The global challenge of rising addiction: A Northeast Indian perspective

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‘World is Yours’ (WY) is the catchy street name for the methamphetamine containing tablets whose abuse was reported beautifully, somewhat poetically in the scientific paper of Mohit Saini and his team from the Regional Institute of Medical Sciences (RIMS), Imphal and was published in the Open Journal of Psychiatry & Allied Sciences (OJPAS®).[1] We are yet to deal successfully with the commonly abused substances like tobacco, cannabis, alcohol; now, add to that substances like opioids, cocaine, methamphetamine. And the ‘challenge of rising addiction’ increases manifold.[2]

But, are ‘substances’ the only ‘addiction’? In fact, it is only the ‘tip’ of the ‘iceberg’! Those of us who love music, must have heard this Def Leppard number, “Have you ever needed someone so bad”.[3] Way back in 1991, they compared ‘love’ with ‘drug’! In a review article published in Dysphrenia, the earlier name of OJPAS®, authors stated that apart from drug and alcohol abuse, addictive behaviours also include eating disorders, gambling, sexual and intemperate behaviours.[4] A person can become addicted, dependent, or compulsively obsessed with anything. Some researchers implied that there are similarities between physical addiction to various chemicals, such as alcohol and heroin, and psychological dependence to activities such as compulsive gambling, sex, work, running, shopping, or eating disorders.[4] It is thought that these behavioural activities may produce beta-endorphins in the brain, which makes the person feel “high”. When we look into the underlying pathophysiology, it is the same hyperdopaminergic state in the
mesolimbic pathway from ventral tegmental area to nucleus accumbens, i.e. the so-called ‘reward circuit’. [5]

Few pertinent works carried out in the Northeastern part of India deserves mention here. Inhalant use, an important, yet under-recognised form of substance abuse has been reported commonly among adolescents in India but the true extent of the problem is not known due to paucity of data. To assess the prevalence and determinants of inhalant substance use amongst the adolescents in Manipur, a cross-sectional study was conducted among 1671 adolescents studying in eighth to 12th standard in schools of Imphal-East District during March to June 2013. [6] Mean (SD) age of the students was 14.5 (1.32) years, with males constituting 923 (55.2%). Prevalence of ever users was 186 (11.1%) and glue/dendrite was the commonest substance abused 98 (52.7%). Being male, belonging to joint family, and increase in age were found to have significant higher risk of being a user, whereas higher level of parental education shows a protective effect.

Another cross-sectional study was conducted in six states of the Northeast region of India. [7] School children between eighth and 11th standards from the capital areas of the states were included in the study. Of the 4074 enrolled students, data from 3943 students who responded to the inhalant use question were analysed. Mean age was 14.8±1.2 years and 51.2% of participants were male. The proportion of students who had ever used inhalants (ever user) was 18.8% and adhesive/glue was the inhalant misused by most of the students. A higher proportion of males than females were ever users (p≤0.001) and the most common place of use was at home (33.1%). Being in the presence of an older person using an inhalant or tobacco was found to be associated with use of inhalants among students. Nearly one-fifth of the students had used inhalants and nearly half used inhalants in the past month.

In Guwahati, we interviewed 680 participants from six schools in a study of cross-sectional exploratory research design with the use of questionnaire in 2009. [8] One hundred and fifty one (22.2%) subjects have ever had alcoholic beverages like beer, wine, or liquor. Seven per cent of alcohol users had been absent from school, five per cent had done poorly in school, four per cent had family problems, and three per cent had been arrested because they used alcohol; three per cent had driven under the influence of alcohol and 13% had been passengers in a vehicle in which the driver was under the influence of alcohol; two per cent had been drunk and 29% had been drunk at a party. 80.1% of alcohol users had not been ever asked about their age while obtaining alcohol. 21.2% had successfully faked their age to obtain
alcohol. 13.2% had ever obtained alcohol by misrepresenting their age. Bar/restaurant (52.98%) was the primary source from where people under the age of 18 obtain alcohol, followed by friend/relatives (32.45%), liquor store (24.50%), parents’ cabinet (5.30%), and other (1.32%).

“In the absence of reliable direct indicators and to supplement them, indirect indicators have been used to estimate the magnitude of the substance-related problems. Indirect indicators are elicited from the data already available at some source and require no specific resources except for secondary analysis. The Drug Abuse Warning Network (DAWN) and Drug Abuse Reporting Program (DARP) in USA, and Home Office Addicts Notification Index and Regional Drug Misuse Database in the UK are well known examples of reporting systems based on the principle that the data about persons presenting at the treatment centres can provide useful indirect information about the magnitude of the drug abuse population in the community. In India, pilot testing of a reporting system was carried out in a research project funded by the Indian Council of Medical Research (ICMR) from 1989 to 1992 at Delhi, Lucknow, and Jodhpur. The Drug Abuse Monitoring System (DAMS) developed for this research project has been reported to be feasible. In the developing countries, with the inadequacy of direct indicators persisting, these indirect indicators may be the only or one of the few sources of information on the epidemiology and must be utilised.”[9]

With this background information on substance use, we carried out a work in this line at the Silchar Medical College Hospital, Silchar.[10] Similar line of work was also conducted in the Gauhati Medical College Hospital, Guwahati.[11] Here, I would like to draw attention to the concepts of ‘life course epidemiology’ and ‘intergenerational epidemiology’[12] that has recently been highlighted in a research paper by us:[13] “Life course epidemiology is the study of long-term effects on chronic disease risk, of physical and social exposures, during gestation, childhood, adolescence, young adulthood, and later adult life. It includes studies of the biological, behavioural, and psychosocial pathways that operate across an individual’s life course, as well as across generations, to influence the development of chronic diseases.

Life course epidemiology has developed a special concern with ‘the “embodiment” of social phenomena into the biological’ encapsulated in the concept of ‘health inequalities’. This concern arose historically from work showing that mortality from many diseases is spread unequally across the population and that these differences in risk can be linked to social inequalities that often go back to infancy or even to the parental gestation. This body of work has had enormous significance for international thinking about social policy and is having a direct effect on the allocation of public resources in the United Kingdom and elsewhere.
A life course approach to epidemiology intertwines biological and social transmission of risk across generations, recognising that geographical and secular characteristics may be unique to one cohort of individuals. Experiences of the previous generation can operate at many different levels of generality. They may be specific to the mother-child dyad (e.g. the effect of drug use during pregnancy), or may affect everyone living in a certain neighbourhood (e.g. poverty, or exposure to an environmental toxin). All mothers and children may be affected by a particular event, such as a period of famine or disease, or children may be affected by their mother’s developmental stage (e.g. children of teen mothers or elderly mothers). Models of intergenerational research have recently appeared and statistical methods have become more tractable.

A related concept in relation to addiction is ‘Children of alcoholics (COAs)’. “COAs is a general term used to describe children or individuals with one or more parents with alcoholism. In Assam, there was no study done earlier on COAs, and on parents of alcohol dependence, though prevalence rate of alcohol is reported to be high.” Therefore, Dr. Mythili Hazarika and Prof. Dipesh Bhagabati[14] from the Department of Psychiatry of the Gauhati Medical College Hospital, Guwahati carried out a study with the objectives “to examine the personality variables of the alcohol dependent fathers (ADF) and their sons (SADF), as well as the alcohol nondependent fathers (NADF) and their sons (SNADF). ADF were found to be high on neuroticism and extraversion, in comparison to NADF. SADF were higher on extravagance in comparison to SNADF, but there was no significant difference found in neuroticism in both the groups.”

Of the other addictions, there was a report of a patient with the so-called transvestic fetishism being successfully treated with behaviour therapy.[15] But, in light of the strong lesbian, gay, bisexual, transgender (LGBT) movement, such approaches merit rethinking! Well, that is for discussion in a different platform, of course![16-18]

Continuing with other addictions apart from substance, there is a report on Internet addiction from the Silchar Medical College Hospital.[19] Of the 188 medical students, 46.8% were at increased risk of Internet addiction. Those who were found to be at increased risk had longer years of Internet exposure (p=0.046) and always online status (p=0.033). Also, among this group, the men were more prone to develop an online relationship. Excessive Internet usage also led to poor performance in college (p<0.0001) and feeling moody, anxious, and depressed (p<0.0001).
After the Internet, to move one step ahead, now there is concern about selfie addiction. If the ‘prevalence’ data is making us feel low, then there are work on ‘intervention’ as well from our part of the globe! Following approval from the Institutional Ethical Committee of the Gauhati Medical College Hospital, Dr. Bobby Hmar and her team[20] is working on the comparative effectiveness of acamprosate, baclofen, and naltrexone in alcohol ‘addiction’. Thus, ‘psychopharmacology’ is the ‘first armamentarium’ that we have in our fight against ‘addiction’!

Mary Anthony Angami and her co-investigators[21] successfully applied ‘motivational intervention’ in alcohol ‘addiction’. So, ‘psychotherapy’ can be our ‘second armamentarium’!

“If you have a cardiovascular problem, I would prefer to be a citizen in Los Angeles than in India,” said Benedetto Saraceno, then Director of the Department of Mental Health and Substance Abuse at the World Health Organization’s (WHO) headquarters in Geneva. “If I had cancer, I would prefer to be treated in New York than in Iran. But if you have schizophrenia, I am not sure I would prefer to be treated in Los Angeles than in India.”[22]

“The better prognosis of schizophrenia spectrum disorders in India is traditionally linked to the strong supporting system in the forms of family and friends; thus, implying the role played by the psychosocial factors.”[23] Therefore, ‘psychosocial intervention’ can be our ‘third armamentarium’!

We all have watched the popular Hindi movie, ‘Sharaabi’ and we all have heard the famous dialogue of Amitabh Bachchan in that movie, “Apni zindagi ki tamboo tin bamboo pe khara he: sharaab, saayeri, aur Munchi ji”.[24] Now, if that represents an unhealthy structure of ‘addiction’, let us try to tackle the situation. Sharaab, i.e. alcohol is a drug by itself having different receptor binding properties. To counter that, we have molecules like naltrexone and acamprosate. Thus, psychopharmacology, our first armamentarium can counter this ill effect. Saayeri is related to one’s psychology. There are immature and neurotic defense mechanisms, and we can try to imbibe mature defense mechanisms. The same is the case in case of coping strategies. The unhealthy coping strategies can be turned to healthy ones. And, this is achievable through our second armamentarium, i.e. psychotherapy. Finally, Munchi ji is the face of family and friends. If they are unfavourable then they should be educated, taught about the ‘addiction medicine’ model of illness and integrated in the treatment team. This can be done by our third armamentarium, ‘psychosocial intervention’. With these three new bamboos of psychosocial intervention, psychotherapy, and psychopharmacology, we
can reconstruct the tamboo of zindegi into a healthy one. So that, our ‘reward circuit’ is not stimulated by addiction, but instead activated by ‘wining the race’. [5]

REFERENCES


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