Review Article

Prevention in Psychiatry: Where are we?

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Abstract : *Prevention in psychiatry is still at a nascent state. Exact etiology of most of the psychiatric disorders is still not known, limiting the development of preventive strategies. Difficulties in delineating the exact time of onset of the psychiatric illness further adds to the problem. Prevention in psychiatry is currently directed at acting on risk and protective factors, developing strategies to reduce risk and improve quality of life, reducing stressors and enhancing resilience and also targeting directly the psychiatric disorders. The efforts are also directed at special groups like school and workplace based programmes, targeting at specific mental illnesses like conduct disorders, depression, anxiety disorders or psychotic disorders. Suicide prevention programmes and targeting the high risk populations like those affected by a disaster also remain important focus of preventive psychiatry.*

Keywords : Prevention, protective factors, quality of life

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INTRODUCTION

Disease prevention and health promotion are now considered integral parts of psychiatric practice today. Prevention in psychiatry needs careful consideration of the social and physical environment of a person. The preventive psychiatry incorporates a preventive approach by considering various factors like risk and protective factors, epidemiology, population based findings, evidence based preventive interventions, health promotion and cost effectiveness.[1]

Psychiatric disorders are a source of great burden to the society. As per the WHO's World Health Report of 2001, about 450 million people alive today suffer from mental disorders. One person in every four is likely to be affected by a mental disorder at some stage of his or her life.[2] Neuropsychiatric disorders account for 12.3 % of the Disability-Adjusted Life Years (DALYs) out of the total DALYs for all disorders. To reduce the burden of mental disorders, it is essential that greater attention be given to prevention and promotion in mental health at the level of policy formulation, legislation, decision-making, resource allocation and the overall health care system.[3]

Development of effective prevention approach would require knowing what causes the illness. Unfortunately, aetiology of most psychiatric illnesses is not known. The psychiatric illnesses are hypothesised to have a multifactorial causation, with multiple factors playing a role in the genesis of the illness. These include genetic, constitutional, biological, familial, environmental, developmental, psychological and sociological factors. The development of prevention and treatment strategies of psychiatric disorders would depend on a profound knowledge of the complex relationships between gene-environment interactions, particularly the interplay of vulnerability and resilience factors in the individual or the concerned population.[4, 5]

Concept of Prevention in Psychiatry

The public health concept of disease prevention views prevention as primary, secondary or tertiary,

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depending on whether the strategy prevents the disease itself, the severity of the disease or the associated disability. This system works well for various medical illnesses with a known aetiology. However, the mental disorders, on the other hand, often occur due to the interaction of environmental and genetic factors at specific periods of life. Thus it is often difficult even to agree on the exact time of onset of a mental disorder, as the progression from the asymptomatic to symptomatic state may be insidious. Many times, a person may suffer from the signs and symptoms of a mental illness and be dysfunctional, without fulfilling the required criteria to be diagnosed within a diagnostic system. Thus, development of prevention strategies would not follow the usual model of the public health.[1]

Preventive strategies are usually directed against risk factors, and hence need to be implemented at specific periods before the onset of the disorder in order to be maximally effective. However, once the disorder has developed, it is still possible to reduce its severity, course, duration, and associated disability by taking preventive measures throughout the course of the disorder

In the field of mental health, an important approach towards primary and secondary prevention would include promotion of mental health. WHO has defined health promotion as the process of enabling people to increase control over their health and improve it. Mental health promotion often refers to the positive mental health, which is the desired outcome of health promotion interventions. However, this is not a universally accepted concept and there is debate about mental health promotion - its definition, its place within the overall concept of health promotion, and its boundaries with prevention of mental disorders.[3] There are a number of advantages for integrating promotion and prevention in the field of mental health. Preventing mental disorders not only involves targeting risk factors and early symptoms of the disease, but can also involve promoting associated activities that improve the overall quality of life of people and their society. For example, child abuse, sexual abuse and substance use have been found to be associated with a number of mental disorders.

Thus the policy makers would need to collect all the available information about the illness, for which prevention programme is being developed. There may not be complete information available for different illnesses and therefore, there is a need for continued research to get more information and alongwith continue work towards development of prevention programme.

Development of Prevention Programme:

An effective prevention programme in psychiatry needs to act at multiple levels. Various strategies can be described under the following headings.

* Acting on risk and protective factors
* Strategies to reduce risk and improve quality of life
* Reducing stressors and enhancing resilience
* Targeting directly the psychiatric disorders[3]

1. Acting on risk and protective factors:

Risk factors are associated with an increased probability of onset, greater severity and longer duration of major health problems. Protective factors refer to conditions that improve people's resistance to risk factors and disorders. Both risk and protective factors can be individual, family-related, social, economic and environmental in nature.

Individual protective factors are similar to the components of the positive mental health, such as self-esteem, emotional resilience, positive thinking, problem-solving and social skills, stress management skills and feelings of mastery. Thus most of the preventive interventions for mental

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disorders overlap largely with the principles of mental health promotion.

Both protective as well as the risk factors include generic factors, which are common to all mental health problems as well as disease-specific factors, specific to an illness. For example, negative thinking is specifically related to depression, and depression is specifically related to suicide. Interventions that successfully address the generic factors are expected to have a broad spectrum of preventive effects. For example, poverty and child abuse are common to depression, anxiety and substance abuse. Interventions that successfully address poverty and child abuse can be expected to have an impact on all three of these disorders.

2. Strategies to reduce risk and improve quality of life:

Strategies at improving the quality of life like improvement in nutrition, housing, access to education, reducing economic insecurity and strengthening community networks can have an additive effect at reducing the risk. However, these may require changes in legislation, policy formulation and resource allocation on the part of the State.[6] There is strong evidence that improving nutrition and development in socioeconomically disadvantaged children, accompanied by counselling and psychosocial care like providing warmth and attentive listening to the problems can lead to healthy cognitive development, improved educational outcomes and reduced risk for mental ill-health, especially for those at risk or who are living in impoverished communities. Similarly, improvements in housing have been reported to lead to improvements in self-reported physical and mental health and less mental health strain.[7]

Economic insecurities including indebtedness to loan sharks, a common feature in many developing countries, is a consistent source of stress and worry that can lead to symptoms of depression, mental disorders and suicide. Developing help programmes at poverty alleviation and credit facilities may reduce the risk of mental illness by removing a key cause of stress: the threat posed by the informal moneylender.[8]

3. Reducing stressors and enhancing resilience:

These interventions would start from the early life and continue through schooling to workplace in adulthood. Promoting a healthy start of life is an important component of any disease prevention programme. The early intervention programmes include home-based interventions during pregnancy and infancy, efforts to reduce smoking during pregnancy, parent management training and preschool programmes.

The home visiting interventions during pregnancy and early infancy, addressing factors such as maternal smoking, poor social support, parental skills and early child-parent interactions, have been found to be associated with improvements in mental health both in the mothers and the newborns, less use of health services and long-term reductions in problem behaviours after 15 years. Such interventions can be cost-effective, especially when long-term outcomes are taken into account.[9] The low birth weight, which is a proven risk factor for cognitive and behavioural deficits, failure to thrive, cognitive problems later in life, academic impairment and school problems and increased risk of behavioural and psychiatric disorders, can be tackled effectively by the home based health interventions. Home visiting programme can also focus on the problem of child abuse and neglect.

At a later stage, school-based programmes can take over at various stages in schools. These influence positive mental health and reduce risk factors and emotional and behavioural problems through social-emotional learning and ecological

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interventions.

Stresses at the workplace and unemployment can also contribute to poor mental health, leading to depression, anxiety, burnout, alcohol-related problems, cardiovascular illness and suicidal behaviour. To reduce work stress, interventions may be directed at either increasing the coping capacity of the employee or at reducing stressors in the work environment and by introducing specific stress management programmes at the work place.

4. Targeting directly the psychiatric disorders

Some evidence is now available for development of prevention programmes against many mental disorders including conduct disorders, depression, psychotic disorders, anxiety disorders, suicide, post trauma interventions, eating disorders and substance use related disorders.

Conduct disorders, aggression and violent behaviour: Risk factors for conduct disorders and aggressive behaviour include maternal smoking during pregnancy, inept parenting, parental antisocial behaviour and substance use, child abuse, early aggressive behaviour and conduct problems, early substance use, and impoverished and socially disorganized neighbourhoods with high levels of crime. Preventive interventions need to focus on improving the social competence and prosocial behaviour of children, parents, peers and teachers. These interventions emphasise on social interaction between children, caregivers and peers and can be classroom based or community based.

Aim of the interventions is to equip the children to meet the social demands of the classroom and the community more effectively through the overt encouragement of desired behaviours and the discouragement of undesired behaviours. These have been found to decrease student conduct problems (e.g. decreased disruptive behaviour, decreased aggression) and better relationships among students and between students and teachers.[10] Families should also be provided facilities of regular home visits and case management assistance.

Depression: Strengthening protective factors among general population can help reducing depressive symptomatology. Examples include school-based programmes targeting cognitive, problem-solving and social skills of children and adolescents and exercise programmes for the elderly. The programmes have been found effective in reducing depressive symptoms to the extent of 50% or more one year after the intervention.[11] Reducing child abuse and bullying can have long term effects.

Interventions targeted at improving coping with major life events have been shown to lead to long term reductions of high levels of depressive symptoms. Similarly, interventions for those with elevated levels of depressive symptoms but no depressive disorder have been found effective in reducing the severity of depressive symptoms and preventing depressive episodes. Such programmes can use a group format to educate people at risk in positive thinking, challenge negative thinking styles and improve problem-solving skills. The programmes can be offered to groups of primary care patients, adolescents or some other indicated groups.[12] Self-help materials, mass media and the Internet are the other strategies which could be used in prevention programmes.[13]

Psychotic disorders: Schizophrenia is now recognized as a neurodevelopmental disorder with multifactorial etiology involving a major genetic contribution as well as environmental factors interacting with the genetic susceptibility. Environmental risk factors include obstetric complications, childhood trauma, migration, the quality of the rearing environment, socioeconomic

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disadvantage and urban birth.[3] Improving the obstetric care and rearing environment may have some role in prevention. Early intervention programmes aiming at early identification and management have a role in improving the prognosis and reducing the associated disability and burden. Examples of such programmes include the Scandinavian Early Treatment and Identification of Psychosis Study (TIPS), which has been shown to reduce delays in treatment and has promoted early help seeking.[14] Another strategy could be developing a model for detecting individuals who are putatively experiencing a prodrome, and then focussing management on them.[15] It may be possible to delay the onset of first episode psychosis with a combination of low dose atypical antipsychotic medication and cognitive therapy.[16]

Anxiety disorders: Anxiety disorders comprise a wide range of different disorders of which generalized anxiety disorders, social phobia and PTSD have been a focus of primary prevention so far. Examples of populations at risk include children of anxious parents; victims of child abuse, accidents, violence, war, disasters or other traumas; refugees; and professionals at risk of being robbed or treating trauma victims. Common risk and protective factors include traumatizing events, learning processes during childhood (e.g. modelling and over-control by overanxious parents), feelings of lack of control, and low self-efficacy, coping strategies and social support.

Use of effective safety measures in traffic, workplaces and neighbourhoods, safety legislation and gun control can lead to reduction in the traumatising events. Targeted school-based programmes can help reducing the aggressive and delinquent behaviour and bullying, which are important risk factors for development of anxiety disorders in the victims in later life. Interventions based on cognitive behaviour therapy are successful in preventing the development of panic disorders in those who have experienced a first panic attack.[17]

Suicide: According to WHO estimates, in 2001 approximately 849 000 people died from suicide worldwide[18] ; the figure is estimated to rise to 1.2 million suicides by 2020.[19] The most important evidence-based risk factors for suicide are psychiatric disorders (mostly depression and schizophrenia), past or recent social stressors (e.g. childhood adversities, sexual or physical abuse, unemployment, social isolation, serious economic problems), suicide in the family, low access to psychological help and access to means for committing suicide. Apparently, the most effective strategies to prevent suicides include the prescription of antidepressant drugs to patients suffering from depression and the reduction of access to the means to commit suicide. Training of general practitioners in recognizing and treating depression in primary care can improve the quantity and quality of early depression treatment.

Helplines and crisis centres represent one of the earliest systematic strategies to prevent suicides. But the outcome studies over recent decades have not provided convincing evidence that these strategies have any impact on suicide rates. Some results, however, suggest a positive effect. For example, in Veneto, Italy a telephone helpline for the elderly was combined with a home visiting service, and over a period of 11 years, a 71% drop in suicides was observed among the 18 641 elderly service users compared with a comparable population group.[20]

Reducing access to the means to commit suicide has been found to be one of the most effective measures in reducing suicides.[21] Strategies include detoxification of domestic gas and car exhaust, safety measures on high buildings and bridges, control of availability of sedatives and pain-killers and restricted access to pesticides.

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Post-trauma interventions; Disasters and traumatising events like sexual assaults, being robbed or mugged, road traffic accidents, and marital breakdown are associated with development of a range of psychiatric problems in the victims. Thus provision of suitable psychological help to those at risk may enhance their coping skills and prevent development of psychological problems. Critical incident stress debriefing (CISD) is one such technique, which is used for those, who have witnessed a traumatic event such as a shooting incident or disaster. Victims generally find the intervention helpful in their process of recovering, though it does not prevent the onset of PTSD or other psychiatric disorders.[22] Rather it may be counter productive by retraumatizing the victims and thus increasing the risk of PTSD. The approaches may use both identifying and treating the affected persons as well as sensitising the local health personnel, who would be able to continue with care.[23] Cognitive-behavioural therapy is more promising as an early intervention method to prevent PTSD. The therapy comprises education about trauma reactions, relaxation training, imaginary exposure to traumatic memories, and cognitive restructuring of fear-related beliefs and in vivo exposure to avoided situations.

Eating disorders: In the last few decades, eating disorders are also emerging important public health problems. Risk factors include unhealthy dieting, excessive weight/shape concerns and body dissatisfaction, family and social influences, such as modelling behaviour of friends and society's glamorizing of thinness through mass media and low media literacy. Generic risk factors include insecure attachment, physical and sexual abuse, bullying, low self-esteem, and difficulties in coping with affective stress and conflict.

School based preventive interventions aimed at reducing unhealthy dieting and eating disorders have been found helpful. Students at professional schools with specific populations at risk such as ballet dancers, athletes, fashion models and cookery students may require special focus. Media literacy and advocacy also have an important role to play.[24] No firm conclusions can be drawn on the effectiveness of eating disorder prevention programmes yet and the area needs more investigation.

Substance use related disorders: Regulatory interventions for addictive substances have included taxation, restrictions on availability, total bans on all forms of direct and indirect advertising, and public education on media, and have played important role in prevention of the substance use related disorders. Estimates show that every 10% increase in media campaign expenditure has reduced cigarette sales by 0.5%. Thus it is pertinent to disseminate information in high, middle and low income countries. When applied to alcohol, education and persuasion strategies usually deal with abstinence or controlled drinking, and the hazards of driving under the influence of alcohol and related topics.[3]

Brief interventions are highly effective as well as cost-effective for smoking cessation and reducing hazardous and harmful alcohol consumption. Brief advice from a general practitioner routinely given to all smoker patients has been shown to lead to attempts at quitting in 40% of patients and stopping for at least 6 months in 5%.[25] Adding nicotine replacement therapy has been reported to increase the success rate to 10%.[26] School-based education programmes work at changing the adolescent's smoking, drinking and drug-taking beliefs, attitudes and behaviours, or attempt to modify factors such as general social skills and self-esteem that are assumed to underlie adolescent smoking, drinking and drug taking.

CONCLUSION

Prevention in psychiatry is still to pick up, but a

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beginning has been made. Prevention programmes aimed at specific disorders as well as specific populations have started all over the world, though still the results are preliminary. Identifying and targeting the risk factors, and early identification and intervention remain important preventive strategies in psychiatry.

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