

## 8 SICKNESS AND HEALTH II

**8.1 NON-CHRONIC DISEASES AND QUALITY OF LIFE:** In general, **quality of life (QoL or QOL)** is the perceived quality of an individual's daily life, that is, an assessment of their well-being or lack thereof. This includes all emotional, social, and physical aspects of the individual's life. In health care, **health-related quality of life (HRQoL)** is an assessment of how the individual's well-being may be affected over time by a disease, disability, or disorder.

### Measurement

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Early versions of healthcare-related quality of life measures referred to simple assessments of physical abilities by an external rater (for example, the patient is able to get up, eat and drink, and take care of personal hygiene without any help from others) or even to a single measurement (for example, the angle to which a limb could be flexed).

The current concept of health-related quality of life acknowledges that subjects put their actual situation in relation to their personal expectation. The latter can vary over time, and react to external influences such as length and severity of illness, family support, etc. As with any situation involving multiple perspectives, patients' and physicians' rating of the same objective situation have been found to differ significantly. Consequently, health-related quality of life is now usually assessed using patient questionnaires. These are often multidimensional and cover physical, social, emotional, cognitive, work- or role-related, and possibly spiritual aspects as well as a wide variety of disease related symptoms, therapy induced side effects, and even the financial impact of medical conditions. Although often used interchangeably with the measurement of health status, both health-related quality of life and health status measure different concepts.

Similar to other psychometric assessment tools, health-related quality of life questionnaires should meet certain quality criteria, most importantly with regard to their reliability and validity. As such, hundreds of validated health-related quality of life questionnaires have been developed to suit the needs of various illnesses. The questionnaires can be generalized into two categories:

1. Generic instruments (e.g. SF-36, Short-Form with 36 questions)
2. Disease, disorder or condition specific instruments (e.g. the King's Health Questionnaire (KHQ) or the International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF) in urinary incontinence,<sup>[4]</sup> the LC -13

Lung Cancer module from the EORTC Quality of Life questionnaire library, or the Hospital Anxiety and Depression Scale (HADS) ).

### **Activities of daily living**

Because health problems can interfere with even the most basic aspects of daily living (for example, breathing comfortably, sleeping comfortably, eliminating wastes, feeding oneself, dressing, and others), the health care professions have codified the concepts of activities of daily living (ADLs) and instrumental activities of daily living (IADLs). Such analysis and classification helps to at least partially objectify quality of life. It cannot eliminate all subjectivity, but it can help improve measurement and communication by quantifying and by reducing ineffability.

## **8.2 ADDICTIONS AND HEALTH:**

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What are the medical consequences of drug addiction?

Individuals who suffer from addiction often have one or more accompanying medical issues, including lung and cardiovascular disease, stroke, cancer, and mental disorders. Imaging scans, chest X-rays, and blood tests show the damaging effects of drug abuse throughout the body. For example, tests show that tobacco smoke causes cancer of the mouth, throat, larynx, blood, lungs, stomach, pancreas, kidney, bladder, and cervix.<sup>19</sup> In addition, some drugs of abuse, such as inhalants, are toxic to nerve cells and may damage or destroy them either in the brain or the peripheral nervous system.

### **The Impact of Addiction Can Be Far Reaching**

- Cardiovascular disease
- Stroke
- Cancer
- HIV/AIDS
- Hepatitis B and C
- Lung disease
- Mental disorders

Does drug abuse cause mental disorders, or vice versa?

Drug abuse and mental disorders often co-exist. In some cases, mental diseases may precede addiction; in other cases, drug abuse may trigger or exacerbate mental disorders, particularly in individuals with specific vulnerabilities.

### **Drug abuse and HIV/AIDS are intertwined epidemics.**

How can addiction harm other people?

Beyond the harmful consequences for the addicted individual, drug abuse can cause serious health problems for others. Three of the more devastating and troubling consequences of addiction are:

- **Negative effects of prenatal drug exposure on infants and children.**

It is likely that some drug-exposed children will need educational support in the classroom to help them overcome what may be subtle deficits in developmental areas such as behavior, attention, and cognition. Ongoing work is investigating whether the effects of prenatal exposure on brain and behavior extend into adolescence to cause developmental problems during that time period.

- **Negative effects of second-hand smoke.**

Second-hand tobacco smoke, also referred to as environmental tobacco smoke (ETS), is a significant source of exposure to a large number of substances known to be hazardous to human health, particularly to children. According to the Surgeon General's 2006 Report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, involuntary smoking increases the risk of heart disease and lung cancer in never-smokers by 25-30 percent and 20-30 percent, respectively.

- **Increased spread of infectious diseases.**

Injection of drugs such as heroin, cocaine, and methamphetamine accounts for more than a third of new AIDS cases.<sup>21</sup> Injection drug use is also a major factor in the spread of hepatitis C, a serious, potentially fatal liver disease. Injection drug use is not the only way that drug abuse contributes to the spread of infectious diseases. All drugs of abuse cause some form of intoxication, which

interferes with judgment and increases the likelihood of risky sexual behaviors. This, in turn, contributes to the spread of HIV/AIDS, hepatitis B and C, and other sexually transmitted diseases.

**Tobacco use is responsible for an estimated 5 million deaths worldwide each year.**

What are some effects of specific abused substances?

- **Nicotine** is an addictive stimulant found in cigarettes and other forms of tobacco. Tobacco smoke increases a user's risk of cancer, emphysema, bronchial disorders, and cardiovascular disease. The mortality rate associated with tobacco addiction is staggering. Tobacco use killed approximately 100 million people during the 20th century and, if current smoking trends continue, the cumulative death toll for this century has been projected to reach 1 billion.<sup>24</sup>
- **Alcohol** consumption can damage the brain and most body organs. Areas of the brain that are especially vulnerable to alcohol-related damage are the cerebral cortex (largely responsible for our higher brain functions, including problem solving and decision making), the hippocampus (important for memory and learning), and the cerebellum (important for movement coordination).
- **Marijuana** is the most commonly abused illicit substance. This drug impairs short-term memory and learning, the ability to focus attention, and coordination. It also increases heart rate, can harm the lungs, and can increase the risk of psychosis in those with an underlying vulnerability.
- **Inhalants** are volatile substances found in many household products, such as oven cleaners, gasoline, spray paints, and other aerosols, that induce mind-altering effects. Inhalants are extremely toxic and can damage the heart, kidneys, lungs, and brain. Even a healthy person can suffer heart failure and death within minutes of a single session of prolonged sniffing of an inhalant.
- **Cocaine** is a short-acting stimulant, which can lead abusers to "binge" (to take the drug many times in a single session). Cocaine abuse can lead to severe medical consequences related to the heart and the respiratory, nervous, and digestive systems.

**Nearly 1 in 10 high school seniors report nonmedical use of the prescription pain reliever Vicodin.**

- **Amphetamines**, including methamphetamine, are powerful stimulants that can produce feelings of euphoria and alertness. Methamphetamine's effects are particularly long lasting and harmful to the brain. Amphetamines can cause high body temperature and can lead to serious heart problems and seizures.
- **Ecstasy (MDMA)** produces both stimulant and mind-altering effects. It can increase body temperature, heart rate, blood pressure, and heart wall stress. Ecstasy may also be toxic to nerve cells.
- **LSD** is one of the most potent hallucinogenic, or perception-altering, drugs. Its effects are unpredictable, and abusers may see vivid colors and images, hear sounds, and feel sensations that seem real but do not exist. Abusers also may have traumatic experiences and emotions that can last for many hours. Some short-term effects can include increased body temperature, heart rate, and blood pressure; sweating; loss of appetite; sleeplessness; dry mouth; and tremors.
- **Heroin** is a powerful opiate drug that produces euphoria and feelings of relaxation. It slows respiration and its use is linked to an increased risk of serious infectious diseases, especially when taken intravenously. Other opioid drugs include morphine, OxyContin, Vicodin, and Percodan, which have legitimate medical uses; however, their nonmedical use or abuse can result in the same harmful consequences as abusing heroin.
- **Prescription medications** are increasingly being abused or used for nonmedical purposes. This practice cannot only be addictive, but in some cases also lethal. Commonly abused classes of prescription drugs include painkillers, sedatives, and stimulants. Among the most disturbing aspects of this emerging trend is its prevalence among teenagers and young adults, and the common misperception that because these medications are prescribed by physicians, they are safe even when used illicitly.
- **Steroids**, which can also be prescribed for certain medical conditions, are abused to increase muscle mass and to improve athletic performance or physical appearance. Serious consequences of abuse can include severe acne, heart disease, liver problems, stroke, infectious diseases, depression, and suicide.

- **Drug combinations.** A particularly dangerous and not uncommon practice is the combining of two or more drugs. The practice ranges from the co-administration of legal drugs, like alcohol and nicotine, to the dangerous random mixing of prescription drugs, to the deadly combination of heroin or cocaine with fentanyl (an opioid pain medication). Whatever the context, it is critical to realize that because of drug-drug interactions, such practices often pose significantly higher risks than the already harmful individual drugs.

### **8.3 CLINICAL ANXIETY AND HEALTH**