
**ADVERSE HEALTH EFFECTS OF THE NEW PATTERNS
OF DRUG ABUSE**

Submitted by

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A thesis submitted in Partial Fulfillment

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Department of Environmental Medical Science

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ABSTRACT

BACKGROUND: The new patterns of Substance use disorders associated with most psychiatric and respiratory disorders Substance abuse ultimately destroy a person's life. The negative effects from drug abuse can have immediate and long-term consequences.

AIM OF THE WORK: To evaluate the environmental risk factors and adverse health effects attributed to drug abuse including mental and respiratory adverse health effects.

PATIENTS AND METHODS: This is case control study that was carried on 60 Patients who were chosen randomly and prospectively analyzed admitted to a private psychiatric hospital 30 of them are substance use disorder.

RESULTS: Higher rates of psychosis, depressive episodes and personality disorders and chest wheezing, and chest tightness, sore throat, chest wheezing, and chest tightness, sore throat, rhinopharngites, asthma exacerbation in substance use disorders group.

CONCLUSION: The study showed higher rates of psychiatric disorders and respiratory disorders among substance use disorders.

RECOMMENDATIONS: Strict regulation should be adopted to prevent mal usage of certain drugs that lead to dependence and abuse also recommend that future policies should encourage further research into the adverse health effects of substance abuse.

Key word : (Drug , Abuse , New Patterns)

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LIST OF ABBREVIATION

AAS	: Anabolic androgenic steroid
ADRs	: Adverse drug reaction
AIDS	: A cquired immunodeficiency syndrome
ARDS	: A cute respiratory distress
BUN	: Blood urea nitrogen
CB1	: Cannabinoid receptor 1
CBD	: Cannabidiol
CNR1	: Cannabinoid gene
CNS	: Central nervous system
CO	: Carbon monoxide
COPD	: Chronic obstructive pulmonary diseases
CYP3A4	: Cytochrome P4503A4
DEA	: Drug enforcement administration
DSM-IV	: Diagnostic and statistical, manual of mental disorders fourth edition
DXM	: Dextromethorphan
EA	: Ethyl alcohol
FDA	: Food and drug administration
FEV1	: Forced expiratory volume in 1st second

GABA	: Gammaaminobutyric acid
GINA	:Global initiative for asthma
GOLD	:Global initiative for lung disease
Hb	: Haemoglobin
HCV	: Hepatitis C virus
HDL	:High density lipoprotein
HIV	: Human immunodeficiency virus
HPA	: Hypothalamic-pitutary-thyroid
HPT	:Hypothalamic-pitutary-gonadol
ICD-10	: International classification of disease.
LAAM	: Levomethadyl acetate hydrochloride
LDL	: Low density lipoprotein
LSD	: lysergic acid dithylamide
MAOIs	: Monoamino oxidase inhibitors
MCA	: Medicin control agency
MDMA	: Methylendioxyamphetamine
MUST	:Misr university for science and technology
NE	: Norepinephrine
NIDA	: National institute on drug abuse
NMDA	: N-Methyl-D-Aspartate

NSDH	: National survey on drug and health
OTC	: Over- The-counter drug
PCP	: Phencyclidine
SSRIs	: Selective serotonin-re-uptake inhibitors
SUD	: Substance use disorder
SYP2D6	: Cytochrome P450 2D6 inhibiting drug
TCAs	: Tricyclic antidepressant
THC	: Tetrahydrocannabinol
UK	: United kingdom
USA	: United state of America

INTRODUCTION

I -Clinical description and definitions

It is Paramount to understand what is meant by dependence, and abuse. Substance abuse is a term used to identify the interplay between drug and subject beyond the correct use of a drug to treat and cure a disease under medical prescription (**Mannaioni & Moncinim, 2000**).

A definition of substance abuse is the misuse of psychoactive drug to the detriment of the individual but which fails to meet the criteria for dependence. Criteria for dependence include: compulsion, tolerance to the drug where greater doses are required to produce an effect, withdrawal symptoms and multiple unsuccessful attempts to desist from, or at least control substance use. Dependence has been shown to have a neuro-chemical basis and is widely considered as a disease process(**Saunder, 2006**).

Addiction is a vague term related to abuse, although still used, should be replaced with dependence. It is the compulsive need for and use of habit forming substance (as heroin, nicotine, or alcohol) characterized by tolerance and by well defined physiological symptoms upon withdrawal (**Mish , 2003**).

Drug dependence is characterized by compulsive drug taking that persists despite escalating costs and adverse consequence. Over the past 20 years, sensitization of the appetitive effects of drugs has emerged as a possible mechanism underlying enhanced drug use (**Veizinap, 2007**).

Substance abuse and dependence are behavioral syndromes that exist along continuum from minimal use to abuse to dependent use (**O'Briencp, 2001**).

Dependency may be viewed as a subset of behavioral disorders, which include all psychiatric diagnoses. Current recognition of substance dependence, acceptance of it as a medical disorder by the public, and treatment options for it roughly mirror conditions for schizophrenia, bipolar disorder, and major depressive disorders (**Wasilow-Muellers& Erickson ,2001**).

Substance dependence has become one of the most serious problems in the worldwide. It has been estimated that genetic factors contribute to 40%- 60% of the vulnerability to drug addiction, and environmental factors provide the remainder. Over the past three decades, number of technologies have been used to generate such candidate genes or vulnerable chromosome regions (**Lic et al,2008**).

When a drug is abused, the potential for dependence is increased due to the physical need that the body develops once the drug's effects are achieved. Abuse turns into dependence through chemical changes that the drug supplies to the body when used regularly. Additionally, an emotional and mental attachment develops, causing preoccupation with gaining the pleasurable effects that the drug brings. The body misses the drug when it is not present, causing the person to seek that feeling through ongoing drug use. Substance dependence has the unfortunate side effects of mental and physical withdrawal, depending on the drug abused. This can lead to need for medical and psychological intervention in order to break free from the addiction that develops (**John,2010**).

Substance dependence is a state, that may be either physical or psychological, or both, that occurs as a consequence of the interaction between drug and patient. It is characterized by a compulsion to take the drug to obtain its effects or to prevent the abstinence syndrome (**Requa-Clark, 2000**).

Confusion exists because the correct use of prescribed medications for pain, anxiety, and even hypertension commonly produces tolerance and physical dependence. These are normal physiological adaptations to the repeated use of drugs from many different categories (**Brunton, et al,2007**).

Psychological dependence has been traditionally recognized as another important feature of drug dependence psychological dependence may be accompanied by physical dependence. The expert committee on addition-producing Drugs of the world health organization has defined psychical dependence as a state of discomfort produced by withdrawal of a drug

Physical dependence represents a physiologic and biochemical adaptation to the presence of addicting drug so that the body is normal while drug concentration is maintained. Removal of the drug unmasks an underlying path physiology. The withdrawal syndrome is often characterized by effects opposite to the acute pharmacologic actions of the drug itself. These disturbances are relieved dramatically by reestablishing an effective drug concentration (**Mannaioni&Monicini , 2000**).

Social dependence, besides physical and psychological dependence, is difficult to overcome when treating substance dependence. Social dependence may in fact be defined as an adaptation of the individual to his \her new condition. The psychological dependence also