Drug Abuse In University Students

A thesis report submitted to the department of pharmacy, East West University, Bangladesh, in partial fulfillment of the requirements for the degree of Bachelor of Pharmacy

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CERTIFICATE

This is to certify that, the thesis "Drug abuse in university students" submitted to the department of pharmacy East West University, Mohakhali, Dhaka in partial fulfillment of the requirements for the degree of Bachelor of Pharmacy was carried out by Sirazum Monira(ID:2005-2-70-038) under our guidance and supervision and that no part of the thesis has been submitted for any other degree. We further certify that all the sources of information and laboratory faculties availed of in this connection is duly acknowledge.

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SUMMERY

Many of the medications which have legitimate medical uses for people with a variety of illnesses and injuries. The nonmedical use of a prescription or over-the counter (OTC) medication implies that the user is using it for reasons other than those indicated in the prescribing literature or on the box inserts.

Determining respondents' level of psychoactive drug use was central to the study. A wide heterogeneous of young aged students are sampled in this study who are from different background and was representative of our entire society. We sought to develop a questionnaire which would indicate respondents' involvement with the drugs. Information regarding the study was collected by making a questionnaire and used as an indicator for each user's level of drug use.

A lot of reasons were manifested during the interviewing including study result, job after education, love and relationships, family matter, social status, effect of friendcircle, easy availability, curiocity etc which are associated with the depression among students. But if we sort those reasons we found that the ratio of males abuse this class of drugs those who experience depression mainly thinking their future, the job market, friendcircle

has also a big impact. On the other hand female students those are more likely to abuse this class of drugs are in relationship with any person which indicates that love affairs also have effect behind drug abuse. Other reasons were found also playing the role of depression and lead to this group of drug abuse. Availability of those drugs is silent reason we found in our study for both groups.

From the findings of this study, it is revealed that 23% of male and 15% of female students abused antidepressant drugs, 17% male and 11% female abused anti-anxiety drug, where as 16.5% male and 18.5% female abused the sedative class of drugs.

The study found that substances/drug abuse among our university students is assuming a dangerous dimension and hence a need for immediate eradication.

CONTENTS

INTRODUCTION

The nonmedical use of a prescription or over-the counter (OTC) medication implies that the user is using it for reasons other than those indicated in the prescribing literature or on the box inserts. The abuse of these medications is a national issue. Prescription medications are those pharmaceuticals which are allowed to sell only on the presentation of a prescription written by a physician, dentist, or other health care provider who is legally authorized to write prescriptions. OTC medications are pharmaceuticals that do not require a prescription.

Many of the medications which have legitimate medical uses for people with a variety of illnesses and injuries. They may even be used in high doses for selected medical problems. The question arises as to whether the medication is being prescribed by the physician and used by the client appropriately or if it is being inappropriately prescribed or used. This problem is most common in the use of sedative, hypnotic, tranquilizer and stimulants.

Drug abuse of prescribed and OTC medicines has climbed steadily over the years. This study suggests that some drug addicts may only resort to prescriptive or OTC medications when their illegal drugs are not available. Prescription medications were primarily stimulants, tranquilizers, and sedatives. OTC drugs included cough syrup, diphenhydramine and other antihistamines, sleep aids, and other legally obtained medications.

Physicians who prescribe medications that can be abused are at risk for becoming part of the problem. Some physicians are part of the illegal network of drug sales, but others fall into the trap (when people try to convince them for prescribing these class of drug for their own purpose) of trying to help people as best they can.

On the other hand, some profit seeking retailers are also involved in illegal selling specially the prescription drugs without prescription.

Impact of drug abuse is enormous both in social and health aspect. Because most of the cases drug addicts go for this medications when their illegal drugs are not available. And this group of people are unaware about dosing as a result overdose is quite common to them. Eighteen different symptoms were reported: tachycardia, somnolence, mydriasis and hypertension, agitation, disorientation, slurred speech, ataxia, vomiting, dry mouth and hallucinations, tremor, and headache, dizziness, syncope, seizure, chest pain, and nystagmus *(SD Baker et al.* 1999*)* with the overdose of dextromethorphan hydrobromide, chlorpheniramine maleate, phenylpropanolamine hydrochloride, and acetaminophen.

On the other hand benzodiazepines overdose can cause respiratory depression, especially when used with other sedative medications or alcohol *(L Longo et al.* 2000*)*.There is a syndrome of paradoxical disinhibition that results in increased excitement, irritability, aggression, hostility, and impulsivity. In rare cases, these conditions can lead to attacks of rage or violence or other antisocial behaviors.

It is a survey study- how these medications are abusing where all the participants were informed and eagerly answered the questioners.

WHICH MEDICATIONS ARE BEING ABUSED

Stimulants, prescribed to treat attention-deficit hyperactivity disorder (ADHD) and narcolepsy, include drugs such as Ritalin, Adderall, and Concerta. These prescription medications stimulate the central nervous system, with effects similar to but more potent than caffeine. When taken orally, as prescribed, these stimulants elicit a gradual and sustained increase in the neurotransmitter (brain chemical) dopamine, which produces the expected therapeutic effects seen in many patients. In people with ADHD, stimulant medications generally have a calming and "focusing" effect, particularly in children. However, because these medications affect the dopamine system in the brain (the reward pathway), they are also similar to drugs of abuse. For example, Ritalin, or methylphenidate, has much in common with cocaine - the two drugs bind to similar sites in the brain and both increase dopamine through the same molecular targets (see figure). When administered intravenously, both drugs cause a rapid and large increase in dopamine, which a person experiences as a rush or high. For those who abuse stimulants, the range of adverse health consequences includes risk of dangerously high body temperature, seizures, and cardiovascular complications. *(AHFS: Drug Information.* 2003)

CNS depressants, typically prescribed for the treatment of anxiety, panic, sleep disorders, acute stress reactions, and muscle spasms, includes drugs such as Valium, librium, and

Xanax. Most CNS depressants act on the brain by affecting the neurotransmitter gammaaminobutyric acid (GABA). GABA works by decreasing brain activity. Although the different classes of CNS depressants work in unique ways, it is through their ability to increase GABA activity that they produce a drowsy or calming effect that is beneficial to those suffering from anxiety or sleep disorders. These drugs are also particularly dangerous when mixed with other medications or alcohol; overdose can cause breathing problems and lead to death. Although the newer sleep medications - such as Ambien, Lunesta, and Sonata - appear to have reduced dependence and abuse liabilities, they still react with some of the same receptors in the brain, so they may share some of the risks. (AHFS: Drug Information. 2003)

Antianxiety, Antianxiety agents, or anxiolytics, may be used to treat mild transient bouts of anxiety as well as more pronounced episodes of social phobia and specific phobia. Clinically significant anxiety is marked by several symptoms. The patient experiences marked or persistent fear of one or more social or performance situations in which he or she is exposed to unfamiliar people or possible scrutiny by others, and may react in a humiliating or embarrassing way. The exposure to the feared situation produces an anxiety attack. Fear of these episodes of anxiety leads to avoidance behavior, which impairs normal social functioning, including working or attending classes. The patient is aware that these fears are unjustified.

Antianxiety drugs, particularly the injectable benzodiazepines lorazepam (Ativan) and midazolam (Versed), are also used for preoperative sedation in surgery. Used for this

purpose, they may induce relaxation, provide sedation, and also reduce memory of an unpleasant experience. They offer the combined benefits of relaxing the patient, and reducing the need for other agents including analgesics, anesthetics, and muscle relaxants. *(AHFS: Drug Information.* 2003)

Certain over the counter medications, such as certain cough suppressants containing dextromethorphan (DXM), are also abused for their psychoactive effects, producing hallucinations and dissociative ("out-of-body") sensations. However, overdose of DXM can also produce confusion, disorientation, motor impairment, blurred vision, nausea, rapid or irregular heartbeat, high blood pressure, and loss of consciousness.

LITERATURE STUDY

The incidence of substance use among students is high (*Eneh & Stanley.* 2004). Drug and alcohol use during adolescence is almost always a social experience and a learned behavior *(Swaid, et al.* 1988). One of the important psychological phenomena observed during this period of adolescence is experimentation (*Graham, Turk & Verhulst.* 1999). This behavior has been found to lead to the trying out of new experiences such as drug sometimes with dire consequence for the adolescents. One widely accepted definition of drugs states that drugs are compounds that, because of their chemical structure, change the functioning of biological systems (*Levinthal et al.* 1999). The biological systems include respiration, growth, excretion, locomotion, reproduction, etc. The effects may be beneficial as in the case when drugs commonly referred to as medicines (e.g. Duloxetine, Escitalopram, Amitryptyline HCl, Dextromethorphane, Pseudoephedrine, etc) are used as prescribed by the doctor. Some other drugs have been found to be capable of producing

effects that are not beneficial but harmful *(Oloyede, et al.* 1996). The term drug abuse, applies only to instances in which people take drugs purely to change their moods, and in which they experience impaired behaviour or social functioning as a result of doing so *(Wallace & Fisher.* 1987). Unfortunately, when people consume consciousness-altering drugs on a regular basis, they often develop dependence – they come to need the drug and cannot function without it.

According to Odejide, Ohaeri, Adelekan and Ihuesan (1987), psychoactive drug use is a common problem among adolescents especially for the socially acceptable drugs like alcohol and cigarettes.

Having realized that majority of drug abuse start during the adolescence stage especially so for the 'gateway' drugs, alcohol and cigarettes, the need to check this bad practice in the society is important. Cigarettes are described 'as gateway' because it is usually, the first things that is used before other drugs are tried out *(Indiana Preventive Resource Center,* 2003). Drug abuse by students can lead to sharp decline in their academic performance, increase reports of truancy and expulsion from school. It can also lead to addition (increased desire for drugs without which normal life processes is disturbed), and increased appetite and libido. Other vices such as stealing, fighting and gambling may also be caused by drug abuse as a result of alteration in the brain chemistry of the abusers. Continued use of a drug over a prolonged period of time often leads to drug tolerance – physiological reaction in which the body requires larger and larger doses in order to experience the same effects. In some cases, tolerance for one drug increases tolerance for another; this is known as cross-tolerance *(Baron & Kalsher.* 2008). Patterns of drug use may vary greatly around the world and overtime. In the United States, the use

of many consciousness-altering drugs by young people dropped during the 1980's, but increased again during the 1990s (*Baron & Kalsher.* 2008). In fact, the result of one large survey indicated that teenagers use of many drugs – including, alcohol, and nicotine (in cigarettes) – had increased substantially (*Johnston, O'Malley & Bochman.* 1997).

METHOD

4.1. Profile of the participants:

A wide heterogeneous of young aged students are sampled in this study. Among them 80 per cent are from out of Dhaka city. Again almost 45 percent are living not with their family. Also few female participants were married and some participants were involved in part time job or business. So our selected participants were representing a big portion of the society.

4.2. Study sample:

Data were collected by means of a structured interview based on a questionnaire proposed by and discussing with my supervisor. We focused on student of East West University of age between 18-26 years of both sexes. This instrument included semi-structured, a 19-item questionnaire designed to assess the depressive symptoms and the relationship with drug abuse. For each item, students are asked to check one of four descriptions that best applies to them during the last 2 weeks (e.g the reason behind my depression is study related, family problem, without any reason or other reasons). Responses of each item are correlated with the use of drug and what type of drug they

take at that time and wasn't that in dose limit or not also about the availability of those drugs to them were asked in the next consecutive questionnaire.

Questions regarding the use of sedative, anti-depressant, and anti-anxiety drug in the past week included: the amount used, frequency, if these were used in association with other substance, how the drug was obtained and its effect.

Interviews lasted 15 minutes and were conducted in private with guaranteed anonymity for the interviewees. Other ethical safeguards were offered: information about the objective of the study, informed consent, confidentiality, freedom to interrupt the interview whenever they wanted or in the presence of a third party. Study protocol and its procedures were approved by the The East West University, Pharmacy Department.

Interviewer (my self) received a structured and designed training (meetings, and classes) and assessed on how different interviews were conducted. Also supervised by the research coordinator throughout the data collection process.

4.3. Constructing an indicator for the Level of Psychoactive Drug Use:

Determining respondents' level of psychoactive drug use was central to the study. We sought to develop a questionnaire which would indicate respondents' involvement with the drugs. The following drug information was collected from the questionnaire and used as an indicator for each user's level of use.

- Students were asked about depression caused by any reason in the last two weeks.

- Number of reasons for drug use (including reduce tension, curiosity, for energy, to work, to feel normal, due to addiction, etc, on a scale of often, sometimes or never). Experience during interviews suggested that the more reasons a young

person reported (i.e. the more 'needs' that drug use 'fulfils'), the more likely they were to be a heavier user and the more likely they are to feel the compulsion to continue using the drugs.

- What class of drug they have taken.

- Class of drugs used as defined by the Misuse of Drugs Act.

4.4. Questionnaire development

We developed a new research assessment instrument for this study. The focus

of the current project also required some original questions asking about psychological state, communication problems, criminal activity and relationships before and after drug use initiation. Further questions concerned family composition and parental support. Other 'tried and tested' questions were drawn from the following questionnaires.

The final questionnaire contained sections on:

- social background

- education, training and employment

- nature and extent of drug use

- problems encountered before drug use (psychological, relationships etc)

- problems encountered after drug use began

- parental discipline

- parental attitudes to substance use

- criminal and anti-social behavior

- health and well being

- use of services

- friends circle

RESULTS

5.1.　　*Tabular presentation of all the subjects those who involved with different drug class abuse*

|	Total	% of Male involved	%of Female involved
Anti-depression	38.84	23.53	15.31
Anti-anxiety	27.89	16.67	11.22
Sedative	35.04	16.67	18.37
Cough syrups	71.87	39.22	32.65

Figure 1: All the result together.

Graphical representation of the male and female who experienced depression during the study period.

The ratio among male and female in terms of depression
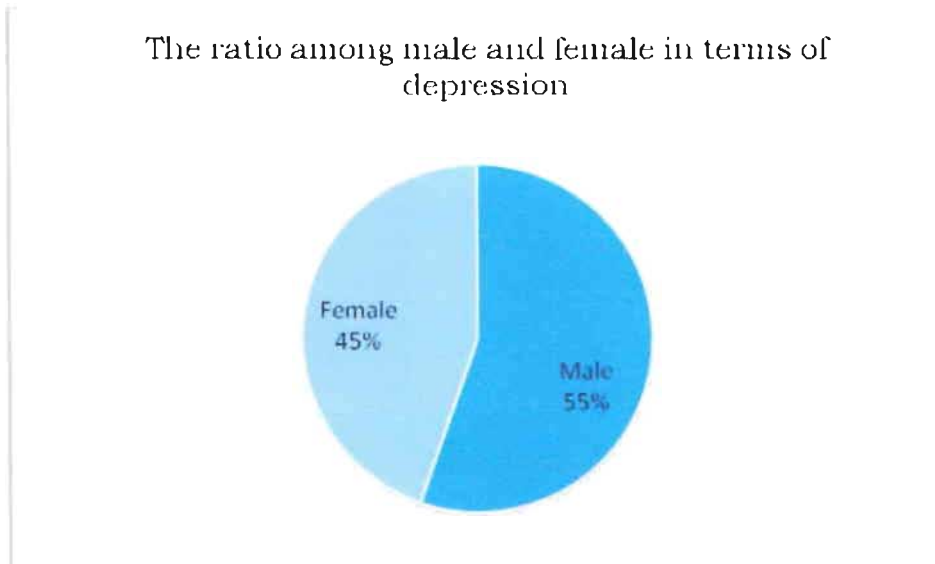
Figure 2: The Pie chart representation of the portion account for male and female seperately among the whole depressed population, those who experienced depression during the last two weeks of our survey. The depression was measured very carefully minimising possible biased that may arised during the study. In rder to minimise bise, a very organised set of questionnair was made with the help of our supervisor and many other necessary steps has taken those are discussed in the method section. We have taken only those data where the participants could recall their experience strongly and those who were confused during recalling were discarded as outliers. Finally we have 200 participants and among them 98 were male and 102 number of participants were female. Data were collected by interviewing with a set of questionnaire.

5.3. *Graphical representation of the percentage of anti-depressant drug abuser*

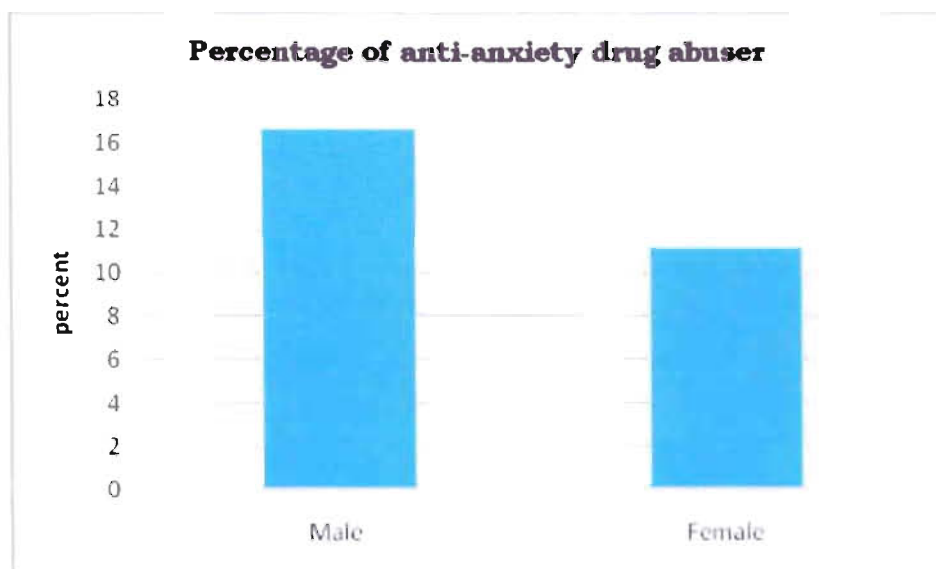**Percentage of anti-depressant abuser**
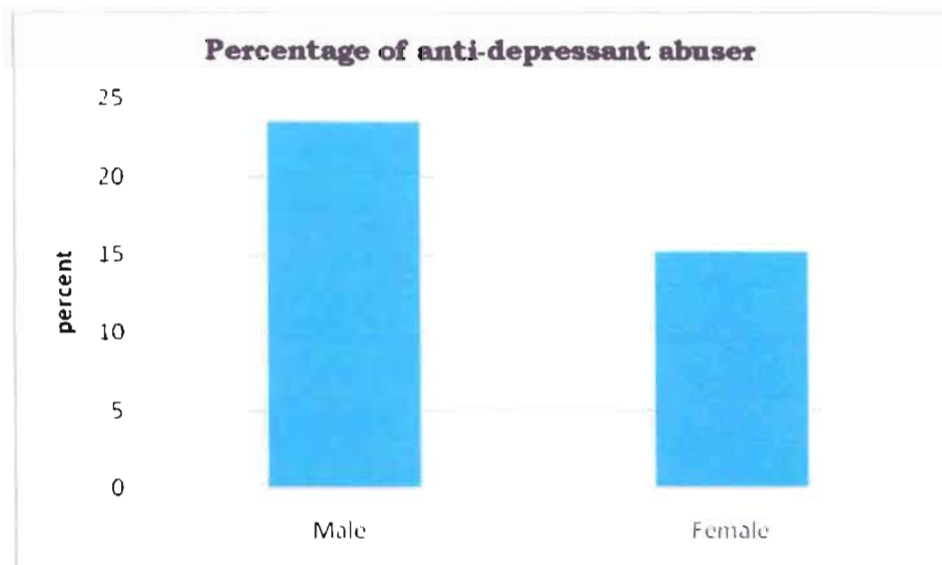
Figure 3: Graphical representation of the percentage of anti-depressant drug abuser among the depressant population of both male and female participants.

Here we classified the participans in-terms of what type of drug they have taken. And here this subgroup of participants have taken overdose of antidepressant type of drug.
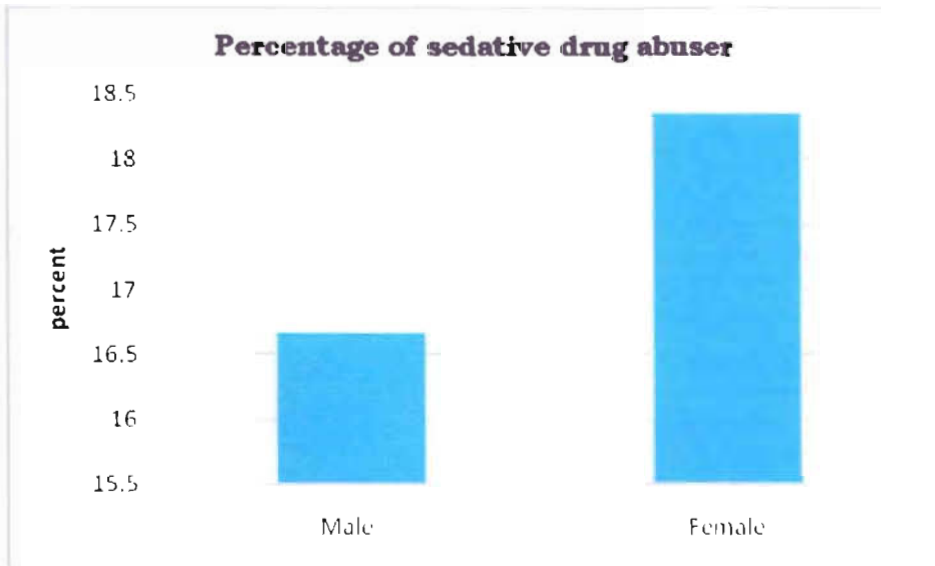
5.4. *Graphical representation of the percentage of anti-anxiety drug abuser*

Figure 4: The graphical representation of participants those who treated themselves with over dose of anti-anxiety class of drug during their depression.

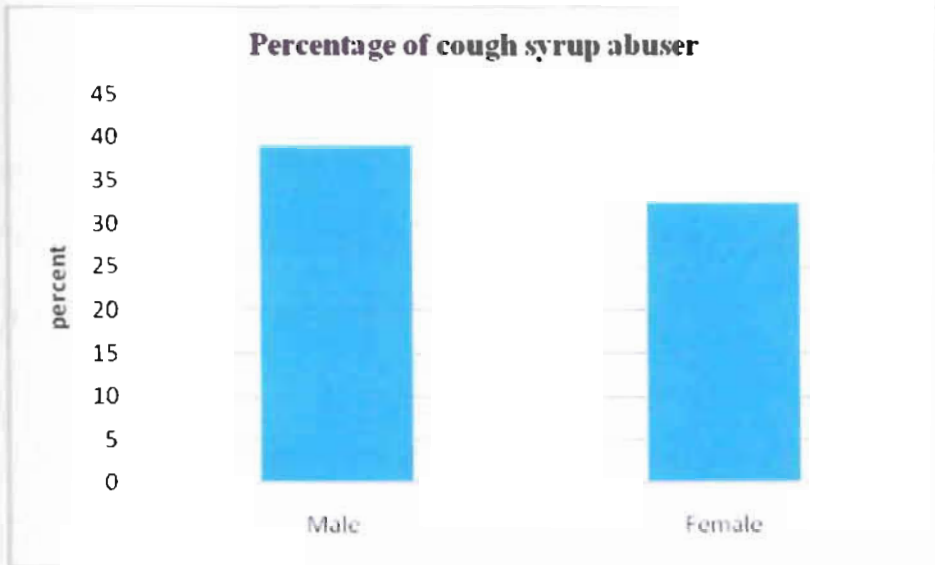## 5.5. Graphical representation of the percentage of sedative drug abuser

Figure 5: Graphical representation of the percentage of sedative drug abuser among the depressant population of both male and female participants.

Here we classified the participans in-terms of what type of drug they have taken. And here this subgroup of participants obviously have taken overdose of sedative type of drug.

5.6. *Graphical representation of the percentage of cough syrups abuser*

Figure 6: Graphical representation of the percentage of cough syrups abuser among the depressant population of both male and female participants.

Here we classified the participans in-terms of what type of drug they have taken. And here this subgroup of participants have taken overdose of cough syrups.

DISCUSSION

Modern drug has developed to intend its legitimate use. But those drugs which have the CNS effect of its own often are used for wrong purpose. Drug abuse in young generation became a very sensitive issue now a days. And the reason behind it in most of the case is its availability but many other factors such as social, psychological, emotional, cost effectiveness etc are involved. This problem is particularly complex because the benefits and the risks of prescription drugs are so closely intertwined. Thus, it is critical that we learn how to strike the right balance between providing maximum relief from suffering and minimizing associated risks and adverse effects.

The abuse of prescription drug in young generation has very limitad information most of the cases this issue is ignored. Surprisingly there is few gender differences in case of drug abusing. From our data we found that almost half of the participants seek overdose of those group of drugs during they feel depressant irrespective of male and female.

A fixed dose of every drugs is set measuring many parameters focusing on the intended use and avoiding any other side effects. But the problems arise when it is not being followed.

From the findings of this study, it is revealed that 23% of male and 15% of female students abused antidepressant drugs. A lot of reasons were manifested during the interviewing including study result, job after education, love and relationships, family

The finding of this study is in line with psychological mechanisms underlying drug abuse. It is in agreement with the learning perspective. People often use drug because in doing so, they feel good. They see the effects of drug use as rewarding *(Wise & Bozarth.* 1987). Similarly people also use drugs to remove discomfort from their lives *(Baron & Kalsher.* 2008). Now from this study we can get some idea what type of discomfort usually university students are encountering and how can we remove them. Because the way how they treat themselves to get rid off from this kind of problem is not a proper way, this drug abuse will lead them to take dangerous strong psychoactive drugs and consequently spoil their life.

It is also in agreement with social perspective of drug abuse, which contends that parental influence, school influence, and peer influence take high prominence in students overall motive to abuse drugs. In line with this view, individuals especially adolescents and young adults, use consciousness-altering drugs because they are generally in vogue *(Baron & Kalsher.* 2008). The findings revealed differences between both sexes. The finding of this study is in agreement with those of *Fatoye and Morakinyo (*1997), *Eke* (1997), *Obot, et al.* (2001) , and *Eneh and Stanley* (2004) that found differences between male and female students in their abuse of drugs.

SOME SUGGESTIONS TO GET RID FROM THE MATTER

7.1.Types of Prevention

Preventive efforts can be generally cross-categorized by three types. These include approach to drug abuse control (demand vs. supply reduction), level of prevention (universal, selective, indicated), and focus (reducing risk factors vs. promoting protective factors).Most prevention programs approach drug abuse control through demand reduction—that is, changing youth by changing favorable youth attitudes, perceptions, and behaviors related to drug use. Demand reduction programs tend to emphasize both personal and social influences on drug use, and include skills in decision making, resistance, assertiveness, and normative change, among others. Prevention efforts aimed at supply reduction efforts, on the other hand, are focused primarily on changing youth supply, availability, or access to drugs. Supply reduction efforts include formal policies and ordinances on restricting youth access to drugs, enforcement, and/or taxation; voluntary restrictions such as vendor agreements not to sell drugs without prescription to youth; and interdiction at borders and points-of purchase.

Level of prevention refers to the target population. Primary, or universal, prevention targets whole populations of youth and typically is accomplished through education by teachers or peers in school settings. Selective prevention programs are for youth who exhibit early problem behaviors that are associated with later drug use, including conduct problems, school achievement problems, or family problems of drug use. Selective programs include student assistance programs, parent-child communication and support programs. and tutoring programs. Indicated prevention programs focus on youth who are considered at high risk for drug use and already have one or more problem behaviors

associated with later use, including truancy, school achievement problems, stealing, gang involvement, and conduct disorder. Prevention at this level is considered early intervention, and includes in-school counseling, outpatient counseling, and court-mandated programs for youth drug offenders.

Focus of prevention refers to the factors that predispose youth to either use drugs (risk factors) or not use drugs (protective factors). The majority of prevention efforts focus on counteracting risk factors for drug use and teach skills and strategies to resist drug use and avoid drug use environments. Risk factors for drug use and other problem behaviors include school failure, peer pressure, and lack of positive parent-child communication and support. Fewer programs focus on promoting protective factors against drug use, including social bonding, academic competence, support-seeking and communications skills, and general life skills such as decision making. Selecting a program that focuses on risk or protective factors depends largely on the age and level of drug involvement of youth at the point of intervention. For example, young children in elementary school may benefit more from a program that focuses on building protective factors of age-appropriate, prosocial bonding to peers and adults than from a program that teaches them how to refuse a drug use offer, since, for most children, drugs are not yet available. Alternatively, early and midadolescents may benefit more from training in skills to resist and avoid drug use offers and opportunities, since the frequency of these opportunities for drug use and practice of drug use resistance skills is higher in these age groups.

7.2. Effective Prevention

Programs that have demonstrated significant delays or reductions in youth drug use are referred to as science or evidence-based. Effective prevention programs share at least three common features: a basis in theories of behavior change, an emphasis on counteracting risk factors and promoting protective factors that mediate drug use, and use of strategies that enhance quality of program implementation and impact. The remainder of this entry concentrates on effective prevention programs and strategies.

7.3. BASIS IN THEORIES OF BEHAVIOR CHANGE

Basing prevention programs on sound theories of behavior change enables researchers to determine whether a program, if effective, changed behavior according to the mechanisms proposed by the (i.e., program mediators) theory or, if ineffective, failed to change behavior because the mechanisms themselves were not implemented or did not change.

Several theories help to explain how counteracting risk factors and promoting protective factors should work to change drug use behavior. For example, problem behavior theory posits that adolescents experience transition periods that make them feel vulnerable to peer pressure. Teaching skills such as decision making and resistance is an alternative way to build confidence.

Expectancy theory posits that a prevention program that promotes negative rather than positive norms for drug use will help curb drug use experimentation. Social learning theory posits that drug use will be prevented to the extent to which youth can be taught to emulate and bond with nondrug-using models for behavior, and practice resistance skills.

Social bonding, or social development theory, suggests that activities to promote bonding to school and home will protect youth against drug use. Finally, transactional theories posit that three levels of risk and protection interact to either influence or prevent drug use: intrapersonal, social, and environmental. Prevention programs based on these transactional theories typically employ multiple components that are designed to have long-term synergistic effects.

7.4. Emphasis on Risk and Protective Mediators of Drug Use

Prevention program mediators refer to those variables that are the immediate targets of a prevention program, such as resistance skills, are demonstrated to change as an immediate result of a program, and which in turn can be shown to prevent or decrease drug use behavior. Program mediators usually include skills or strategies to counteract risk and promote protection. Risk and protective factors have been identified at three levels: the person (intrapersonal cognitions, affect, behavior), the social situation (interpersonal or group norms, attitudes, and behavior), and the environment (organizational, systems, community, or larger influences).

At the intrapersonal level, risk factors for drug use include prior use, positive beliefs about use, positive appraisal of the drug use experience, and lower perceived risk or consequences of use contributing to drug use. Counteracting these intrapersonal risk factors in combination and in their social context appears to be critical for achieving change in drug use behavior. Effective programs that counteract risk at this level combine personal beliefs about drug use risk, perceived personal consequences, and decision making specific to avoiding drug use. Programs that promote protective factors may

combine personal choice of nondrug use activities, valuing of school achievement, and involvement in nondrug use activities. While most risk reduction and protective programs are universal, a few operate as selective or indicated prevention programs, such as prevention programs in continuation high schools for low-achieving youth and after-school programs for truant youth.

At the social level, risk factors include exposure to drug use models, access and attachment to users, and positive perceived social norms for use. These prevention programs focus on counteracting social situational risk factors that typically include training in avoidance, peer pressure resistance, and/or assertiveness skills; weighing positive and negative consequences of drug use; and correcting perceived social norms for use. Social-level programs implemented during the elementary school years may focus on bonding with non using peers, family, and school. Most social influence programs are considered universal prevention programs because they include whole populations of school-attending youth. Selective or indicated prevention programs have typically focused on social support-seeking and selection of nonuse alternatives along with skills training. With a few exceptions, social influences programs have been effective in delaying and reducing adolescent drug use, for periods of 5 years or more, when compared with either control or standard health education conditions. (Pentz, Mary Ann. 2004).

Environmental-level risk factors include exposure to and positive beliefs about media portrayals of drug use, exposure to drug use environment, access to drugs, low exposure to prevention programs and resources, and positive perceived environmental norms for drug use. Prevention programs that counteract these risk factors may include organizing

and empowering community leaders to change drug use, enforce policy, and institutionalize prevention programs and resources. Environmental-level protective factors include positive media coverage of prevention and nonuse messages, financial resources for prevention, and community availability of organized structures, such as coalitions, to promote prevention programs. Programs that address environmental influences have consisted of either mass media programs or campaigns, policy enforcement or policy change intervention, community coalitions or partnerships organized for drug abuse prevention, or a combination. In general, mass media programs have produced small effects on changing attitudes toward drug use and beliefs about consequences and intentions to use drugs in the future. Restricted access policies that involve youth in enforcement, for example, through activism or sting operations, have an effect on decreasing unprescribed drug selling and purchases by youth and may decrease its abuse. Community coalitions tend to show a trend toward decreasing adolescent drug use, but effects are small.

All of these levels of factors interact to affect youth drug use. Comprehensive community-based programs attempt to integrate these factors by including multiple components in combination, for example, a school program with parent, mass media, and or community organization training. Although it is not clear whether effects are additive or synergistic, the more comprehensive programs, overall, have shown large reductions in use prevalence by youth compared to control conditions (20% to over 60%) that are sustainable for 8 years or more. (Pentz, Mary Ann. 2004).

7.5. Strategies to Enhance Quality of Program Implementation and Impact

Several factors have been shown to enhance program implementation and impact on youth. The first is the use of standardized training or teaching materials and procedures for program implementers, who may be teachers, peers, counselors, parents, or service agency staff. A typical training session consists of at least a day of training that follows the same process outlined in social learning theory to train youth: an overview of general principles, modeling, role playing, group discussion with feedback, and extended practice through homework assignments, or initiation of program implementation with observation. The second is the use of social learning theory methods of implementation with youth: Trainer-youth interaction is enhanced, often with the assistance of peer leaders. The third is the use of periodic booster programming. Finally is the set of techniques, settings, or individuals that can extend prevention beyond the program setting, including interactive homework with parents, and agreement to practice prevention skills outside the program setting.

7.6. Diffusion of Effective Programs

Diffusion includes factors that promote adoption, quality of implementation, and dissemination, or the widespread use of a prevention program.

Factors that promote adoption of effective prevention programs include support of a local "champion" (a prominent, positive role model or organization), early positive communication about the program, pretraining of prevention leaders in knowledge about the program, and available resources.

Quality of implementation includes adherence to program materials and procedures as designed, delivery of the full amount of contact hours of programming, and flexibility for "reinvention" (i.e., some tailoring of the program to the specific needs of youth without sacrificing adherence). In addition to the factors noted in the previous section, quality of implementation increases with the availability of trained personnel, and efficient channels, structures, and processes to implement and monitor program delivery.

Dissemination increases to the extent that an existing diffusion network is in place. Additional factors include whether credible community leaders advocate for the program and communicate with each other about the program, master trainers are available to model program implementation, and implementers feel empowered to spread the program.

As with effective prevention programs, most effective diffusion strategies are based on sound theories of behavior change, in this case, change in the behavior of communities, organizations, and community leaders. First among these is diffusion of innovation theory, which posits that a prevention program will be more rapidly adopted if it is considered innovative and advantageous compared to other programs, and is easy to try out, implement, and adapt to existing settings. Persuasion marketing theory suggests that a prevention program will be more readily adopted to the extent that more people in a community are made aware of the program, for example, though positive media coverage. Mass communication and communication network theories suggest that the spread of positive interpersonal communications about a program from respected community leaders to the public will enhance adoption and implementation of that program. Finally, organizational development and process theories posit that coalitions of

prevention leaders and implementers, alike, will increase in empowerment and promote implementation and dissemination of a prevention program to the extent that they are structured, have a clear decision-making process, accept responsibility for prevention tasks, and are recognized for their work. (Pentz, Mary Ann. 2004).

7.7. Settings for Program Delivery and Diffusion

Effective prevention programs are delivered and disseminated across a range of settings. The most effective settings or channels for prevention programming appear to be those that represent major day-today influences on youth drug use and drug use prevention. These include the teachers, the home (parents), mass media (television and news programmers), community organizations (either existing youth-serving organizations or new organizations developed for the express purpose of drug abuse prevention planning), and local school and community policy settings (University teachers and community leaders). These settings also reflect targets for prevention in addition to youth. For example, parents who are targeted for parent-child communication skills training may increase positive family bonding, which in turn has protective effects on their children's drug use.

7.8. School/University Programs

Most school or university programs are demand reduction prevention programs concentrating on universal prevention. Most of these are delivered by teachers, some with assistance of trained peer leaders. Fewer have focused on selective or indicated prevention programs, such as student assistance programs, or group behavioral skills

training for failing or truant students. Evidence-based programs that include more than seven sessions, include parent-child homework, and/or use booster sessions have achieved effects lasting up to 5 years. The magnitude of effect overall appears to be larger than that achieved from school health education programs that include tobacco or drug education, ranging from 20% to 67% net reduction in use compared to 7%. Whether the differences achieved from specific drug prevention programs versus health education are due to differences in teacher training, teacher or student motivation, or program novelty is not clear. (Pentz, Mary Ann. 2004).

7.9. Parent Programs

There are fewer parent-based and family-based prevention programs compared to school programs, perhaps due to the relatively greater difficulty in achieving large-scale and sustained parent participation in prevention. Evidence-based parent programs include universal, selective, and indicated programs. Few, however, focus solely on parents. Universal prevention programs include those that promote positive parent-child communication and bonding; take-home assignments as part of a middle school prevention program, media programming, or multicomponent community programs; and programs that promote parent involvement in school policy, and prevention support. All of these universal programs have shown relationships between parent participation in prevention and increase in parent-child communication.

Selective parent prevention programs have included those for disadvantaged parents, parents who report or are referred to these programs because of family management problems, and parents of students who exhibit early social or academic learning

difficulties. Programs that include and change skills for family management, rule setting, and modeling of supportive behavior toward the child have demonstrated improvement in observed parent-child interactions and social behavior in school.

Indicated programs for parents of children with conduct and attention deficit disorders have focused on increasing positive parent-child interaction and working with educators to maximize during learning. Some of these programs had some effects on changing child aggressive behavior and attention in reading, although effects on drug use and social and academic competence vary by baseline problem behavior levels of children, gender, and length of time for effects to appear.

7.10. Mass Media Programs

Evidence-based mass media programs include universal prevention programs targeted at a general adolescent population, advertising campaigns, and small-scale interventions involving exposure of high risk youth to different types of counter-advertising, and anti use campaigns aimed at the general youth population. Recent evaluations of national and state campaigns have shown changes in youth attitudes toward and intentions to use drugs. Local antiuse media programs and campaigns are effective in changing youth awareness of drugs, critical thinking about drug use messages, attitudes, and intentions. The magnitude of effect increases if messages are matched to youth preferences, for example, using high stimulus messages with youth who score high on sensation seeking. Media literacy programs that focus on reconfiguring ads and counter-advertising strategies have shown some short term changes in adolescent attitudes toward drug use, intentions to use, and experimental use.

7.11. Community Programs

Evidence-based community programs encompass skills training conducted in after-school or recreational settings, and community organizing efforts such as coalition development and youth activism. Resistance skills programs conducted in community settings have shown significant short-term decreases in gateway drug use comparable to short-term decreases reported for educational institution based programs. Other community programs consist mainly of community organization for prevention. Organizational efforts have thus far shown small changes in drug use (usually changes of less than 1% in prevalence) but large changes in community leader prevention planning, participation, and empowerment. An exception is an organization that involves youth activism, which has produced significant changes in youth tobacco and psychoactive drug use.

7.12. Policy Programs

Most effective policy interventions concentrate on non prescribed policy change at the local level of community or school. Some policy interventions involve educational programming for teachers, parents, and/or students. These interventions aim to increase awareness, support, implementation, and enforcement of existing policy. Others have involved increasing taxation, restricting youth access to them, or youth activism to promote support for community policy.

7.13. Comprehensive, Multicomponent Programs

Adding components or multiple modalities to a prevention program may increase its impact, although the mechanism for the increase, for example, whether additional

components provide a booster effect or simple repetition of prevention messages, is not well understood. Overall, results of university programs that included one or more additional program components have shown short-term effects on monthly smoking and drug use similar to those of comprehensive school programs that included a large number of sessions and boosters. However, effects of university plus community programs appeared to have a greater range of effects and larger long-term effects on heavier use rates, averaging 8% net reductions.

Combining parent involvement through education or homework with a university program increases effects on parent involvement and youth behavior and parent behavior. Effects of environmental interventions appear to be stronger to the extent that they are combined mass media programming. Relative reductions of up to 20% in youth drug abuse prevalence have been achieved by combining community and youth activism to promote restricted access policy and local mass media support. (Pentz, Mary Ann. 2004). Policy change, in conjunction with a school program, mass media campaign, community activism or organization, or multicomponent community program, has produced significant reductions in youth and young adult drug abuse. Overall, multicomponent prevention programs that include a educational institutional program appear to have larger, more sustained effects than educational institution alone.

A comprehensive community-based prevention program attempts to incorporate all the modalities that are hypothesized to affect youth drug use: school, parent, mass media, community organization, and community policy. Using all modalities, usually in a staggered sequence rather than simultaneously, maintains novelty and interest by a community over the long term, increases the potential to change community social norms

for drug use, and generally provides greater dose-response and booster effects than would be expected to occur from single or nonsequenced modality programs. (Pentz, Mary Ann. 2004).

7.14. ISSUES IN PREVENTION

The field of prevention intervention research is well advanced, with well over 200 published studies, reviews, and meta-analyses. The majority of these have reported the effects of educational institution programs, followed by media and parent programs, community and policy interventions, and last, multicomponent programs and comprehensive community interventions. The number of studies available for each type of programming reflects the greater difficulty, time, and cost of mounting the more complex programs. Also because of these factors, studies that have systematically compared the effects of separate program components are limited. Thus, research on additive and interactive effects of different types of programs and program components is less advanced than studies of effects of separate programs.

In terms of types of prevention, more research has been reported on the effects of universal compared to selective and indicated prevention programs. Overall, the universal programs have been shown to be effective regardless of ethnic, demographic, or geographic factors. Currently, the available research on selective and indicated programs suggests that they are effective with different at-risk groups, whether in rural or urban settings, although there is some variation in effects with boys compared to girls.

The study of factors that promote use of effective prevention programs is relatively recent and is sometimes referred to as moving from science to practice or simply as action

research. Identification and subsequent manipulation of these factors in large prevention trials will require greater role identification, cooperation, and mutual planning between researchers and practitioners than has previously occurred. This joint effort may result in reinvention of prevention programs that were originally tested and shown to be effective according to a certain standard. Little is currently known about the parameters of reinvention that will eventually enhance widespread diffusion of prevention programs. Additional issues are the lack of systematic comparisons of different programs and program components that are assumed to have additive and synergistic effects, and comparisons of change in variables that are hypothesized to mediate program effects in effective prevention programs.

7.15. FUTURE DIRECTIONS IN PREVENTION

Three major areas of prevention research are expanding, results of which are expected to translate into changes in prevention programming. The first is *prescriptive matching* of prevention programs to subpopulations or types of youth. Included in this area are tailoring role plays, messages, and delivery techniques to males versus females, aggressive versus nonaggressive youth, high versus low sensation-seeking youth, and youth from different cultures; and identification of youth who may be at high genetic risk for nicotine or other types of drug addiction, with the long-term goal of developing different prevention strategies for these groups. The second is including in prevention programming strategies to maximize adoption, quality of implementation, and diffusion. Included in this area are drug use epidemiology and prevention training for administrators to increase their knowledge about prevention programs, inclusion of videotapes to

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supplement in-person implementer training, and testing of alternative prevention training methods such as interactive distance learning through television. The third is the identification and promotion of prevention delivery and management systems that have potential for sustaining evidence-based programs for long periods of time.

CONCLUSION

In conclusion, it is hardly surprising that the availability of more, new, better, and safer psychotherapeutics has been followed by a huge upswing in the prevalence of their non-medical use and abuse by varied populations. We should be seriously concerned: for although prescription drugs can be powerful allies, they also pose serious health risks related to their abuse, which can lead to addiction and to death. It will be a question of balance, difficult to achieve, so that people suffering from chronic pain, or anxiety can get the relief they need while minimizing the potential for abuse.

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Annexure-1

A survey by Department of pharmacy, East West University.

Please read the question attentively and answer honestly. Your identity will not be disclosed.

Name(optional):
Age(must answer):
Sex:Male/Female
Level of study:(Semester, year of passing H.S.C/A level)

1:Do you feel depressed at times(sad, empty or discourage about things going in your life)?
a)YES b)NO

2:If YES, what is the reason behind depression?
a)Study b)family problem c)without any reason d)others

3:Do you have problems regarding sleeping?
a)YES b)NO c)Sometimes

4:Have you ever seen a doctor regarding these problems?
a)YES b)NO

5:Have you ever taken any drug or medicine to overcome depression?
a)YES b)NO

6:If YES, what is its name?
Ans.

7:Have you ever taken any drug or medicine to overcome anxiety?
a)YES b)NO

8:If YES, what is its name?
Ans.

9:Was the drug/medicine prescribed by doctor? Please specify
a)YES b)NO c)Yes but for a certain period of time

10: Have you ever taken any drug or medicine for insomnia (lack of sleep at night)?
  a)YES b)NO

11: If YES, what is its name?

Ans.

12: Was the drug/medicine prescribed by doctor?
   a)YES b)NO

13:If no ,how did you find the drug or medicine?
a)went to chemist shop and asked for a sleeping pill
b)some friends or relatives told you about it
c)It was prescribed for an elderly person at home and you thought of trying it.

14: Have you ever taken any drug or medicine just for curiosity(for example cough syrups for sleeping etc)?
a)YES b)NO

15: If YES, what is its name?
   Ans.

16:Do you think you becoming dependent on the drug (not feeling good without taking it)?
   a)YES b) NO

17: Do you know about long term consequence of the drug?
   a)YES b)NO

18:Is that drug /medicine easily available (Can you buy it form pharmacies without prescription and questioning)
a)YES b)NO

19:Were you able to keep to the limits you set, or did you often use these drugs/medicines more than you intended to?
a)Usually kept to the limits set
b)Often used more than intended