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# CHAPTER 1

## OVERVIEW OF YOUTH SUBSTANCE USE AND MENTAL HEALTH PROBLEMS

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### 1.1 ADOLESCENT DEVELOPMENT, SUBSTANCE USE AND MENTAL HEALTH

*“Physical, emotional, and social well-being among youth is important for numerous reasons, not the least of which are the long-lasting effects into adulthood. Childhood and adolescence are pivotal developmental stages during which many life-long health behaviours, beliefs and attitudes become established. Therefore, healthy children will likely become healthy adults” (Adlaf, Paglia & Beitchman, 2002, 1).*

As they grow and learn, all young people in our society are exposed to and affected by the behaviours and experiences of the adults in their lives. This includes exposure to widespread use of alcohol and other drugs, as well as to the degree of mental health—or in some cases mental health problems—experienced by those adults. In turn, most young people will experiment, at some point, with alcohol and/or other drugs. While the majority will go on to lead healthy, productive lives, many will have experiences that affect their sense of well-being and, in more serious circumstances, that negatively affect their mental health and reduce their ability to function.

Throughout this primer, we use the terms “young people” and “youth” to acknowledge the fact that the broad time period from birth to early adulthood can be affected by the pervasiveness of substance use and mental health problems in our society. Our primary focus, however, is on adolescents.

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### 1.1.1 ADOLESCENT DEVELOPMENT

Adolescence is a time of opportunity and growth—a time when young people explore their identities and roles. Through this process of experimentation, learning and development, young people “lay down the foundations for physical, psychological and social maturity” (Centre for Addiction and Mental Health (CAMH), 2002a).

Adolescence is also a time when young people take risks that can have long-term effects on their health and well-being. As part of their exploration and experimentation, adolescents often engage in high-risk behaviours such as drinking and driving, unsafe sexual practices and harmful sleeping and eating patterns that can have serious consequences for themselves and others. Some adolescents engage in violence, including, in rare circumstances, homicide or suicide.

Adolescence is, above all, a period replete with significant life changes and emotional upheaval. Entering puberty and making it through high school can be stressful times for young people. For some, this period of transition can lead to emotional and/or behavioural problems and difficulties with school or other areas of life (Adlaf et al., 2002). Among marginalized groups of young people, vulnerability is compounded by factors such as dislocation, racism, sexism, homophobia, poverty, social isolation and street-involvement.

### 1.1.2 RISK AND PROTECTIVE FACTORS

Although many adolescents experiment with substances and stop using them relatively quickly, some do remain occasional or recreational users. A few become heavy users. Some young people are at greater risk of developing substance use problems than others.

There is no definitive “cause” of drug use problems among young people, but experts have suggested many reasons why young people who decide to experiment with drugs, go beyond experimentation or transition to regular use.

Within the context of adolescent development, some experimentation with alcohol and other drugs is considered normal. Young people might experiment with substances because:

- Drugs are available and provide a quick, often inexpensive way to have “fun.”
- They are curious and want to find out what the fuss is about.
- Using substances expresses opposition to adult authority and can be part of the process of separation from parents.
- Using substances symbolizes developmental transition (e.g., moving from a less mature to a more mature stage). In some families, the “first drink” is a rite of passage.

Once adolescents have some experience with a drug and know what the effects are, they might continue to use drugs because:

- Drug use becomes a coping mechanism for dealing with anything from poor grades and social rejection to family conflict, family dysfunction and child abuse. Drug users might be trying to quell feelings of anger, frustration, stress, fear of failure or failure itself.

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- Drug use can be an attempt to self-medicate symptoms of mental health problems such as depression or anxiety.
  - Drug use can demonstrate a personal identity. It can be a way of showing that they are “cool” or have characteristics valued in adolescent culture.
  - They might view drug use as a way to gain admission to a peer group.
  - They might believe drug use will make others perceive them as adults.
  - They feel omnipotent and immortal and therefore not at risk.

*Risk factors* make it more likely that individuals will experience poor overall adjustment or negative outcomes such as mental health or substance use problems. Risk factors may include biological, psychological or social factors in the individual, family and environment.

Some experts believe that mental health problems are risk factors for substance use (substance use as a self-medicating or coping strategy), but others prefer the suggestion that mental health and substance use problems among young people may emerge from a common pre-existing factor such as stress (Adlaf et al., 2002).

We now know a great deal about the factors that put young people at increased risk for substance use and mental health problems as well as the factors that help protect them. Much of what we have learned suggests there is overlap in both risk and protective factors and their potential outcomes (Offord, Boyle & Racine, 1989).

*Protective factors* reduce the potentially negative effects of risk factors. Protective factors may include biological, psychological or social factors in the individual, family and environment (Braverman, 2001).

The more risk factors a young person is exposed to, the more they are at risk. The impact of risk and protective factors depends, in part, on a young person’s stage of development and factors that affect early development can be the most crucial (National Institute on Drug Abuse [NIDA], 1997). Appendix A provides an overview of the often overlapping risk and protective factors that have been linked to substance use and/or mental health problems among young people.

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## 1.2 ADOLESCENT SUBSTANCE USE

Many young people experiment with alcohol and other drugs, much like they test out other “adult” behaviours. Often, this is a way for them to express independence and autonomy. But not all substance “use” leads to “abuse.” In fact, most young people who use substances “do not progress to problem use or dependency” (CAMH, 2002a).

At the same time, given the fact that young people have not reached full maturity, physically, psychologically or socially, substance use may interrupt those crucial developmental processes. If a young person’s use of alcohol or drugs hampers his or her ability to master key developmental tasks, he or she may experience difficulties in reaching full potential.

All young people will not develop dependence on the drugs they use. Those who do become dependent can develop either psychological or physical dependence. Psychological dependence means they are emotionally or psychologically driven to continue taking drugs to maintain their sense of well-being. Physical dependence refers to the adjustment of bodily

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The DSM-IV distinguishes between *substance abuse* and *dependence*.

Substance abuse refers to:

- use that results in failure to fulfil role obligations at work, school or home and/or legal problems
- use in situations that are physically hazardous
- continuation of use despite persistent social problems.

Substance dependence refers to:

- use that leads to tolerance and/or withdrawal (see section 2.3.2)
- use of large amounts over a long period of time
- unsuccessful efforts to control the use
- a great deal of time spent on drug-use related activities
- reduction of important social, recreational and occupational activities
- continued use despite serious physical or psychological problems (Health Canada, 2002).

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tissues in response to the continued presence of a drug, such that withdrawal symptoms develop when use of the drug is discontinued.

Our concern is not so much with what might be called “abuse,” but primarily with the “continuum of use.” In young people, the significance of a minimal-use pattern cannot be foretold. It may pass uneventfully or turn into a destructive lifestyle. From this standpoint, we must be concerned about all adolescent drug use.

### 1.2.1 ONTARIO DATA ON STUDENTS' SUBSTANCE USE

The Ontario Student Drug Use Survey (OSDUS) data confirm that substance use among young people is very common. Across the province, two-thirds of all students in grades 7 to 13 reported having used alcohol during the year prior to the survey (Adlaf & Paglia, 2001). One-third of students in grades 7 to 13 reported having used an illicit drug at least once during the year prior to the survey (Adlaf & Paglia, 2001). There are key differences in drug use patterns and trends across the province. For more specific information about the experiences of young people in different regions, consult the OSDUS reports.

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#### SOME PUBLIC HEALTH FLAGS FROM THE OSDUS

- **One quarter of students smoke cigarettes.**
- **Heavy drinking (i.e., binge drinking, getting drunk) remains at an elevated level among all students, compared to a decade ago.**
- **Over the past decade, there has been a steady increase in illicit drug use among students, even when cannabis is excluded.**
- **One in seven students drink and drive and one in five report driving after cannabis use.**
- **About one-third of all students report being a passenger with a driver who had been drinking.**
- **Fewer students today disapprove of drug use compared to students a decade ago.**
- **The reported availability of drugs (except for LSD) is increasing.**
- **Use of ecstasy has increased substantially (from less than one per cent in 1991 to about six per cent in 2001).**
- **A substantially larger percentage of students today use hallucinogens such as mescaline and psilocybin compared to 1979.**
- **Daily cannabis use has increased significantly over the past decade.**
- **Over the past decade, cocaine use has been steadily increasing among all students and among several demographic subgroups. One example is the dramatic rise in cocaine use since 1993 among 11th-grade students.**
- **Over the past decade, there has been a steady increase in stimulant use (e.g., diet pills) among female students.**

(Adlaf & Paglia 2001)

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Substance use patterns and prevalence vary among specific groups of young people:

- Although young women and young men have a relatively similar prevalence of substance use, there are some differences. For example, in 2001, young women reported higher rates of non-medical (not medically prescribed) stimulant use compared to young men. Young men reported higher rates of heavy drinking, use of cannabis, glue, methamphetamine, LSD and hallucinogens (Adlaf & Paglia, 2001).
- Aboriginal youth are at a two-to-six times higher risk for every alcohol-related problem compared to other young people.
- Aboriginal youth use solvents more frequently than other young people. One in five Aboriginal youth report having used solvents. One-third of those who have used solvents are under the age of 15 and more than half began using solvents before the age of 11.
- First Nations and Metis youth are more likely to use illicit drugs than other young people.
- Aboriginal youth are likely to begin using substances such as tobacco, solvents, alcohol and cannabis at a much earlier age than other young people (Canadian Centre on Substance Abuse [CCSA] and CAMH, 1999).
- The majority of young people entering the youth justice system have significant substance use problems (Trupin & Boesky, 2001).
- Homeless and street-involved youth report much higher levels of substance use than other young people. One-quarter to one-half report frequent heavy drinking. 66 to 88 per cent report using cannabis and 18 to 64 per cent report using cocaine. Many street-involved youth report having used injection drugs (11 per cent in a national study; 48 per cent of males and 32 per cent of females in a Vancouver sample; and 36 per cent in a Montreal sample). More than half (58 per cent) of a sample of street youth in Montreal had shared needles (Health Canada, 2001).

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### **1.3 ADOLESCENT MENTAL HEALTH**

Young people's ability to cope with and enjoy life and its challenges is strongly linked to their mental health and their overall sense of well-being. If they have mental health difficulties in their formative years, the effects on their ability to function may last for the rest of their lives.

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*Resilience* (also referred to as resiliency) is a concept that incorporates two components:

- exposure to significant stressors or risks
- demonstration of competence and successful adaptation. (Braverman, 2001)

Mental health is a continuum that ranges from optimum mental health at one end to severe and persistent mental health disorders at the other end, with emotional problems lying somewhere in the middle (Adlaf et al., 2002).

Mental health problems are diminished cognitive, social or emotional abilities but not to the extent that the criteria for mental disorders are met.

Mental disorders (often used interchangeably with mental illness) are diagnosable illnesses characterized by alterations in thinking, mood or behaviour (or some combination thereof) associated with distress that significantly interferes with an individual's cognitive, emotional or social abilities.

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### 1.3.1 RESILIENCE

Some consider resiliency to be a “balance” between an individual’s level of stress and adversity versus her or his coping abilities and support systems (Mangham, McGrath, Reid & Stewart, 1995). The role of service providers is to assist youth to develop resiliency by reducing risks and enhancing protective factors.

The good news is that resiliency is not a special set of characteristics or traits. It is a fairly ordinary phenomenon that stems from our innate human ability to adapt (Masten, 2001).

Young people’s natural ability to adapt is threatened by conditions that interfere with brain development, caregiver-child relationships, regulation of emotion and behaviour, and motivation to learn and engage in the environment. Fostering resilience involves ensuring that young people have positive connections with competent, caring adults, helping them develop cognitive and self-regulation skills, promoting their positive self-image and motivating them to be effective in their environment.

In order to promote resilience among young people, we have to find ways to:

- Promote their competence.
- Ameliorate their symptoms and problems.
- Build upon their strengths.
- Minimize their risks and stresses.
- Facilitate protective mechanisms and processes.
- Treat illness.
- Reduce harmful processes (Masten, 2001).

Unfortunately, according to studies in Canada and the United States (Adlaf et al., 2002) many young people experience serious mental health problems:

- About one in five children and adolescents in the United States display symptoms of a mental health disorder in any given year, and about five in one hundred experience a serious emotional disturbance with functional impairment.
- Among young children and adolescents studied in Canada, the prevalence of a mental health problem ranges from 18 to 22 per cent, and is about 25% among young adults.
- Suicide is the third leading cause of death for adolescents in Canada and the United States (after deaths from motor vehicle and other accidents).

There is evidence that the prevalence of mental health problems among young people may be increasing (Adlaf et al., 2002).

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### 1.3.2 ONTARIO DATA ON STUDENTS' MENTAL HEALTH AND WELL-BEING

The OSDUS found that a considerable minority of students reported some form of impaired well-being or functioning. The OSDUS assesses moderate functional impairment rather than psychiatric disorders that are based on clinical criteria (Adlaf et al., 2002, 5).

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#### SOME PUBLIC HEALTH FLAGS FROM THE OSDUS:

- About one in four students report elevated psychological distress.
- About one in three females report elevated psychological distress.
- About one in four students report being bullied at school.
- About one in three students report bullying someone at school.
- About one in five males report fighting at school.
- About one in seven to ten students report either poor health, physical inactivity, visiting a mental health professional, low self-esteem, suicide ideation, engaging in three or more delinquent activities, carrying a weapon, some type of gambling problem, or concern about personal safety at school.
- About one in twenty students are at high risk for depression.
- About one in twenty males report a pathological gambling problem.

(Adlaf et al. 2002)

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Patterns and prevalence of mental health problems vary among specific groups of young people:

- OSDUS data for 2001 indicate that young women are more likely to experience internalizing problems such as depression, psychological distress and suicide ideation (Adlaf et al., 2002).
- Male students are more likely to engage in risk behaviours (or externalizing behaviours) such as delinquent acts and pathological gambling (Adlaf et al., 2002).
- Gay, lesbian, bisexual or transgendered youth are at high risk for mood-related disorders, self-mutilation and suicide.
- At least one in five young people entering the youth justice system experience a serious mental or emotional disorder (Trupin & Boesky, 2001).

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## 1.4 ADOLESCENT CONCURRENT DISORDERS

Young people who develop substance use problems are often dealing with many other issues, including mental health problems. This is evident among those who present for drug treatment. The combination of substance use problems and mental health concerns is referred to as “concurrent disorders” (CAMH, 2002a).

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According to Health Canada's *Best Practices: Concurrent Mental Health and Substance Use Disorders* (2002), the term *concurrent disorders* is applied to those people who experience a *combination* of mental, emotional and psychiatric problems with the use of alcohol and/or other psychoactive drugs. The technical and diagnostic definition refers to any combination of mental health and substance use disorders, as defined for example on either Axis I or Axis II of the DSM-IV.

According to the OSDUS report (Adlaf et al., 2002), survey research in Canada and the United States has found links between substance use and mental health problems among young people:

- A Canadian survey of adolescents aged 12 to 16 found a strong association between an existing mental disorder (e.g., conduct disorder) and substance use, especially among females.
- A United States household survey found that adolescents aged 12 to 17 with severe emotional or behavioural problems were much more likely to be dependent on alcohol or illicit drugs compared to young people without those problems.
- The *United States National Comorbidity Survey* found that half of all those aged 15 to 54 who have had a mental disorder during their lifetime have also had a history of substance use problems. Moreover, the 15- to 24-year-old group was most likely to have had a concurrent disorder.

#### **1.4.1 ONTARIO DATA ON COEXISTING SUBSTANCE USE AND MENTAL HEALTH PROBLEMS AMONG STUDENTS**

The OSDUS provides some information about the extent of overlap between substance use and mental health problems among Ontario students.

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#### **OSDUS FINDINGS**

**About one in 25 (36,600 of Ontario students) report both elevated psychological distress (symptoms of anxiety and depression) and hazardous drinking. Young women and young men are equally likely to report a concurrent problem (Adlaf et al., 2002).**

**Among students reporting alcohol problems, almost half also report psychological distress (Adlaf & Paglia, 2001).**

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#### **1.5 THE RELATIONSHIP BETWEEN SUBSTANCE USE AND MENTAL HEALTH PROBLEMS**

A young person's substance use and mental health problems are interrelated and they may affect each other in a number of different ways. For example, mental health problems may precede substance use and a young person may be using substances to cope with or "self-medicate" mental health symptoms. Alternatively, he or she may have developed mental health symptoms as a result of substance use (Ballon, in press; CAMH, 2002a).

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The following information can be helpful in thinking about how the two disorders might be related.

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**RELATIONSHIP BETWEEN SUBSTANCE USE AND MENTAL HEALTH DISORDERS**

“There are several ways in which substance use and mental health problems affect each other:

**CREATE**—Substance use can create psychiatric symptoms. Example: Alcohol is a depressant—if any youth uses alcohol long enough, the youth could develop depressive symptoms and eventually meet criteria for major depression.

**TRIGGER**—Substance use can trigger the emergence of some mental health disorders if a youth is predisposed to mental illness. Example: A youth whose mother has bipolar disorder may have never experienced symptoms of mania until the youth uses PCP.

**EXACERBATE**—Symptoms of mental illness may get worse when a youth uses alcohol and drugs. Example: A youth with suicidal ideation may make an actual suicide attempt after drinking alcohol because the youth becomes more depressed and less inhibited.

**MIMIC**—Substance use can look like symptoms of a psychiatric disorder. Example: A youth with no history of psychiatric symptoms can develop paranoid delusions after heavy methamphetamine use.

**MASK**—Symptoms of mental illness may be hidden by drug and alcohol use. Example: A youth with attention-deficit/hyperactivity disorder may be less distractible when using cocaine. Psychiatric symptoms may not emerge until the youth stops using substances for a significant period of time.

**INDEPENDENCE**—A mental health disorder and substance abuse disorder may not be related to each other, but a common factor may underlie them both. Example: A youth’s genetic makeup may make the youth vulnerable and more likely to develop mental illness and/or substance abuse.”

(Trupin & Boesky, 2001)

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**1.6 THE MOST COMMON CONCURRENT MENTAL HEALTH PROBLEMS**

There are a number of mental health problems that often overlap with substance use problems. Some, such as attention-deficit/hyperactivity disorder (ADHD), depression, anxiety, conduct and learning disorders can emerge in childhood and later increase the risk that a young person develops substance use problems. Others, such as bipolar disorder and schizophrenia tend to onset during adolescence and young adulthood, at the same time that substance use problems tend to emerge.

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### **Attention-Deficit/Hyperactivity Disorder (ADHD)**

- Symptoms are impulsivity, inattentiveness, hyperactivity and distractibility.
- ADHD starts at an early age and must be evident before age seven to be diagnosed correctly.
- Children with ADHD often do not completely “grow out of it” and go on to develop an ADHD residual syndrome.
- ADHD, conduct disorder and substance use problems often co-occur.
- ADHD frequently goes undiagnosed, sometimes resulting in self-medication through the use of stimulants or depressants depending on the symptoms the youth wants to modify.
- It is frequently misdiagnosed as other disorders or behaviours that mimic the symptoms of ADHD or that coexist with ADHD such as substance use, learning disability or Fetal Alcohol Spectrum Disorder (FASD).
- Substances such as cannabis are used by youth with ADHD to reduce impulsivity, although cannabis can also increase inattentiveness.
- Ritalin, the stimulant commonly prescribed to youth with ADHD, is the most effective treatment for ADHD symptoms, even in youth with substance use problems (Ballon, in press).

### **Bipolar disorder**

- Bipolar disorder manifests in discrete episodes of manic moods, characterized by irritability or euphoria, alternating with depression.
- The age of onset of bipolar disorder is controversial, though most clinicians feel bipolar disorder doesn't fully manifest until age 12.
- Among youth with bipolar disorder, substance use may begin at an early age.
- Substance use can cause bipolar symptoms to appear mixed or it can create a rapid-cycling effect.
- Substance use is found more often among people in manic episodes than in any other psychiatric disorder. Stimulants can be used to maintain the manic state and avoid or delay the depressive state. The chronic use of stimulants, however, eventually brings on depression (Ballon, in press).
- Bipolar disorder can be difficult to diagnose when there is abuse of cocaine or other major stimulants. Usually, a period of abstinence is needed for a correct diagnosis.

### **Conduct disorders**

- Conduct disorders refer to long-standing problem behaviours such as defiance, impulsivity or anti-social behaviour that may include vandalism, fire-setting, bullying, fighting, drug use or criminal activity and a lack of concern for others (Chaim & Shenfeld, in press).
- Conduct disorders are highly linked with problem substance use and usually precede it. They are also commonly associated with ADHD.

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- Youth with conduct disorders are typically risk-takers and heavy users of multiple substances because of the excitement and rush they get from drugs (CAMH, 2002a).

### **Depression**

- Depression manifests as irritable moods, physical complaints (e.g., headaches, stomach cramps), insomnia, decreased academic functioning and/or decreased social activities.
- Depression often precedes problem substance use. It is a common practice for youth to use substances to alleviate negative feelings associated with depression.
- Stimulants can be used to increase energy in clients with depression, but they can also increase anxiety.
- Many of the drugs that depressed youth use (e.g., alcohol, marijuana) can cause greater depression with chronic use (CAMH, 2002a).
- It should be noted that withdrawal from certain substances could induce depression.

### **Eating disorders**

- The likelihood of developing a concurrent substance use problem increases by 12 to 18 per cent among people with anorexia and by 30 to 70 per cent among people with bulimia.
- The onset of eating disorders usually occurs during adolescence.
- Young people with eating disorders tend to use substances such as nicotine, alcohol or stimulants (e.g., diet pills, caffeine pills, speed, cocaine) to suppress their appetites (CAMH, 2002a).

### **Fetal Alcohol Spectrum Disorder (FASD)**

- FASD is a spectrum of neurological, behavioural and cognitive deficits that interfere with growth, learning, and socialization and are caused by maternal alcohol use during pregnancy.
- The symptoms of FASD can mimic many of the symptoms of ADHD, learning disorders and conduct disorders and often coexist with ADHD.

### **Learning disorders**

- Learning disorders are caused by “conditions of the brain” that affect the ability to take in, process or express information.
- There is a very high rate of substance use among youth with learning disorders, since they are likely to experience many of the symptoms that are high risk for drug use such as low self-esteem, academic difficulties, loneliness and depression (Chaim & Shenfeld, in press).

### **Post-traumatic stress**

- Post-traumatic stress can manifest through symptoms such as anxiety, depression, self-harming, preoccupation with death, suicidal thoughts or gestures, and flashbacks.
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- The incidence of post-traumatic stress is much higher when the young person has been emotionally, sexually or physically abused.
  - People experiencing post-traumatic stress often use substances to help numb painful emotions and deal with anger (camh, 2002a).

### **Schizophrenia**

- Symptoms of schizophrenia, such as psychosis, hallucinations and paranoia, usually first appear in the late teens or early twenties.
- People with schizophrenia use alcohol primarily for its euphoric and relaxing effects. Alcohol can enhance central nervous system (CNS) side effects of antipsychotic drugs, worsen extrapyramidal side effects (EPS) and also accelerate appearance of Tardive Dyskinesia. It can also increase the risk of anxiety, sleep disorders and sexual problems.
- Some research has shown that people with schizophrenia who use cannabis heavily have earlier onset of illness by five to 10 years compared to others who have not used cannabis.
- The rate of tobacco use in this population is much higher than in the general public, partially because nicotine blunts the side effects of antipsychotic medications. The incidence of Tardive Dyskinesia is much higher in smokers than non-smokers with schizophrenia.
- Psychotic symptoms that mimic schizophrenia (hallucinations, delusions, anxiety, depersonalization and paranoia) can be induced by hallucinogens such as cannabis. Hallucinogens usually cause visual effects, and chronic hallucinogen use can result in Hallucinogen Persisting Perception Disorder (HPPD), more commonly known as “flashbacks.” Flashbacks are visual pseudo-hallucinations appearing as trailing effects, halos and shifting movements from out of the corner of one’s eye. Usually people with HPPD know they are experiencing unreal phenomena, unlike those who are suffering from a psychotic illness (Ballon, in press).
- Cocaine can reduce negative symptoms and relieve feelings of depression.

### **Social anxiety**

- Symptoms of social anxiety usually manifest as school-avoidance behaviours, poor self-image and social isolation, fear of humiliation and negative judgment.
- Initially, avoidance behaviour can protect a young person from using a substance. However, when she or he tries alcohol or other drugs, the anxiety-reducing effect of the substance can promote ongoing use (CAMH, 2002a).
- Use of substances can alleviate the symptoms of social anxiety, and youth who self-medicate in this way appear to be functioning reasonably well. However, as tolerance develops, the effects of the drugs diminish and symptoms of the anxiety can be exacerbated.
- Social anxiety can be mistaken for shyness or social skill deficits that are common developmental deficits during adolescence.

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- Excessive caffeine or stimulant use by a person with anxiety disorder can mimic symptoms of anxiety and increase insomnia. It can also lead to increased heart rate, nervousness, flushed face, gastrointestinal disturbances, muscle twitching, palpitations and sweating.

### **Dual Diagnosis**

- Young people with developmental disabilities and mental health disorders have what is referred to as a “dual diagnosis.”
- There are some specific characteristics associated with substance use among individuals with developmental disabilities.
- Substance-related disorders, like mental health problems, are linked to the degree of cognitive impairment/potential. The higher the IQ, the higher the prevalence of these disorders (Campbell & Malone, 1991; Edgerton, 1986).
- The commonly held belief that people with dual diagnosis and substance-related disorders would be more vulnerable to the intoxicating effect of the substance of use has been, in part, borne out.
- People with developmental disabilities tend to drink alcohol or use illicit drugs in lower amounts compared to the general population. As a result, they are more difficult to identify. Often, caregivers consider this to be part of the individual’s “life pattern.”
- The inherent limitations that people with developmental disabilities face in their lives and the resulting anxiety and depressive disorders (Stavrakaki, 1999; Stavrakaki & Mintsoulis, 1995; 1997) tend to render these individuals more vulnerable to substance use for self-medication or stress relief (Longo, 1997; Ruf, 1999).
- Mental disorders that are common in this population, such as bipolar disorder, and schizophrenia, tend to increase the prevalence of substance-related disorders in this group (Longo, 1997; Stavrakaki, 2002; Westermeyer et al., 1988).