

Appendix 1: Special Populations and Diagnoses in College Students with Higher Risk

Certain populations such as *LGBT youth, first generation college students and international students* benefit from increased campus community resources and efforts to recruit care providers from diverse backgrounds. Minority status, whether related to sexual orientation, gender identity, ethnicity, or cultural factors, is linked to an increased risk of mental health issues (1-4). Students experiencing stigma and discrimination due to their minority status report higher levels of stress than their non-minority cohorts.

Research has indicated that students of minority status strongly prefer psychiatric assistance from professionals of the same or similar minority status (5,6). Thus, recruitment and retention of appropriately diverse staff must be a consideration.

For some students, such as those who are just identifying or revealing their sexual orientation or gender identity, this may be the first time experiencing stigma and negative views of others. Similarly, international students or adults returning to college may appear outside the norms of the majority of students and be subjected to prejudice, discrimination and stigma. International students can face additional challenges. Geographic separation from their family and culture can, of itself, be a psychological stressor, and can also prohibit home visits during vacations. The burden of their perceived or actual family expectations for their success, and elevated tuition costs that can be a focus of concern, guilt or shame are other stressors for these students.

Psychotherapeutic strategies that mitigate the effects of minority status and improve the MH of these groups of college students are highly recommended. Group therapy specifically targeted to a minority group is a primary strategy to promote social connection and enhance psychological wellbeing. Additionally, campus programs that promote visibility and diversity assist in decreasing stigma and discrimination and engender tolerance and acceptance of others. Diversity training for staff, faculty and mental health professionals is essential.

Study abroad and other travel: The college psychiatrist frequently receives requests from students for medications for study abroad programs and other travel, including returning to their country of origin for summer vacations and other holidays. Most campuses provide specific resources and links for students related to official policies for study abroad programs. The Bureau of Consular Affairs, U.S. Department of State also maintains a website with relevant information for students. During their initial evaluation, it is not uncommon for students seeking to study abroad or travel to request a several-month supply of medication; it is important for college mental health programs to develop specific policies related to how such requests are managed.

Most college-age women are of childbearing age, and need a brief assessment of reproductive history including: contraceptive method, current plans for conception, and quality/regularity of menses. Under different conditions, oral contraceptive agents may improve, worsen or have no effect on a woman's mood (7,8). Students frequently change their contraceptive choice; therefore, providers can ask about changes in medications at

each visit. Students who become pregnant, are diagnosed with higher risk psychiatric disorders and wish to retain the pregnancy sometimes benefit from a referral to a maternal mental health specialist.

Other higher risk groups who benefit from more intensive treatment include students with *new onset psychosis, moderate-to-severe eating disorders, and drug abuse*. These students often have improved outcomes when referred to a higher level of specialized care, such as an intensive outpatient program. Depending on insurance and other factors, this can occur in the local community, or may require a leave of absence and return to the student's hometown or an area with adequate specialized psychiatric resources.

Drugs of abuse and dependence: Another principle of general clinical value, but of particular importance in young adulthood, is that prescriptions for drugs of abuse and dependence should be minimized. Because psychotropic treatment choice can have broader effects on the campus community, campus psychiatrists can benefit from their working relationship with local ER providers by staying abreast of emerging drug use trends. Also, psychiatrists may advocate for policies that restrict or forbid prescriptions of stimulants or benzodiazepines by primary care providers on-campus. Alternatively, health centers may agree to dispense small quantities of medications, i.e., 5-10 pills, followed by a referral to the campus psychiatrist or a chronic pain program. Campus pharmacies and providers can access to CURES reports in order to assess for possible diversion of drugs of abuse.

In cases of anxiety, alcohol abuse and/or mild withdrawal, or chronic pain, on-campus psychiatrists may consider treatment with gabapentin in place of benzodiazepines or opiates (9,10), due to its low abuse potential. The psychiatrist must be aware not only of the use and misuse of prescription medications, but also of the use of illicit substances that might interact with prescription medications or exacerbate psychiatric symptoms. For example, treatment with SSRIs may intensify the reactions to drugs such as marijuana or LSD. Since college students often change patterns of substance use, these patterns should be monitored during each visit. Particularly concerning is the rise in use of, and associated overdose deaths from, opiates, including heroin, in middle class demographics (11). Changing state laws related to medical marijuana have resulted in easier access to Tetrahydrocannabinol (THC) products and have impacted many campuses (12,13).

ADHD with comorbid depression or anxiety: For the college psychiatrist, a complaint heard almost daily is that of difficulty concentrating. Since attention, mood, and anxiety symptoms are highly comorbid (14), a detailed developmental and school history at intake facilitates a differential diagnosis of ADHD. Referral for neuropsychological testing when indicated and feasible can also be helpful for diagnostic clarity.

For college students who present for treatment with both mood and attention disturbances, clinicians should consider the use of bupropion as a first line agent capable of targeting both of these symptom groups (15,16); this is not the case for patients with a history of seizures, heavy drinking, or purging behaviors, for whom bupropion is contraindicated. SNRI's such as venlafaxine and duloxetine can also be considered as alternative treatments for ADHD, although evidence supporting this use is preliminary (17, 18). After mood and

anxiety complaints have remitted or resolved, any remaining attention complaints are most appropriately treated with psychostimulants (19, 20). Non-pharmacologic strategies for ADHD include referrals to office of students with disabilities for accommodations, ADHD support groups and links to websites for organizations such as Children and Adults with Attention-deficit Hyperactivity Disorder (CHADD) (21).

Alcohol use disorders: Abusive and underage college drinking affects both individual students and the campus milieu, presenting a major public health problem. Consequences of abusive drinking include death, injury, assault, sexual abuse, unsafe sex, academic problems, alcohol abuse disorders, drunk driving, legal difficulties, mood and anxiety problems and increased risk for suicidal behaviors. Successful efforts to address college drinking incorporate targeting individual students, the campus and surrounding community (22). The use of acamprosate, naltrexone and other agents has been studied in adults with longstanding alcohol dependence with modest success (23), though studies in college populations are limited (24). College MH psychiatrists can best address student alcohol misuse through motivational interviewing and psycho-educational strategies (25), targeted treatment for any comorbid mental illness, and referrals to community and campus supports such as Alcoholics Anonymous and Rational Recovery.

Bipolar spectrum disorders: The usual onset of these disorders occurs in late childhood or early adolescence (26). The mean age of onset for Bipolar-I disorder is 18, and the mean age of onset for Bipolar-II disorder is 22, making them particularly relevant to the college health practitioner. These disorders are often under-recognized, yet earlier recognition improves outcomes (27). Some presentations in college primary care settings include symptoms of depression, anxiety, mood swings, difficulty sleeping irritability, fatigue, inability to focus and concentrate, alcohol-related problems, sexually transmitted or drug-related infections, relationship problems, financial troubles, erratic occupational histories and legal issues (28). Treatment guidelines for the management of bipolar disorder recommend the use of lithium, lamotrigine, valproate, or neuroleptics such as lurasidone, and omega-3 fatty acids, at times in combination (29-31). Although valproate is effective in the treatment of bipolar disorder, its side effect profile makes this agent less preferable for many college students; this is particularly true in college women, because of its association with polycystic ovarian syndrome and potential teratogenicity. Effective treatment also focuses on medication adherence, improving psychosocial and occupational functioning and optimizing quality of life (32). Psychoeducation for bipolar and related disorders can be especially helpful to students, families and significant others (33, 34).

Appendix 1 References

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