

Original Article

Knowledge and Perspectives of Health Care Providers towards Clients with Substance Abuse at Solwezi General Hospital in Solwezi District

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ABSTRACT

Introduction: Substance abuse is increasingly becoming a public health threat associated with varying health and social implications. Healthcare professionals are crucial in the management of substance abuse disorders, and their knowledge and perspectives towards substance abuse clients influences the care that these clients receive.

Locally, there is scanty data on the knowledge and perspectives of health care providers towards substance abuse clients in Solwezi District.

Objectives: The objectives of this study were to assess knowledge and perspectives of health care providers towards substance abuse clients at Solwezi General Hospital in Solwezi District.

Materials & methods: A hospital-based cross sectional study was adopted for this study. Data collection was done using a self-administered semi-structured questionnaire adapted from previous studies. The SPSS software version 20.0 for Windows was used for data analysis using descriptive statistics and the Chi-square test for inference at the 0.05 level of significance.

Results: The mean age of respondents was found to be 28.76 years. A female predominance over males was noted with a ratio of close to 5:1. Seventy-seven percent of respondents were Nurses by profession

(77.3%), with the majority having attained Diploma as the highest level of education (60%). Overall, knowledge of substance abuse, screening tools and interventions for substance abuse was good. Variations in respondents' perception of which health care provider was responsible for the assessment and management of substance abuse clients were noted. Priority on substance abuse cases was found to be low in 51% of the respondents, and several barriers to effective management of substance abuse were identified including lack of knowledge (41.4%), lack of manpower (20%), lack of specialized facilities (10%) and poor patient cooperation (16%). Statistically significant associations were found between respondent's knowledge and interest to work with substance abuse clients; as well as between respondent's education and priority placed on substance abuse cases.

Conclusion: Health care providers exhibited adequate knowledge about substance abuse. However, low priority over substance abuse cases was reported, and attributed to a number of factors. This therefore calls for more training in substance abuse, particularly assessment and management of substance abuse clients in order to optimize health services rendered to substance abuse clients.

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INTRODUCTION

The World Health Organization (WHO) define substance abuse as the harmful and hazardous use of psychoactive substances including alcohol and illicit drugs. Substance abuse includes related conditions associated with the consumption of substances that have negative behavioural and health outcomes. Substance-related disorders are a recognized psychiatric diagnosis and are classified as such in the Diagnostic and Statistical Manual IV. Hospitals across Zambia and across the world are inundated with patients suffering from conditions associated with or caused by substance abuse. People abuse substances such as drugs, alcohol, and tobacco for varied and complicated reasons, but it is clear that our society pays a significant cost in terms of human potential and financial resources.

Globally, about 2 billion people use alcohol, with the world's highest alcohol consumption levels being in the developed world¹. However, drug abuse is becoming a big problem in Africa. The ever increasing health, social and economic loss related to alcohol consumption, tobacco smoking and the use of illicit drugs has become a major public health concern characterized by varying health and social implications to individuals, families, communities and the nation at large. Some of these problems include unemployment, road traffic accidents, physical assaults, disintegration of family systems, poverty, teenage pregnancy, Human Immunodeficiency Virus/Acquired Syndrome (HIV/AIDS) and other sexually transmitted infections, and causes a heavier burden on the healthcare system¹.

According to WHO¹, smoking is estimated to cause over 90% of lung cancer in men and about 70% among women, accounting for mortality rate of 8.8% worldwide deaths and 4.1% of Disability Adjusted Life Years. Unless current trends are reversed, this figure is expected to rise, with 70% of those deaths occurring in developing countries. Harmful alcohol use accounts for 4.5% of the global burden of disease and is responsible for 3.8% of all deaths worldwide (WHO, 2009). High prevalence

of hazardous alcohol use has been noted in Africa, especially among young people, significantly contributing to the prevalence of medical and psychological conditions¹. According to the Zambia Global School Health Survey of 2004 jointly conducted by the Ministry of Health and Ministry of Education in selected primary and secondary schools, alcohol and other drug abuse are on the increase, especially among the youth. Siziya *et al.* conducted a study on cigarette smoking among school-going adolescents in Kafue district and established that 10.4% males and 6.2% females were current smokers.

In Solwezi District, abuse-related and addiction issues are a growing health concern owing to the rapid population growth due to heightened mining activities in the district. According to the Health Management Information System (HMIS) report of 2013 – 2015, about 5 clients of substance abuse are seen at Solwezi General Hospital per week. In 2015 alone, Solwezi General Hospital recorded 364 cases of substance abuse.

Flora highlights the main aspects of substance abuse management as being thorough assessment, detoxification, specific substance-based pharmacological treatment, psychosocial therapy, and out-patient follow-ups to prevent relapse. In addition, the WHO⁷ emphasizes that the public health objective on substance abuse is to reduce the health burden caused by the harmful use of drugs and thereby save lives by reducing drug-related diseases and injuries.

Unfortunately, despite the rising number of substance abuse clients seen at Solwezi General Hospital, there are only five (5) nurses are specialised in psychiatry and no specialized medical doctor which implies that the majority of substance abuse clients are managed by health care providers whose inadequate specialist knowledge and attitude may reduce the quality of health care services rendered to clients with substance abuse. Therefore this study was set out to determine knowledge and

perspectives towards substance abuse among health care providers at Solwezi General Hospital in Solwezi District.

MATERIALS AND METHODS

Study design:

This was a hospital-based descriptive cross-sectional study.

Study site: The study was carried out at Solwezi General Hospital in Solwezi District, the largest referral hospital in the North-western Province of Zambia.

Study population:

Qualified and accredited health care providers serving at Solwezi General Hospital as Nurses, Clinical Officers or Medical Doctors who were present at the time of data collection. These cadres of health care providers were selected because of their direct involvement in the management of substance abuse clients.

Exclusion criteria included:

1. Qualified and accredited health care providers who were on leave at the time of data collection
2. Health care providers who did not give consent to participate in the study

Sample size:

A sample of 75 health care providers was calculated based on the Cochrane formula, among them 62 nurses, 5 clinical officers and 8 medical doctors.

Sample selection:

Stratified random sampling method was used to select study participants using the personnel register as the sampling frame. Proportions were applied to the three cadres of health care providers accordingly.

Data collection:

A semi-structured self-administered questionnaire was used to collect data, in four major sections as follows: Section A (sociodemographic); Section B (knowledge of substance abuse); Section C (perspectives towards substance abuse clients); and Section D (perceived barriers to effective management of substance clients).

Data management and analysis:

Completed questionnaires were checked for completeness and consistency, coded, entered in Statistical Package for Social Sciences (SPSS) Version 20.0 software for analysis. Descriptive and inferential statistics were performed to obtain frequencies and establish associations, respectively. Chi-Square test was used to assess statistical significance of variables at the 0.05 level of significance.

RESULTS

Seventy-five participants were successfully recruited and interviewed using a semi-structured self-administered questionnaire between May and July 2017. The study reported a participant response rate of 100%. The findings of this study have been presented in the form of frequency tables and charts for ease of interpretation.

Sociodemographic characteristics

A female predominance over males was noted with a ratio of close to 5:1. The age of the respondents ranged from 23 to 42 years with a mean of 28.76 years. Over three-quarters of the respondents were Nurses by profession (77.3%, n=58), with the majority having attained Diploma as the highest level of education (60%, n=45). Table 1 below summarizes distribution of sociodemographic characteristics:

Table 1: Respondents' sociodemographic characteristics

Characteristics		Proportion (n)	Percentage (%)
Gender	Female	62	83
	Male	13	17
Age groups	20 – 30 years	40	53.5
	31 – 40 years	34	45.3
	41 years and older	1	1.3
Marital status	Single	42	56
	Married	29	38.7
	Widowed	3	4
Health care profession	Divorced/separated	3	1.3
	Nurse	58	77.3
	Clinical Officer	14	18.7
Highest level of education attained	Medical Doctor	3	4
	Diploma	45	60
	Certificate	27	36
	Bachelor's Degree	3	4

Health care providers' knowledge of substance abuse

Overall, the knowledge of substance abuse among the respondents was good. In terms of definition of substance abuse, 97.4% of the respondents (n=73) had good knowledge. Seventy-six percent of the respondents (n=57) reported good knowledge of the various screening tools used in the assessment of substance abuse clients. Three-quarters of the respondents (n=57) affirmed their knowledge of interventions for substance abuse. Figure 1 below shows the respondents' knowledge of assessment tools for substance abuse:

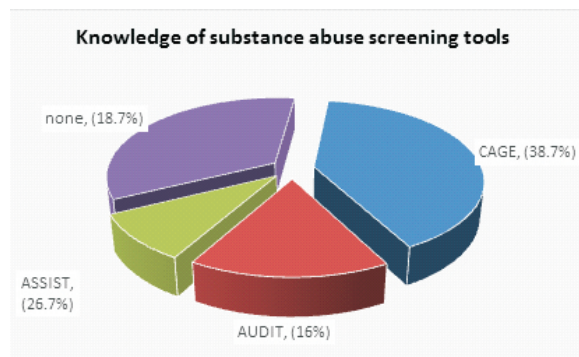


Figure 1: Respondents' knowledge of substance abuse assessment tools

Health care providers' perspectives towards substance abuse clients

When asked which health care provider was responsible for the assessment and management of substance abuse clients, 24% of the respondents identified a medical doctor as the optimal health worker to assess and treat substance abuse. With minimal differences, other respondents identified clinical officers (21.3%), nurses (21%) and psychiatrists (20%) as being the right health care provider to assess and manage substance abuse clients, as shown in Figure 2 below:

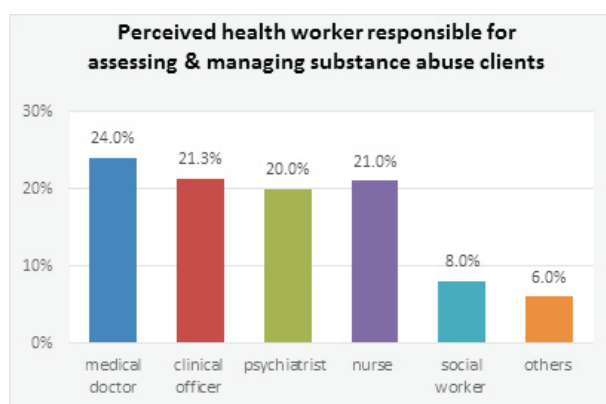


Figure 2: Perceived health care provider responsible for assessment and management of substance abuse

Fifty-one percent of the respondents (n=38) reported placing low priority on substance abuse cases while 2.7% of the respondents (n=2) reported placing no priority on substance abuse cases at all during execution of their duties. Fifteen percent of the respondents reported placing somewhat high priority on substance abuse cases while 20% had very high priority on substance abuse clients.

It can be observed from the clustered bar chart above that most of the respondents asked clients, advised and educated them about their alcohol or drug misuse problems most of the time:

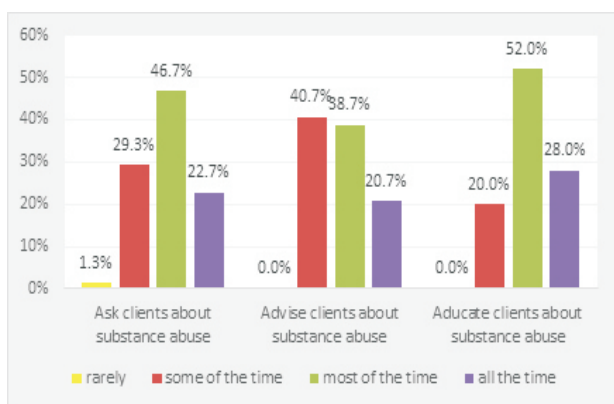


Figure 3: Clustered bar chart showing how often healthcare providers asked, advised or educated their clients about substance abuse

Perceived barriers to effective management of substance abuse

Most of the respondents (41.4%, n=31) believed that lack of expert knowledge and skills in substance abuse is a significant barrier to effective management of substance abuse. Other barriers to effective management of substance abuse reported include lack of manpower (20%), lack of specialized facilities (10%) and poor patient cooperation (16%), as outlined in Table 2 below:

Table 2: Perceived barriers to effective management of substance abuse

Barriers	Frequency (n)	Percentage (%)
Lack of expert knowledge/skills on substance abuse	31	41.4
Lack of time/ manpower as substance abuse screening takes too long	20	26.6
Lack of cooperation from clients	12	16.0
Lack of specialized screening facilities	4	5.3
Drug use is not perceived to be a problem	3	4
Because substance abuse is considered to be a medical condition	2	2.7
Because of existing comorbidities in patients with substance abuse	2	2.7
No reason at all	1	1.3
Total	75	100

Cross tabulations

Table 3 below summarises the outcomes of cross tabulations interpreted based on the 0.05 level of statistical significance. Statistically significant associations were found between respondent's knowledge of substance abuse and interest to work with substance abuse clients (p=0.004); as well as between respondent's level of education and priority placed on substance abuse cases (p=0.035). The cross-tabulation between respondent's profession and priority placed on substance abuse cases showed no statistically significant association (p=0.276).

Table 3: Cross tabulation of variables

Cross tabulation variables	p-value	Statistical significance
Respondents' knowledge of substance abuse and interest to work with substance abuse clients	0.004	Significant
Respondents' profession and priority placed on substance abuse cases	0.276	Not significant
Respondents' level of education and priority placed on substance abuse cases	0.035	Significant

DISCUSSION

Substance abuse is a significant public health problem affecting individuals, communities and nations. Through assessment and optimal management of substance abuse clients calls for interdisciplinary approach. Ascertaining the knowledge and perspectives of health care providers towards substance abuse clients is important in the quest to improve the quality of health care in the management of substance abuse and its related problems. The aim of this study was to investigate the knowledge and perspectives of health care providers towards substance abuse clients at Solwezi General Hospital in Solwezi District between May and July 2017. Below is a discussion of the findings:

Respondents' sociodemographic characteristics

This study found the mean age of health care providers to be 28.76 years. This finding is inconsistent with the 42.74 years mean age reported in Turkey and the 38 years reported in Nigeria. This discrepancy could be attributed to the differences in the study settings. The implication of our mean age is that most of our healthcare providers are still relatively young and this presents an opportunity for training in various specialities including substance abuse management.

Our study found a female predominance in the respondents, a finding that is consistent with previous study findings¹³. This can be explained by the observation that there are generally more females than males in most health care professions as can be seen from enrolment data in most nursing training institutions. Most of the respondents in our study were married, a finding that is not congruent with those of other studies who reported a vast majority of their respondents to be married^{13, 14}. No statistically significant association was established in this study between marital status and one's interest to work with substance clients. It is the researchers' view that marital status is one of the social constructs that predicts one's motivation and attitude towards

working with substance abuse clients—clients that Melissa et al. (2012) described as being “emotionally demanding”.

The majority of respondents reported that they had attained Diploma as the highest level of education. Similar findings have been reported in India. In contrast, Pilge and Abaraci¹³ found that the majority (67.4%) of the respondents had a Bachelor's Degree. The association between respondent's level of education and priority placed on substance abuse cases was shown to be statistically significant. Health professions education institutions should consider incorporated mental health education in current curricular to improve knowledge and technical competence in managing substance abuse.

Knowledge of substance abuse

Findings of this study demonstrated good knowledge of substance abuse among health care providers in terms of screening tools and interventions for substance abuse. This finding is similar to findings of previous studies^{14, 15}. However, this is contrary to the findings of prior studies that found a knowledge and skills gap among health care providers⁵. Our study also found a statistically significant association between respondent's knowledge of substance abuse and their interest to work with substance abuse clients ($p=0.004$).

Although the majority of the respondents felt that screening should be done immediately for early intervention, more than a third of the respondents did not know any screening tools while the rest had knowledge of one or the other tools used in screening substance abuse clients. As Roche and Pidd¹⁸ put it, “current effort in the development of the drugs and alcohol work force, recognize that education and training are one aspect of a wide range of factors that can influence health care providers' ability to care for patients with alcohol problems”.

Good knowledge of a health problem is a positive predictor of positive intervention outcomes. Health care providers need more and specific education and

training in managing substance abuse. Health services and education institutions should consider whether this can be incorporated in current education and training facilities of health professionals. This is a crucial step towards improvement of health care quality for substance abuse.

Perception and attitude towards substance abuse

Overall, this study's respondents showed fairly negative attitude as demonstrated by the poor priority they reportedly placed on substance abuse and the reluctance in taking responsibility for managing substance abuse clients. These findings are contrary what Tarafdar and Gupta¹⁷ found but in resonance with those reported from others studies which generally concluded that health professionals have a negative attitude towards patients with substance use problems and most of these professionals feel unable or unwilling to empathize with patients who use illicit drugs¹⁸. A study by Gilchrist *et al.*¹⁹ compared health professionals' attitude towards different patient groups in different European countries and concluded that health professionals' regard for working with substance users, especially drug users, was consistently lower compared with other patients groups, such as patients with depression or diabetes. This unfortunate reality can be attributed to the perception that these patients are potentially violent, manipulative, or poorly motivated which may cause feelings of frustration, resentment and powerlessness among health care professionals. Another reason is the perception that substance abuse is not a life-threatening condition whose sufferers tend to receive low priority over clients with other health conditions. Health care providers should adopt a more apposite approach towards substance abuse because negative attitudes of health professionals may have a negative impact on the empowerment of patients, and as a consequence, influence treatment outcomes and patients' self-esteem.

Barriers to effective management of substance abuse

The barriers to effective management of substance abuse which emerged from this study present an opportunity for improvement in the quality of health care provided in managing such conditions. One striking barrier identified was that substance abuse screening takes too long and health care providers usually have a lot of patients to attend to. Other studies have also reported similar barriers²⁰. This calls for collaborative efforts from all stakeholders to ensure that there are adequate specialist facilities for the assessment and management of substance abuse and other mental disorders; capacity building for health care providers attending to substance abuse clients; increasing manpower in health facilities especially that of specialised healthcare professionals; and creating an environment where substance abuse clients can feel free to talk about their problems. Health care providers also need to change their mind sets and stop seeing substance abuse clients as being “dangerous”.

Implication to practice

Understanding the knowledge and perspectives of health care providers towards substance abuse clients is important in formulating strategies aimed at minimizing stigma and improving quality of health care services for these clients. Various stakeholders should institute appropriate strategies to enhance thorough assessment and management of substance abuse such as sensitization campaigns, trainings and incorporation of mental health in curricula. Evidence-based approaches should be set in the forefront of clinical practice, especially in the care of substance abuse clients.

CONCLUSION

This study established that knowledge of substance abuse among health care providers at Solwezi General Hospital is good. However, there is still negative attitude which may negatively impact on the empowerment of patients, and as a consequence, influence treatment outcomes and patients' self-

esteem. This may underline the necessity for interventions to change health professionals' attitudes and improve quality of health care service delivery.

Recommendations

The study makes the following recommendations:

- I. Future study to cover a wider setting and a longer period of time so that a comprehensive picture of the knowledge and perspectives of health care providers towards substance abuse clients can be determined over changes in settings
- ii. Ministry of Health and other stakeholders need to develop policies and guidelines on the effective assessment and management of substance abuse even in the absence of Psychiatry specialists, which is the case in most public health facilities
- iii. Communities should work together to ensure that they support people with substance abuse clients towards recovery

Limitations

A number of limitations were noted in this study including the following:

- I. It is possible there could have been selection bias as only motivated health care providers consented to participate in the study
- ii. Participants were recruited from Out-patient Department and General Medical wards at Solwezi General Hospital. Therefore, the findings might not reflect the knowledge and perspectives of health care providers in the rest of the hospital

DECLARATIONS

Ethics approval

Ethics approval for the study was granted by the University of Zambia (Assurance No. FWA00000338, IRB00001131 of IORG0000774).

Consent for publication

Not applicable

Availability of data and study materials

Not applicable

Conflict of interest

No competing interest is declared

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REFERENCES

1. World Health Organization. World Burden of Substance Use. 2002. Retrieved from <http://who.org.net/substance>
2. Sadock, B.J. and Sadock, V.A. Kaplan and Sadock's Synopsis of Psychiatry. 10th edition, 2007, Lippincott Williams & Wilkins, Philadelphia
3. Ramchand, R., Marshal, G.N., Schell, L.H., Hambarsoomians, K. and Shetty V. Alcohol Abuse and Illegal Drug Use among Los Angeles County Trauma Patients: Prevalence and Evaluation of Single Item Creener. *Journal of Trauma*, Volume 66, 2009, pp. 1461 – 1467
4. Alibrahim, O., Elawad, N., Misau, Y.A., Shaikh, T.M. and Allam, N. Psychotic Symptoms: A Retrospective Study of Adolescents Who Abuse Drugs At Al-Amal Hospital in Jeddah, Saudi Arabia. *Journal of Public health in Africa* 2012;3:e5
5. Owens, L., Gilmore, I.T. and Pirmohamed, M. General Practice Nurses' Knowledge of Alcohol Use and Misuse: A Questionnaire Survey. *Alcohol and Alcoholism* 2000;35(3):259-262
6. Bowley, D.M.G., Parmar, N.K. and Boffard, K.D. Burdens of Disease in Southern Africa. *Clinical Picture*. 2004. Volume 363, Issue

- 9420, P1508, May 08, 2004. DOI: [https://doi.org/10.1016/S0140-6736\(04\)16149-7](https://doi.org/10.1016/S0140-6736(04)16149-7)
7. World Health Organization. The World Health Report 2006 – Working Together for Health. 2006. World Health Organization, Geneva
 8. Young, C. and De Klerk, V. Patterns of Alcohol Usage on a South African University Campus: The Findings of Two Annual Drinking Surveys. *African Journal of Drug Alcohol Studies* 2008;7: 101-112.
 9. Zverev, Y. Problem drinking among university students in Malawi. *Collegium Anthropologicum Journal* 2008;32: 27-31.
 10. Zambia Global School-based Student Health Survey. Centers for Disease Control and prevention. 2004
 11. Siziya, S., Rudatsikira, E. and Muula, A.S. Cigarette Smoking Among School-going Adolescents in Kafue, Zambia. *Malawi Medical Journal* 2007;19: 75-78.
 12. Flora, K. and Stalikas, A. Factors Affecting Substance Abuse Treatment across Different Treatment Phases. *International Journal of Psychosocial Rehabilitation*. 2013; 17(1) 89-104
 13. Pilge, E. and Abaraci, I. Perceptions and Attitudes of Nurses Working At Emergency Unit about the Causes and Treatment of Addiction. *Psikiyatri Hemşireliği Dergisi – Journal of Psychiatric Nursing* 2016;7(3):105–113
 14. Maigari, B., Mosaku, S.K., Umar, N.J., Keve, R.T., Dalhatu, A. and Dathini, H. Nurses' Knowledge and Attitude towards Care of Clients with Substance Abuse in Borno State, Nigeria. *IOSR Journal of Nursing and Health Science (IOSR-JNHS)* e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 3, Issue 5 Ver. I (Sep.-Oct. 2014), PP 19-24 www.iosrjournals.org
 15. Kalebka, R.R., Bruijns, S.R., and van Hoving, D.J. A survey of attitudes towards patient substance abuse and addiction in the Emergency center. *African Journal of Emergency Medicine* 2013;3(1). ISSN 2211-419X, <https://doi.org/10.1016/j.afjem.2012.09.2004>
 16. Melissa, M.N., Peter, G. and Paul, D. Screening and managing cannabis use: comparing GP's and nurses' knowledge, beliefs, and behaviour. *Substance abuse treatment, prevention and Policy* 2012;7(3)
 17. Tarafdar, S.A. and Gupta, S. Knowledge of and Attitude on Assessment of Substance Use disorders of Nurses Working in General Wards. *Indian Journal of Psychiatric Nursing* 15(1) Jan - June 2018
 18. Roche, A. M. and Pidd, K. Alcohol and other drug workforce development issues and imperatives: setting the scene. Technical Report, National Center for Education and Training on Addiction. Australia.
 19. Gilchrist, G., Moskalewicz, J., Slezakova, S., Okruhlica, L., Torrens, M., Vajd, R., Baldacchino, A. Staff regard towards working with substance users: a European multi-centre study. *Addiction*. 2011. 106, 1114–1125.
 20. Ford, R., Bammer, G. and Becker, N. The determinants of nurses' therapeutic attitude to patients who use illicit drugs and implications for workforce development. *Journal of Clinical Nursing*. 2008;17, 2452–2462.
 21. McLaughlin, D., McKenna, H., Leslie, J., Moore, K. and Robinson, J. Illicit drug users in Northern Ireland: perceptions and experiences of health and social care professionals. *Journal of Psychiatry and Mental Health Nursing*. 2006;13, 682–686.
 22. van Boekela, L.C., Brouwersa, E.P.M., van Weeghela, J. and Garretsen, H.F.L. Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence* 131 (2013) 23– 35
 23. Ford, R. Interpersonal challenges as a constraint on care: the experience of nurses' care of patients who use illicit drugs. *Contemp. Nursing*. 2011;37, 241–252.