Research Article   **Journal of MAR Neurology and Psychology (Volume 5 Issue 1)**

Effect of the Drug Abuse on Suicidal Behavior/ Ideation and Mental / Psychological Wellbeing Among Adolescents of Mardan.

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Abstract

The present research focused on serious issue of substance addiction and its hazardous effects among adolescents which is increasing day by day. There are many effects of substance abuse but two most important are suicidal ideation and attempts and second is psychological/mental wellbeing. Sample was of adolescents was drawn from area of mardan city. The sample was comprised of (N=400) college students from both male and female colleges(n=146) and universities(n=254). The sample was taken from Post Graduate College for males, Post Graduate College for females, Iqra School and college and University of mardan.

The present research used three scales for measuring the research variables. These scales were Drug Abuse Screening Test (DAST), SBQ-R Suicide Questionnaire-Revised, The Warwick-Edinburgh Mental Well Being Scale (WEMWBS).

The present research results show that college students scored high on mental well-being scale as compared to university students but both college and university students approximately same ratios on Warwick-Edinburgh mental well-being scale and Drug Abuse screening Test. The mean score of university students on all three variables are 47.03, 20.73 and 4.62. On the other hand, mean values of college students on all three study variables were 47.50, 40.91, and 4.83. This result shows that drug addiction and suicide (behavior, attempt, Intentions, thoughts) ratios are same in college and university students, but mental wellbeing of college students is high as compared to college students.

Moreover, the research results show that DAST has a negative correlation with suicide and mental wellbeing but there is a positive correlation between mental wellbeing and suicidal ideation, behavior, and attempt.

Introduction

Drug abuse is a global mental and physical health issue and is increasing day by day in adolescents regardless of their race, ethnicity, gender, sex, and background. Some people use prescribed drugs (i.e.., painkillers, sleeping pills and tranquilizers) to get relieve from pain which can be either physical like severe headache or psychological like stress and sleeping problems. But not all people abuse drugs for the same purpose, some people abuse drugs to experience recreational drugs out of their curiosity. People not only use prescribed drugs but also used illegal non prescribed drugs. In fast growing world adolescents abuse drugs to harm themselves. As due to low psychological or mental wellbeing people took indirect methods to harm themselves and inject poison in their bodies. Drug or substance abuse is use of freaky, mind- bending and unhealthy substances such as alcohol, caffeine, cannabis, and tobacco. The use of drugs reduces mental health and play attributable role in increasing suicidal ideation. (Segal, 2019).

Drugs

Drugs are chemical substances that change brain functioning and body dysfunction. These are of many types some are prescribed medicines, over the counter medicines like alcohol tobacco. These are illegal substances. (National Institution of Drug Addiction ,2020)

Most used drugs are marijuana, caffeine, nicotine, heroin, cocaine, alcohol, tobacco, LSD, speed-ball, MDMA, ketamine, crystal-myth. Drugs are taken in many forms like by inhaling, through injections, orally, snorted, trans-dermal(patches), and through body orifices.

Drug misuse

Drug use is sometimes also called drug misuse. These misuses of substances include in-taking of non-prescribed or illegal substances like cocaine, Heroin, Marijuana, and inhalants etc. It includes use of prescribed drugs which are prescribed by doctors and health care professionals but in different way like use prescribed medicines which are prescribed to someone else secondly it can also causes damage our health when we use over dose of prescribed drugs i.e.., opioid and thirdly use the medicines for some other purpose. Another aspect is misusing over the counter medicines. This can cause damage in body sometimes temporary while some time it is long lasting. (NIDA,2020)

Drug abuse

Drug abuse is associated with several risk factors, including suicidal ideation, thoughts behavior, low mental wellbeing, or psychological problems.

Drug addiction

Drug/substance addiction is about consequences of drugs used in specific frequency and amount and their effect on the user's health. (Segal, 2019).

According to Ria Gupta (2015) most users are between 14-19 years and many students are taking drugs sold in one-gram packets in exams to kill sleep. About 5% of the adult population is using drugs in Pakistan and among them heroin users are increased.

Addiction vs abuse

Drug abuse refers to legal or illegal use of substances. These drugs are sometimes used more than regular pills, amount, or dose to get relief, feel good, reduce stress or to live in imagination because in imagination they feel themselves powerful. This drug use is habit and can be change.

Addiction is use of substances and become dependent on them and this addiction become hazardous. This dependency also has negative impact on economic conditions, health emotional and psychological problems for a person itself and also for loved ones.

Types of Drugs

Drugs are categorized in different types according to their medical and non-medical use. One most common of type of drugs are street drugs. Street drugs are illegal and addictive substances that have many names but are used as recreational purposes. These drugs are more dangerous for those who had previous history of mental and physical problems. These drugs include marijuana, alcohol, steroids, cocaine, fentanyl, hallucinogens, heroin, and many more (legacy healing center, 2019).

Hard drugs are recognized as most dangerous drugs that causes dependency such as heroin and crack cocaine. These drugs are more hazardous than soft drugs. Soft drugs that are not as dangerous as compared to hard drugs but still cause psychological dependency (dependency of mind). This means that mind feels restful when drugs are taken such as LSD, cannabis etc. (Parasuraman & Pharm, 2014)

The National Institute on Drug Abuse Blog Team (2011) published their work on drugs and its type. According to them Illicit drugs, designer drugs and club drugs are used at wide range all over the world. Illicit drugs are type of illegal drugs that doctors can't prescribe. It varies from country to country like in western countries alcohol is legal drug while in eastern countries it is considered as illegal. Designer drugs are designed and created secretly in underground laboratories. These drugs are extracted from plants and then their chemical properties are manipulated by using the methods of chemistry. These drugs include MDMA(Ecstasy), ketamine, GHB, Rohypnol, LSD (acid), methamphetamine. These drugs are also named as club drugs when they are used in night clubs.

Recreational drugs are non-prescribed substances used for pleasure, fun and enjoyment. Many people use alcohol, tobacco for non-medical purposes. These are illegal drugs and can negatively affect social, family, and different areas of life. (Handerson,2017)

The drugs which are not widely recognized but plays important role in malfunction of brain of drug abusers are adulterants and diluents. Adulterants are used to enhance or minimize the chemical properties of drug already taken. Like amphetamine have been cut with caffeine. On the other hand, diluents are substances added in medicines or drugs like baking soda is used to increase the bulk of drugs. (Parasuraman & Pharm, 2014)

Types of abused substances

Legal drugs are also known as prescribed drugs and over the counter drugs (OTC). These are drugs approved by law include caffeine, alcoholic beverages nicotine and inhalants. All these drugs are not universally legal, laws for drug abuse is different in different countries. Tranquilizers, amphetamines, benzodiazepines, barbiturates, steroids, and analgesics are drugs that can affect brain if overdose is used. Sometimes doctors or medical specialists knowingly or unknowingly prescribed overdose of these substances used in medicine purpose.

Illegal drugs are banned by law and their use is prohibited by doctors and practitioners. These drugs include morphine, marijuana, caffeine, lysergic acid diethylamide, phenylene or "angel dust", designer and party drugs. These drugs are health hazardous that is why these are prohibited in law (Parasuraman & Pharm, 2014)

Stages of addiction

Four stages are considered as important for normal individuals to involve in drugs. The first one is experimentation and revolves around the curiosity to use drugs. Here curiosity acts as a motivator and even normal individuals can learn to trust/mistrust the drugs they use. For them "HIGH" is a new feeling. The second important stage is starting the regular use of drugs. At this stage user obsessively thinks about drug use and use the drugs when they are alone and thought that they have control over this behavior, and they can control it whenever they want to do it. The person might be confident about drug use that it will not hurt him and can involve in drug abuse due to peers. The third but hazardous stage is risky use/abuse.

The person who takes drugs tries to seek out "HIGH". The person is confident about drug use that it will not hurt him and can involve in drug abuse just because peers' groups uses. The last stage of drug addiction is dependency and it is most critical situation for abusers, and they can no longer get HIGH.

The avoidance of drugs may prey them to psychological and physiological illnesses and the person abuse drugs to avoid being sick. The drug abuse becomes the center of their life and their brain cannot function properly without drugs intake. (Ghazanfar, 2016)

Types of drugs-stimulants

Drugs had a stronger impact on central nervous system and increased brain activity, feeling of alertness, confidence, and energy. The people who use drugs sometimes feels lack of appetite. Once a person initiates the use of drugs is body physically and mentally becomes dependent on drugs and malfunction when a person does not intake drugs for longer time.

Cocaine is extracted from coca leaves and then crushed, chopped and/or pounded and then mixed with different solutions like alcohol, gasoline, kerosene, or some other solvents that removes the cocaine from the coca leaves and sniffed through nasal tissues and rubbed into the gums. Cocaine is most important recreational drug and has potential to irreversible damage the central nervous system. It also increases risk of heart attack(stroke), convulsions brain seizures, respiratory failures and ultimately death. overdose of cocaine also raises blood pressure and become the reason of permanent brain damage. (Gupta, 2015)

Types of drugs-depressants

According to Ria Gupta (2015) Drugs depressants cause poor co-ordination, balance, and judgment. Overdose leads to drowsiness, vomiting, coma and even death. Bobtailed substances or sniff able substances like glues, gasses, aerosols and alcohol, tranquilizers and GHB (Gama Hydroxyl-butyrate) are some examples of drugs depressants.

Effects and Consequences of drug addiction

Drug addiction had a long-lasting impact on the health of abusers. The drugs may have direct/indirect impact on health, and it depends on the amount of drug taken, the type of drug used, frequency and how they are taken. Short term consequences could be lack/increase in appetite, risks of heart attack, stroke, psychosis, and even death. These can even cause after the single use non prescribed drugs. Long term effects or consequences could be heart or lung diseases, cancer, mental illnesses HIV/AIDS hepatitis and breathing epilepsy etc. Drugs abuse changed the brain functioning. This malfunction of brain changes the perception of person to experience pleasure such as food and sex and affect their cognitive abilities. The consequences of drug vary person to person. with the passage of time person's mind and body become shows drug dependency and person cannot stop taking drugs even he or she is aware of its negative consequences.

These are some direct consequences of drugs on heath but on the other side drugs also have indirect effects on health like drugs not only effect the users but are also dangerous for those around them. Some indirect consequences of drugs on health are poor nutrition, sleep disturbances, traumatic issues, violence, injury, and communicable diseases. The women who intake drugs in pregnancy can develop post-natal birth problems like low weight etc. The drug use has also negative consequences in broader level just like on educational occupational academic and on family level. (National Institute of Drug Abuse [NIDA], 2017)

Signs and symptoms of drug abuse and addiction

The signs, symptoms, and effects of drugs vary from drug to drug and person to person. Common symptoms are neglecting occupational, academic/educational, or personal responsibilities like avoiding children, bunking classes or do not take interest in meetings and office work. Involving in risk taking behavior like driving when drunk, involving in illegal activities like gambling, driving while drunk or violence, and problems in relationship like intimate partner violence, misconduct with peers and with boss.

The signs of drug addiction are building tolerance for drugs means that your body demands ,more drugs than you were taking before to attain same effects caused by drug use, avoiding pain and to get relief from withdrawal symptoms like vomiting, nausea, insomnia, depression, sweating, shaking, anxiety and irritability. Other symptoms of drug addiction are loss of control over drug use, using drug despite of its harmful effects, abandoned activities and dependence on drugs. (Lawrence et al., 2019)

Risk factors of drug addiction

Lawrence (2019) and is colleagues worked from many years on events and stimulus that triggers drug addiction and explored that Vulnerability to drugs vary individual to individual. Mental health, physical health, genes, family and peers, and social circumstances play vital role in drug addiction. The risk factors that triggers drugs abuse and drug addiction are family history of addiction, abuse, neglect or traumatic experiences, low psychological well-being, psychological disorders like depression and anxiety, early use of drugs and method of administration like inhaling, injecting, and oral administration which increases potential of individual to use drugs.

Theoretical framework

During the last decade, some progresses has made in the development of theories of drug addiction, suicidal ideation, and mental/psychological wellbeing and with the passage of time these theories have

become increasingly diverse complex and sophisticated. As the social sciences become increasingly sophisticated about the inadequacy of single and multiple theories about any realm of social behavior.

The researchers suggest that no single explanation covers the full range of phenomena labeled as drug addiction, suicidal ideation/intentions, and mental/psychological wellbeing. None of the literature has demonstrated that any one cause is both necessary and sufficient.

Reviewed theories about drug addiction observes that different models of various levels of analysis are organized like the layers of an onion the deep structure or inner most representing species wide evolutionary Behavioral adaption and other biological processes, the next representing sociocultural norms values and institutions.

Drug abuse is a chronic mental problem. It causes person to take drugs again and again and individual unable to notice the harm that caused by these drugs. The repeated use of drugs causes changes in brain functioning and have a greater impact on neurotransmitters and it leads to addiction. (National Institute of Drug Abuse [NIDA], 2020)

Psychological model of drug addiction

Substance addiction is not an innate behavior but a learned one which can be learned by classical conditioning and operant conditioning. In classical conditioning natural response is associated with neutral stimuli to produce an unconditioned stimulus. The craving is triggered by some external (i.e.., peer pressure) or internal stimuli(i.e.. , depression, loneliness) by the involvement of five senses(hearing, seeing, touching, smelling, or tasting) and resulted in deadly use of drugs. While in operant conditioning a person who is substance abuser is rewarded (pain and anxiety of abuser is reduced after intake of drugs) or punished by some stimuli (using aversive stimuli) to strengthen or weakens the addiction behavior. Third theory which is also a part of psychological model is social leaning theory. An abuser imitates a behavior of their models like if their parents use rugs to get relief, they start taking it. (Cavaiola,2009) Drug expectancies are another important factor which demonstrates that learn to used drugs by considering it in mind that how these will affect him. Expectancies can be positive and can be negative and vary with age. (Donovan, Molina & Kelly, 2009).

Biological model of drug addiction

The children with addictive parents are more likely develop addiction and if one of identical twin children develop addiction corcancely other have greater chances to develop that addiction due to hormonal functioning and identical genes. This hormonal functioning is sometimes due to mother's intake of drugs during pregnancy and causes hormonal imbalance in child neurotransmitters and sometimes also cause brain dysfunction.

Addiction is caused by a physiological deficit making the person unable to tolerate the drug (George & khoob, 1992)

Cognitive model of addiction

Cognitive model is concerned with the neurobiology and psychology (cognition) aspects of substance use. There are cognitive factors behind acute drug administration to chronic drug use. In acute drug administration focuses on reason that leads someone to use drugs. From where a person learned this behavior and helps in drug-stimulus association. In chronic drug use is related to information processing theory. Whereas acute drug administration is related to learning theory. (Gould, 2010).

Psychodynamic model of drug addiction

Freud argued that people use defense mechanisms to reduce their anxiety, low confidence, regrets and get relief from pain in same way drug addicts use defense mechanisms to avoid feelings burdensome and powerlessness. Drug abusers compensate their feeling of severe emptiness with extensive drug use. Due to drug addiction a person creates his own imaginative world in which he has complete control. This situation is momentary but leaves a lifelong effect. (Freud, 1894).

Bio psychosocial spiritual model of drug addiction

Initially this model was called biopsychosocial model but later on spirituality was added because it is related with achieving higher potential of human beings. The spiritual model demonstrates that addiction is caused when a person feels disconnected with God or spiritual anchor and this vary religion to religion. Personal choices are cause of addiction. According to biopsychosocial spiritual model addictive behavior occurs when spiritual self is disconnected with physical self. Addiction is used to coped with difficulties and in achieving authentic self-image. (Horvath et al.,1995)

Moral model of drug addiction

The moral model of addiction emphasizes on superego or we can say that when a person did something wrong, he/she moves towards repressing his guilt feeling by addiction. (Horvath et al., 1995).

Temperance model of addiction

According to the temperance model substances or drugs are poison and it not only have negative impact on drug abusers but also on others and societies. Drugs like heroin or methamphetamine are more threating as compared to alcohol and tobacco. Their premises are prominent. (Horvath et al., 2016)

The opponent process model of addiction

The opponent-process model demonstrates emotional and motivational factors that leads to addiction. It also emphasizes on why drug abusers find it difficult to get rid of drugs. People use drugs to get pleasurably sensations. The opponent process model of addiction explains that a person who experience fear massively, fear will affect them less and may be situation comes when fearful situation will no longer scary. In this situation another takes the place of fear which is relief. (Barhum, Timothy & Legg., 2017)

The disease model of addictions

The disease model holds that abusers have predispositions, genes or hormones which determines whether a person will become abuse/alcoholic or not. This   model specifically describe alcohol or its effects that's why it is also called diseases model of alcoholism. This model suggests that due to certain biological deficiencies in neurochemicals so Ethanol affects the fluidity of cell membrane lipids and causes dysfunction of membrane and enzymes are effected that leads to brain dysfunction and increases craving for drugs like alcohol.(Wallace, 1990)

The personality model of addiction

Traits of a person act as risk factors of drug addiction so in turn these drugs personality dysfunction. This model emphasizes on five factor theory of personality and demonstrates that people with drug addiction like heroin, marijuana, and other substances. The people who abuse heroin/ cocaine have high Neuroticism and low Conscientiousness, particularly Competence, Achievement-Striving, and Deliberation. So, in short word's drugs effect our personality traits. (BMC Psychiatry, 2008)

The social educational model of addiction

Social educational model of Addiction explains that behaviors are learned and can be explained by corelated actions by such components like behavior, cognition, and environment or situation. This model states that human learn behaviors like addiction either by direct experience or by indirect experience and cognition plays important role in adopting these behaviors. Drug addiction can be learned when it is reinforced by other people, environment, thoughts/feelings, and from direct exposure of drugs.

This model is also helpful in treatment of drug abusers by helping them to unlearn these behaviors. (Gary, Fisher & Roget., 2010)

The Sociocultural model of addiction

The cultural model recognizes that the cultural standards, norms, negative evaluation by culture and society on individual's behavior leads to addiction. In some culture drug addiction is allowed but not in others. Like people in united states are considered as modern and humorous if they drunk alcohol and are involved in drugs intoxication while in Asian countries like Pakistan and India it is considered as illegal and against societal norms.(Horvath et al., 2018)

The habitual model of addiction

The habit model proposed by Thomas Szasz questions the very concept of "addiction." He argues that addiction is a metaphor, and that the only reason to make the distinction between habit and addiction "is to persecute somebody." (Szasz, 1973)

Public health model of addiction

Public health model of addiction is made by three key factors; the agent(characteristics of drug and its effects), the host(characteristics of the drug abuser/user) , the environment(the context in which drug is used). It focuses prevention of drug use which includes three types of preventions; primary prevention(take measures before the use of drug like awareness about its effects), secondary prevention(drug addiction is diagnosed and important steps are taken to cure it), tertiary prevention(this is given when problems become so serious that it becomes threatening for individual's heath, economic conditions and relationships either legally or illegally and counseling is provided).(The national drug strategy, 1985)

Suicide

Joiner (2005) defines Suicide as a behavior in which individual intentionally finish his life or kill himself.

Suicidal ideation

Suicidal ideation as intentionally thoughts of death. (Orden et al., 2010). Suicide is also defined as the act that is performed consciously rather than advisedly or on anyone's suggestion. In short suicide is acted to kill oneself, performed by individual himself consciously causes death in many cases either in direct or indirect form. (Durkheim, 1897)

Suicidal behavior

Suicidal behavior is intense feelings of hopelessness, depression, or killing oneself or ending once own life. also called Parasuicidal behavior (Kreipe, 2007)

Common terminologies used for suicide

Different terminologies are used for suicidal attempts. The terminologies used for suicide are parasuicide, cyber-suicide, copycat suicide, and anniversary suicide. Para-suicide is when a person harmed oneself but in actual do not want to die. The cyber-suicide is a pact made between two or more individuals met on internet and plans to kill themselves through social media (like on Facebook or twitter). Copycat suicide is suicide attempted by copying some well-known model whose suicidal attempt got extensive media coverage. Also known as Werther syndrome. The anniversary suicide these people attempt suicide in same day when their family member or loved one did it (Shetty, 2014)

Causes Of suicidal behavior, suicidal ideation, and plan

There are many underlying causes behind suicidal ideation and attempts. Mostly it happens when one thinks that he has no control over the overwhelming life situations. Hopelessness, depression, and any failure in life causes person to thought suicide as solution of their defeat and burdensomeness. Suicide can also be caused by genetic links as people who became succeeded in their suicidal plan may have family history of suicide. (Kennebeck et al., 2018).

Types of suicide

Durkheim's theory which is considered as most valid theory till now defines the types of suicide that are egoistic, altruistic, and anomic. Egoistic suicide is type of suicide a person does when social interaction is low. The person feels loneliness and usually becomes self-centered. The altruistic suicide occurs when persons social interaction is high, and he had intimate relationships. Due to over integration from social circle person commit suicide. The anomic suicide is suicide which is chosen by the individual due to sudden situation like winning lottery, breakdown from society etc. the fatalistic suicide is generally due to hopelessness, lack of purpose. Generally committed by barren women, servants, and slaves. (Suhasini, 2014)

Risk factors of suicide and suicidal behavior

Risk factors that triggers suicidal behavior, ideation and plan are incarceration, poor job security or low levels of job satisfaction, history of being abused or witnessing continuous abuse, being diagnosed with a serious medical condition, such as cancer, HIV, being socially isolated or a victim of bullying or harassment, substance use disorder, childhood abuse or trauma, family history of suicide, previous suicide attempts, having a chronic disease, social loss, such as the loss of a significant relationship, loss of a job, access to lethal means, including firearms and drugs, being exposed to suicide, difficulty seeking help or support and lack of access to mental health or substance use treatment.

Methods of suicide

Common methods of suicide are orally taking pesticide poisoning, hanging oneself with fans or other stimulus at height, firearms, using overdose of prescribed drugs or medicines, fatal injuries, exsanguinations, suffocations, and drowning. The ratios of attempting suicide are different in males and females due to difference in methods they choose to kill themselves.

Stages of suicide

Suicide do not happen all at once, but it is long process of thoughts that motivates and triggers person continuously and develop aversive negative awareness of self that motivates induvial to get escape from self who id at downhill's. The stages which are considered most important in attempting suicide. The first one is falling short of expectations. This happens when a person has high standards of expectations from others and do not get response according to our expectations then this raise to hopelessness and disappointment.

Second is attribution of self in which a person attributes failure internally and has positive perception of world and negative perception of self. In this situation people kept themselves isolated. Those people have self-blaming attitude and they blame themselves for the thing out of their control.

Third stage is high self-awareness and it revolves around people who are extra self-conscious about themselves and have lack of empathetic behavior towards other and cannot bother that other people ignore them.

Affect effect are at fourth stage a person is aware of his/her inadequacies. A person wants to get rid of negative self-awareness and from its associated effects. This can cause psychological pain and creates feeling of anger, anxiety, depression, disgust, and guilt.

Fifth stage is cognitive deconstruction involves setting meaningless goals, set cognitive rigidity and avoid meanings. The person prevents himself from positive self-awareness and emotions. At this stage persons cognitions failed, and temporal perception becomes so slow.

The last Stage is disinhibition in which deconstruction of cognition leads to disinhibition and irrationality. These people have meaningless and impaired thought patterns, reduced death anxiety and fear, tolerance for physical pain increases and people become more passive then dominant and feels like they are dying rather than feeling its ok. (My Fanwy Webb, 2019)

Suicidal warning signs

According to American Association of Suicidology that help us to take preventive measures to save our loved one's life. These signs are hopelessness, rage, anger seeking revenge, involving in risky behaviors, substance abuse, social withdrawal, sleeping disturbances, mood swings, aimlessness, feelings of burdensomeness and lack of purpose in life.

Suicide and its relationship with drug abuse

Suicide is also important factor in drug abuse as people with substance abuse also have suicidal ideation or behavior or history of previously attempted suicide. About 230 million people or 5% of the world's adult population, aged from 15 to 64 are estimated to have suicidal ideation and estimated to have used an illicit drug at least once.

Substance abuse, Suicide, and mental health

Substance abuse disorders are, or drug addiction is generally associated with psychological disorders like depression, post-traumatic stress disorders, attention, and anxiety disorders. People with mental illnesses involve in substance abuse and addiction like alcohol, tobacco, and other drugs. Depression and mood disorders are most common effects of substance abuse and withdrawal symptoms.

Suicide is also linked with substance abuse as when people try to withdraw from substance abuse and addiction the suicidal thoughts and possessions may disturb abusers' brain because brain is relearning to function properly. (Ilgen, 2020)

Drug addiction increases risk for suicidal attempts/behavior. Early stage drug abuse causes poor judgmental abilities, poor impulse control impaired neurotransmitter functioning disinhibit ions leads to suicidal tendencies.

Alcohol use also leads to suicidal ideation. People who drink alcohol at early age have more suicidal thoughts. It is thought that people who drink alcohol has five percent more chances to attempt suicide than social drinkers. In the same way opioid related suicidal cases are increased in last 15 years. Overdose of opioid also leads to suicide. In 2015 Centers for Disease Control and Prevention reported 52,000 drugs overdose deaths out of which 63.1% were due to opioid overdose. More important is heroin also increases 13.5 times more chances of suicide then alcohol use. Not only these but all substances and drugs are a great risk of suicide in people especially at teenage. Suicidal ratios due to different drugs is different like for cocaine use 1.35, for psychostimulant use is 2.10, for benzodiazepine use 3.83, moreover for cannabis use ratio of suicide is 3.89 and 11.36 for sedative use. Independently these drugs such as marijuana, cocaine, alcohol, and cigarette smoking are leading to suicidal attempts. In recent times not a single scale can measure suicidal behavior and causes behind it. Suicidal behavior in individuals can be predict. Several reports concluded that 83% deaths by suicide are unexpected or unavoidable. (Esang & Ahmed, 2018)

Models of suicidal behaviour, ideation and attempts

Suicide is an important and emerging problem now a days. According to WHO every year 800 000 people die due to suicide and it is the 3rd leading cause of death among teenagers age between 15-19-years. In global word 79% drugs most suicides are held in lower- and middle-income countries. One person dies in every 40 seconds. (World Health Organization [WHO], 2019)

Suicide can be defined as an act consciously attempts of killing oneself and ending one's own life. Nonfatal thoughts or behaviour of suicide has three kinds: first is suicidal ideation or thoughts includes thinking or involving in activities which is causes serious threat to once own life. Second is Suicidal plan and it refers to adaptation of certain methods or techniques which results in intending them towards death. Third and most critical type and stage is suicidal attempt and it includes using once potential in self injurious behaviors or activities which cause death, fortunately. (Epidemiol, 2008)

Thomas joiner model of suicide

This model is based on Interpersonal-Psychological Theory of Suicide and states that suicide is composed of two psychological experiences. First is perceiving burdensomeness and second is Thwarted Belongingness. In first experience perceived oneself as burden on other and has loss of purpose in life. In second experience a person suffers from isolation and fails in social connection. The important factor ties both these experiences is capability or lack of fear of death and lacking the major human instinct to save oneself from pain. This increases the risk of suicide Moreover it does not happen all sudden but after a long term painful and provocative experiences. (Joiner, 2006)

Integrated motivational-volitional model of suicide

This model consists of 3 phases which are pre-motivational phase (consists of background factors and triggering events), motivational phase (consists of identification or intention's information) and volitional phase (behavioral enaction). These phases describe the transition from suicidal ideation to suicidal behaviour. In pre motivational phase certain factors triggers the person and motivate him to think of suicide. Triggers can be internal(depression) and external factors (life events, Diathesis, vulnerability, and environment). The motivational phase is drives suicidal ideation towards suicidal intentions/ideation triggered by defeat and humiliation which leads to entrapment which further on causes suicidal ideation and intent, threats to self-moderators for example social problem solving, copying, memory biases and ruminative processes acts as a mediator between humiliation and entrapment while motivational factors like thwarted belongingness, burdensomeness, future thoughts, goals, norm resilience, social supports and attitudes are moderators which can enhance suicidal ideations and also reduce suicidal thoughts. The third phase which is most critical phase is volitional phase. In this phase suicidal ideation leads towards suicidal behaviour or attempt. Volitional factors like access to means, planning, exposure to suicide, impulsivity, physical pain, sensitivity, tolerances about death, imagery and past behaviour acts as moderators in volitional phase. (O'Connor & Kirtley, 2018)

Interpersonal theory of suicidal behaviour

The theory which evolved as main theory in suicidology is the interpersonal theory of suicidal behaviour (IPT) and it stated that suicidal behavior depends on thwarted belongingness and perceived burdensomeness. This theory emphasized that the individual's capacity of suicidal behaviour is completely different from one's desire of suicide. This is the basic reason that not every person who has thoughts to kill oneself do the same (Orden et al., 2010)

Mental/Psychological wellbeing

Mental wellbeing is viewed as intrapersonal healthy, supportive, and adaptive functioning that can include positive affiliation and attitude towards self and others. It is also related to ones' s sense of mastery of skills, personal growth, control on negative emotions, and life satisfaction. (Burns, 2017)

Types of psychological wellbeing

Psychological or mental wellbeing is divided into two main types on which all researchers are agreed one is hedonic and second one is eudemonic. Hedonic wellbeing is related to subjective feelings of happiness and has two important elements that are affection and cognition.

Affective element or component comprises of more positive thinking, behaviour and emotions and less negative thoughts and emotions. A person feels happy when he is satisfied from his life and himself. (Carruthers & Hood, 2004). The second most important but less known type of psychological wellbeing is eudemonic that aims at purposefulness. It means that when we thought that our life has some aim, we remain hopeful and has positive psychological wellbeing. The eudemonic wellbeing which has 6 components: self-acceptance, environmental mastery, positive relationships with family and others, personal growth (both physical and mental, purpose in life and autonomy. These are explained by Carl Ruff in his model of psychological wellbeing known as carl Ruff's model of psychological wellbeing.

Causes of low psychological/mental wellbeing

There is not only a single cause of poor psychological wellbeing but there are a lot of factors that play vital role in causing decreases in positive psychological wellbeing and helps people involving in mental illnesses like genetic, environmental factors and psychological factors. People who have previous history of mental illness have low psychological or mental wellbeing. Changes in brain functioning due to drug abuse and substance abuse leads to low psychological wellbeing and mental health illnesses. Diet, upbringing, and social exposure are other factors which are considered important for low PWB. (Psych Guides,2020)

Symptoms of low psychological wellbeing

Mental or psychological wellbeing can be raised due to certain factors and decreased due to certain factors the factors that causes change in psychological wellbeing can be emotional and physical. Emotional factors incudes changes in mood, erratic thinking, chronic anxiety, exaggerated sense of self-worth, and impulsive actions whether physical symptoms include weight loss, fatigue, and loss of libido due to depression. Moreover, it also includes malnutrition, weight loss, amenorrhea in women, or electrolyte imbalances caused by self-induced vomiting. Some psychological symptoms include anger, hopelessness, disgust, and helplessness leads to poor wellbeing. Poor mental health/state drives people to commit suicide. National Institute for Mental Health reported that 90% deaths are due to mental disorders. (Psych Guides,2020)

Models of Psychological/Wellbeing

Psychological wellbeing also called mental wellbeing and positive mental state. Happiness and satisfaction lead to positive and high psychological wellbeing. The psychological well-being has two important aspects. First aspect refers to experiencing positive emotions and feels happy and the other aspect is subjective wellbeing.

The term "Hedonic" is used for subjective well-being and it is composed of two components an affective component (high positive affect, low negative affect) and cognitive components (satisfaction with life).it is aimed at an individual experience happiness hen positive affect and satisfaction with life are both high (Carruthers & Hood, 2004). Another term used is "Eudaimonia" wellbeing which refers to meaningful living. (Diener, 2000)

Carl Ruff's Model of psychological wellbeing

Carl Ruff's model is a multi-dimensional model demonstrates neither on positive emotions nor on happiness but on balance in all aspects of wellbeing. This model consists of 6 categories including self-acceptance, personal growth, purpose in life, positive relation with others, environmental mastery, autonomy. This model can be used in different cultures as it was already applied in Spain and Columbia, in Sweden, and in Hong Kong. This model focuses on how one can improves his wellbeing and lives better life (Dierendonck et al., 2008).

Psychological wellbeing and suicidal ideation

Ibrahim and his colleagues (2014) explore from their research that there is a positive correlation between psychological wellbeing and suicidal ideation. Mostly it has been seen that depression is main cause of suicidal attempts and behaviour. Depression is caused due to feelings of hopelessness, failure in life and helplessness which predicts that person has poor mental health/wellbeing.

Psychological wellbeing, substance abuse and drug abuse

Visser and Leigh-Anne Routledge founded from his marvelous work on psychological wellbeing that drug addiction plays important role in the impairment of psychological wellbeing. It was concluded that people who abuse drugs have less life satisfaction. Different researchers found that teenage is most obvious age when adolescents prey to substance abuse because it is a stage when they pass through physical, emotional, and psychological development to gain their individuality and matureness. At this stage person can also are low psychological wellbeing if his mental health does not remain stable (Rajalakshmi et al., 2018)

Lively examples of suicide due to PSW

Recent case of suicide which got huge social media coverage was death of an Indian actor Sushant Singh (2020) Rajput who killed himself by hanging due to PTST. Crime Patrol actor Preksha Mehta (2020) attempted suicide by hanging from a ceiling fan She was suffering from depression, disappointments

related to her career and failed relationships which she mentioned in her suicide note. Oscar-winning actor Robin Williams (2014) attempted suicide due to depression. He was renowned comedian.

Famous yesteryear actress Parveen Babi (2005) committed suicide by intake of alcohol and sleeping pills due to depression he started starvation and then take sleeping pills that immediately damage her body. Jiah khan (2013) also one of those who attempted suicide due to relationship problems. Pratyusha Banerjee-2016-was also an actress and she also attempted suicide by hanging herself with ceiling fan.

In Pakistan, a survey by Atik Rehman (2019) in every-one hour one person ends his life.in recent reports show that recently 4 students from khaber Pakhtoon khaw attempted suicide due to poor grades in Pakistan. All these cases and many other cases in Pakistan and other countries of the world regardless of their religion, race, gender, socioeconomic status is attempting suicide, the reason behind is low psychological wellbeing especially individual wellbeing.

Rationale of the Research

Students are the wealth of each territory; their future significantly impacts the nation standing throughout the world. Thus, students are the centerpiece of evolution and growth of any kingdom. Problems underlying Mental health, Drug addiction and suicidal ideation/ Intentions constitute an influential and growing universal health concern for which epidemiological data is needed among university and college students.

The present study aims to contribute to investigate issues behind the emergence of psychological problem among university student and college students. It will aim to address evidence that adolescents are involving in suicidal behaviour and drug addiction which is causing a fall in their psychological health. So, those in future appropriate measures can be taken for the psychological well-being of the students. It also aims to highlight problems so that clinical psychologists, counselors, school psychologists and sociologists may be recruited in University settings for dealing with such problems. In addition to that therapeutic intervention programs can be implemented in order to reduce or to overcome such issues in student and preventive skills programs should be used to involve students in recreational and healthy activities.

Conceptual framework:
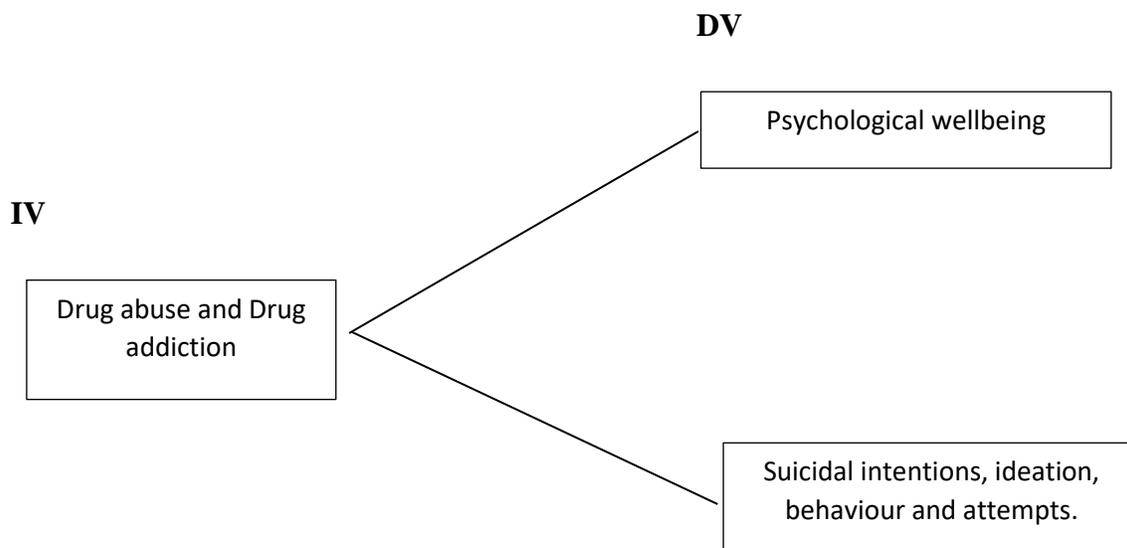
Figure 1: Schematic representation of the effect of the drug abuse on suicidal behaviour/ideation and mental/psychological wellbeing among adolescents of mardan.

Methodology

Objectives of the study

The study has the following objectives:

- To describe the relationship between drug abuse, suicidal ideation/ behavior, and psychological wellbeing among adolescents.
- To identify patterns of drug abuse among adolescents.
- To find out gender differences in drug abuse, suicidal ideation/behavior and psychological wellbeing among adolescents.
- To examine differences in psychological wellbeing of drug abusers and non-drug abusers.
- To asses' differences in suicidal behavior of drug abusers and non-drug abusers.
- To find out relationship of drug abuse with suicidal ideation and attempt and with psychological wellbeing.
- To investigate the prevalence of drug abuse and suicidal ideation in adolescents.
- To find out effect of drugs on mental health of adolescent students.

Hypothesis

- Drug abuse is positively correlated with suicidal ideation.
- Drug abuse is negatively associated with psychological wellbeing.
- The number of substances/drugs used has a graded relationship to suicidality.
- There will be a significant difference in the psychological wellbeing of drug abusers and non-drug abusers.
- There was a significant difference in suicidal behaviors of drug abusers and non-drug abusers.
- Males abuse more drugs/substances than females.
- There will be higher prevalence of drug abuse in university students than in college students.
- Male adolescents will score high on suicidal ideation or attempts as compared to female adolescents.

Operational Definitions of Variables

Drug/Substance Abuse

Drug or substance abuse includes use of illegal drugs either or the use of prescription or over-the-counter drugs for purposes other than those for which they are meant to be used, or in large amounts.

A drug abuser is a person who use illegal or prescribed drugs in large quantity. People take it as to feel good and get rid of life problems, but others may view this as way of self-harm.

A person with an addiction uses a substance, or engages in a behavior, for which the rewarding effects provide a compelling incentive to repeat the activity, despite detrimental consequences. Addiction may involve the use of substances such as alcohol, inhalants, opioids, cocaine, and nicotine, or behaviors such as gambling.

In the present research the total score on Drug Abuse Screening Test (DAST) was used to measure drug addiction in students. (Skinner, 1982)

Suicidal Ideation

Suicidal ideation/thoughts are patterns of thinking of self-harm or to kill oneself. It is different from suicidal attempt as in suicidal attempt someone makes attempts by using specific weapon to kill himself/herself but in suicidal ideation a person only thinks about killing oneself. It can range from mild to severe. Suicidal ideation is a risk factor and has many causes behind it.

In the present research the total score on the Suicidal Behaviour Questionnaire-Revised (SBQ -R) was used to measure suicidal ideation, attempt and behaviour. (Osman et al., 1999).

Mental well-being or psychological well-being

Psychological wellbeing is also called mental state. Psychological wellbeing is related to life satisfaction and happiness. It can be measured on individual level and subjectively. If a person has self-acceptance, empathetic behaviour, positive emotions and healthy perception of self and others around him then one can say that he has high PSW but if a person has inferiority complex, mental disorders, mental illnesses, guilt, disgust and blaming attitude towards self and others then surely he has low PSW and needs therapeutic treatment. In the present research total score on The Warwick-Edinburgh Mental Well-being scale was used to measure psychological well-being (Tennat et al,2007)

Research design

The present study was a quantitative in nature and cross-sectional survey research design has been used to collect data from drug abuser and non-drug abuser students. Convenient sampling technique was used for present study.

Sample

The sample of the present study was comprised of male and female college and university students. The age of participants was 16 to 30. Sample was divided into two main categories drugs addictive students and non-drug addicts' students. Colleges include Post Graduate College for males, Post Graduate College for females, Iqra School, and college while universities include abdual wali khan University of mardan. Approximately 400 samples were taken from different colleges and universities of mardan.

Inclusion criteria

In present study adolescent students from mardan region were taken. A structured survey method was opted in which self-screen prodrome was used. Students who use drugs and who do not both were included.

Exclusion Criteria

In the present study only college and university students of mardan were included. Students who were from universities and colleges of different cities other than mardan region were excluded from the study.

Research Instruments

For the purpose of present study three questionnaires were used.

Informed Consent form

Informed consent form was used in order to take participant willingness. The purpose of present research was stated in this form as well as the researcher took responsibility for confidentiality of the data given by respondents.

Demographic Performa

Demographic Performa was prepared by keeping in mind the research variables to be explore. In this demographic Performa variables used are name, age, educational level, socioeconomic status, date of form submission, residential area, email address, education, institution type, institution name, name of drug being abused were asked.

Drug Abuse Screening Test (DAST)

It was originally developed and for the very first time used by (Skinner, 1982) for clinical screening and treatment evaluation research in the substance abuse field.it is a 28-item self-report screening instrument that consists of items that are parallel to those of the Michigan Alcoholism Screening Test(MAST). The DAST has (a) exhibited valid psychometric properties; (b) has been found to be "a sensitive screening instrument for the abuse of drugs other than alcohol; (c) better differentiation between minor and severe levels of each item. Internal reliability estimate was substantial at .92. There is preliminary of construct validity.

SBQ-R Suicidal Behaviour Questionnaire-Revised

Suicidal Behaviour Questionnaire-Revised (SBQ-R) was developed by Osman and his colleagues (2001). Past suicidal behaviors including ideation and attempts have been identified as significant risk factors for subsequent suicidal behavior. The reliability in terms of Cronbach's coefficients alpha were .89 and .86 in the clinical and college student samples, respectively.

The Warwick-Edinburgh Mental Well Being Scale (WEMWBS)

WEMWBS was developed by an expert panel drawing on current academic literature, qualitative research with focus groups, and psychometric testing of an existing scale in 2003. It was validated on a student and representative population sample. Content validity was assessed by reviewing the frequency of complete responses and the distribution of responses to each item. The reliability ranges from .89 to .91. It is easy to administer has high stability overtime and well established according to cultural norms. This scale consists of 12 items. For the purpose of this research English version is used.

Procedure

The researcher got the authority letters for the Department of Psychology, University of mardan to collect data from different institutions to have access to the targeted population. First, the permission from head of departments and concerned authorities of all selected institutes was taken. The respective authorities were informed about nature and purpose of the research. Afterwards, the students at colleges were approached and those adolescents were taken who met the inclusion criteria. The selected population were informed about the nature and purpose of the present study. Written informed consent was taken from the participants. They were also assured about the confidentiality of their responses and their identity. Participants were also given the right to withdraw from participation at any time. It was also informed that the information they provided will only be used for research purpose.

Structured questionnaire was used. All the participants who were asked to participate readily agreed to participate in the research and were keen to know the findings. Data was collected through simple random sampling from different colleges and universities of mardan. Data was collected from Government Degree college mardan for boys and also from girls and abdual wali khan University of mardan. There were 375 respondents out of which 245 were university students and 120 were college students. Three questionnaires (Drug Abuse Screening Test (DAST), SBQ-R Suicide Questionnaire-Revised and The Warwick-Edinburgh Mental Well Being Scale (WEMWBS) were used to collect data from each respondent. Questionnaires were administered and also instructions were given to the respondents that are like "you are free to ask any question about statement which are given in the questionnaires, these columns are given in front of each statement , please select the column which explains about you more appropriately, there is not any right or wrong answer for any statement. Only your answers are important, etc. After that informed consent was also taken. In that way the respondents easily give their responses. Data was collected from each participant and instructions were also given individually to each participant. Each participant took an average time to complete all statements because the questions were easy to understand so they do not take long time. Total 400 questionnaires were given out of which 375 were filled out by the participants. At the end researcher thanked to all participants for their cooperation in this valuable study.

Baseline Characteristics	Abusers		Non abusers		Full Sample	
	n	%	n	%	n	%
Age						
16-25	35	23.9	111	76.1	146	36.5
26-30	92	37.3	155	62.8	247	98.3
31 above	1	14.3	6	85.7	7	100
Education						
Intermediate	17	34.7	32	65.3	49	12.3
Bachelors	95	34.2	181	65.6	276	68.5
Masters	7	33.4	14	66.7	21	5.3
BSC & B.COM	0	0	3	100	3	.8
BA	2	100	0	0	2	.5
MA	0	0	2	100	2	.5
M.ED	1	100	0	0	1	.3
Diploma	12	30	28	70	40	10
BBA	0	0	2	100	2	.5
PHD	0	0	1	100	1	.3
M.Phil.	1	33.4	2	66.7	3	.8
Gender						
Male	107	37.3	180	62.7	287	71.8
Female	21	18.58	92	81.42	113	28.2
Institute type						
College	50	34.2	96	65.8	146	36.5
University	78	30.7	176	30.7	254	63.5
Socioeconomic status						
Upper	10	34.5	19	65,5	29	7.2
Lower	4	21	15	78.9	19	4.8
Middle	114	32.4	238	67.6	352	88.0
Institute Name						
Adual wali khan university of mardan	75	29.4	180	70.5	255	63.7
	06	35.2	11	64.7	17	4.3
	0	0	3	100	3	.8
Government Post Graduate College mardan (GPGC)	22	33.4	44	66.7	66	16.5
The Mars school and collage rustam mardan	02	28.6	5	71.4	7	1.8
The unicome school and collage rustam mardan	02	50	2	50	4	1.0

The glpbal public schloo system mardan	0	0	2	100	2	.5
The adan public school system rustam	1	100	0	0	1	.3
g.p.s.gul abad no 2	5	62.5	3	37.5	8	2.0
g.p.s gul abad no 1	0	0	1	100	1	.3
The fazlehaq College, mardan	0	0	1	100	1	.3
Merit School and College system, mardan	1	100	1	50	2	.5
Times College	1	100	0	0	1	.3
Peace College, mardan	1	100	2	66.7	3	.8
GCC College, mardan	2	100	0	0	2	.5
Quiad e azam Public School and College, mardan	1	100	0	0	1	.3
Iqra paar hoti dubai adda	2	100	0	0	2	.5
GPI technical college, Sarai Salah	2	66.7	1	33.4	3	.8
The skywalk school system	0	0	1	100	1	.3
mardan College of Social and management sciences,	0	0	1	100	1	.3
Sadhum children accedmy and science collage rustem	0	0	1	100	1	.3
Dar e arqam school system	1	100	0	0	1	.3
Dr Abdul Qadeer Khan College, mardan	0	0	1	100	1	.3
Punjab Group of Colleges, mardan	1	100	0	0	1	.3
Sarhad College mardan	0	0	1	100	1	.3
Pakistan Public School mardan	0	0	1	100	1	.3
Iqra school chardali	1	100	0	0	1	.3
Hira public school chargill	1	100	0	0	1	.3
UCW collage , Mardan	1	100	0	0	1	.3
Government Technical Model(boys) higher secondary school no1.mardan	0	0	1	100	1	.3
Peshawar Modal Degree college mardan	0	0	1	100	1	.3
FIMS College mardan	0	0	2	100	2	.5

Table 1 Sociodemographic characteristics of participants at baseline

Note: n = frequency

Note: N =400, participants were on average 26-31 years old and participants age differ by condition. Participants of different age, socioeconomic status, institution are gender were involved in this study and each participant have different scores in both conditions. The university students abuse drugs more than college students as n of university students was 78 whereas frequency of college students who abuse drugs was 50.

Scales	M	SD	Range	α
Drug Abuse Screening Test (DAST)	47.13	4.692	29-52	.877
War-wick Mental Well-being scale	40.65	9.840	12-60	.877
Suicide Behavior Questionnaire-Revised	4.69	3.234	3-19	.786

M=Mean, SD=Standard Deviation, A= Cronbach's α reliability

Table 2 Psychometric properties of study variables(N=382)

Table 2 shows that psychometric properties of study variables. Alpha reliability of all scales indicates satisfactory internal consistency.

Variables	n	M	SD	1	2	3
Drug abuse	400	47.29	4.63	-	.092	-.234
Mental Well being	400	40.92	9.88		-	-.208
Suicidal behavior	400	4.69	3.19			.-

Note. * P <.05, ** P < 0.01, P *** < .001

Table 3 Descriptive statistics and correlation for study variables: Correlation between Drug Abuse, Mental Well-being and suicidal.

Table 3. shows the Pearson correlation between the selected variables. Drug abuse has significant Negative correlation with Mental Wellbeing (r = .92, P < .000) and mental well-being (r =-.234, P < .000) and suicidal (r = 208, P < .000) has negatively correlated

	College Students (*n* = 146)		University Students (*n* = 254)		T(396)	p	Cohen's d
	M	SD	M	SD			
Drug Abuse screening Test	47.92	4.49	48.14	4.66	1.63	.10	0.170
Warwick-Edinburgh Mental Well-being scale	41.07	10.15	40.84	9.72	.218	.82	0.023
Suicide Questionnaire-Revised	4.81	3.541	4.62	3.09	.565	.57	0.057

Note. M=Mean, SD=Standard Deviation, t=t value, p= Level of significance<.01, .08, .05

Table 4 T-test Differences between drug addict students and non-drug addict students on mental wellbeing and suicidal ideation and behavior (N=400)

Results of table 4 shows mean, standard deviation and t-values for college and university students on drug abuse, mental well-being and suicidal behaviour. Results indicates significant mean differences on drug abuse of university students(M=48.14,P<.10) and college students(M=47.92,P<.10 The findings show that the college students(M=47.92,p<.10) significantly scored higher on Drug addiction scale as compared to university students (M=47.14,P<.10). There is no significant difference was indicated by college students on Warwick Mental wellbeing Scale (M=41.07,P<.8 and university students (M=40.84,P<.1). On suicide questionnaire-Revised the college students score was (M=4.81,P<.05 significantly higher than university students(M=3.09,P<.10)

Scales	Male students (*n* = 286)		Female students (*n* = 112)		*T(396)*	P	*Cohen' d*
	M	*(SD)*	*M*	*(SD)*			
Drug Abuse screening Test	48.85	4.80	46.91	3.72	-4.08	.000	-0.11
Warwick-Edinburgh Mental Well-being scale	41.13	10.22	40.42	8.94	.639	.52	0.38
Suicide Questionnaire-Revised	4.42	2.84	5.37	3.98	-2.64	.01	0.07

Note. **p< .01

Table 5 Difference between male and female students on Drug abuse, mental wellbeing and suicidal ideation behavior and implementation. (N=384)

Table 5 shows that mean standard deviation and t-test values for male and female students drug abuse, suicidal ideation, attempt and mental well-being. Results indicate significant means difference on drug abuse, suicidal behavior and mental well-being. The findings indicates that male students (48.85 ,p< .01) significantly scored high on DAST as compared to female students (48.65, p<.01). The finding shows that male students (41. 13, p <.5) significantly scored high on SBQ-R as compare to female students (40.42, p <.5). The findings indicates that male students (4.42,p< .01) significantly scored high on mental well-being as compared to female students (3.98, p<.01).

Discussion

The present study was intended to explore the drugs abuse symptoms in adolescents In order to test the hypotheses of the current study, three questionnaire namely Drug Abuse Screening Test(DAST), SBQ-R Suicidal Behaviour Questionnaire-Revised, The Warwick-Edinburgh Mental Well Being Scale(WEMWBS) for drug abuse, suicidal ideation behaviour and attempt and psychological/mental well-being and were administered on the sample of 400 college and university students. The present study was comparative study. The participants consisting of drug addicts and non-drug addicts selected from different colleges and universities.

First step of the current study was to calculate the reliability estimate of the scale was used in current study, to see their internal consistency on the sample. The alpha reliability for DAST was .876, for WMWBS is .864 and for SBQ-R is .864 so the alpha reliability coefficient for all three scales was .86 respectively indicating satisfactory consistency.

Result of the study shows that the hypothesis that the university students have higher prevalence of the drug addiction and results proved this hypothesis. Researches result shows that the risk for the onset of suicidal behavior and ideation in both women and men occurs in the teenage period between late adolescence and early adulthood; relatively fewer individuals attempt suicidal behavior due to religious beliefs. Although most students show that they don't have any kind of suicidal ideation and behavior, but 20 % students have severity of the symptoms as they had tried to kill themselves many times.

Results of the current study support our next hypothesis that the prevalence of drug abuse is at middle level neither too much nor too less. Result shows that most of students take cigarette/smoking and ice as a drug abusing substance. The use of alcohol and other drugs is less as compared to smoking. However, in USA and other countries use of smoking is less as there is more intake of alcohol and caffeine. As caffeine is used in coffee and Nicosia is used in tea so heavy dependence on tea and coffee is not considered as a drug addiction. According to Razzaq, Harbi & Shaimaa (2020) smoking is major cause of evadable death. As according to societal norms female students have low probability of using drugs. They internalize their feelings and has internal locus of control.

Result shows that there is a negative co-relation between suicidal attempt and mental (psychological well-being). Students who have low self-esteem, depression, mood swings and negative self-worth or self-image have higher risk to attempt suicidal attempt and have suicidal ideation. However not all students who had a suicidal ideation attempt suicide. Major reason of less ratios of suicidal attempt in Pakistani students is their religious beliefs. According to researcher's religion is not helpful in stopping suicidal ideation but provides a protective shield against suicidal attempt and completion. (Lawrence, Maria & Barbara., 2016). It has been seen that women less involve in drug addiction, suicidal attempt (although they have high degree of suicidal ideation and borderline disorders) due to high emotional stability and mental well-being.

Conclusion

The present research results show that college students scored high on mental well-being scale as compared to university students but both college and university students approximately same ratios on Warwick-Edinburgh mental well-being scale and Drug Abuse screening Test. The mean score of university students on all three variables are 47.03, 20.73 and 4.62. On the other hand, mean values of college students on all three study variables were 47.50, 40.91, and 4.83. This result shows that drug addiction and suicide (behavior, attempt, Intentions, thoughts) ratios are same in college and university students, but mental wellbeing of college students is high as compared to college students.

Moreover, the research results show that DAST has a negative correlation with suicide and mental wellbeing but there is a positive correlation between mental wellbeing and suicidal ideation, behavior, and attempt.

References

1. Segal,J. (2019). Substance abuse and mental health issues:Overcoming Drug Addiction. Help guide. https://www.helpguide.org/articles/addictions/overcoming-drug-addiction.htm Saissan, J.,Smith.,M.,Robinson, L.,Segal, J(2019, October 15). Substance abuse and menal health issues: Overcoming Drug Addiction. Help guide.
https://www.helpguide.org/articles/addictions/substance-abuse-and-mental-health.htm

2. Durkheim. E(1986). An Introduction to Four Major Works. Beverly Hills, CA: Sage Publications Pp. 82-114 retrieved from https://durkheim.uchicago.edu/Summaries/suicide.html

3. Durkheim,E.(2011, October 11). An introduction to four major works:Suicide. Sage Publications. https://durkheim.uchicago.edu/Summaries/suicide.html

4. Burns R.A. (2017) Psychosocial Well-Being. In: Pachana N.A. (eds) Encyclopedia of Geropsychology. Retrieved from : https://link.springer.com/referenceworkentry/10.1007%2F978-981-287-082-7_251#howtocite

5. Burns, R.A.,(2017,Janyary 31). Encyclopedia of Geropsycholog: Psychological Wellbeing. Springer Link. https://link.springer.com/referenceworkentry/10.1007%2F978-981-287-0827_251#howtocite.

6. Burns, R.A.,(2017). Psychological Wellbeing. Encyclopedia of Geropsychology. Journal: Springer Link, 978-981-287-082-7. https://doi.org/10.1007/978-981-287-082-7.

7. Coruh, B., Ayele, H., Pugh, M., & Mulligan, T. (2005). Does religious activity improve health outcomes? A critical review of the recent literature. EXPLORE: The   Journal of Science and Healing, 1(3), 186-191. https://doi.org/10.1016/j.explore.2005.02.001

8. Atkins, R. G., & Hawdon, J. E. (2007). Religiosity and participation in mutual-aid support groups for addiction. HHS Public Acess. Journal: Substance Abuse   Treatment,   33(3),   321-331.   doi: 10.1016/j.jsat.2007.07.001

9. Brickman, P., Rabinowitz, V. C., Jurgis, K. J., Coates, D., Cohn, E., & Kidder, L. (1982). Models of helping and coping. American Psychologist, 37(4), 368-384.

10. Philip, B., Vita Carulli, R., Jurgis, K., Jr., Dan, C., Ellen, C., & Louise, K. (1982). Models of helping and coping.APA PsycNet. Journal:American Psychologist, 37(4), 368–   384. https://doi.org/10.1037/0003-066X.37.4.368

11. Drug Addiction, Learning Share Common Brain Protein.(2004, February 19). Duke   Health News. https://corporate.dukehealth.org/news/drug-addiction-learning- share-common-brain-protein

12. Scholistic Teachers(2016). The role of genes in drug addiction. NIDA research reports. http://headsup.scholastic.com/students/the-role-of-genes-in-drug-addiction.

13. National Institute of Drug addiction (2019, August 5). Genetics and Epigenetics of Addiction. https://www.drugabuse.gov/publications/drugfacts/genetics-epigenetics- addiction

14. Donovan, J. E., Molina, B. S., & Kelly, T. M. (2009). Alcohol outcome expectancies as socially shared and socialized beliefs.Psychology of addictive behaviors.journal:Society of Psychologists in Addictive Behaviors,23(2), 248–259. https://doi.org/10.1037/a0015061.

15. Wise, R. A., & Koob, G. F. (2014). The development and maintenance of drug addiction. Neuropsychopharmacology.   Journal: official   publication   of   the   American   College   of Neuropsychopharmacology, 39(2), 254–262. https://doi.org/10.1038/npp.2013.261

16. Gould, T.J.(2010).Addiction and cognition. Addiction science & clinical practice.journal:US National library of medicines, National insitute of health.5(2), 4–14.

17. Heshmat,S.(2014,October 29). Addiction: A psycho-dynamic way of understanding   addiction. Psychology   Today.   https://www.psychologytoday.com/us/blog/science-choice/201410/psychodynamic-way-understanding-addiction.

18. Barham,L., & Legg,T,L(2017 October 27). . What is opponent process theory and its relationship to addiction? Medical News Today. https://www.medicalnewstoday.com/articles/319833#what-is-the-

opponent- process-theory See, N,J.,(2013). Models and Theories of Addiction and the Rehabilitation Counselor. Research Papers. Paper 478. http://opensiuc.lib.siu.edu/gs_rp/478

19. See,N.J. (2013).Review of models and theories. Models and Theories of Addiction and the Rehabilitation Counselor. Journal: Research paper. https://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?article=1615&context=gs_rp

20. Terracciano, A., Löckenhoff., Corinna., Crum., Rosa., Bienvenu., Oscar., Costa, P. (2008). Five-Factor Model personality profiles of drug users.BMC psychiatry. journal: research gate. 8(1):22, https://doi.org/10.1186/1471-244X-8-2

21. Miranda,S., Nogueira,D., Mendes, A., Secker,A.,Gareret,R., Mitchel, J.,& Marino,Z(2019).Suicide among Physician and health care workers.PLOS ONE. Journal: PMC Us nationansl library of medicines National institute of health.. 14(12): e022636.doi: 10.1371/journal.pone.0226361

22. Nock, M. K., Borges, G., Bromet, E. J., Cha, C. B., Kessler, R. C., & Lee, S. (2008). Suicide and suicidal behavior. Epidemiologic reviews. Journal: Pub Med.gov, 30(1), 133–154. https://doi.org/10.1093/epirev/mxn002

23. Joiner, Jr., T. E., Hollar, D., & Van Orden, K. A. (2009). The Interpersonal- Psychological Theory of Suicidal Behavior: Current Empirical Status.Science beliefs.journal:American Psychological Association, 38, 427-435.

24. O'Connor,R,C., Platt,S.,& Gordon, J(2011). Towards ans Integrated Motivational– Volitional Model of Suicidal Behaviour. (1ST Edition)., International Handbook of Suicide Prevention: Research, Policy and Practice(pp.181-198). Scotland: Glasgow

25. O'Connor,R,C., Platt,S.,& Gordon, J(2016).Integrated Motivational–Volitional Model of Suicidal Behaviour. Suicide Prevention: Research, Policy and Practice. Journal:Pub Med.32(6):295-8. doi:10.1027/0227-5910/a000120.

26. Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E., Jr (2010). The interpersonal theory of suicide. Psychological review.journal:Peb Med.gov. 117(2), 575–600. https://doi.org/10.1037/a0018697

27. Burns R.A. (2017). Psychological Well-being. Encyclopedia of Psychology. Journal: Springer link.doi: https://doi.org/10.1007/978-981-287-082-7_251.

28. Abbott, R. A., Ploubidis, G. B., Huppert, F. A., Kuh, D., Wadsworth, M. E., & Croudace, T. J. (2006). Psychometric evaluation and predictive validity of Ryff's psychological well-being items in a UK birth

cohort sample of   women. Health and Quality of Life   Outcomes.   Journal:National   library   of medicne. 4;4:76. doi: 10.1186/1477-7525-4-76..

29. Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. Psychological Bulletin. Journal: APA Psycnet. 125(2), 276–302 Felmanon, A.(2018, November 2). What Causes Addiction? Medical News Today. https://www.medicalnewstoday.com/articles/323483

30.Agrawal, A., Budney,A.J., & Lynskey. M. T.(2012). The co-occuring use and mis use of cannabis and tobacco: a review. Addiction. Journal:Wiley online library. https://doi.org/10.1111/j.1360-0443.2012.03837.x.

31. Kochanek, K. D.Kirmeyer, S., E., .Martin J. A.Strobino D. M.Guyer B(2012). Suicidal behavior in children and adolescents: Epidemiology and risk factors. An annual summry of vital statistics. Journal: American American Academy of Pediatrics. 2012;129(2):338-348. doi:10.1542/peds.2011-3435

32. Lanier, C. A., Nicholson, T., & Duncan, D. (2001). . Drug use and mental well being among a sample of undergraduate and graduate college students. Comparative study. Journal of drug education, 31(3), 239–248.   https://doi.org/10.2190/R7T3-T266-JN9E-UX3W

33. Fahimi, J., Aurrecoechea, A., Anderson, E., Herring, A., & Alter, H. (2015). Substance abuse and mental health visits among adolescents presenting to US emergency departments. Pediatric emergency care, 31(5), 331–338.

34. Skidmore, C. R., Kaufman, E. A., & Crowell, S. E. (2016). Substance Use Among   College Students. Child and adolescent psychiatric clinics of North America. Journal: APA   PsycNet. 25(4), 735–753. https://doi.org/10.1016/j.chc.2016.06.004

35.   Henderson,R.,&   Knott,L(2017,   February   15).   Recreational   Drugs.   Patient. https://patient.info/healthy-living/recreational-drugs

36. Robinson,l., Smith,M., & Segal,J (October 2019).Drug abuse and Addiction. Help Guide. https://www.helpguide.org/articles/addictions/drug-abuse-and-addiction.htm.

37. Kennebeck, S.,Bonin,L.,et,al(2019, November 19).suicidal behaviour in children and adolescents: epidemiology and risk factors. Up to date. https://www.uptodate.com/contents/suicidal-behavior-in-children-and-adolescents-epidemiology-and-risk-factors

38. Castle, K. & Kreipe, R.. (2007). Suicidal behavior. Pediatric Clinical Advisor. 544-545. 10.1016/B978-032303506-4.10315-3.

39. Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E., Jr (2010). The interpersonal theory of suicide. Psychological review. Journal: PUB   Med.gov. 117(2), 575–600. https://doi.org/10.1037/a0018697

40.Kennebeck, S.,Bonin,L.,et,al(2019, November 19).suicidal behaviour in children and adolescents: epidemiology and risk factors. Up to date.   https://www.uptodate.com/contents/suicidal-behavior-in-children-and-adolescents- epidemiology-and-risk-factors

41. Webb, Myfanwy. (2019). Stages of suicide and how to help your mind suicide science topic. Journal: .Research   gate. https://www.researchgate.net/publication/334645419_Stages_of_suicide_and_how_to_help_your_mind

42. Ilgen,M,A.,(2008). Pain and suicidal thoughts, plans and attempts in the United States.General Hospital Psychiatry. Journal: HHS Public Acess. 6, 521-527.doi: 10.1016/j.genhosppsych.2008.09.003

43. Esang,M., & Ahmad, S.(2018). A closer look at substance use and suicide.understanding suicidal behaviour and intervention among youth and young adults at Mexico. The American journal of psychiatry,12(12):3–6: https://doi.org/10.1176/appi.ajp- rj.2018.130603

44. Nock, M. K., Borges, G., Bromet, E. J., Cha, C. B., Kessler, R. C., & Lee, S. (2008). Suicide and suicidal behavior. Epidemiologic reviews. Journal: Pub Med.gov, 30(1), 133–154. https://doi.org/10.1093/epirev/mxn002

45. Burns, R. (2017). Psycho-social Well-Being.Encyclopedia of psychology. Journal: Research gate. 10.1007/978-981-287-082-7_251.10.1007/978-981-287-082-   7_251.

46. Ryff, C.D., Singer, B.H. and Love, G.D. (2004) Positive health: connecting wellbeing with biology. Philosophical Transactions of the Royal Society. Journal;   biological   sciences.   359,1383-1394. https://doi.org/10.1098/rstb.2004.1521

47. Mason, M. J., Zaharakis, N., & Benotsch, E. G. (2014). Social networks, substance use,   and mental health in college students. Journal of American college health: J   of ACH, 62(7), 470–477. https://doi.org/10.1080/07448481.2014.923428

48. Wang, P, W., &Yen,C,F.(2017). Adolescent substance use behavior and suicidal behavior for boys and girls: a cross-sectional study by latent analysis approach.   Journal: BMC Psychiatry, 17(1), 392. doi: 10.1186/s12888-017-1546-1

49. Aseel, M.A., & seter, S. (2017). Suicidal ideation and associated factors among school going adolescents in Swaziland. African health sciences.   Journals: PMC, 17(4): 1172– 1177. doi: 10.4314/ahs.v17i4.26

50. Abdu, ZAbdu Z, Hajure M, Desalegn D. (2019). Suicidal Behavior and Associated Factors Among Students in Mettu University. An Institutional Based Cross- Sectional Study. Journal: Psychol Res Behav Manag. 2020; 13:233- 243.doi:10.2147/PRBM.S240827

51. Madadi, P., & Persaud, N. (2014). Suicide by Means of Opioid Overdose in Patients with Chronic Pain. Current Pain and Headache Reports. Journal: Europe PMC.1531-3433. doi: 10.1007/s11916-014-0460-1

52. Breet, E., Bantjes,J., & Lewis,I. (2018). Chronic substance use and self-harm in a primary health care setting. Worldwide. Life sciences literature.The journal of Pakistan Medical Association, 68(11):1608-1612, doi: 10.4102/phcfm.v10i1.1544.

53. Akram, B., Ahmad, M. A., & Akram, A. (2018). Coping mechanisms as predictors of suicidal ideation among the medical students of Pakistan. Europe PMc.. The Journal of the Pakistan Medical Association, 68(11), 1608–1612.

54. Groot E, Kouyoumdjian FG, Kiefer L, et al.(2016). Drug Toxicity Deaths after Release from Incarceration in Ontario. Public Library of SciencES. Journal: PL0S ONE,10.1371, doi:10.1371/journal.pone.0157512

55. Serowoky, M. L., & Kwasky, A. N. (2017). Health Behaviors Survey: An Examination of Undergraduate Students' Substance Use. Europe PMC. Journal of addictions nursing, 28(2), 63–70. https://doi.org/10.1097/JAN.0000000000000165

56. Shlosberg, D., Zalsman, G., & Shoval, G. (2014). Emerging issues in the relationship between adolescent substance use and suicidal behavior. Europe PMC. The Israel journal of psychiatry and related sciences, 51(4), 262–267. Merlo, L. J., Curran, J. S., & Watson, R. (2017). Gender differences in substance use and psychiatric distress among medical students: A comprehensive statewide evaluation. Substance abuse. Journal: APA PsycNet, 38(4), 401–406. https://doi.org/10.1080/08897077.2017.1355871

57. Juan, W., Jian-Xiong, D., Lan, G., Yuan, H., Xue, G., Jing-Hui, H., Guo-Liang, H., & Ci-Yong, L. (2015). Non-medical use of psychoactive drugs in relation to suicide tendencies among Chinese adolescents. Addictive behaviors. Journal: Science Direct 51, 31–37. https://doi.org/10.1016/j.addbeh.2015.07.003

58. Zhang, J., Liu, Y., & Sun, L. (2017). Psychological strain and suicidal ideation: A comparison between Chinese and US college students. Psychiatry research. Journal: APA PsycNet, 255, 256–262. https://doi.org/10.1016/j.psychres.2017.05.046

59. Borges, G., & Loera, C. R. (2010). Alcohol and drug use in suicidal behaviour. Current opinion in psychiatry. Journal: Pub Med.gov, 23(3), 195–204. https://doi.org/10.1097/YCO.0b013e3283386322

60. National Institute of Drug Addiction. (2020, May 12). Drug Use and Its Consequences Increase Among Middle-Aged and Older Adults. https://www.drugabuse.gov/news-events/nida-notes/2019/07/drug-use-its-consequences-increase-among-middle-aged-older-adults

61. Yim, L. C., Leung, H. C., Chan, W. C., Lam, M. H., & Lim, V. W. (2015). Prevalence of Mental Illness among Homeless People in Hong Kong. PloS one. Journal:plos org. 10(10), e0140940. https://doi.org/10.1371/journal.pone.0140940

62. Holzmeister, F., Ho, T. H., & Wu, H. (2018, August 27). Replication of Janssen et al (2010). https`://osf.io/6w3ce/

63. Serrano, M,B, AL-Halabi,s,et.al.(2017). Substance use or abuse, internet use, psychopathology and suicidal ideation in adolescents?.Adicciones revista version online. Journal: Research gate .781-785. doi: https://doi.org/10.20882/adicciones.811

64. Bano, Z., Naz, I., Leghari, N., & Ahmed, I. (2019). Psychological well-being of substance use patient: Role of religious therapy as the treatment.journal: Pakistan journal of medical sciences, 35(5), 1376–1381. https://doi.org/10.12669/pjms.35.5.561