Adolescent Depression as a Contributing Factor to the Development of Substance use Disorder

Thesis

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List of Abbreviations

Abb.	Full term
ACTH	*Adrenocorticotropic Hormone*
ADHD	*Attention-Deficiency/Hyperactivity Disorder*
AUDs	*Alcohol Use Disorders*
BD	*Behavioral Disorders*
BDI	*Beck Depression Inventory*
CD	*Conduct Disorder*
CDI	*Child Depression Inventory*
CRH	*Corticotrophin-Releasing Hormone*
Delta-9-THC	*Delta-9-Tetra-Hydro-Cannabinol*
DUDs	*Drug Use Disorders*
HPA	*Hypothalamic-Pituitary-Adrenal*
IQR	*Interquartile range*
LHPA	*Limbic-Hypothalamic-Pituitary-Adrenal*
MINI-KID	*Mini International Neuropsychiatric Interview for Children and Adolescents*
ODD	*Oppositional Defiant Disorder*
Ors	*Odd's Ratios*
PFC	*Prefrontal Cortex*
PVN	*Para Ventricular Nucleus*
SUD	*Substance Use Disorders*
T-ASI	*Teen Addiction Severity Index*
WSAS	*Weinberg Screening Affective Scale*

ABSTRACT

As regards the correlation between depression and the demographic data; we could say according to this result that depression in adolescent's substance abuse has a week relation with age, educational level, income or separation of the parents.

While as regard the correlation between TSAI and the demographic data; there is a significant relation between the age of the adolescent and his peer and social relation, also there is a significant relation between total years he stays in education and increases his family, peer and social and psychiatric status problems. The educational level also influences by –ve relation with working problems as cases with high educational level has lower problems with working. Regards the correlation between depression and suicidality risk; there was a significant relation between depression and suicidalitiy risk in addict adolescents.

Keywords: Hypothalamic-Pituitary-Adrenal - Drug Use Disorders - Delta-9-Tetra-Hydro-Cannabinol

INTRODUCTION

Adolescents represent a unique group of patients whose physical, cognitive, emotional, moral and spiritual development, as well as the environment of this development influences their values and thus subsequent behaviors. Compared to other life stages, adolescence is a period characterized by an amplified capability for behaviors that have potentially dangerous outcomes ***(Gullone and Moore, 2000).***

The term depression encompasses feelings of sadness, pain, gloom, or anger. Clinical depression specifically refers to situations wherein a person's depressive feelings interrupt their daily life. Depression has been shown to be linked to genetics and may also result from stressors such as parental divorce, parental substance abuse, depression of a family member, or feelings of inadequacy ***(Birmaher et al., 1996).*** These stressors can lead to feelings of sadness, which some adolescents have reported to be a motivator for them in deciding to begin substance use ***(Taylor, 2011).*** This form of "self-medication" is common among adolescents who may not be identified as clinically depressed, yet still suffer from some form of depression.

Co-morbidity of depression and substance use disorders are common among adolescents, and research has found that these outcomes are linked with each other ***(Libby et al., 2005).*** There is some indication that depressed adolescents may be at

higher risk for developing a substance use disorder at an earlier age after the onset of substance use.

This may provide some insight into whether depression generally precedes substance abuse and dependence or vice versa. It is possible that some types of substance use cause deficiency in natural production of dopamine, thus leading to depression ***(Kapur and Mann, 1992).*** It is also possible that depression causes a deficiency in dopamine, which can be alleviated by using substances.

The majority of studies have found that depression begins before the onset of substance use, rather than substance use being a precursor to depression ***(Clark et al., 2011).*** This sequence indicates that the initial lack of dopamine may precede substance use. This is consistent with the idea that feelings of sadness and pain experienced during depression may lead adolescents to seek relief in the form of substance use.

RATIONALE OF THE STUDY

Substance abuse not only affects adolescent morbidity and mortality rates, but also the lives of many others, including families, friends, acquaintances, as well as the health care system, and, ultimately, the health and economics of the nation.

In Egypt, drug addiction is considered one of the serious problems that concern the government. Because it involves young people in their productive age, drug addiction may lead to problems such as bad social adaptation, decreasing productivity at work or dismissal.

Co-morbidity of depression and substance use disorders are common among adolescents, and research has found that these outcomes are linked to each other.

Hypothesis

The hypothesis of this study is that depression is associated with substance use disorder among adolescent patients.

AIM OF THE WORK

This study has the following aims:

1- To study the clinical presentation of the adolescent substance use disorders, including the patterns and the severity of abuse.

2- To identify the co-morbidity of depression with adolescent addiction.

3- To elicit the relationship between the severity of both conditions.

Chapter 1
ADOLESCENT SUBSTANCE ABUSE

Adolescent substance use and misuse are serious issues that contribute to significant medical, psychological, and legal consequences later in life. They represent a unique group of patients whose physical, cognitive, emotional, moral and spiritual development, as well as the environment of this development influences their values and thus subsequent behaviors. Compared to other life stages, adolescence is a period characterized by an amplified capability for behaviors that have potentially dangerous outcomes ***(Gullone and Moore 2000).***

Prevalence of Adolescent Substance Misuse

In 2015, nearly half (48.9%) of U.S. high school seniors admitted to using an illicit drug (not counting alcohol or tobacco) in their lifetime ***(Johnson et al., 2016).***

For many years, the illicit drug most commonly used by adolescents has been marijuana, and its rates of use among adolescents have increased significantly since 1991 ***(Peiper et al., 2016).***

Underage consumption of alcohol and tobacco also has a significant health risk to adolescents. Within the past year, 21% of eighth grade students reported that they had consumed alcohol, and 8% reported that they had been intoxicated; these

numbers skyrocket to 58% and 38%, respectively, for twelfth grade students while cigarette smoking has steadily declined across all ages since 2010 ***(Johnson et al., 2016).***

Between 2014 and 2015, the perceived harmfulness of regularly smoking marijuana dropped significantly from 36.1% of high school seniors rating it as a "great risk" to 31.9%. This decline is a continuation of a 10-year trend of decreasing perceived risk (in 2005, 58% of high school seniors rated regular marijuana use as a "great risk").

Substance use disorder rates among adolescents can be less straightforward than use statistics, as diagnostic criteria and differences in shared nomenclature can make large scale tracking of diagnoses difficult, especially since adolescents are often diagnosed using dependence and problematic use criteria developed for an adult population ***(Peiper et al., 2016).***

Adolescent between the ages of 12 and 17 demonstrate alcohol use disorders (AUDs) and drug use disorders (DUDs) in fairly similar past-year prevalence rates, and the overall prevalence of these disorders has decreased slightly since 2002, from approximately 6% to approximately 3%. Adolescents and young adults 18–25 demonstrate much higher rates of AUDs than DUDs, although the rate of AUD prevalence has decreased since 2002, from approximately 18% to just over 12% (DUDs remained somewhat consistent, hovering between 6% and 8%) ***(Peiper et al., 2016).***