. These brain changes can be long lasting and can lead to many harmful, often self-destructive, behaviors.[1] Addiction is an important community health problem and it causes significant morbidity and mortality, especially in the young teens and greatest risk groups.[2] The addiction research community needs to be strongly aware of the difficulties which are often countered in conducting such research in developing country settings. In this editorial of report from Afghanistan and identify some of the broad questions to which it gives rise.[3] Dependence or addiction is a kind of behavioral phenomena in which substance use takes priority than other behaviors.[4] Drug abuse and addiction has become one of the most important public health problems in recent years. Information providing role of lay theories is undeniable in preventive and rehabilitative works related to drug addiction. Several studies investigated lay beliefs and attitudes related to different kinds of drugs.[5] Studies note that age range of addicts and drug abusers has decreased globally. This decreased age range has endangered many adolescents and young people and has raised extensive concern in societies. Therefore, avoiding the problem of drug abuse has detrimental consequences for every society such as demolition of social and economic resources, threat to social security, and various forms of maladaptive behaviors.[6] The problem is affecting both the developed and the developing countries. In many industrialized countries, as the United States of America ,Canada and the European Union the abuse of one substance or another ranged from 2% to 20%.[7,8] The Middle East Countries also affected, as it's a transit area for the world illicit drugs ,with many countries experiencing rapid social.[9] In Iran, drug addiction have raised following 2003 war, which was driven by many factors, as violence, economic strain, social and religious conflicts.[10] In Iraq those attending hospital emergency departments have drug addiction-related injury/illness and present in a state of clinical intoxication. Health care professionals working in emergency departments are frequently exposed to patients with substance use problems and are in ideal positions to provide early diagnosis and treatment.[11] International studies that focus on primary care and addiction within the mental health sector suggest that health

care professionals' knowledge regarding drug addiction. There is a dearth of empirical research, internationally, and particularly in Iraq, Ireland, Iran, India that addresses health care professionals' knowledge in relation to substance use and substance users with no empirical evidence to ascertain in particular, emergency department doctors' and nurses' knowledge).[12,13]

Methodology: Across sectional study conducted in Baghdad city. on the paramedical staff for the period from the1 June 2016 to 30 September 2016. The sample of study included 510 paramedical staff in primary health care centers and general hospitals have been chosen sample. There are 9 sectors in center of Baghdad, 5 0f them in Al- Kurkh side of the city and 4 in Al-Russafa side. The sample was selected from 49 primary health care center and 8 general hospitals by a multi-stage Simple random sampling, The first stage of selection was – hospitals and health care sectors selection, the hospitals and health care sectors were labeled and selected (from list of hospitals and list of health sectors) by simple random sampling for both separately. In the second stage of selection – primary health care centers from health sectors selection were labeled and selected (from list of primary health care centers) by simple random sampling. Analysis of data was carried out using the available statistical package of SPSS-22 (Statistical Packages for Social Sciences- version.

RESULTS

Table. (1): Distribution of studied sample according to age, gender, marital status, residence and educational level.

		No	%
Age (years)	<30	66	12.9
	30---34	70	13.7
	35---39	96	18.8
	40---44	111	21.8
	45---49	62	12.2
	=>50	105	20.6
	Mean± SD (Range)	40.2±9.2(18-63)	
Gender	Male	261	51.2
	Female	249	48.8
Marital status	Unmarried	72	14.1
	Married	438 85.9	85.9
Residence	Urban	444	87.1
	Rural	66	12.9
Educational level	Secondary	80	15.6
	Medical institute	318	62.4
	College & Higher	112	22.0

Table (1):shows the distribution of the paramedical staff according to age, gender and marital status, residence and educational level. The mean ± SD of their ages was 40.2±9.2 years, the age range at the time of study was between (18-63). (male: female ratio was 1.04:1) The highest percentage (21.8%) were in the age group (20-29) years and the lowest percentage (12.2%) were in the age group (45-49). Regarding marital status the highest percentage (85.9%) were married. while the lowest percentage for unmarried (14.1%). The majority of the studied sample (87.1%) from urban area. Regarding educational level highest percentage (62.4%) from medical institute. And lowest percentage from secondary school.

Table. (2): Distribution of studied sample according to their knowledge about means and methods of drug addiction.

Part II=The means and methods of taking	Yes		No		Don't know	
	No	%	No	%	No	%
Cigarette	481	94.3	21	4.1	8	1.6
Chewing	358	70.2	57	11.2	95	18.6
Tablet	466	91.4	39	7.6	5	1.0
Patch	226	44.3	108	21.2	176	34.5
Powder	388	76.1	71	13.9	51	10.0
Drinking liquid	399	78.2	72	14.1	39	7.6
Transparent crystal	201	39.4	149	29.2	160	31.4
Injection	450	88.2	31	6.1	29	5.7
Inhalable vapor of some liquids	431	84.5	41	8.0	38	7.5

Table (2): Regarding the means and methods of drug addiction. higher percentage of studied sample answered correctly (94.3%), (91.4%) for Cigarette, and tablet responding while. the lower percentage for (39.4%) for (Transparent crystal).

Table. (3): Distribution of studied sample according to their knowledge about the following addictive material.

Part III=Any of the following material addictive	Yes		No		Don't know	
	No	%	No	%	No	%
Sleeping pills	502	98.4	1	0.2	7	1.4
Hashish	470	92.2	33	6.5	7	1.4
Analgesics	218	42.7	260	51.0	32	6.3
Antibiotics	149	29.2	311	61.0	50	9.8
Shisheh	430	84.3	38	7.5	42	8.2
Morphine	442	86.7	39	7.6	29	5.7
Heroin	450	88.2	38	7.5	22	4.3
Volatile solvents	392	76.9	53	10.4	65	12.7
Cocaine	453	88.8	37	7.3	20	3.9
Opium	431	84.5	40	7.8	39	7.6
Some drugs that contain sedatives	450	88.2	30	5.9	30	5.9

Table (3): Regarding the addiction material the majority (98.4%) answered correctly about (Sleeping pills), while more than (92.2%) of studied sample answered correctly about(Hashish). while (88.8%) and (88.2%) of studied sample answered correctly about (Cocaine), (Heroin) and (Some drugs that contain sedatives). while (86.7%), (84.5%) and (84.3%) of studied sample answered correctly about (Morphine), (Opium) and (Shisheh). while (76.9%) of studied sample answered correctly about (Volatile solvents)**.**

Table. (4): Distribution of studied sample according to their knowledge about the reasons for the rush to drugs.

Part IV=What are the reasons for the rush to drugs	Yes		No		Don't know	
	No	%	No	%	No	%
Bad friends	503	98.6	4	0.8	3	0.6
Disintegration of the family	469	92.0	37	7.3	4	0.8
Curiosity and experience	425	83.3	55	10.8	30	5.9
Luxury and excessive abundance of money	411	80.6	67	13.1	32	6.3
Filling spare time	431	84.5	46	9.0	33	6.5
Unemployment	442	86.7	46	9.0	22	4.3
Escape from the face of problems	450	88.2	38	7.5	21	4.1
Resorting to some soothing medicine without consulting your doctor	444	87.1	45	8.8	22	4.3
The misconception that the drug increases the sexual ability	234	45.9	196	38.4	80	15.7
The desire to increase the ability to work	201	39.4	227	44.5	82	16.1
The weakness of religious faith	468	91.8	31	6.1	11	2.2
The volatile security situation (such as displacement	296	58.0	70	13.7	144	28.2
Disability in the body	287	56.3	79	15.5	144	28.2
Lack of services	207	40.6	171	33.5	132	25.9

Table (4): Regarding the reasons for the rush to drugs of studied sample (98.6%) answered correctly about (Bad friends), while more than (92.0%) and (91.8%)of studied sample answered correctly about(Disintegration of the family)and(The weakness of religious faith).while (88.2%) and (87.1%) of studied sample answered correctly about (Escape from the face of problems) and (Resorting to some soothing medicine without consulting your doctor). while (86.7%) and (84.5%) of studied sample answered correctly about (Unemployment) and (Filling spare time). while (83.3%) and (80.6%) of studied sample answered correctly about (Curiosity and experience)and(Luxury and excessive abundance of money). while (58.0%) and (56.3%) of studied sample answered correctly about (The volatile security situation (such as displacement) and (Disability in the body). while (45.9%) and (40.6%) of studied sample answered correctly about (The misconception that the drug increases the sexual ability) and (Lack of services). while (39.4%) of studied sample answered correctly about (The desire to increase the ability to work).

Table (5): Distribution of studied sample according to their knowledge about the complication of drug addiction.

Part V=Complications of drug addiction	Yes		No		Don't know	
	No	%	No	%	No	%
Psychological and mental health problems	486	95.3	10	2.0	14	2.7
Loss of consciousness, coma.	451	88.4	40	7.8	19	3.7
Sudden death	471	92.4	31	6.1	8	1.6
Infectious diseases such as HIV and hepatitis	405	79.4	43	8.4	62	12.2
Exposure to accidents	457	89.6	36	7.1	17	3.3
Suicide	469	92.0	34	6.7	7	1.4
Family problems, marital disputes	465	91.2	32	6.3	13	2.5
Legal issues	439	86.1	38	7.5	33	6.5
Financial problems	449	88.0	35	6.9	26	5.1

Table. (6): Distribution of studied sample according to their knowledge about preventive measures of drug addiction.

Part XI=Preventive measures	Yes		No		Don't know	
	No	%	No	%	No	%
Is addiction prevented or not ?	487	95.5	6	1.2	17	3.3
Community leaders and clerics, intellectuals role in eliminating the scourge of addiction	465	91.2	37	7.3	8	1.6
Media as well as the role of civil society organizations in the elimination of the scourge of addiction?	460	90.2	35	6.9	15	2.9
Supreme National Commission for anti-drug role in the fight against drugs in Iraq?	424	83.1	55	10.8	31	6.1
Health education plays an important role in the prevention of addiction?	463	90.8	35	6.9	12	2.4
Promotion of religious faith.	467	91.6	32	6.3	11	2.2
Activate the oversight and guiding role of the father within the family.	466	91.4	32	6.3	12	2.4
Lack of awareness of adolescents and young people on the subject of drugs do not even curious to try it out.	434	85.1	59	11.6	17	3.3
Parenting Islamic education.	470	92.2	27	5.3	13	2.5
stop children and adolescents from traveling alone.	480	94.1	19	3.7	11	2.2
Encourage children to talk freely with parents	452	88.6	47	9.2	11	2.2
Enough cautionary statement about the effects of smoking on cigarette packs without the need for further action to put in order not to interfere in the personal freedom of individuals?	217	42.6	254	49.9	38	7.5

Table (6): Regarding knowledge of paramedical staff about preventive measures of drug addiction. highest percentage of studied sample answered correctly about (Addiction is preventable habit (95.5%). while the lowest percentage (42.6%) of studied sample answered correctly about (Enough cautionary statement about the effects of smoking on cigarette packs

without the need for further action to put in order not to interfere in the personal freedom of individuals).

Table. (7): Distribution of studied sample according to knowledge score about drug addiction by gender, marital status, Residence and education level.

Variables		Poor & Acceptable		Good		
		No	%	No	%	p.value
Gender	Male	10	50.00	251	51.22	p.v=0.914 $\|^2$=0.012 df=1
	Female	10	50.00	239	48.78	
	Total	20	100.00	490	100	
Marital status	Unmarried	4	20.00	68	13.88	p.v=0.3 $\|^2$=0.20 df=1
	Married	16	80.00	422	86.12	
	Total	20	100.00	490	100	
Residence	Urban	17	85.00	427	87.14	p.v=0.780 $\|^2$=0.078 df=1
	Rural	3	15.00	63	12.86	
	Total	20	100.00	490	100	
Educational level	Secondary	3	15.00	77	15.71	p.v=0.719 $\|^2$=0.661 df=2
	Medical institute	14	70.00	304	62.04	
	College & Higher	3	15.00	109	22.24	
	Total	20	100.00	490	100	510

Table (7): The results of this table shows that (51.22%) of male and (48.78%) of females. while about marital status (86.12%) of married, while regarding residence (87.14%) of urban. While regarding educational level (62.04%) of medical institute.

DISCUSSION

Many studies have inspected the several level of Knowledge about drug addiction, for substance abuse and addiction.[14] To the best of our knowledge, this is the first study addressing the Knowledge paramedical staff regarding drug addiction in Baghdad city. there is no similar previous study on knowledge of paramedical staff about drug addiction however the comparison was carried out with other studies on students' knowledge on drug addiction. This chapter deals with a systematic interpretation of the present study findings and discussion of different aspects of results for paramedical staff in the primary health care centers and hospitals Paramedical staff represent a forceful, educated and group in the Iraqi society; therefore, they were expected to act a crucial rule in decreasing number of addiction cases. Several studies tried to identify the awareness, knowledge of the general population or college students regarding pandemic substance abuse and addiction.[15] Age groups : Mean ±

SD of their ages was (40.2±9.2) years, the age range at the time of study was between (18-63). This result is similar to[16] in Germany and[17] in Jordan. Gender : Regarding the data of the present study showed that half sample who answered with substance abuse were male during the period of conducting the study. This results is Similar to what had been reported by[18] in Jordan. Marital status: Regarding the marital status of the sample the result indicated that (85.9%) of the sample are married. And in agreement with the study in Taiwan by[19,20] *in Lebanon.* Residence and educational levels: Regarding the residence the highest percentage of studied sample were from urban area (87.1), this result is similar to other reported study in[21,22] in Australia. Health institution (place of work): About more than (70%) of studied sample was working in primary health care centers while less than (30%) was working in hospitals. This finding is similar the study in Nigeria by.[23] Mode of taking of drug addiction**:** Regarding modes of drug addiction, the majority answer correctly about Cigarette (94.3%). This result is similar to what had been reported[24] in Saudi Arabia. Regarding the lowest percentage (39.4%) in (transparent crystal). This result is similar to what had been reported by (25) in Iran. Addictive material of drug addiction**:** Regarding the addiction material the majority (98.4%) answered correctly about (Sleeping pills), This result is similar to other reported studies in Iran (77%) by[26,27] in Nigeria. Reasons of drug addiction**:** Regarding the reasons of drug addiction The majority (98.6%) from (bad friends). This result is Similar to what had been reported (28) in Iran. The lowest percentage (39.4%) from (The desire to increase the ability to work), these are similar to other reported study by[29] in (USA). Complication of drug addiction: Regarding the complication of drug addiction the highest percentage of paramedical staff (95.3%) answered correctly about (Psychological and mental health problems), this result is similar to other studies in USA by.[30] And lower percentage (79.4%) about (Infectious diseases such as HIV and hepatitis). This is similar to other studies conducted in India by.[31] Preventive measures of drug addiction : Regarding the knowledge of paramedical staff about preventive measures of drug addiction, the higher percentage (95.5%) of paramedical staff answered correctly about (addiction prevented), this result is similar to other reported study in Germany.[16] Changes made in the medical education curricula led to challenges during the recent decades, that adding a course named as Drug Abuse Prevention to the medical and paramedical education period is a real necessity. Developing continuous education programs for current health care staff are also recommended. These findings could be useful to formulate and implement evidence-based education. Using standardized addiction cases based on these findings could be helpful in Iraq. Knowledge score about drug addiction: The majority (96.1 %) of studied sample had

good knowledge score toward drug addiction. No similar studies reported in Iraq and this result is similar to other reported studies in other countries by[32] in Iran, who found the overall participant's knowledge about the meaning of addiction, mode of transmission and preventive measures to be excellent[10] in Iran, reported had "adequate knowledge". health care workers had "good knowledge" by[32] in Iran. Gender: The current study showed that non-significant association was found between knowledge score & demographical variables as gender of studied sample and their knowledge towards drug addiction, this result is similar to other reported studies by[33] in Abu Dhabi City, United Arab Emirates. Education level: The present study showed that non-significant association was found between knowledge score & demographical variables as education level and their knowledge towards drug addiction about (Medical institute), this results is similar to other reported study by[34] in Australia. Marital status: The current study showed that non-significant association was found between knowledge score & demographical variables as marital status and their knowledge towards drug addiction about (married), This result is similar to other reported study by[20] in Lebanon. Residence: The current study showed that non-significant association was found between knowledge score & demographical variables as residence and their knowledge towards drug addiction. And less than one quarter of rural area and more than three quarter of urban area, this result might be due to more than three quarter of studied sample was from urban, this results is similar to other reported study in India by[20] *in Lebanon*. he demonstrated that most of the respondents were lived in urban area. That perhaps due to the greater sampling was from the city center.

RECOMMENDATION

1. Paramedical staff might be need to adhere to educational programs and national training as intensive courses for short period, about of drug addiction.
2. National education programs about drug addiction to prevent constructed and presented to the public through the collaboration between the health authority and society association and non-governmental organizations.
3. Further studies among medical, paramedical staff and patients are needed to assess the knowledge, attitude and practices about drug addiction.
4. Nurse managers first deal with their own personal stereotypes of addiction and nurses with a substance use disorder. They can develop and foster a climate of transparency and support for all nurses that will encourage nurses to break the code of silence.

REFERENCES

1. Grant, J. E., Potenza, M. N., Weinstein, A. & Gorelick, D. A.et al, (2010). Introduction to Behavioral Addictions. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164585/.
2. Padhy, G. K., Sahu, T., Das, S., Parida, S.et al, (2014). Prevalence and Causes of Substance Abuse Among Undergraduate Medical College Students.
3. United Nations Office on Drugs and Crime (UNODC)., (2013).World Drug Report 2013. www. UNODC.org.
4. Ambekar A & Deb KS, (2009). Substance use Disorders: An overview. In substance use disorders: A manual for paramedical staff (Eds: Rakesh Lall & Atul Ambekar). New Delhi: The National Drug Dependence Treatment center.
5. Bilal Am, Makhawi B, Al Fayex G, Shaltout A.F.et al,(2008) Attitudes of a sector of the Arab-Muslim Population in Kuwait towards alcohol and drug misuse: An objective appraisal. Drug Alcohol Depend.2008.
6. Pandey, S. K., Datta, D., Dutta, S., Verma, Y., & Chakrabarti, A. et al, Socioeconomic characteristics of alcohol and other substance users, seeking treatment in Sikkim, North East India. Journal of pharmacy & bioallied sciences, 2015; 7(2): 151.
7. Substance Use and Dependence, (2005). World Health Organization, Regional Office of Eastern Mediterranean. Technical Paper, EM/RC52/5, September, 2005.
8. United Nations Office on Drugs and Crime (UNODC).2010.World Drug Report 2010. www. UNODC.org. from: URL: http: //www.unodc. org/documents/wdr/WDR_2010/World_Drug_Report_2010_lo-res.pdf
9. United Nations Office on Drugs and Crime (UNODC).,(2012).World Drug Report 2012. www. UNODC.org.
10. Heydarabadi, A. B., Ramezankhani, A., Barekati, H., Tavassoli, E., Vejdani, M., & Kashfi, S. H.et al., Knowledge and attitude of dormitory students of Shahid Beheshti University of medical sciences about substance abuse in 2013. Journal of Paramedical Sciences, 2014; 5(3).
11. Aqrawi R, and Humphreys K., Responding to rising substance misuse in Iraq. Substance Use Misuse, 2009; 44: 1744-8.
12. Al-Hamzawi, A., Prevalence of substance use disorders among prisoners in Diwania governorate, Iraq.J Fac Med Baghdad, 2011; 53(1): 33.

13. Drug Facts.,(2014): Synthetic cathinones ("Bath salts). National Institute on Drug Abuse.http:// www.drugabuse. gov/publications/ drugfacts /synthetic-cathinones-bath-salts. Accessed Sept. 19, 2014.
14. International Classification of Diseases (ICD)".,(2014). World Health Organization. Archived from the original on 12 February 2014. Retrieved 14 March 2014.
15. American Psychiatric Association.(APA),(2000).Diagnostic and Statistical Manual of Mental Disorders,4th Edition , Text Revision. Washington, DC: American Psychiatric Publishing; 2000.
16. Nebhinani N, Nebhinani M, Misra AK, Grewal S.et al,(2013). Substance-Related Knowledge and Attitude In School and College Students. German Journal of Psychiatry. 2013 Jan 1; 16(1).
17. Jaber, D., Bulatova, N., Suyagh, M., Yousef, A. M., & Wazaify, M. et al, (2015). Knowledge, attitude and opinion of drug misuse and abuse by pharmacy students: a cross-sectional study in Jordan. Tropical Journal of Pharmaceutical Research, 2015; 14(8): 1501-1508.
18. Haddad, Linda, Ali Shotar, Mary Umlauf, and Sukaina Al-Zyoud. et al,(2010)."Knowledge of substance abuse among high school students in Jordan." Journal of Transcultural Nursing, 2010; 21(2): 143-150.
19. Yen JY, Yen CF, Chen CC, Chen SH, KOCH.et al., Family Factors of internet addiction & substance use experience in Taiwanese adolescents. Cyber Psychol. Behave, 2007; 10(3): 323-329.
20. Degenhardt L, Chiu W-T, Sampson N, Kessler RC, Anthony JC, Angermeyer M, et al, (2008). Towards a global view of alcohol, tobacco, cannabis and cocaine use: Findings form the WHO World Mental Surveys. PLOS Medicine 2008; 5: 1-15 (www.plosmedicine. org).
21. National Institute on Drug Abuse,(2012). Drug Facts: Understanding Drug Abuse and Addiction. Retrieved from http://www. drugabuse.gov/publications/drugfacts/understanding-drug-abuse-addiction.
22. Islam, M. M., & McRae, I. S., An inevitable wave of prescription drug monitoring programs in the context of prescription opioids: pros, cons and tensions. BMC pharmacology and toxicology, 2014; 15(1): 46.
23. Maigari, B., Mosaku, S. K., Umar, N. J., Kever, R. T., Dalhatu, A., Dathini, H. et al, Nurses' Knowledge and Attitude towards Care of Clients with Substance Abuse in Borno State, Nigeria. IOSR-JNHS, 2014; 3(5): 19-24.

24. Al-Subaie, A. S.&Al-Hajjaj, M. S.,(2005) Awareness and knowledge of Saudi university students about drug dependence. Saudi Med J., 2005; 16: 326–329.
25. Aghakhani, N., Eftekhari, A., Zarei, A., Moradi, Y., & Torabizadeh, C.et al, (2013). A Study of the Male High School Male Students' Knowledge and Attitude to Addiction in Urmia, Iran, 2013. Int J School Health, 2013; 2(1): e23772.
26. Geramian, N., Gharaat, L., Taheri, S. A., Mohebpour, F., Nahvizadeh, M., Farajzadegan, Z., & Heidari, K, et al., Development of a questionnaire to assess drug abuse among high school students of Isfahan province, Iran: An action research. International journal of preventive medicine, 2014; 5(Suppl 2): S146.
27. Oshikoya, K. A., & Alli, A., Perception of drug abuse amongst Nigerian undergraduates. World Journal of Medical Sciences, 2006; 1(2): 133-139.
28. Lubman D. I., Yucel M., Pantelis C.et al, Addiction, a condition of compulsive behaviour? Neuroimaging and neuropsychological evidence of inhibitory dysregulation. Addiction, 2004; 99: 1491–150210.1111/j.1360-0443.2004.00808.x.
29. Bartels, S. J., Blow, F. C., Brockmann, L. M., & Van Citters, A. D. et al, (2005). Substance abuse and mental health among older Americans: The state of the knowledge and future directions. WESTAT, Rockville, MD. Retrieved, from the World Wide Web: http://www. samhsa. gov/aging/SA_MH_% 20 Among Older Adultsfinal102105. pdf.
30. Jones RT& Benowitz NL.,(2005) Therapeutics for nicotine addiction. In: Davis KL et al., eds. Neuropsychopharmacology: the fifth generation of progress, Philadelphia, PA, Lippincott, Williams & Wilkins, 2005; 1533–1544.
31. Habibzadeh, A., Alizadeh, M., Malek, A., Maghbooli, L., Shoja, M. M., & Ghabili, K.et al., Illicit methylphenidate use among Iranian medical students: prevalence and knowledge. Drug Des Devel Ther, 2011; 5: 71-76.
32. Foroutani M& Rezaeian M., Knowledge and drug abuse among university students in the town of Larestan. Iranian Journal of Nursing, 2004; 18(43): 22-9.
33. Elarabi,.H, Al Hamedi,.F, Salas., S,. & Wanigaratne.SH.et al,(2013) Rapid analysis of knowledge, attitudes and practices towards substance addiction across different target groups in Abu Dhabi City, United Arab Emirates. Email: Hisham.alarabi@nrc.ae.
34. Australian Institute of Health and Welfare, (2011). 2010 National Drug Strategy Household Survey Report. (Drug Statistics Series, no. 25; cat. no. PHE 145.) Canberra: AIHW.