EDITORIAL

Combat and Management of Drug Abuse: Means and Challenges: An Egyptian Perspective

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Since his creation, man has been in continuous pursuit for methods of recreation, clouding of consciousness and to escape from reality. Nations have fermented all types of fruit as alcoholic beverages and still do. It may vary in different times from alcohol, to plants or to synthetic substance, but the use of substances to alter the mood and alter consciousness is as old as humidity. Therefore if our purpose is directed towards reducing the abuse of narcotics and illicit drugs and addictive behavior, then it will be purposeful and fruitful, but if our aim is to eradicate and stop these phenomena, then we are living in a day dream.

The ICD-10 includes a list of the different psychoactive substances which can lead to addiction e.g. alcohol, opioids, cannabis, stimulants, sedatives, solvents. Included also are caffeine present in tea and coffee and nicotine in cigarettes. So it seems that all of us are using some psychoactive substance and sometimes we even abuse them and reach the stage of dependence.

All surveys and epidemiological data show that in any one year a mental disorder or substance abuse disorder affect about 28.1% of the population older than 18 years age. Substance abuse constitutes about 1/3 of this morbidity i.e. 9.5% in one year, coming only next to anxiety and mood disorders (12.6%).

Egypt is no exception to the world. In Egypt, we are aware that many of our decisions are reactions to events and not based on actions or long term strategy. The issue of drug abuse is too sensitive to be addressed impulsively. For this purpose the national council for addressing drug abuse and narcotics, chaired by the Prime Minister, was initiated. Its membership included 12 ministers involved in the problem of addiction: Social Affairs, Education, Labor Force, Health, Interior, Justice, Information, Youth, Local Administration, Culture, Awkaf and National Center for Social and Criminological Research.

In addition it has a committee of scientific consultants which includes Prof. M. Soueif, Professor of Psychology, Cairo University and Chair of Committee; Prof. A. Okasha Professor of Psychiatry, Ain Shams University , Prof. H. Ghaleb, Professor of Pharmacology and Vice President of El Menufeya University; Prof. Z.E. Moubarak, Chair of Narcotic Research Department, Center for Social and Criminological Research, General Essam El Tersawi; General Administration for Megahed, Chair of the Policy Evaluation Program Center for Social and Criminological Research ; Dr. H.S. Taha, Consultant to the Policy Evaluation Program at the Center for Social and Criminological Research.

The council had undertaken several epidemiological surveys to estimate the size of the problem and identify risk factors, and has produced a final report of the long term strategy for addressing addictive behavior in Egypt.

Size of Problem:
Addiction represents an important phenomena in society. The results of the epidemiological catchment area study done by Regier et al., (1988) revealed that the annual prevalence of drug abuse comes only next to anxiety disorders (Table 1).

Addiction is also a major public health problem. Crime, family violence and disintegration, unemployment, homelessness, failed academic achievement and gradual deterioration of the economy, deteriorated welfare, and AIDS are but a few of possible consequences.

In 1982 four million citizen in the USA were using an illicit drug. In 1992 this figure increased to 80 millions. Addiction costs in the USA amount to a budget of $ 140 billion, compared to a total health budget of 900 billion dollars for all health services taken together. The prevalence of substance abuse involve, in decreasing frequency: tobacco (50 millions), alcohol (18 millions), marijuana (5 millions), cocaine and heroin (2 millions each), hallucinogens (750 thousand) and LSD, PCP, Ecstasy (500 thousand). In 1993 the WHO reviewed the present use of narcotics in regional states. The country showing the highest prevalence was Pakistan and the substances mostly abused involved heroin, hashish, opium, narcotics and drugs in that order of decreasing frequency (Table 2).

Table (1) Results of the epidemiological catchment area study

Disorder	Month	Year
Any mental disorder	15.7%	28.1%
Substance abuse	3.8%	9.5%
Mood disorders	5.2%	9.5%
Anxiety disorders	7.3%	12.6%
Schizophrenia	0.1%	1.1%
Severe cognitive impairment	1.7%	2.7%

Table (2) Present use of narcotics in regional states (WHO-1993)

Country	Substance	Number	Country	Substance	Number
Pakistan	Op-Her	2000000	Gipotti	Khat	Frequent
Bahrain	Op-Her	1806	Afghanistan	Her-Op	1000000
Tunsia	Narc-Hash	Infrequent	Sudan	Hash-BZ	Frequent
Libya	Hash-Her	Infrequent	Oman	Her-Op-Drugs	Infrequent
Iran	Hash-Her	600000	Egypt	Her-Hash-Drugs	?
Yemen	Khat	Frequent	Lebanon	Hash-Narc	?

National prevalence of substance abuse

The amounts of substances seized over the period 1985-1995 is illustrated in Table (3) (General Administration for Drug Combat , 1996). The average amount of heroin seized annually is about 50 kilograms. This represents about 10% of the consumption. Therefore it is safe to assume that 500 kilograms are consumed annually i.e. 500,000 grams. If we calculate that the average daily intake is 1/4 to 1/2 grams per addict, we would therefore estimate about 7-10000 heroin abusers in Egypt in a population of 59 millions.

An integral part of the work of the council for addressing narcotics in Egypt was an assessment of the national size of the problem. Surveys were conducted among secondary school pupils, male and female university students and industrial workers regarding their drug habits (Table (4) (souef 1994). The results revealed that on average the most abused substance was nicotine, followed by alcohol, hashish, stimulant drugs, tranquilizers, hypnotic and finally opium. Female university students abused less substance than male university student except in the case of tranquilizers and hypnotic where the prevalence was similar.

Egyptian courts have examined a total of 12839 cases of drug abuse in the year 1995 compared to 8841 in 1985. The number to convicts has risen from 9,864 in 1985 to 14,288 in 1995 (Tables 5) (General Administration for Drug Combat , 1996).

Why is it that people abuse substances in the Egyptian context? Soueif (1994) reports different patterns of reasons for the different substances (Table 6 & 7). For secondary school students the main reason was as an entertainment in happy social occasions and socializing with friends who abused hashish. Sedatives and hypnotic were the next most frequently abused substance in situations of physical exhaustion and fatigue, to cope

Table (3) Narcotics seized by Egyptian authorities (1985-1995)

Year	hash	opium	heroin	cocaine	tab	amph	plants	cann tree	papaver trees
unit	kg	kg	kg	gm	1000	liter	kg	1000	1000
1985	50.2	287	123	1052					
1986	21.3	54	98	2439					
1987	40.1	211	78	177					
1988	14.7	3873	335	469					
1989	37.8	89	57	6065					
1990	9.9	56	67	92	61.2	133	5044	343	4754
1991	10.7	51	86	615	58.1	563	1451	381	2855
1992	7.9	48	52	292	28.8	300	330	770	3784
1993	4.3	95	191	1358	159.4	164	599	1672	93139
1994	1.7	49	86	1204	144	649	1267	8264	138825
1995	1.03	17	49	225	178.8	410	2420	5051	17607

Table (4) National prevalence of narcotic substancesuse (%)

Category	cig.	alcoh.	hash	opium	tranq	stim	hypn
Secondary school pupils	10.77	22.49	5.05	0.84	2.72	1.79	2.26
Male Univ. students	20.22	22.08	15.45	0.7	5.79	13.98	4.21
Female Univ. sudents	0.78	7.15	0.76	0.08	5.07	4.78	4.18
Industrial workers	52.4	20.1	11.44	1.36	--	1.8	--

Table (5) Number of drug abuse court cases (1990-1995)

Year	1990	1991	1992	1993	1994	1995
no.of cases	8.841	11.298	12.792	13.782	12.673	12.839
no. of accusedd	9864	12628	14143	1511	13828	14288

with psychosocial problems and difficult working conditions and at times of studying and exams.

For university students the pattern was relatively similar with a greater tendency to use hard drugs. Industrial workers tended to use hard drugs (hash and opium) for socialization and entertainment and psychoactive substances to overcome exhaustion and to cope with psychosocial problems.

Combat of Substance Abuse:

Although medical treatment and detoxification is an important step in the path of management of drug abuse, however, emphasis all over the world is for rehabilitation and integration of the addict in the community.

The scientific committee of the national council for addressing drug abuse and narcotics (1992) developed a long term strategy for addressing substance abuse in Egypt. The main dimensions of this strategy involve:

1. Combat of availability:

This should be undertaken along several axes that involve the general administration of drug combat, the legislative system and commitment of states by the international agreements.
However, although the fight against availability by the narcotics combat administration, legislation and international agreement have helped, but were not sufficient. So it is recommended all over the world to combat the demand through different means.

2. Combat of demand:

The hope to reduce this phenomenon is through reduction of demand. It is expected that in the year 2000 some psychiatric disorders will decrease in prevalence, but also some are expected to rise, namely substance abuse disorders and mood disorders.

Table (6) Why do secodary school students and university students abuse substances (%)

Context		hash	opium	her	coc	sed	stim	hypn
Happy social occasions	gr.1 gr.2	45 45.7	7 18.2	28.6	25	5 1.62	7 5.91	1 2.49
Socializing with friend	gr.1 gr.2	32 27.3	10 27.3	7.14	12.5	5 3.37	8 5.51	4 3.39
Physical exhaustion/ fatigue	gr.1 gr.2	1 0.27	2 8.3	0	0	33 28.3	26 12.2	38 39.37
Psychosocial problems	gr.1 gr.2	3 0.27	0 1.82	14.3	0	8 21.3	4 1.57	3 15.1
Difficult working conditions	gr.1 gr.2	2 0.89	2 1.82	0	0	8 0.32	3 0.39	10 0
Appetizers	gr.1 gr.2	0 0.18	0 0	0	0	11 1.14	9 2.36	14 1.36
Travel and picnics	gr.1 gr.2	0 1.42	0 0	0	0	1 0.32	0 0.79	1 0.23
Curiositty	gr.1 gr.2	1 0.3	1 0	0	0	0 1.79	0 0	0 1.81
Family problems	gr.1 gr.2	2 0.6	5 0.6	0	12.5	4 18.2	1 40.9	2 19.23
Studing and exams	gr.1 gr.2	2 0.79	5 16.4	14.3	12.5	9 2.27	25 3.15	15 3.85

gr.1 = secondaary schoo pupils; gr.2 = university students

Table (7) Why do industrial workers abuse substances? (%)

Context	hash / opium	psychoactive subst.
Happy social occasions	57	9
Socializing with friends	32	16
To overcome physical exhaustion&fatigue	0	22
Psychosocial problems	0	27
Curiosity	3	2
Studing and exams	0	5

Training of personnel dealing with substance abuse is pivotal for dealing with this problem. The medical student, GP and even the psychiatrist is not updated to the problem. He may advise or give information which is not useful or scientific.

Combat of demand is a battle that takes place along several front lines:
1. Primary prevention
2. Secondary prevention
3. Tertiary prevention
4. Treatment
5. Rehabilitation

1. Primary prevention is the most challenging battle. It entails the eradication or modification of the addictive behavior in the community through:
I. Identifying vulnerability factors: Those were found to involve a long list of factors that challenge the person's belonging, sense of satisfaction and realization and adaptation into his/her community, among those are impared relationships in the family, low self esteem, low achievement and motivation, disregard for rules and religion, high sensation seeking, misuse of substance in the family, high drug use among peers, early use of tobacco before age 12 and inconvenient work environment.

II. Modification of upbringing and education policies: Our approach to our youth tends to be an authoritarian style leaving little space for self expression and actualization. We tend to underestimate the conflicts of the youth, who feel alienated and out of place. In the absence of a mature discourse that addressees our youth as adult decision makers and holders of the future our youth will continue to seek escape from its painful reality.

III. Early detection of subclinical cases: Drug abuse is frequently a self medication of other psychiatric disorders, among which anxiety and depression are the most prevalent. The early detection of those disorders through the education and upgrading of school health services is mandatory as a preventive measure.

2. Secondary prevention
Secondary prevention entails a comprehensive, multidisciplinary approach to the management of substance users. The ratios we have is 16:4:1. i.e. 75% of drug users will stop abuse after experimenting, 25% will continue. Out of these 25%, 75% will abuse occasionally and 25% will develop into addicts.

Management of drug abusers entails initially the treatment process which can be done on an outpatients or an inpatient basis. Several forms of treatment are involved alternating between psychotherapy, behavior therapy, detoxification and chemical therapy.

The goals of treatment involve abstinence or reduction of use, reduction in severity and frequency of relapse and improvement of psychological and social adaptive functioning. This involves:
1. An initial global assessment
2. Tailoring of psychiatric management through
a) establishing and maintaining a therapeutic alliance with the individual
b) monitoring the patient's clinical status.
c) managing withdrawal and intoxication states.
d) reducing the sequel and morbidity.
e) facilitating adherence to treatment plan and preventing relapse.
f) providing education about substance use disorders and their treatment.
g) diagnosis and treating associated psychiatric disorders.
3. Deciding on pharmacological treatment
a) medications to treat intoxication and withdrawal states.
b) medications to decrease the reinforcing effects of abused substances.
c) medication that discourage the use of substances.

d) agonist substitution therapy.
e) medications to treat comorbid psychiatric conditions.

The following are the most agreed lines of treatment in the different cases of substance abuse:
I. Alcohol:
a) Acute withdrawal:
* Long active BZ (clonazepam) one dose
* Beta blockers
* Calcium channel blockers
* Carbamazepine and valprate
b. Maintenance:
* Opioid antagonist naltrexone
* Serotonergic agents SSRI - ondansterone

II Opioids:
a) Acute withdrawal:
*Cholindine total 1.7 mg/day with peak first o.6 mg in addition to naltrexone 12.5 mg/day for 4 days.
* Buprenorphine (partial opioid antagonist)2-8 mg sublingually for one month followed by naltrexone .
b. Maintenance:
* Methadone, naltrexone, LAAM, Bupreorphine .

III. Cocaine:
*DA agonists, Bromocriptine, Amantadine, L-Dopa, Methylphenidate, bupropion, TCA, SSRI, Carbamazepine, Naltrexone.

4. Treatment
The treatment of an individual suffering from substance abuse should have specific goals that are targeted and meant to be achieved at the end of the management program. Clarity about those objectives is very important, so that an evaluation of the treatment program can be carried out During evaluation each of those objectives acts as a criterion for evaluation regarding the ease or difficulty of its achievement if any.

The APA (1995) drafted practice guidelines for the treatment of patients with substance use disorders, mainly alcohol, cocaine and opioids. Accordingly the goals of the treatment program should include:
1. Maximizing motivation for abstinence.
2. Rebuilding a substance free life style.
3. Helping to maximize multiple aspects of life functioning.
4. Optimizing medical functioning.
5. Identifying and treating psychiatric disorders.
6. Dealing with marital and family issues.
7. Enrich job functioning and financial management.
8. Addressing relevant spiritual issues.
9. Dealing with homelessness.
10. Relapse prevention.

In developing the treatment plan one has to be clear about the prevalent fiscal and political realities, carefully use financial and staff resources, clearly state the philosophy of the staff, remember and inform the patient that no treatment is considered totally safe and be able to determine that the treatment approaches being considered are more effective than chance alone.

A further step would be deciding on the most appropriate line of treatment, whether
a) Psychological treatment.
b) Cognitive behavioral.
c) Behavior.
d)Individual psychodynamic/ interpersonal therapies.
e) Group therapies
f) Family therapies.
g) Self help groups.

5. Deciding on the treatment setting which can be in hospital with residential treatment, partial hospitalization, or outpatient settings.
6. Formulating and implementing a treatment plan.

Several research has reviewed the different forms of treatment used with sub-

stance abusers and revealed differential effectiveness of the various lines used (Galanter and Kleber, 1994).

No evidence of great effectiveness was reviewed with the use of antianxiety medications, cognitive therapy, confrontational interventions, patronizing educational lectures/films, electrical aversion therapies, nausea aversion therapies, general counseling, group therapies, insight oriented psychotherapy or residential milieu therapies. There is insufficient evidence of effectiveness associated with attempts of alcoholic anonymous, the Minnesota model of residential treatment, halfway house, acupuncture or calcium carbimide (an antidipsotropic medication).

On the other hand an indeterminate evidence of effectiveness was reported with non behavioral marital therapy, hypnosis and lithium; and a fair evidence of effectiveness with antidepressant medications, behavior contracting and oral and implant disulfiram.

The best evidence of effectiveness was reported with behavioral marital therapy, brief intervention community reinforcement approach (CRA), self control training, social skills training and training on stress management techniques.

It is very crucial for the management team to identify clinical features that may impact the management program e.g. associated psychological factors or medical disorders, pregnancy, gender related factors, age, social milieu and living environment, culture factors and beliefs and family characteristics. Each of these, if put into consideration can positively influence the individual's response and attitude to management. If neglected, the individuals may either be resistant or show non compliance to the prescribed therapeutic interventions. In this context legal and confidentiality issues are of great importance.

Upon reaching abstinence, relapse prevention becomes the next challenge. Relapse prevention is a cognitive behavioral treatment that combines behavioral skill training procedures with cognitive intervention techniques to assist individuals in maintaining desired behaviors, in this case abstinence.

3. Tertiary prevention

The objective of tertiary prevention is to stop further involvment in psychological and physical complications that can develop out of drug abuse. It targets social integration of the individuals using therapeutic communities, local communities, training in social skills and follow up.
A plan of rehabilitation of substance users should pass through several steps:
1. Establishing a central registry for substance users.
2. Training of all personnel dealing with the problem of addiction.
3. Establishing centers for addiction separated from mental hospitals, outpatients clinics in general hospitals.
4. Upgrading and developing school and university health services.
5. Routine examination for applicants to clubs and universities.
6. Integration of the addicts in the society and follow up.
7. Channels of education in schools.

Within such programs the role played by the mass media should not be underestimated. This entails:
1. The use of indirect approaches, each of which should target the motives that underlie substance use and address them intelligently using a language that is attractive to vulnerable groups and drawing on their real every day problems and conflicts. Direct messages on radio and television using advice, lectures, films and model demonstrations of good and bad

have proven ineffective.
2. Dissemination of information and the use of newspapers, noting the importance that the information be true and consistent.
3. Interactive meetings with youth groups, listening to them and inviting their initiative and input to combat passivity.

Despite the many available information and literature the understanding of the problem of substance use leaves a lot to be desired. Future research programs should attempt to disclose more and more hidden spaces of knowledge about this challenging problem. Despite the relevance of the problem to our national context, our medical teaching on the issue is still inadequate and our teachers and students have scarce knowledge about the issue. Based on the false belief that treatment of substance abuse is ineffective the money spent on research in this field is very inadequate. Gerstein (1994) in his California study estimated that each dollar spent on treatment or treatment research of substance abuse saved the country seven dollars, that would ultimately have been lost in view of the disorders.

As previously mentioned, the problem of substance abuse is the best demonstration of a psycho-soci-biological disorder, where each of the dimensions is of almost equal important to the other. Accordingly the complexity of this management should be compatible to the complicity of its nature. An oversimplification of the issue as "bad behavior" and the reduction of its management to "detoxification" will only severe the spread and expansion of the problem. To ameliorate the severity of this problem, we need reforms in education, mass media, economics, social and health policies to detect vulnerable persons. A problem as complex a that needs more understanding and insight into the different factors and elements that lead to it. For that purpose a comprehensive plan of research should be drawn, that investigates into the different areas and that is co-ordinated and led by the multidiscipinary team.

The following are a number of recommendations for research directions in the future, some of which are drawn from the APA Guidelines for Substance Abuse (1995)
a) The factors that alter the development, clinical course and prognosis of these disorders, including genetic, developmental biological, cognitive, and sociocultural factors, as well as comorbidity and the impact of early experience with abusable substances. Several interesting areas are unfolding in the fields of biological psychiatry on that issue. The mesolimbic dopamine systems seems to play a special role in drug seeking behavior and addiction. Recent work is focusing on intracellular messenger pathways particularly involving G proteins and cyclic AMP, challenging a greater understanding of the adaptation processes at the molecular and cellular levels that occur in brain regions responsible for the behavior features of drug addiction.
b) The effects of treatment modalities in current use, as well as those being developed on short, intermediate and long term outcomes in specific populations.
c)The differential efficacy of treatment programs with specific attention to the site of treatment and the mix of specific treatment modalities used.
d) The intensity and staging of treatment (i.e. using different treatments in different setting at different phases of the disorder) and the interactive (i.e. additive, synergistic, or antagonistic) effects of various treatment modalities when applied concurrently or in sequence.
e) The impact of sociodemographic, psychiatric and general medical characteristics as well as patient treatment references on treatment participation, compliance

and outcome.
f) Improved methods for the diagnosis and treatment of co-morbid psychiatric and/or substance use disorders, including approaches for defining the precise temporal and etiologic relationships between substance use and other forms of psychopathology.
g) The biological, cognitive and behavioral factors contributing to development of the prolonged abstinence syndrome in patients previously dependent on alcohol, cocaine or opioids.
h) The acute and chronic effects of abused substance on the morphology, biochemistry, and physiology of the brain, as revealed through brain imaging or other assessment techniques, and the time course of recovery from these effects once patients are drug free.
i) New pharmacotherpaies that reduce craving in both active and abstinent substance user.
j) New pharmacotherapies that may reverse the physiologic effects of chronic substance in the functioning of the brain and other affected organs.
k) Identification of both risk and protective factors that influence vulnerability to development of substance use disorders.
l) Organization and managerial factors in the cost effectiveness of treatment programs.
m) Programmatic approaches aimed at prevention and early intervention for these disorders.

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