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COMPETENCIES FOR NURSING CARE OF PATIENTS WITH SUBSTANCE RELATED DISORDERS

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Abstract

Nurses and midwives, the largest group of providers, deliver basic and specialty healthcare worldwide. They are uniquely positioned to deliver interventions for drug use, abuse and dependence. Few provide such care however, because their basic educations lacked information and clinical teaching on drug use, treatment of addictions and health. This paper identifies nursing competencies, and gives suggestions for strategies for their development. Competencies development for nurse generalists and nurse specialists should be based on current nursing and other scientific evidence from research studies, consensus statements and practice guidelines. Exemplars of evidence based interventions are described. For purposes of this paper, alcohol is identified as such; "drugs" refers to nicotine, illegal and prescription drugs.

Key words: nursing care, patients, substance-related disorders

COMPETÊNCIAS PARA A ASSISTÊNCIA DE ENFERMAGEM A PACIENTES COM TRANSTORNOS RELACIONADOS AO USO DE SUBSTÂNCIAS

Resumo

Enfermeiros e parteiras, que constituem o maior grupo de profissionais da saúde, prestam assistência básica e especializada ao redor do mundo. Têm potencial único com vistas a intervenções em casos de uso, abuso e dependência de drogas. Contudo, poucos entre eles prestam essa assistência porque, na sua educação básica, faltaram informações e ensino clínico sobre o uso de drogas, tratamento de dependências e saúde. Este artigo identifica competências de enfermagem e sugere estratégias para seu desenvolvimento. O desenvolvimento de competências entre profissionais gerais e especializados deve ser baseado em evidências atuais de enfermagem e outras áreas da ciência, provenientes de pesquisas, declarações de consenso e diretrizes. São descritos exemplos de intervenções baseadas em evidências. Para fins deste artigo, o álcool é identificado como tal, e "drogas" diz respeito à nicotina, drogas ilícitas e prescritas.

Palavras-chave: assistência de enfermagem, pacientes, transtornos relacionados ao uso de substâncias

COMPETENCIAS PARA LA ATENCIÓN DE ENFERMERÍA A PACIENTES CON TRASTORNOS RELACIONADOS CON SUSTANCIAS

Abstract

Enfermeros y parteras, que constituyen el mayor grupo de profesionales de la salud, prestan atención básica y especializada en todo el mundo. Poseen potencial único con vistas a intervenciones en casos de uso, abuso y dependencia de drogas. Sin embargo, pocos entre ellos prestan ese tipo de atención porque, en su educación básica, faltaron informaciones y enseñanza clínica sobre el uso de drogas, tratamiento de dependencias y salud. Este artículo identifica competencias de enfermería y sugiere estrategias para su desarrollo. El desarrollo de competencias entre profesionales generales y especializados debe ser basado en evidencias actuales de enfermería y otras áreas científicas, productos de investigaciones, declaraciones de consenso y directivas. Son descritos ejemplos de intervenciones basadas en evidencias. Para fines de este artículo, el alcohol es identificado como tal, y "drogas" se refiere a la nicotina, drogas ilícitas y prescritas.

Palabras clave: atención de enfermería, pacientes, trastornos relacionados con sustancias

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INTRODUCTION

Nurses and midwives are frontline providers of basic and specialty healthcare worldwide. In many regions, they are the only individuals knowledgeable about health promotion and illness care. Because nurses and midwives are the largest group of providers, they are uniquely positioned to deliver interventions for drug use, abuse and dependence. Many are reluctant to provide such care however, because their basic educations did not include information and clinical experiences on the drug use, treatment of addictions and health implications of substance use. This paper identifies nursing competencies, and limited suggestions for strategies for there development. Competencies development should be based on current nursing and other scientific evidence from research studies, consensus statements and practice guidelines. Three evidence based interventions which are exemplars of these resources are described. Competencies are identified for nurse generalists and nurse specialists employed across settings where patients using alcohol, tobacco and other drug are treated. For purposes of this paper, alcohol is identified as such; “drugs” refers to nicotine, illegal and prescription drugs.

The Need for Nursing SRD Competencies

The prevention, acute and long term treatment of substance related disorders are relevant to all areas of nursing practice as the majority of persons using alcohol and other drug in ways that place them at risk for health care problems never receive specialized treatment. Most physicians, nurses and social workers treat users of substance in primary care, maternity or acute care settings without recognizing the need for intervention with the use of alcohol, tobacco or other drugs. If a problem is reported or evident, practitioners often feel they have neither the time nor the skills to address it[(1)]. Recent reviews of the

literature reveal how similar alcohol and drug dependence is to other chronic diseases treated by nurses and physicians. Drug and alcohol dependencies are similarly diagnosed, show strong indicators that they are inherited, and have etiologies, pathophysiology and treatment responses like those of chronic medical illnesses. Two prominent examples are Type 2 Diabetes Mellitus, Asthma and hypertension[2].

The availability of certain drugs varies by geographic region and cultural customs generally govern the amount and types of drugs used, who uses drugs and under what circumstances drug use (including smoking and drinking) are acceptable[3]. Global trends in drugs use affect millions of people. Among selected risk factors for the global burden of disease and injury, tobacco ranks fourth and alcohol fifth, with nicotine the most widely used and most addictive of drugs in industrialized and developing countries. While cigarette smoking has decreased in the last 30 years, it continues in prevalence ranging from 19.5 % [Australia] to 72.9% [Russian Federation][4]; use in many countries hovers around 30% of the population. Tobacco use, highest in Chile and Argentina (45% men and 35% of women) causes approximately 1/3 of deaths from heart disease and cancer in the Latin American region[4]. By 2020, it is anticipated that 1.6 billion people in the world will be using tobacco[4]. Smoking cessation treatment when delivered by health care providers, significantly increases abstinence rates[5], yet many providers do not utilized recently developed evidence- based interventions for smoking cessation.

Alcohol use is worldwide and while it is declining in most developed countries, it is rising in many developing countries. Per capita consumption is highest in Slovenia [15.15 liters/adult: 15+ yrs] and lowest in Indonesia [0.13 liters][6] and patterns of heavy drinking exist in most countries[4]. In the 30 countries of the Americas, habitual drinkers are a relatively small proportion of the population (10%), but they drink half of the alcohol

consumed. Estimates of alcohol consumption are further deemed inaccurate because clandestine production and/or production for home use often doubles or triples that recorded. In Brazil, for example, clandestine production triples the country's estimated per capita consumption[7]. As with tobacco, men are the largest consumers of alcohol and drugs worldwide. They develop alcohol use disorders in a ratio of 5:1 men to women, a ratio that varies by culture. Cannabis is the most commonly used illicit drug worldwide, with highest use in developed countries. In the regions of the Americas, lifetime marijuana use ranges from 2% in Paraguay, to 17% in Chile to a high of 35% in the United States[7]. Cocaine is the 2nd most commonly used drug in the Southern Cone and its use is linked with HIV-AIDS. An estimated 5 million people in 121 countries who are injectors of illicit many also have HIV, and in Latin America 1.3 million people are infected with HIV and the number is growing[7]. Drug use is also linked with failure to finish school many countries. For example, failure to complete school is evidenced in Chile, where 20% of students use illegal drugs, and in Peru (21%)[7]. Additional trends are amphetamine-type stimulant use, which is growing. The breadth of the health and social problems linked to alcohol, tobacco and drug use suggest that all practicing nurses need to know something about the health effects and the treatment of drug and alcohol abuse, misuse and dependence.

Substance Related Disorders Competencies and their Development

The attitudes, knowledge and skills which are the foundation for the development of competencies by nurses in generalist and specialist roles correspond to those recommended for other health professional groups as well[1]. Recent progress in documenting the prevalence of alcohol and other drug related disorders provides new directions for

education and practice by all health disciplines. From the policy perspective, WHO, as well, has published Guiding Principles on Drug Demand Reduction aimed at preventing the use of drugs and reducing the adverse consequences of drug abuse. WHO has called for United Nations members to adopt measures to eliminate and/or reduce illicit demand for narcotic and psychotropic substances. WHO Strategies to Reduce Illness and Disability provide a baseline for interventions in all world regions and are reference points for nursing and midwifery education, legislative action, research and practice. These strategies emphasize:

1) early diagnosis,

2) medical/social problems,

3) counseling and access to services and opportunities to achieve social integration

4) medical detoxification and long term identification and management of risk of infectious disease and other care to decrease risk of relapse[8]

In order to effectively deliver care, nurses need not only knowledge, but the skill in practice. This combination is evidenced in competencies. **Competency based education** is an integrated program of competency based outcomes, interactive learning methods and performance assessment tools which focus on the abilities for practice of a discipline[9]. Competencies describe behaviors measured in performance assessment methods focused on a constellation of abilities. Educational programs can use a range of learning models and include specific and objective performance validation of the specific competency outcomes achieved. The trend in competency based education and evaluation has been embraced in both baccalaureate and master's programs in nursing at New York University.

The competencies for nursing care of substance related disorders reflect the consensus of American nurse educators and specialists in addictions nurse whose practices are guided by the American Nurses' Association Scope and Standards for Addictions Nursing (2004) and the National Organization of Nurse Practitioners Standards for Psychiatric-mental Health Nurse Practitioners (2004). Competencies are developed in evidence-based approaches to alcohol, tobacco and drug problems as means of achieving patient outcomes. Evidence based approaches, as available, should be central to nursing and midwifery educational programs. Programming also includes content from the basic and social sciences, standards for care and practice guidelines developed in nursing and other disciplines.

Competencies in Substance Related Disorders for Nurse Generalists

In the face of growing worldwide nursing shortage health care initiatives which expand the scope of nursing activities may be viewed as unwelcome challenges by practitioners who already feel overburdened by multiple demands and too few personnel. Therefore, competencies for dealing with substance related disorders should parallel knowledge, skills and competencies in other areas of nursing for health promotion and illness care. When the overriding competencies exist, adding knowledge about alcohol, tobacco and drugs can expand the scope of practice. For example, all basic nurses learn health assessment. In many programs, however, assessment for drug, tobacco and alcohol use is not included. Adding a nursing history for each of these drug use behaviors is a method for obtaining knowledge from which to formulate nursing interventions based on the nurse's knowledge of alcohol, tobacco and other drug use. Within basic nursing

education, didactic content and clinical experiences should support the development of nursing **competencies** which include:

1) **ability to identify one's own attitudes** and values about alcohol and other drug use,

2) **demonstration of knowledge of cultural differences** in alcohol and drug use.

3) **identification and screening** for a substance use/misuse/dependence disorder.

4) **completion of assessment** of a substance use/misuse/dependence disorder through nursing and/or medical histories, and screening, noting signs and symptoms of abuse and dependence and the severity of identified conditions,

5) **formulation of nursing diagnoses** of states health and illness related to drug use and dependence,

6) **delivery of nursing care** including pharmacologic treatment and psychological and emotional support in acute, chronic and recovery states of illness,

7) **education** of clients on health implications of use of the drugs of abuse

8) **advising** on health implications, health promotion and health maintenance strategies

9) **activities directed toward the prevention of** substance use/misuse disorders **and harm reduction**[4]

10) **referral** to appropriate specialist providers for treatment and to self-help community based resources for patient/family with a substance use/ misuse/dependence disorders [4]. Adapted from Naegle[10]

Competencies in Substance Related Disorder for Post Baccalaureate and Master's Program Graduates

Nurses with additional education, certification and master's degree education practice at the advanced level and need to be competent to intervene with the psychosocial and physiologic aspects of addiction to alcohol, tobacco and other drugs[11]. The American organization, National Organization of Nurse Practitioner Faculties (NONPF), has identified Psychiatric-mental Health Nurse Practitioner competencies which provide a framework for competencies specific to advanced practice nursing care of persons with substance related disorders. Theses more inclusive competencies build upon those of the basic preparation. The competency categories below are specific for care of the client with a substance related disorder.

Table 1

NONPF PMH Competencies (Modified by author, 2006)	***Specific Substance Related Disorder***
I. a. Assessment	Each component of Assessment is informed by knowledge of the etiology signs, symptoms, health and illness effects of use of alcohol, tobacco and other drugs, previous treatment and family history. Standardized screening tools should be used. (See Table 2) Uses effective clinical interviewing to obtain the history and to develop a therapeutic relationship. Synthesizes, prioritizes and documents data about patient and family. Collaborates with family members, interdisciplinary team members and independent provider in obtaining assessment data.

b. Diagnosis of Health Status	Reviews data to interpret implications of substance use for health, formulates diagnoses and differential diagnoses of harmful use, abuse and dependence on alcohol and/or other drugs. Evaluates additional psychiatric symptoms and formulates psychiatric diagnoses, identifies co-occurring medical conditions Applies standard nursing and medical taxonomy systems to all relevant diagnoses.
c. Treatment Planning and Implementation	Develops treatment plans based on psychosocial theories and evidence- based standards of care for "at risk" or "hazardous" drug use, problem or harmful use or abuse, drug dependence or addiction. Delivers nursing care based on the severity of illness states (acute and chronic states of intoxication and dependence). Prescribes psychotropic and addiction pharmacologic agents based on assessment. Coordinates care among members of inter-disciplinary teams and uses consultation and referral as appropriate to the patient's state of illness. Implements non- pharmacologic treatment modalities including individual, group and family psychotherapy. Ensures patient safety. Advocates for patient and family in medical and nursing care with ethical and legal ramifications.
II. Nurse-practitioner-patient	Uses interventions, therapeutic communication and relationship advocacy activities to build trust, promote positive treatment outcomes and monitor treatment responses. Addresses biopsychosocial needs specific to acute, chronic and recovery states of abuse/ addiction /dependence in support of a continuous, healing relationship.

III. Teaching-Coaching Functions	Provides psychoeducation to individuals, families and groups to promote knowledge of addiction states, treatment options and effects, and effective management of abuse and dependence on alcohol and other drugs and associated mental health problems. Considers readiness to learn, impact of substance use symptoms on self-care and implications of treatment responses in all functional domains for patient and family.
IV. Professional Role	Collaborates and consults with members of the interdisciplinary team as appropriate. Implements roles of direct care provider, consultant, nurse educator, case manager and patient/family advocate. Upholds ethical and legal standards of best clinical practices related to substance use/abuse disorders.
V. Managing and Negotiating Health Care Delivery Systems	Uses ethical principles in advocating for patients and families in transitions from primary care to substance abuse and mental health treatment systems. Influences health policy related to limited parity in reimbursement and access and stigma.
VI. Monitoring and Insuring The Quality of Health Care Practice	Consistently undertakes continuing education and monitors emerging research findings and best practices in care of substance related disorders.
VII. Cultural Competence	Recognizes that culture differences result in variations in patterns of use, abuse and dependence n tobacco, alcohol and other drugs of abuse. Acknowledges the influence of ethnicity, culture and spirituality of patients' perceptions of their illnesses. Respects and considers these influences in care planning. Evaluates psychiatric/substance related interventions on patient's ethnic, cultural and spiritual identity as they impact the outcomes of patient care. (Modified from NONPF).

Content for Incorporation into Nursing Curricula

Content basic to the development of competencies in the care of persons with substance related disorders derives from basic and advanced science courses such as chemistry, physiology, pathophysiology, and pharmacology. Behavioral and social sciences provide additional important constructs. There is now a large body of research on the etiology of alcohol and drug use, the prevention of drug related disorders, the effects of drug use on health, and the effective treatment of alcohol, tobacco and other drug dependence. Substance Related Disorder (SRD) content specific to specialty and/or advanced practice, i.e. midwifery, acute care, adult health, psychiatric-mental health theory and practicum should include research based nursing interventions, standards of nursing care for addictions nursing as well as standards for the respective specialties, and policies and practices used by nursing in the practice of caring for clients with SRDs. Newer evidence-based practices (Tables 3, 4, 5) should be included as appropriate to levels of nursing intervention and interventions appropriate to various care delivery settings should be taught and implemented in practicum/clinical seminar courses. Competency evaluation should be specific to the specialty and should be collaborative among student, preceptor and course professors. Standardized clinical performance evaluation forms should be used in all educational programs.

Models for Content Presentation

In recognizing the need for students to gain competencies in caring for persons with substance related disorders, schools of nursing have developed approaches to including such content. These approaches include

a. the inclusion of the requirement for learning modules about substance related disorders in courses on adult health, psychiatric-mental health, pediatric, geriatrics, etc.,

b. summer/intersession course electives,

c. a three course sequence for basic, intermediate and practicum levels of student learning,

d. integration of SRD content into existing required courses,

e. development of clinical placement (internships) in clinics, long term rehabilitation centers, detoxification units and emergency departments where students can apply theory and practice clinical competencies.

The success of these approaches is highly dependent on the support of the administration of the nursing program and efforts to emphasize the importance of nurses' gaining competencies in this area of health care.

Teaching Strategies

Teaching strategies will increase student and faculty interest and sense of mastery over substance related disorders knowledge include:

a. content development and evaluation in didactic courses (see above)

b. evaluation of clinical performance through the measurement of competencies. Some methods for this include:

1. OSCE Objective Simulated Clinical examinations

2. Problem Based Learning

3. Inclusion of evidence-based practice research applications, scientific literature searches, and protocol development.

4. Use of case studies drawn from student clinical experiences.

5. Consumer participation in group meetings with students, panel presentations and attendance at 12 step community based programs.

6. Use of trained "simulated patients" who work with students in learning assessment and education of students. Using prepared scripts, actors respond to student inquiries, give feedback and assist with student learning.

Content regarding alcohol, drug and tobacco dependence treatment is available from numerous electronic and paper resources. In the last decade, numerous books and journals have been published related to the identification and treatment, as well as social implications of drug and alcohol use worldwide. There are fewer resources which derive nursing interventions and standards for nursing performance from the new evidence- based treatment approaches. Some teaching strategies which draw on available resources include:

a. use of electronic and online learning courses which are didactic and interactive,

b. accessing established alcohol, tobacco and other drug curricula such as www.Projectmainstream.net, which has developed learning modules on specific topics, related to addiction prevention and care. Additional resources are noted in the references for this manuscript.

CONCLUSIONS

The use of alcohol, tobacco and other drugs is widespread throughout the world. In the Americas, such use is closely linked to health problems of addiction, cancer,

cardiovascular disease, and HIV-AIDS. Nursing education programs should be preparing graduates to care for patients and families experiencing problems related to substance use as well as the illnesses with are the primary and/or secondary consequences of use. The competencies for nurse generalists and nurse specialists which support the prevention of substance related disorders and treat their manifestations have been identified and can be modified by countries and regions where patterns and health problems linked to substance use differ. The importance of using interventions which are evidence-based and modified to the cultural needs of populations remains key in the educational process.

Table 2

Evidence-based Screening Instruments for Alcohol, Tobacco and Other Drug Use
AUDIT (Alcohol Use Disorders Test). Babor, TF, de la Fuente, J.R., Saunders, J., & Grant, M., 1993 ■T-ACE Questions. Sokol, R.J., Martier, S.S., & Ager, J.W., 1989. ■NIAAA Quantity-Frequency Index. Armour, et al., 1978. ■Fagerstrom Test for Nicotine Dependence. Fagerstrom, et al., 1992; Pomerlau, et al., 1994 & Payne, 1994. ■SMAST-G (Short Michigan Alcohol Test-Geriatric Version). U. Michigan Alcohol Research Center

Table 3

Non-nicotine Therapy for Smoking Cessation
■Set quit date ■Sustained release buproprion (Zyban or Wellbutrin SR). Initiate 2 wks before quit date. 150/mg/day for 3 days, then 150 mg twice daily ■Individual and/or group counseling and self-help program ■Regimen planned based on no addiction, moderate, or severe addiction

Sources: Fiore et al.[5]; Rigotti[12].

Table 4

Nicotine Replacement Therapy

❑ Transdermal patch • 24 hr, 7,14, 21 mg • 16 hr, 15 mg. ❑ Nicotine Polacrilex gum • 2mg (< 25 cigarettes daily) • 4 mg (>25 cigarettes daily) ❑ Vapor Inhaler • 1-2 dose/hr (1 mg. total/ .5 dose/nostril) ❑ Nasal Spray • 1-2 does/hr (1 mg. total; .5/nostril) ❑ Nicotine Polacrilex lozenge • 9-20 lozenges/day, wks 1-6) • 2 mg (first cigarette no sooner 30 min) • 4mg (first cigarette within 30 min)

Table 5

Brief Intervention for Alcohol Abuse
•Components of the brief intervention consist of a 15-30 minute interview that includes: –Brief screening and assessment –Feedback on personal risk –Advice about how to change the behavior –A self-help pamphlet –Referral for further counseling as warranted or desired (Anderson & Scott, 1992; Fleming et al, 1997; Heather, 1995a, NIAAA, 1995;Wallace Cutler and Haines, 1988). Booster sessions sometimes (Fleming, 1997).

References

1 Haack MR, Adger H. Strategic plan for interdisciplinary faculty development. Arming the nation's health professional workforce for a new approach to substance use disorders. Substance Abuse 2002;23(3 Suppl).

2 McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. J Am Med Assoc 2000;84:1689-95.

3 Allaman A, Voller F, Kubicka L, Bloomfield K. Drinking cultures and the position of women in nine European countries. Substance Abuse 2000;21(4):231-47.

4 World Health Organization. 2002. www.who.int.msa.mnh/ems/dalys/intro.htm Retrieved from site April 30, 2002.

5 Fiore MC, Bailey, WC, Cohen SJ, Dorfman S, Goldstein M, et. al. Treading tobacco use and dependence. Clinical Practice Guideline. Rockville (MD): U.S. Department of Health and Human Services, Public Health Service; 2000.

6 World Health Organization. Global status report on Alcohol. Geneva (SZ): World Health 0rganization; 1999.

7 Pan American Health Organization (PAHO) Health in the Americas: Scientific and Technical Publication No.587. Washington (DC): PAHO; 2002.

8 World Health Organization. Guide to Drug Abuse Epidemiology. Geneva (SZ): Regional Summaries of 12th World Conference on Tobacco; 2000.

9 Luttrell MF, Lenburg CB, Scheruble JC, Koch RWJC, Koch RW. Competency outcomes for learning and performance assessment: Redesigning a BSN curriculum. Nurs Health Care Perspect 1999;20:134-41.

10 Naegle MA. Nursing education in the prevention and treatment of SUD. In: Haack MR, Adger H. Strategic plan for interdisciplinary faculty development. Arming the nation's health professional workforce for a new approach to substance use disorders. Substance Abuse 2002;23(3 Suppl).

11 Wewers ME, Kidd K, Armbruster D, Sarna L. Tobacco dependence curricula in U.S. baccalaureate and graduate nursing education. Nurs Outlook 2004;52:95-101.

12 Rigotti NA. Clinical practice. Treatment of tobacco use and dependence. N Engl J Med 2002;346:506-12.

Websites

Agency for Healthcare and Quality. http://www.ahrq.gov/consumer/helpsmok.htm
Agency for Healthcare Research and Quality: http://www.ahrq.gov . Download smoking cessation guidelines
Agency for Healthcare and Quality. http://www.ahrq.gov/consumer/helpsmok.htm
National Institute for Mental Health: http://www.nimh.nih.gov.htm
National Clearinghouse for Alcohol and Drug Information. http://www.health.org.htm
National Institute on Drug Abuse. http://www.nida.nih.gov.htm
National Institute on Drug Abuse. NIDA research report: MDMA (Ecstasy) abuse http://165.112.78.61/ResearchReports/MDMA/default.html
National Institute of Alcohol Abuse and Alcoholism. http://www.niaaa.nih.gov.htm
New York State Office of Alcoholism & Substance Abuse Services: http://www.oasas.state.ny.us
Project Mainstream.http://www.projectmainstream.net
Recovery On line (Self-help Groups): http://www.recovery.alano.org
Substance Abuse Mental Health Services Administration: http://www.samhsa.gov
http://www.drugabuse.gov/pubs/minorities

Complementary References

Alcoholics Anonymous World Service. Alcoholics Anonymous. 4th ed. New York: Alcoholics Anonymous World Service; 2000.

Altshuler L, Kachur E. A culture OSCE: Teaching residents to bridge different worlds. Acad Med 2001;76(5):514.

Anderson M, Stickley T. Finding reality: The use of objective structured clinical examination (OSCE) in the assessment of mental health nursing students' interpersonal skills. Nurs Educ Practice 2002;2:160-8.

Badger LW, MacNeil G. Standardized clients in the classroom: A novel instructional technique for social work educators. Res Soc Work Practice 2002;12(3):364-74.

Brown JM. Self-regulation and the addictive behaviors. In: Miller WR, Heather N, editors. Treating addictive behaviors. 2nd ed. New York: Plenum Press; 1998. p.61–73.

Burke BL, Arkowitz H, Dunn C. The efficacy of motivational interviewing and its adaptations: What we know so far. In: Miller WR, Rollnick S. Motivational interviewing: Preparing people for change. 2nd ed. New York: Guilford; 2002. p.217–50.

Dackis CA, Miller NS. Neurobiological effects determine treatment options for alcohol, cocaine, and heroin addiction. Psychiatr Ann 2003;33:585-92.

Daley DC, Salloum IM, Zuckoff A, Kirisci L, Thase ME. Increasing treatment adherence among outpatients with depression and cocaine dependence: Results of a pilot study. Am J Psychiatry 1998;155:1611–3.

Dupont R. A bridge to recovery: An introduction to 12-step programs. Washington (DC): American Psychiatric Press; 1994.

Galanter M, Kleber HD, editors. American Psychiatric Press Textbook of Substance Abuse Treatment. 2nd ed. Arlington (VA): American Psychiatric Press; 1999.

Gifford EV, Kohlenberg BS, Hayes SC, Antonuccio DO, Piaseck MM, Hasmussen-Hall ML, et al. Acceptance-based treatment for smoking cessation. Behav Ther 2004;35(4):689-705.

Mallin R. Smoking cessation: Integration of behavioral and drug therapies. American Family Physician 2002;65:1107-1114, 117.

Margolin A, Kleber HD, Avants SK, Konefal J, Gawin F, Stark E, et al. Acupuncture for the treatment of cocaine addiction: A randomized controlled trial. J Am Med Assoc 2002;87:55-63.

Marlatt GA, editor. Harm Reduction: Pragmatic Strategies for Managing High-Risk Behaviors. New York: Guilford Press; 2002.

Miller WR, Tonigan JS. Assessing drinkers' motivation for change: The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES). Psychol Addict Behav 1996;10:81–9.

Miller WR, Rollnick S, Conforti K. Motivational Interviewing, Second Edition: Preparing People for Change. 2nd ed. New York: Guilford Press; 2002.

Miller WR, Yahne CE, Tonigan JS. Motivational Interviewing in Drug Abuse Services: A Randomized Trial. J Consult Clin Psychol 2003;71(4):754-63.

National Organization of Nurse [homepage on the internet]. Washington: NONPF, c2005. [cited 2006 February 24]. Practitioner Faculties (NONPF) (2003). Psychiatric-mental Health Nurse Practitioner Competencies; [about 33 screens]**.** Available from: http://www. nonpf.org/finalcomps03.pdf

Noonan WC, Moyers TB.. Motivational interviewing: A review. J Substance Misuse 1997;2:8–16.

Nowak D, Bauerle V. Pharmacological strategies of the relapse prophylaxis of nicotine dependence. Nervenheilkunde 2004;23(9):514.

Nunes EV, Levin FR. Treatment of depression in patients with alcohol and other drug dependence: A meta-analysis. J Am Med Assoc 2004;291:1887-96.

Rollnick S, Heather N, Bell A. Negotiating behavior change in medical settings: The development of brief motivational interviewing. J Mental Health 1992;1:25–37.

Schneider RJ, Casey J, Kohn R. Motivational versus confrontational interviewing: A comparison of substance abuse assessment practices at employee assistance programs. J Behav Health Services Res 2000;27:60–74.

Stotts AM, Schmitz JM, Rhoades HM, Grabowski J. Motivational interviewing with cocaine-dependent patients: A pilot study. J Consult Clin Psychol 2001;69:858–62.

Straussner LA, editor. Gender and addictions: Men and women in treatment. Northvale (NJ): Jason Aronson Press; 1997.

Swanson AJ, Pantalon MV, Cohen KR. Motivational interviewing and treatment adherence among psychiatric and dually-diagnosed patients. J Nervous Mental Dis 1999;187:630–5.

Thurauf N, Lunkenheimer J, Bleich S, et al. The neurology of the nicotine dependency. Nervenheilkunde 2004;23(9):509.

Vasquez E, Orineal ME. Substance abuse education for nurse practitioners in primary care. Substance Abuse 2002;23(3):235-46.

Watters AJ, Shiffman S, Sayette MA, Paty JA, Gwaltney CJ, Balabanis MH. Cue-provoked craving and nicotine replacement therapy in smoking cessation. J Consult Clin Psychol 2004;72(6):1136-43.

Wetter DW, Cofta-Gunn L, Fouladi RT, Cinciripini PM, Sui D, Gritz ER. Late relapse/sustained abstinence among former smokers: a longitudinal study. Prev Med 2004;39(6):1156-63.

Wilford B. Principles of Addiction Medicine. 3rd ed. Chevy Chase (MD):American Society of Addiction Medicine; 2003.

World Health Organization Surveys of drinking patterns and problems in seven developing countries. Geneva (SZ): World Health Organization; 2000.