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***Drug addiction: relationship to the Ecological Health Model  
and social interactions***

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**Uzależnienie od narkotyków: relacje między ekologicznym modelem  
a społecznymi uwarunkowaniami**

**INTRODUCTION**

Drug Addiction is a disease that affects society in many different ways. From the individual standpoint not only does it take a toll on personal health and longevity but has far reaching affect to those associated to the individual, even extending to the broader sense that has a ripple effect over society as a whole. This effect can be seen in some of the aspects of the ecological health model. The paper attempts to describe some of the factors that influence drug addiction from the personal standpoint as well as to address some of the factors by which we seek treatment of such maladies.

The sociologist named Daniel Stokols provided four assumptions: (1) health behavior is influenced by physical environments, social environments, and personal attributes; (2) environments are multidimensional, such for Health Promotions social or physical, actual or perceived, discrete attributes (spatial arrangements) or constructs (social climate); (3) human-environment interactions occur at varying levels of aggregation (individuals, families, cultural groups, whole populations); and (4) people influence their settings, and the changed settings then influence health behaviors.

**COMMUNITY ORGANIZATION**

The phrase Community Organization has emerged from a specific field of activity within social work in the late 1800's into a much broader process which involves working with people as they attempt to "define their own goals, mobilize resources, and develop action plans" for meeting the needs they have identified collectively.

Community organization has been formally defined as “the method of intervention whereby individuals, groups, and organizations engage in planned action to influence social problems”. It has been viewed as an art in consensus building concerned with the enrichment, development and change of social institutions. Community organization has roots in several theoretical frameworks: ecological theory, social systems theory, and theories of social networks and social support.

### **KEY CONCEPTS IN COMMUNITY ORGANIZATION**

Even though community organization does not use a single unified model, there are several key concepts that are central to its practice to bring about change on the community level. The first of these, empowerment, has been described as a process by which individuals and communities gain mastery over their lives by becoming enabled to take power and then to act effectively to transform or change their environments. Within community organization, this concept of empowerment operates on two levels at the same time. First, the individual who is involved in the community organizing effort may experience increased social support, a concept considered earlier in this review. This support may result in a more generalized sense of control. An increased sense of control (empowerment) could have positive benefits on one’s health. Researchers have indicated that social participation can decrease the individual’s susceptibility to illness. On the second and broader level, community organization can contribute to community-level empowerment which leads to increased community competence. Community competence may be thought of as the equivalent of self-efficacy and behavioral capability on a community level; both the confidence and skills to solve problems effectively are present within the community. The health practitioner or community organizer could play a crucial role in helping communities increase their problem-solving ability.

Two principles which are important in community organization practice are the principle of participation and the principle of relevance. The social Scientists Dewey and Lindeman paid close attention to the principle of participation or “learn by doing” in their work within the field of adult education. Adult education was (and still is) considered a process of increasing people’s understanding, activating them, and helping them make decisions for themselves. This idea fits nicely with the community organization principle of gaining true involvement and participation by community members at each stage within the process. The principle of relevance was identified by Dorothy Nyswander as one of “starting where the people are”. The change agent who begins with the individual or community’s felt needs rather than a personal or agency plan will experience far more success than imposing an agenda from outside. It is widely accepted that communities should identify their own needs and issues to be addressed. When an issue is chosen by the community, a sense of ownership emerges which leads to empowerment and development of a competent community.

However, in the concept of issue selection one must differentiate between problems, which are troublesome, and issues, which are problems the community feels strongly about. In addition, the selected issue should also be: 1) specific, 2) simple,

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and 3) winnable. A good issue should be able to be clearly explained in a sentence or two by any member in the group. As people begin to work on it, they should be able to remain upbeat and optimistic if the issue is “doable”.

One of the most important concepts by the Brazilian educator Paulo Freire was recently added to the model of community organization. In the concept of critical consciousness, Freire spoke of entering a dialogue with illiterate peasants so that they could teach themselves how to read and write as well as how to understand the root causes of their problems.

According to Freire, the educator’s main role is to converse with the students about concrete situations and offer them the tools in order for the students to teach themselves to read and write. It is a collaborative effort. From this understanding, a person could really learn to think critically about real-life problems and take action to change his/her world for the better. Applied to health education, communities should consider their health concerns in the broader context of their political and social situation in order to develop their own plan of action to deal with any problems collectively identified.

#### **TREATMENT FOR THOSE AFFLICTED WITH DRUG ADDICTION**

Drug treatment is intended to help addicted individuals stop compulsive drug seeking and use. Treatment can occur in a variety of settings, in many different forms, and for different lengths of time. Because drug addiction is typically a chronic disorder characterized by occasional relapses, a short-term, one-time treatment is usually not sufficient. For many, treatment is a long-term process that involves multiple interventions and regular monitoring.

There are a variety of evidence-based approaches to treating addiction. Drug treatment can include behavioral therapy (such as individual or group counseling, cognitive therapy, or contingency management), medications, or their combination. The specific type of treatment or combination of treatments will vary depending on the patient’s individual needs and, often, on the types of drugs they use. The severity of addiction and previous efforts to stop using drugs can also influence a treatment approach. Finally, people who are addicted to drugs often suffer from other health (including other mental health), occupational, legal, familial, and social problems that should be addressed concurrently.

The best programs provide a combination of therapies and other services to meet individual patient’s needs. Specific needs may relate to age, race, culture, sexual orientation, gender, pregnancy, other drug use, comorbid conditions (e.g. depression, HIV), parenting, housing, and employment, as well as physical and sexual abuse history. Treatment medications, such as methadone, buprenorphine, and naltrexone, are available for individuals addicted to opioids, while nicotine preparations (patches, gum, lozenges, and nasal spray) and the medications varenicline and bupropion are available for individuals addicted to tobacco. Disulfiram, acamprosate, naltrexone, and topiramate are medications used for treating alcohol dependence, which commonly co-occurs with other drug addictions. In fact, most people with severe addiction are polydrug users and require treatment for all substances abused.

Even the combined alcohol and tobacco use has proven amenable to concurrent treatment for both substances.

Psychoactive medications, such as antidepressants, antianxiety agents, mood stabilizers, and antipsychotic medications, may be critical for treatment success when patients have co-occurring mental disorders, such as depression, anxiety disorders (including posttraumatic stress disorder), bipolar disorder, or schizophrenia. Behavioral therapies can help motivate people to participate in drug treatment; offer strategies for coping with drug cravings; teach ways to avoid drugs and prevent relapse; and help individuals deal with relapse if it occurs. Behavioral therapies can also help people improve communication, relationship, and parenting skills, as well as family dynamics.

Many treatment programs employ both individual and group therapies. Group therapy can provide social reinforcement and help enforce behavioral contingencies that promote abstinence and a non-drug-using lifestyle. Some of the more established behavioral treatments, such as contingency management and cognitive-behavioral therapy, are also being adapted for group settings to improve efficiency and cost-effectiveness. However, particularly in adolescents, there can also be a danger of iatrogenic, or inadvertent, effects of group treatment; thus, trained counselors should be aware and monitor for such effects. Because they work on different aspects of addiction, combinations of behavioral therapies and medications (when available) generally appear to be more effective than either approach used alone.

Some people are able to use recreational or prescription drugs without ever experiencing negative consequences or addiction. For many others, substance use can cause problems at work, home, school, and in relationships, leaving one feeling isolated, helpless, or ashamed.

People experiment with drugs for many different reasons. Many first try drugs out of curiosity, to have a good time, because friends are doing it, or in an effort to improve athletic performance or ease another problem, such as stress, anxiety, or depression. The use doesn't automatically lead to abuse, and there is no specific level at which the drug use moves from casual to problematic. It varies by individual. Drug abuse and addiction is less about the amount of substance consumed or the frequency, and more to do with the consequences of the drug use. No matter how often or how little you're consuming, if your drug use is causing problems in your life – at work, school, home, or in your relationships – you likely have a drug abuse or addiction problem.

### **RISK FACTORS**

As with many other conditions and diseases, vulnerability to addiction differs from person to person. Genes, mental health, family and social environment play a role in addiction. Risk factors that increase your vulnerability include: family history of addiction, abuse, neglect, or other traumatic experiences in childhood, mental disorders such as depression and anxiety, early use of drugs, method of administration – smoking or injecting a drug may increase its addictive potential.

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Addiction is a complex disorder characterized by compulsive drug use. While each drug produces different physical effects, all abused substances have one thing in common: repeated use can alter the way the brain looks and functions. Taking a recreational drug causes a surge in levels of dopamine in your brain, which trigger feelings of pleasure. Your brain remembers these feelings and wants them repeated. If you become addicted, the substance takes on the same significance as other survival activities, such as eating and drinking. Changes in your brain interfere with your ability to think clearly, exercise good judgment, control your behavior, and feel normal without drugs. Uncontrollable craving to use grows more important than anything else, including family, friends, career, and even your own health and happiness. The urge to use is so strong that your mind finds many ways to deny or rationalize the addiction. You may drastically underestimate the quantity of drugs you are taking, how much it impacts your life, and the level of control you have over your drug use.

People who experiment with drugs continue to use them because the substance either makes them feel good, or stops them from feeling bad. In many cases, however, there is a fine line between regular use and drug abuse and addiction. Very few addicts are able to recognize when they have crossed that line. While frequency or the amount of drugs consumed do not in themselves constitute drug abuse or addiction, they can often be indicators of drug-related problems.

Overcoming addiction is not simply a matter of willpower. Prolonged exposure to drugs alters the brain in ways that result in powerful cravings and a compulsion to use. These brain changes make it extremely difficult to quit by sheer force of will. Most experts agree that addiction is a brain disease, but that does not mean you are a helpless victim. The brain changes associated with addiction can be treated and reversed through therapy, medication, exercise, and other treatments. Recovery can begin at any point in the addiction process – and the earlier, the better. The longer drug abuse continues, the stronger the addiction becomes and the harder it is to treat. Treatment doesn't have to be voluntary to be successful. People who are pressured into treatment by their family, employer, or the legal system are just as likely to benefit as those who choose to enter treatment on their own. As they sober up and their thinking clears, many formerly resistant addicts decide they want to change. Recovery from drug addiction is a long process that often involves setbacks. Relapse doesn't mean that treatment has failed rather, it's a signal to get back on track, either by going back to treatment or adjusting the treatment approach.

Many people do not understand why or how other people become addicted to drugs. It can be wrongfully assumed that drug abusers lack moral principles or willpower and that they could stop using drugs simply by choosing to change their behavior. In reality, drug addiction is a complex disease, and quitting takes more than good intentions. In fact, because drugs change the brain in ways that foster compulsive drug abuse, quitting is difficult, even for those who are ready to do so. Through scientific advances, we know more about how drugs work in the brain than ever, and we also know that drug addiction can be successfully treated to help people stop abusing drugs and lead productive lives.

## **SOCIAL CONSEQUENCES**

Drug abuse and addiction have negative consequences for individuals and for society. Estimates of the total overall costs of substance abuse in the United States, including productivity and health- and crime-related costs, exceed \$600 billion annually. This includes approximately \$181 billion for illicit drugs, \$193 billion for tobacco, and \$235 billion for alcohol. As staggering as these numbers are, they do not fully describe the breadth of destructive public health and safety implications of drug abuse and addiction, such as family disintegration, loss of employment, failure in school, domestic violence, and child abuse.

Drugs contain chemicals that tap into the brain communication system and disrupt the way nerve cells normally send, receive, and process information. There are at least two ways that drugs cause this disruption: (1) by imitating the brain natural chemical messengers and (2) by overstimulating the “reward circuit” of the brain. Some drugs (e.g. marijuana and heroin) have a similar structure to chemical messengers called neurotransmitters, which are naturally produced by the brain. This similarity allows the drugs to “fool” the brain receptors and activate nerve cells to send abnormal messages.

Other drugs, such as cocaine or methamphetamine, can cause the nerve cells to release abnormally large amounts of natural neurotransmitters (mainly dopamine) or to prevent the normal recycling of these brain chemicals, which is needed to shut off the signaling between neurons. The result is a brain awash in dopamine, a neurotransmitter present in brain regions that control movement, emotion, motivation, and feelings of pleasure. The overstimulation of this reward system, which normally responds to natural behaviors linked to survival (eating, spending time with loved ones, etc.), produces euphoric effects in response to psychoactive drugs. This reaction sets in motion a reinforcing pattern that “teaches” people to repeat the rewarding behavior of abusing drugs.

As a person continues to abuse drugs, the brain adapts to the overwhelming surges in dopamine by producing less dopamine or by reducing the number of dopamine receptors in the reward circuit. The result is a lessening of dopamine’s impact on the reward circuit, which reduces the abuser’s ability to enjoy the drugs, as well as the events in life that previously brought pleasure. This decrease compels the addicted person to keep abusing drugs in an attempt to bring the dopamine function back to normal, except now larger amounts of the drug are required to achieve the same dopamine high – an effect known as tolerance. Brain imaging studies of drug-addicted individuals show changes in areas of the brain that are critical to judgment, decision making, learning and memory, and behavior control. Together, these changes can drive an abuser to seek out and take drugs compulsively despite adverse, even devastating consequences – that is the nature of addiction.

No single factor can predict whether a person will become addicted to drugs. Risk for addiction is influenced by a combination of factors that include individual biology, social environment, and age or stage of development. The more risk factors an individual has, the greater the chance that taking drugs can lead to addiction.

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The genes that people are born with – in combination with environmental influences – account for about half of their addiction vulnerability. Additionally, gender, ethnicity, and the presence of other mental disorders may influence risk for drug abuse and addiction.

A person's environment includes many different influences, from family and friends to socioeconomic status and quality of life in general. Factors such as peer pressure, physical and sexual abuse, stress, and quality of parenting can greatly influence the occurrence of drug abuse and the escalation to addiction in a person's life.

Genetic and environmental factors interact with critical developmental stages in a person's life to affect addiction vulnerability. Although taking drugs at any age can lead to addiction, the earlier that drug use begins, the more likely it will progress to more serious abuse, which poses a special challenge to adolescents. Because their brains are still developing in the areas that govern decision making, judgment, and self-control, adolescents may be especially prone to risk-taking behaviors, including trying drugs of abuse.

Drug addiction is a preventable disease. Results from NIDA-funded research have shown that prevention programs involving families, schools, communities, and the media are effective in reducing drug abuse. Although many events and cultural factors affect drug abuse trends, when youths perceive drug abuse as harmful, they reduce their drug taking. Thus, education and outreach are key in helping youth and the general public understand the risks of drug abuse. Teachers, parents, medical and public health professionals must keep sending the message that drug addiction can be prevented if one never abuses drugs.

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#### ABSTRACT

The aim of the paper is to show the effect of our times on mental health disorder. Organizational and functional model of health care system is essential in these disorders especially in drug addiction.

#### STRESZCZENIE

Celem pracy jest ukazanie wpływu naszych czasów na rozwój zaburzeń psychicznych. Organizacyjny i funkcjonalny model opieki zdrowotnej stanowi podstawę w zaburzeniach psychicznych, a zwłaszcza w uzależnieniach od leków.

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