

1: Prenatal memory - Wikipedia

There is growing awareness in the lesbian community about the prevalence of alcohol problems, and the meanings and values attached to alcohol use are currently undergoing change.

Background Information and Functions[edit] Fetal memory is integral to mother-infant attachment. There is some evidence that fetal memory may begin within the second trimester after conception. Substantial evidence for fetal memories has been found at around 30 weeks after conception. One of the most important types of memory is that which stores information contributing to the maternal bond between infant and mother. This form of memory is important for a type of development known as attachment. Development[edit] The Central Nervous System CNS and memory in the fetus develop from the ectoderm following fertilization via a process called neurulation. The ectoderm is the outermost layer of the embryo. Some evidence suggests memory is actually responsible for carrying out the development of the CNS during neurulation. However, much more research needs to be done on this. Fetal memory and brain development can be impaired by a number of maternal implications. Rubella, intrauterine hypoxia and hypothyroidism are some of the more researched examples. Alcohol and other substances such as hard drugs can affect this process as well. One of its main functions at this point is to control breathing in the fetus. Also noted, was its ability to control eye movement and coordination during all nine months of development. There is evidence that these are practiced in the womb and carried out similarly after birth. Learning language as an infant also requires fetal memory. This is evident in the baby when born, showing many signs of early language comprehension. Memory is critical for the recognition process that takes place between the mother and infant through breastfeeding. Breast milk contains contents recognizable by the infant that they were exposed to through amniotic fluid fluid that encompasses the fetus and is responsible for its nutrition in the womb in the fetal stage. Since the baby is so dependent upon the mother, maternal nutrition also plays a large role in the infant developing healthy brain functioning; including memory function, which the infant cannot live without. Thus, fetal memory is critical to the survival and healthy development of the infant before and after birth. Many of these functions are measured through methods such as classical conditioning , habituation and exposure learning, being the most popular. In this pairing, the vibration will be presented immediately followed by a loud noise. Initially, the presentation of the loud noise US would cause the unconditioned response UR natural agitation without prior classical conditioning. However, the continuous pairing of the loud noise US with the vibration CS converts the unconditioned response UR into a CR as the fetus learns that the presentation of a vibration will be followed by a loud noise. Eventually, the fetus will respond to the vibration CS without being exposed to the loud noise US ; this is when conditioning has occurred. Conditioning has been demonstrated in as few as pairings of the vibration CS with the loud noise US in fetuses as early as 32 weeks of gestation. A vibroacoustic stimulus is a low bass sound frequency that is felt by the fetus as a mechanical vibration. It is suggested that poorly prepared experimental set up, inaccurate or inappropriate response measures and unsuitable stimuli could all contribute to failed conditioning, as opposed to lack of fetal memory. Habituation[edit] Evidence shows that newborns in the neonatal period, like above, are habituated to auditory stimuli experienced while a fetus. The second paradigm, habituation, is one of the most successful ways of investigating fetal memory. Habituation has been demonstrated in fetuses as early as 22 weeks and corresponds to the onset of fetal auditory abilities. Vibroacoustic stimulation is a technique involving the repetitive stimulation of the fetus, by applying a vibroacoustic stimulus in predetermined intervals to the abdomen of the mother. The movement and reaction of the fetus, in response to the stimulus, is recorded using ultrasound technology. This process is repeated until habituation, defined as a lack of response to the stimulus by the fetus, is reached. Stimulation trials continue into the neonatal period first 28 days after birth by presenting the same auditory stimulus, to test whether or not the fetus has memory of the stimulation events. A scientific control group of babies in the neonatal period, having not been exposed to the stimulus as a fetus, are used in neonatal trials to serve as a comparison. Results from another recent study suggest that fetuses were able to form both short and long term memories. Exposure Learning[edit] The final experimental

technique used to investigate fetal learning and memory is exposure learning. This technique allows the experimenter a lot of control over the presentation of the stimulus and following testing. One experiment was conducted where fetuses were exposed to the television theme tune from the show " Neighbours " while in the womb. Upon hearing the tune, these newborns showed physiological changes, such as a decrease in heart rate. This observed change did not happen with unfamiliar tunes, or to newborns that were not exposed to the tune in the womb; so the tune had to be learned in the womb. Recognition of the tune was strong 2-4 days after birth, however, diminished after the age of 21 days without repeated exposure. It was determined that by 30-37 weeks of gestation, fetuses previously exposed to the theme tune were more active when presented with the tune than those who had no previous experience with the tune. This demonstrates that stimulus recognition begins no earlier than 30 weeks of gestation. It is important to note that certain periods in fetal development allow for different learning and memory abilities, which should be taken into consideration when determining if fetal memory exists. Auditory stimuli presented in the womb can be retained and recognized learned into the days following birth and that learning is specific to familiar auditory stimuli. Intrauterine hypoxia is a condition or state caused by insufficient oxygen levels reaching a fetus during gestation, having detrimental effects on the development of its central nervous system CNS. Commonly known, the CNS is vital to the communication and response transmissions between the brain and all of the body parts within an organism. Due to dysfunction in this system such things as cognitive functioning and attention capacity are impeded, resulting in a poor ability to decode or encode information and form memories. Grey matter is a large component of the CNS and is related to: These problems are often caused by a "passing-down" from the mother or from an external neurotoxin causing impaired cognitive ability and, in extreme cases, mental retardation. In abnormal cases when there are lowered levels of thyroid hormone, TSH levels increase to compensate, thus doctors and medical researchers can measure TSH levels to predict hypothyroidism. Because of ethical reasons, most research has been carried out on rats and other mammals. However, in the hypothyroid rat brain, numerous malformations were found: It is often combated using preventative measures, typically through vaccination. For children and adults it can be overcome quite easily once vaccinated, however, if the fetus is exposed to the virus, especially during the first trimester the first three months of pregnancy , major implications can occur. It is essential to keep in mind that this is not conclusive and still remains a theory. Congenital rubella syndrome has many adverse effects such as: The latter two ailments also affect cognition and learning capacities. Implications and future possibilities[edit] Humans are not used for fetal disease research due to ethical concerns. A large amount of the research in this area has been done on rats. As a result of ethical consideration, most research into diseases and conditions affecting fetal development has been restricted to the use of other animals aside from human beings. Most accounts on the implications caused by diseases or conditions like rubella, hypothyroidism and intrauterine hypoxia involving humans have come from studies done on patients later in life, or more appropriately, after birth. Although there is much evidence that points towards these prenatal diseases or conditions being precursors for improper brain development, and thus potential consequences for memory, it is hard to assume that these alone are the only cause. If one could test for, and track the onset of the disease during gestation while screening potential extraneous variables , one may be able to better understand this topic. It is important to remember[according to whom? If anything can be taken from this, it should be that most of these diseases or conditions resulting in poor fetal brain development can be prevented or mitigated if one exercises healthy living behaviour. A large part of this involves proper nutrition and dieting. There are two points in rodent brain development during which treatment with choline , a neurotransmitter, produces lifelong enhancement of spatial memory. Choline, a neurotransmitter important for spatial memory. The first point is at 12-17 days into embryo development, and the second is between 16-30 days after the rat has been born. Baby rats, from mothers fed a diet lacking in choline during these two periods of pregnancy, have poorer memory function than baby rats from mothers who received choline. Choline, when given during these critical periods, causes a major improvement in memory performance when rats are being trained in a maze. Even in older rats, these memory changes persist and can be used to easily identify which rats came from mothers that received enough choline. Supplementation with choline appears to reduce the speed at which memory declines with age. Choline before

pregnancy is also related to changes in the birth, death, and migration of cells in the hippocampus during the development of the baby rats in the womb. Choline is also associated with the different location and shape of neurons involved in memory storage within the brain. More specifically, only the CA1 region of the hippocampus seemed to demonstrate a significant reduction in size. Because the region of the hippocampus affected by protein malnutrition is so specific, global hippocampal function is not impaired, but rather just the function that would appear to be associated with the CA1. Rats with the CA1 volume deficit were found to perform poorly in a tasks requiring behavioural inhibition and accurate response timing. Further research in this area is needed. Similarly to nutritional intake, drugs consumed by the mother during pregnancy can affect the brain development of her fetus. There has been a great deal of research concerned with the damaging effects of prenatal drug use, and how exactly this use impairs future memory functioning of the child. Research has focused on a variety of recreational drugs, primarily alcohol , cocaine , heroin , and methamphetamine. Pregnancy Category[edit] Most drugs are rated by the Food and Drug Administration to a pregnancy category , which is a government assessment of the risks to the fetus that drug use by the mother incurs. The pregnancy category levels from least to most dangerous are A, B, C, D and X and are described as follows: Alcohol is the most widely used of these drugs, and for that reason, the majority research on prenatal drug use has been focused on it. Research shows that prenatal exposure to alcohol can have many negative consequences, and is significantly associated with memory problems, attention problems and decreased cognitive functioning mental processes involved in memory, perception, thinking etc. Also, it can lead to the development of alcohol-related problems in later years, such as alcohol dependence. One study compared data about maternal drinking during pregnancy alcohol consumption by the pregnant mother , to observations gathered about the offspring many years after birth. In this longitudinal study a study which measures participant changes over time through repeated measures , the offspring also reported their drinking habits at 21 years of age, and completed the Alcohol Dependence Scale a self-report questionnaire. Episodic drinking multiple drinks during drinking occasions by the mother significantly increased subsequent Alcohol Dependence scores for their children. One of the items on the Alcohol Dependence scale most positively related to their prenatal alcohol exposure includes "blacking out". Blackouts are alcohol-related amnesia , occurring when long term memory creation is impaired during a drinking episode, resulting in an inability to remember. The frequency of blackouts in young adults while drinking is strongly related to prenatal alcohol exposure; those exposed to alcohol as a fetus are more vulnerable to experiencing blackouts as an adult. Attention deficits result in an inability to maintain focus on one task for a length of time, and being prone to distraction. Patients who had been exposed prenatally to alcohol show decreased ability to hold and manipulate information in working memory , the memory system that is used to keep things in mind during complex tasks.

2: Studies on Alcohol and Drugs

Early identification of alcohol-related problems is important because these problems are prevalent, pose serious health risks to patients and their families, and are amenable to intervention.

Based on a competitive grant process, NIAAA selected five teams of research scientists with expertise in college drinking research. NIAAA then invited college administrators to propose interventions to address a recently experienced alcohol-related problem. This supplement reports the results of several Rapid Response projects, plus other findings of interest that emerged from that research. Additional studies provide further insights that can inform prevention and treatment programs designed to reduce alcohol-related problems among college students. This article provides an overview of these findings, placing them in the context of the college drinking intervention literature. College drinking remains a daunting problem on many campuses, but evidence-based strategies—such as those described in this supplement—provide hope that more effective solutions can be found. The Rapid Response initiative has helped solidify the necessary link between research and practice in college alcohol prevention and treatment. *J Stud Alcohol Drugs Suppl.* The aim of this study was to estimate, among college students ages 18–24, the numbers of alcohol-related unintentional injury deaths and other problems over the period from 2000 through 2004. The analysis integrated data on 18–24 year-olds and college students from each of the following data sources: From 2000 to 2004, the proportions of college students ages 18–24 who reported consuming five or more drinks on at least one occasion in the past month increased from 15.3% to 18.3%. The increases occurred among college students ages 18–24, not 25–34. In 2000, 15.3% of students in schools with the highest proportions of heavy drinkers found no significant changes in the proportions experiencing these events. The persistence of college drinking problems underscores an urgent need to implement prevention and counseling approaches identified through research to reduce alcohol-related harms among college students and other young adults. The evaluation comprised data from three public universities in Washington. Annual, Web-based student surveys in 2000 and 2004 included measures of alcohol consumption, alcohol-related problems, and student perception of alcohol control and prevention activities. The results suggest that alcohol control measures can be effective in reducing problematic drinking in college settings. These findings strongly support conducting a replication with greater power and a more rigorous design. To receive federal funds, colleges and universities are required to provide information to students about their alcohol policies as part of their alcohol-abuse prevention efforts. This study investigated whether and how the availability and completeness of alcohol-policy information on college Web sites changed between 2000 and 2004. The Web sites of the top 52 national universities listed in the rankings of U. News and World Report, which were reviewed for alcohol-policy information in 2000, were reviewed again in 2004 using the same Web search methodology. Much more information regarding college alcohol policies was available on the Web sites of the 52 universities in 2004 than in 2000. Substantial increases were seen in the areas of 1 rules, restrictions, requirements; and 2 consequences for infractions, especially for student groups. In addition, information on university Web sites regarding their alcohol policies was easier to access in 2004 than in 2000. These findings indicate that colleges have made online alcohol-policy information more available and accessible to their students and other interested parties, including parents. This may reflect a greater engagement of colleges and universities in the issue of drinking on campus in general. Secondary analysis of data obtained for an intervention study to reduce high-risk drinking in college students was used. Data on alcohol use and alcohol-related harms were obtained from Web-based Healthy Lifestyle Questionnaires and day alcohol recall diaries Timeline Followback calendar. Alcohol-related harms were measured using the Rutgers Alcohol Problem Index and eight additional items derived from the Drinker Inventory of Consequences-2L. Students in the nonheavy, heavy, and heavy and frequent groups had mean Rutgers Alcohol Problem Index scores of 10, 14, and 23, respectively. The aim of this study was to investigate the effectiveness of a brief intervention for mandated students in the context of the University Assistance Program, a Student Assistance Program developed and modeled after workplace Employee Assistance Programs. Participants were males and 69 females judicially mandated college students enrolled in a large, urban university in the northeast United States. Participants were randomized to one of two

intervention conditions the University Assistance Program or services as usual and were assessed at baseline and 3 and 6 months after intervention. Growth curve analyses showed that, relative to services as usual, the University Assistance Program was more efficacious in reducing past day weekday alcohol consumption and the number of alcohol-related consequences while increasing past day use of protective behaviors and coping skills. No significant differences in growth trajectories were found between the two intervention conditions on pastday blood alcohol concentration, total alcohol consumption, or weekend consumption. The University Assistance Program may have a possible advantage over services as usual for mandated students. This study examined the effectiveness of three peer-facilitated brief alcohol interventions—small group motivational interviewing, motivationally enhanced peer theater, and an interactive alcohol-education program—with students engaging in high-risk drinking who were referred for alcohol policy violations. There were no statistically significant overall pre-post effects or treatment effects. The presence of nonsignificant pre-post or main effects is, in part, consistent with recent research indicating that sanctioned college students may immediately reduce drinking in response to citation and that brief interventions may not contribute to additional behavioral change. The presence of statistically significant correlations between alcohol use and related problems with corrections in norms misperceptions and increased use of protective behaviors at the individual level holds promise for both research and practice. The integration of elements addressing social norms and use of protective behaviors within brief cognitive-behavioral intervention protocols delivered by trained peer facilitators warrants further study using randomized clinical trials. Despite research suggesting that parental involvement can affect alcohol involvement among adolescents, few studies have focused on parent-based alcohol prevention strategies among college undergraduates. We report the results of a randomized trial of a parent-based intervention PBI in a sample of college freshmen. Across two cohorts, incoming freshman—parent dyads completed baseline assessments and were randomly assigned to PBI or intervention as usual an alcohol fact sheet for parents. Student follow-up assessments were completed at 4 and 8 months. Two-part latent growth curve modeling was used to test hypothesized intervention effects. Outcome variables were drinks per week past month, heavy episodic drinking past 2 weeks, and alcohol-related problems past 3 months. Over the 8-month follow-up period, PBI had a significant effect on drinks per week but not heavy episodic drinking or alcohol-related problems. Specifically, compared with students in the intervention-as-usual condition, students receiving the PBI were significantly less likely to transition from nondrinker to drinker status and showed less growth in drinking over the freshman year. This study extends previous research by demonstrating the potential utility for PBIs to decrease the likelihood of transitioning into drinker status and, at least for women, for slowing growth in drinking over the freshman year. Female college students have increased their alcohol consumption rates. The current study sought to replicate the effectiveness of a female-specific motivational-enhancement group intervention and extended previous work by adding a 6-month follow-up. The intervention included several motivational-enhancement components delivered in a group setting and included a group discussion of female-specific reasons for drinking. Participants were first-year college women. Data collection consisted of an online pre-intervention questionnaire, 10 weeks of online follow-up assessment, and a 6-month online follow-up. Using a randomized design, participants chose a group session, blind to treatment status. Held during the first weeks of the first semester, participants received the intervention and participants received an assessment-only control. However, these effects did not persist at the 6-month follow-up. Moderation effects were found for social motives on all drinking variables, such that the intervention was most effective for those women with higher social motives for drinking. Efficacy was found for a female-specific motivational group intervention in creating less risky drinking patterns among first-year women, especially women with social motives for drinking. The effect dissipated by the second semester, suggesting the need for maintenance or booster sessions. Participation in residential learning communities RLCs is associated with lower rates of alcohol consumption among college students. This study used variable- and pattern-centered analytic approaches to examine the influence of RLCs on the drinking behavior of students during their first 2 years in college. A Web-based survey was administered to a stratified random sample of 1, first-year students. The sample included students. During their first semester, students reported on their precollege and current drinking.

Students also completed measures of alcohol involvement 6 months later during their second semester and 18 months later during their fourth semester. Mixed factorial analyses of variance showed that RLC students reported fewer drinks per occasion than non-RLC students before college. RLC and non-RLC students showed increases in maximum drinks per occasion from precollege to first and second semesters, but only non-RLC students continued to increase their drinking from second to fourth semester. Latent class growth analyses indicated four trajectory classes: Non-RLC students had higher odds of being in the heavy-increasing drinking trajectory class. Compared with their non-RLC peers, RLC students not only drink less before college and show smaller increases in drinking over time but also are less likely to be in a high-risk drinking trajectory group. Identification of selection, socialization, and reciprocal influence processes that underlie RLC effects can better inform prevention efforts for sustained lower risk drinking among college students. This article presents an evaluation of Common Ground, a media campaign-supported prevention program featuring increased enforcement, decreased alcohol access, and other environmental management initiatives targeting college student drinking. Phase 1 of the media campaign addressed student resistance to environmentally focused prevention by reporting majority student support for alcohol policy and enforcement initiatives. Phase 2 informed students about state laws, university policies, and environmental initiatives. We conducted student telephone surveys, with samples stratified by gender and year in school, for 4 consecutive years at the intervention campus and 3 years at a comparison campus. We did a series of one-way between-subjects analyses of variance and analyses of covariance, followed by tests of linear trend and planned comparisons. Targeted outcomes included perceptions of enforcement and alcohol availability, alcohol use, and alcohol-impaired driving. We examined archived police reports for student incidents, primarily those resulting from loud parties. Police-reported incidents decreased over time; however, perceived consequences for off-campus parties decreased. No changes were observed for difficulty finding an off-campus party, self-reported alcohol use, or alcohol-impaired driving. The intervention successfully altered perceptions of alcohol enforcement, alcohol access, and the local alcohol environment. This study provides important preliminary information to researchers and practitioners engaged in collaborative prevention efforts in campus communities. Motivational interviewing MI therapies are effective in reducing high-risk drinking in college populations. Although research supports efficacy of MI prevention strategies in reducing alcohol use, there are little data examining readiness to change RTC, the underlying theoretical model of MI interventions. The purpose of the present study was to explore RTC variability and drinking behavior and whether MI increases RTC in an intervention group compared with controls. Two-hundred eighty-five first-year female college students participated in the study. Analyses were conducted using hierarchical linear modeling. There was significant variability in RTC: Higher RTC was associated with lower intentions to drink and future drinking behavior. However, in weeks in which students drank more, they experienced a decrease in RTC. Based on the significant cross-level interaction, the intervention group had significantly higher RTC than controls. These results provided partial support for our hypotheses. The overall theoretical construct of RTC varies both across and within individuals. These results also offer support for the utility of MI-based prevention strategies in increasing RTC within individuals. However, we did not consistently find that these changes related to drinking changes.

3: Alcoholism and Alcohol Abuse: Recognizing the Signs and Symptoms of a Drinking Problem

*Alcohol Problems - Recognition and Response: Report of the West Midlands Regional Alcohol Training Scheme [Pip Mason] on www.enganchecubano.com *FREE* shipping on qualifying offers.*

Burge Although two thirds of American men and one half of American women drink alcohol,[1] three fourths of drinkers experience no serious consequences from alcohol use. Rationale for Early Screening Preventive efforts on the part of family physicians are important because: In the United States, the one-year prevalence of alcohol-use disorders, including alcohol abuse and alcohol dependence, is about 7. One study of 17 primary care practices found a Table 1 lists many direct and indirect effects of alcohol-related problems. Alcohol causes diseases such as cirrhosis of the liver and exacerbates symptoms in existing conditions such as diabetes. Many of these problems may be avoided by early screening and intervention by family physicians. Several studies of early and brief physician interventions have demonstrated a reduction in alcohol consumption and improvement in alcohol-related problems among patients with drinking problems. Adapted with permission from American Psychiatric Association. Diagnostic and statistical manual of mental disorders. American Psychiatric Association, The diagnosis of alcohol dependence is based on the compulsion to drink. The dependent drinker devotes substantial time to obtaining alcohol, drinking and recovering, and continues to drink despite adverse social, psychologic or medical consequences. A physiologic dependence on alcohol, marked by tolerance or withdrawal symptoms, may or may not be present. Note that quantity and frequency of drinking are not specified in the criteria for either diagnosis; instead, the key elements of these diagnoses include the compulsion to drink and drinking despite adverse consequences. Clinical Presentation Alcohol-use disorders are easy to recognize in patients with longstanding problems, because these persons present to the family physician with diseases such as cirrhosis or pancreatitis Table 1. Patients in the earlier stages of alcohol-related problems may have few or subtle clinical findings, and the physician may not suspect a high consumption of alcohol. Certain medical complaints, such as headache, depression, chronic abdominal or epigastric pain, fatigue and memory loss, should alert the family physician to consider the possibility of alcohol-related problems Table 1. The first signs of heavy drinking may be social problems. The compulsion to drink causes persons to neglect social responsibilities and relationships in favor of drinking. Intoxication may lead to accidents, occasional arrest or job loss. Recovering from drinking can decrease job performance or family involvement. Social problems that indicate alcohol-use disorders include family conflict, separation or divorce, employment difficulties or job loss, arrests and motor vehicle accidents. History The most effective tool for diagnosing alcohol-related problems is a thorough history of the drinking behavior and its consequences. Screening questions are listed in Table 4. The first four questions are related to alcohol consumption. One drink is defined as 12 g of pure alcohol, which is equal to one oz can of beer, one 5-oz glass of wine or 1. The CAGE questions are widely used in primary care settings and have high sensitivity and specificity for identifying alcohol problems. Other screening questionnaires are available and may perform better than the CAGE questionnaire. A "drink" refers to a can or bottle of beer, a glass of wine, a wine cooler, or one cocktail or shot of hard liquor. How often do you have a drink containing alcohol? Never, 0 points; [is less than] monthly, 1 point; 2 to 4 times per month, 2 points; 2 to 3 times per week, 3 points; [is greater than] 4 times per week, 4 points 2. How many drinks containing alcohol do you have on a typical day when you are drinking? How often do you have 6 or more drinks on 1 occasion? Never, 0 points; [is less than] monthly, 1 point; monthly, 2 points; weekly, 3 points; daily or almost daily, 4 points 4. How often during the past year have you found that you were not able to stop drinking once you had started? Scoring same as question No. How often during the past year have you failed to do what was normally expected from you because of drinking? Same as question No. How often during the past year have you needed a first drink in the morning to get yourself going after a heavy drinking session? How often during the past year have you had a feeling of guilt or remorse after drinking? How often during the past year have you been unable to remember what happened the night before because you were drinking? Have you or someone else been injured as a result of your drinking? No, 0 points; yes, but not in the past year, 2 points; yes, during the past year, 4 points Has a

relative or friend, or a doctor or other health care worker, been concerned about your drinking or suggested you cut down? For complete scoring information, see reference How many drinks can you hold "hold" version; [is greater than] 6 drinks indicates tolerance, or how many drinks does it take before you begin to feel the first effects of the alcohol? Have close friends or relatives worried or complained about your drinking in the past year? Do you sometimes take a drink in the morning when you first get up? Has a friend or family member ever told you about things you said or did while you were drinking that you could not remember? Do you sometimes feel the need to cut down on your drinking? For complete information about scoring, see reference

Physical Examination In the early stages of alcohol-related problems, the physical examination provides little evidence to suggest excessive drinking. Patients who abuse alcohol may have mildly elevated blood pressure but few other abnormal physical findings. Later, patients may develop significant and obvious signs of alcohol overuse, including gastrointestinal findings such as an enlarged and sometimes tender liver; cutaneous findings such as spider angiomas, varicosities and jaundice; neurologic signs such as tremor, ataxia or neuropathies; and cardiac arrhythmias.

Laboratory Findings Certain chemical markers are indicative but not diagnostic of alcohol-use disorders. The complete blood cell count may display a number of abnormalities. In cases of end-stage disease, all cell lines are reduced as a direct toxic effect of alcohol on the bone marrow. The prothrombin time PT is elevated because of decreased production of clotting factors by the liver. However, in early disease mean corpuscular volume MCV may be slightly elevated as a result of folate deficiency and the direct effects of alcohol on red blood cells. Patients with alcoholic gastritis may lose blood through the gastrointestinal tract, causing anemia and the production of smaller red blood cells, resulting in a low MCV. If both processes occur, the MCV will be normal, but the red cell distribution width will be elevated around Blood loss in the gastrointestinal tract may also cause iron deficiency.

Diagnosis and Classification An accurate diagnosis of alcohol abuse or dependence requires a thorough medical history. Medical markers such as gastrointestinal problems or elevated liver enzymes are cause for suspicion but are not diagnostic. For example, using a GGT level higher than 40 to detect alcohol problems in a primary care population results in a sensitivity of 44 to 54 percent and a specificity of 80 to 84 percent. Similarly, women who have more than 11 drinks per week or more than three drinks per occasion are "at risk" Because some drinkers significantly underreport their alcohol use, physicians should define patients as "at risk" when they have a positive CAGE score or a personal or family history of alcohol-related problems Table 8. Typically, these patients score 1 or 2 on the CAGE questionnaire and drink above "at-risk" levels. Those who display these traits are considered "alcohol dependent. Patients who resist formal treatment may prefer peer-directed groups, such as those offered by Alcoholics Anonymous, in conjunction with physician counseling and support. Al-Anon groups are available for adult family members of alcohol-dependent individuals. Abstinence is also indicated for non-alcohol-dependent patients who are pregnant, have comorbid medical conditions, take medications that interact with alcohol or have a history of repeated failed attempts to reduce their alcohol consumption. When persons change lifestyle behaviors such as tobacco or alcohol use, they typically move through stages of change: Relapse is common and does not indicate a "failed" intervention. Contemplation ambivalence is the most common stage of change. One study found that 29 percent of hospitalized patients with alcohol disorders were uninterested in changing, 45 percent were ambivalent and 26 percent were ready to change their drinking behavior. However, others[21] do not find the concept of denial useful when working with patients with alcohol disorders. They note that direct or confrontational counseling strategies are likely to evoke resistance in patients, which, in turn, will be labeled "denial. Personal decisions about lifestyle changes evolve slowly over time, requiring much reflection, with repeated attempts at change and repeated setbacks. Patients will not leap from the precontemplation stage into the action stage after one clinic visit, no matter how insightful or aggressive the practitioner. The goal of each visit should be to help the patient move along the continuum of change toward a reduction in alcohol use. Well-intentioned advice, a familiar tool among physicians, works best with patients who are preparing for change. A physician who tries direct persuasion with an ambivalent patient risks pushing the patient toward resistance. However, at any stage, urgent persuasion is appropriate in patients requiring immediate change: Even in these circumstances, resistance to direct advice is likely. When giving advice, physicians should avoid prescriptive directions. Instead, physicians can educate patients about

the consequences in an objective manner: Rollnick and colleagues[18] have developed a menu of brief strategies for the primary caregiver, based on a model of counseling called "motivational interviewing" Table 9. Among patients in the precontemplation stage, this assessment is the complete intervention. At this point, patients may be receptive to information about the effects of alcohol. In the later stages, the physician may acquaint patients with helpful community resources such as Alcoholics Anonymous or formal treatment programs, and help them anticipate and prepare for temptations and setbacks. Negotiating behaviour change in medical settings: J Ment Health ; 1: The goal of these strategies is to help patients develop their own rationale for change and to nudge them in the direction of a healthier lifestyle. This nondirective approach removes the element of resistance because the patient does the work: Family physicians, with training in biomedical and psychosocial issues and access to family members, are in a good position to recognize problems related to alcohol use and to assist patients with lifestyle change. NIAAA provides simple guidelines for alcohol screening, based on a thorough drinking history and a sound understanding of the pattern of consequences. Physicians who are sensitive to these issues will find alcohol-use disorders easier to diagnose, and physicians who motivate their patients to reflect on their drinking will encourage recovery. Congress on alcohol and health from the Secretary of Health and Human Services.

4: Assessment of Alcohol and Other Drug Use Behaviors

Drinking problems can sneak up on you, so it's important to be aware of the warning signs of alcohol abuse and alcoholism and take steps to cut back if you recognize them. Understanding the problem is the first step to overcoming it and either cutting back to healthy levels or quitting altogether.

Screening Questions for Alcohol-Related Problems All patients Do you drink alcohol, including beer, wine or distilled spirits? Current drinkers On average, on how many days per week do you drink alcohol? Quantity On a typical day when you drink, how many drinks do you have? Heaviest use What is the maximum number of drinks you had on any given occasion during the past month? For the missing item, see the original print version of this publication. Other screening questionnaires are available and may perform better than the CAGE questionnaire. How often do you have a drink containing alcohol? How many drinks containing alcohol do you have on a typical day when you are drinking? How often do you have 6 or more drinks on 1 occasion? How often during the past year have you found that you were not able to stop drinking once you had started? Scoring same as question No. How often during the past year have you failed to do what was normally expected from you because of drinking? Same as question No. How often during the past year have you needed a first drink in the morning to get yourself going after a heavy drinking session? How often during the past year have you had a feeling of guilt or remorse after drinking? How often during the past year have you been unable to remember what happened the night before because you were drinking? Have you or someone else been injured as a result of your drinking? No, 0 points; yes, but not in the past year, 2 points; yes, during the past year, 4 points Has a relative or friend, or a doctor or other health care worker, been concerned about your drinking or suggested you cut down? For complete scoring information, see reference Have close friends or relatives worried or complained about your drinking in the past year? Do you sometimes take a drink in the morning when you first get up? Has a friend or family member ever told you about things you said or did while you were drinking that you could not remember? Do you sometimes feel the need to cut down on your drinking? For complete information about scoring, see reference

5: Alcohol-Related Problems: Recognition and Intervention - - American Family Physician

The Alcohol Skills Training Program provides information to young adults about alcohol use and addiction, and teaches skills for avoiding, resisting, and setting limits on alcohol use. An experimental evaluation found that the program had positive impacts on several measures of self-reported alcohol.

A survey of public school attendees in Minnesota found that among youth who reported any recent substance use, 14 percent of 9th graders and 23 percent of 12th graders reported at least one abuse symptom Harrison et al. There are several concerns about the appropriateness of DSM-IV criteria substance use disorders for adolescents. Some symptoms reveal very low base rates among young people, as in the case of withdrawal symptoms and related medical problems, which likely only emerge after years of continued drinking or drug use. Two symptoms of abuse, hazardous use and substance-related legal problems, appear to have limited utility because they tend to occur only within a particular subgroup of adolescents. Langenbucher and Martin found that these symptoms were rare in early adolescence but were highly related to male gender, increased age, and symptoms of conduct disorder. Cognitive Factors Developmental considerations are relevant with respect to assessing cognitive factors that may be linked to AOD use. A growing body of research highlights the role of beliefs or schemas in the onset and course of AOD use Keating and Clark ; Christiansen and Goldman This research has been directed at demonstrating either that groups with different behaviors, such as alcohol consumption patterns, possess different cognitions Johnson and Gurin or, conversely, that groups with different cognitions show more likelihood of future alcohol use behaviors Christiansen et al. Generally speaking, four broad factors have been the focus of these cognitive-related investigations: Youth with a substance use dependence disorder assign more importance to the social conformity and mood enhancement effects of drug use compared with less-experienced adolescent AOD users Henly and Winters Drug Use-Related Expectancies Relevant expectancies for young people include negative physical effects, negative psychosocial effects, future health concerns, positive social effects, and reduction of negative affect e. It is common for adolescent AOD users to ignore or discount its negative effects or consequences, and many have an illusion of control over such use Botvin and Tortu Readiness for Behavior Change This domain involves a host of related motivational factors, including problem recognition, readiness for action, treatment suitability availability and accessibility , and influences that lead to coercive pressure to seek treatment. These factors may influence attitude toward subsequent treatment, including adherence to treatment plans Prochaska et al. Although little empirical work has been published on the determinants of motivational variables that promote positive change in adolescents, adolescents are probably subject to many of the same underlying motivational forces that influence change in adults suffering from addictions Prochaska et al. For example, AOD users are keenly aware that AOD involvement produces several personal benefits, and these benefits may prevent users from recognizing the personal costs of such use. Until the users begin to realize that the costs of the addictive behavior exceed the benefits, they are unlikely to want to stop. For developmental reasons, young people may have more trouble than adults projecting the consequences of their use into the future Erikson Their AOD use has not occurred over an extended period of time, and thus chronic negative consequences have not yet accumulated. To further aggravate the change process, the adolescents may have experienced coercive pressure to seek and continue treatment. Measurement Implications An important developmental consideration for the assessment process is that many adolescents are developmentally delayed in their social and emotional functioning Noam and Houlihan These developmental delays may affect perception and willingness to report AOD use experiences and resulting problems. Admitting a personal problem with substances to an adult counselor requires a modicum of self-insight. Another measurement consideration within the context of developmental progress of young people is the selection of appropriate assessment instruments. Assessment questionnaires and interviews require that the assessor consider the developmental suitability of the tool. Some assessment instruments have been primarily normed and validated on older adolescents e. Also, it is important that pencil-and-paper assessment tools be written at a grade level that is appropriate for the majority of potential clients. Given the high base rate of learning and reading

problems among drug-abusing adolescents Latimer et al. The extent to which individuals in clinical and legal settings deny AOD involvement, or exaggerate AOD use behaviors, has been the focus of attention for many researchers Babor et al. Fortunately for those who rely on the self-report method, there are several lines of evidence for the validity of adolescent self-reports of AOD problems Winters et al. A large proportion of youth in drug treatment settings admit to use of substances; few treatment-seeking adolescents endorse questions that indicate blatant faking of responses e. Several factors appear to increase the validity of self-report: Also, given the pitfalls of collecting retrospective data, it is becoming more commonplace in alcohol research to utilize the Timeline Followback TLFB procedure developed by Sobell and Sobell The TLFB was originally developed as an interviewing procedure designed to gather retrospective reports of daily occurrence of alcohol consumption and quantities consumed. There is an extensive literature demonstrating the reliability and accuracy of up to 1-year retrospective timeline alcohol data collected from clinical and nonclinical samples ages 18 and over Sobell and Sobell , and there are early indications that this procedure is promising for collecting information on daily use of other drugs and among adolescents Brown et al. Despite these data supporting the validity of self-report among adolescent drug abusers, several cautions about this method are noteworthy. Some settings, such as the juvenile criminal justice system, may not contribute to voluntary disclosure of drug use. For example, data from the Drug Use Forecasting study suggest that nearly half of all adolescents who are arrested deny or minimize illicit use of drugs Harrison ; Magura and Kang Another issue is the reliability of self-report for substance use that is infrequent; teenagers have been shown to be inconsistent about their self-reported drug use over a 1-year period for drugs that were used on an infrequent basis Single et al. Empirical studies on this topic have yielded inconsistent results. Investigators comparing diagnoses of substance use disorders based on parent reports with those based on self-reports have found diagnostic agreement ranging from 17 percent Weissman et al. The types of instruments described in this section are screening tools, comprehensive measures this group is divided into diagnostic interviews, problem-focused interviews, and multiscale questionnaires , expectancy measures, and measures of problem recognition and readiness for change. Owing to the nature of psychoactive substance use by young people, most of these instruments address alcohol and other drugs rather than alcohol use only. Descriptive and administrative information on these instruments is provided in tables 2A and 2B the instruments are listed in alphabetical order by full name , and an overview of the reliability and validity data is presented in table 3.

United States, in Senate, April 4, 1792. Direct and rule our hearts Mr. John Langshaw Word order in discourse Sample application The family aquarium Church and state in Britain since 1820. 1987 Pocket Part to Local Government Law Motorola mh230r manual espaÃ±ol The Shape of Desire Early Irish lyrics Reconstructive Integral Geometry (Monographs in Mathematics) Death and Justice Brief bibliography Psychology in modules 11th edition module 21 The battle over the recent past I : the experiences of Munich and the World War II Word within the word list 22 Websters new world english grammar handbook Soviet power, the continuing challenge Discover Your Divinity Intermediate algebra 10th edition Engineering economy 8th edition blank and tarquin solution Linux Certification Study Guide (Certification Press) 2.4 Factors affecting water caused Soil Erosion Interpretation of endometrial biopsies The Law of Speech and the First Amendment (Oceanas Legal Almanac Series Law for the Layperson) 1]. Catalogue and price lists of Darling, Brown Sharpe, 1868 Statistics for engineers and scientists 4th edition solutions Principles of microbiology gm atlas Modern Man at the Crossroads Return to Skoki Lake All parts of engine Rainbow six tom clancy Internet as a research tool Selections from the choric poetry of the Greek dramatic writers Community Work in the Uk 1982-86 The Dastgah Concept in Persian Music (Cambridge Studies in Ethnomusicology) Esl house vocabulary worksheets Curriculum in Transition Faerie queene book 1