HISTORICAL PERSPECTIVE

The interest in preventive psychiatry was given a great fillip with the advent of the Community Psychiatry movement in the U.S.A. in the early sixties. Caplan (1964) saw primary prevention as an essentially public health concept. It aims at reducing the incidence (occurrence of fresh or new cases) of psychiatric disorders of all types in a community and at promoting mental health among its members. He admitted that few of the principles enunciated in the pages of his book on Preventive Psychiatry (Caplan, 1964) were based on solid research findings or even on consensus among experts. He conceded that no organised programme for prevention of specific mental disorders existed and the necessary knowledge for that purpose was lacking. He did hope however, that epidemiological and other types of aetiological research as well as evaluative study of the effects of differing methods on a variety of disorders will one day make this possible. Today 37th year later, Caplan's hope still remains largely unrealised. In fact, for a long time after Caplan's formulation of the principles and practice of Primary Prevention in Psychiatry, there was considerable lack of activity in the field till 1978. The president's Commission of Mental Health in U.S.A. (1978) stated in its report to the president: "At present our effort to prevent mental illness or to promote mental health are unstructured, unfocused and uncoordinated. They command few dollars, limited personnel, and little interest at levels, where resources are sufficient to achieve results...". Though considerable progress in activity was evidenced in subsequent years, in the preventive field in U.S.A., it was felt 8 years later that prevention has a long way to go to be accorded an equitable share, when the various mental health budgets are apportioned, and the concept of prevention is neither fully understood nor heartily endorsed by all decision makers (Goldstone, 1986).

Even today there is a feeling among many professionals that:

i) there are very few positive outcomes of any prevention programmes and that diversion of mental health funds to these programmes is unjustified (Lamb and Zusman, 1979).

ii) the rationale for techniques used, often rest on a flimsy theoretical and scientific base (Auerbach and Kilmann, 1977).

iii) Many of the models proposed have been too simplistic and or designed on the models utilised in the public health, like Smallpox vaccination or water-fluoridation. In trying to modify broad social variables, massive funds and resources have been poured into deprived social groups, suffering poverty and other disadvantages, with demonstrable benefits in preventing psychiatric disorders (Raphael, 1980).

In recent times, (APA 1980) there has also been a change in our approach to primary prevention. Until recently, for example, it was felt that any psychiatric disorder in a child was a distortion of normal development. Thus it was held, that if parents avoided being repressive, if they brought up their children according to the principles of Learning theory, the child would not develop significant psychopathology. However, the promises made in the early days...
would not develop significant psychopathology. However, the promises made in the early days of the mental hygiene movement, that mental illness would be eliminated by education about human relationships proved to be unredeemable, and some of the skepticism regarding primary prevention can be traced to early assertions that preventive interventions such as education, support and reasonable child-rearing practices would together prevent child psychopathology.

It is no longer believed that all individuals have a universal potential for disturbance. Some people are at substantially greater risk for specific disorders, than are other people. For the same reason, universal preventive interventions directed at an entire population like educating parents, providing more adequate schooling etc., while they may have their own intrinsic merits, have not been shown to effect the incidence of specific psychopathology.

With this shift in emphasis from community at large to specific high-risk groups as the target-group for interventions, the definition of Primary Prevention has also undergone a change. A pragmatic definition that best fits current usage is that by Goldston (1977). "Primary Prevention encompasses activities directed towards specifically identified vulnerable high-risk groups in the community, who have not been labelled psychiatrically ill, and for whom measures can be undertaken to avoid the onset of emotional disturbance and/or enhance their level of positive mental health". Mental Health Promotion, which is complementary to primary prevention seeks to contribute to better mental health rather than prevent a specific mental disorder and is thus a broader concept, and directed to the population at large, rather than to groups-at-risk alone.

CONCEPTUAL AND METHODOLOGICAL PROBLEMS IN PRIMARY PREVENTION RESEARCH:

1. A sound theoretical underpinning, to base the intervention - programmes on, is lacking. Caplan (1964) advocated crisis intervention as a model for non-specific programmes, in the belief that repeated maladjustive manner of handling life crises, might lead ultimately to psychiatric illness. Help with handling a crisis, in a healthy manner will, on the other hand prevent the emergence of psychiatric disorder. This belief is, however, not supported by clinical evidence, though crisis intervention has proved to be of value in handling different life-crises.

2. The aetiology of most psychiatric disorders is either unknown or multifactorial and hence preventive intervention, has to include a variety of approaches in the bio-psycho-social spectrum. Measures like the prompt and energetic treatment of organic disease like Pellagra and syphilis, to prevent Pellagra-Psychosis and General Paralysis of the Insane, respectively, avoiding birth injuries, and the use of alcohol and certain drugs in the early trimester of pregnancy, to avoid possible damage to the foetal brain are examples of specific biological interventions; but the scope for such interventions is rather limited in dealing with psychiatric disorders, because the disorders we most commonly deal with, are not "disease" caused by specific aetiological agents as in Medicine and Public Health. On the other hand, they constitute a heterogenous group, which includes, developmental anomalies and arrest, social deviance, mal-adaptive behaviour, psychological preverisions and problems etc.

3. In many instances, there is uncertainty as to whether an actual disorder is prevented
primary prevention) or whether the subject-at-risk has already started his decompensation (secondary prevention) and we are only arresting the progress of the disorder. This may be a vexing issue with reference to crisis-intervention where a person experiencing a measure crisis may be highly disorganised, with high level of anxiety, depression and inability to cope, - all possible symptoms of psychiatric illness, but falling short of the requisite criteria to be included in one of the identifiable disorders. Does one call this primary or secondary prevention?

4. There is the difficulty of demonstrating an effect, when diffuse factors are subjected to diffuse intervention with possibly diffuse effects.

5. There may be a long time-span between pathogenic influence and outcome requiring commitment of funds and personnel to long range goals, which may not be appropriate from the cost-benefit point of view.

6. There is also the problem of persuading "well-subjects" to get involved in intervention-programmes, apart from the issue of the risk of "self-fulfilling prophecy" of a pathological outcome when well-subjects are labelled at risk (Raphael, 1980).

7. Many techniques have a developmental, dynamic and interpersonal base and required trained personnel for their implementation.

8. There is the ethical problem associated with withholding interventions in the face of human distress, and contrarily, the equally real ethical problem associated with forcing well subjects to submit to painful risk intervention of unproven effectiveness to prevent something that may not occur.

9. Even in well-planned intervention studies, the results are not always easy to interpret and may actually be baffling. For example, In Leighton's (1987), stirling county study, the aim was to test the hypothesis, that socio-cultural disintegration, when extreme and prolonged, may result in psychosocial distress and negative effect on adaptive abilities and lead to mental illness, and that correcting the disintegration would help prevent psychiatric disorders. In the disintegrated settlement, chosen for the study, viz., "the road", the population suffered from numerous social deprivations like under-employment, illiteracy, hostile interpersonal relations, broken homes and weak social organisation and the prevalence of psychiatric disorders was significantly higher than in the more integrated areas. The remedial measures taken, included: increased social support, greater educational opportunities, increased economic resources and community development An epidemiologic study, conducted 10 years later, revealed that the prevalence-rate for psychiatric disorders in "The Road" was now quite comparable to that for the county as a whole.

To quote Leighton, "The most important thing about this case-study is obviously that it proves nothing. It was a single effort and the apparent support of the hypothesis could have been due to chance". Again, McCord (1978) undertook a thirty-year follow-up of the Cambridge-Somerville York study. Boys selected as at high-risk for delinquency, and 'average' boys were allocated (by toss of coin) to intervention and control groups. The boys, age ranged from 5 to 13 years, with the median age 10 1/2 years. Counsellors visited the boys in the intervention group on average, twice a month and additional interventions like tutoring, medical and psychiatric attention, and community involvement were also implemented. The average duration of intervention was 5 years. Follow-up compared 253 men each from intervention and control groups. The result were most disturbing. Not only did the programme fail to prevent its clients from committing crimes, but it also appeared to produce the following negative effects: Men who had been in the treatment programme were more likely
to commit (at least) a second crime. They were more likely to show signs of alcoholism, and mental illness. There may be many reasons for the adverse outcome, among which are: self-fulfilling prophecy, the implications of being on a welfare system, the interventions proving ineffective because of their diffuse nature etc., but the study has to say the least: embarassed the protagonists of primary prevention.

Prevention research in Psychiatry as pointed out by the APA Task Force (1990) has progressed substantially from assertions of causal relationships based solely on vague theoretical positions to hypotheses based on solid epidemiologic, prospective or longitudinal studies (APA Task Force 1990). There is also a developing concensus in the field that most disorders cannot be explained solely as the result of stresses imposed or normal

Table-1 : Population at-risk for psychiatric disorders

| Sl. No. | Population at-risk                          | Authors                      | Psychiatric disorders                                      |
|--------|---------------------------------------------|------------------------------|------------------------------------------------------------|
| 1.     | Hyperactive children                        | Gittleman et al. (1985)      | Anti-social personality disorder                            |
| 2.     | Conduct disorder of childhood patients      | Earls (1989)                 | Anti-social personality disorder                            |
| 3.     | Victims of family discord                   | Graham (1977)                | Conduct disorder of childhood, delinquency                 |
| 4.     | Children of patients of mental illness      | Rutter (1966)                | Childhood psychiatric disorder                              |
| 5.     | Victims of trauma                           | Rundell et al. (1989)        | Post traumatic stress disorder, depression, drug dependence, psychophysiological reactions |
| 6.     | Victims of terrorism                        | Weiner (1989)                | Depression, paranoid reaction, alcohol and drug dependence, psychophysiological reaction |
| 7.     | Victims of disasters                        | Weiner (1989)                | Post traumatic stress disorder, depression, panic disorder, alcohol and drug dependence |
| 8.     | The bereaved                               | Clayton et al. (1974)        | Depression, other psychiatric disorders                    |
| 9.     | Victims of stressful life events            | Cooke and Hole (1983)        | Psychiatric disorders                                       |
developmental processes. The emphasis has now, therefore, shifted to identifying populations at high-risk for specific disorders and planning appropriate interventions-programmes for them. The table below lists the several high-risk groups identified with reference to specific disorders.

A significant proportion of people who are at high-risk of becoming psychiatrically ill is constituted by those exposed to moderate or severe psychosocial stress, whether it be the devastating effect of natural or man made disasters or stress associated with day to day living. Studies of the victims of major catastrophes reveal that not all suffer damage. As many as 25% of the people exposed to civilian disasters or earthquakes of major proportion seem untouched, and function without discernible impairment (Tyhurs, 1957; Popovic and Petrovic, 1964). Another 25% of adults will succumb to acute Post-Traumatic Stress Disorders and the rest to major Depressions, Paranoid Disorders, Panic Disorders and Post-Traumatic stress disorder (chronic).

Systematic studies of the short-term and long-term effect of life-threatening and/or painful experiences are scarce and mostly confined to war-veterans. Following such experiences, people do not necessarily return to their previous state, as the principles laid down by Bernard and Cannon would predict, the experience is stored, and a re-organisation of the person occurs. In contrast to the stimuli that Selye called "non-specific", and the physiological responses to them which, he also believed, were general (i.e. non-specific), human beings respond psychobiologically in a specific and personalised manner, even to the most dire and overwhelming experiences. Although commonalities exist, variations in their responses are the rule, not the exception.

The central feature of the post-traumatic stress Disorder- both acute and chronic- is a flash back to the traumatic experience occurring during the working and/or sleep state. Any other current experience or event, even faintly reminiscent of the original, may invoke its memory. Such patients seem to be constantly hyper-vigilant. They may show memory disturbance to the point of amnesic and dissociative state. Personal relationships are altered; the world and people appear hostile, hasty or strange to the point of derealisation. The capacity for intimacy, tenderness and passion are lost. Irritation and anger are poorly controlled. These altered behaviour-patterns may be combined with guilt over survival, chronic anxiety, depression, suspiciousness. These patients are at high-risk for Depression, Drug-dependence, Alcohol-dependence and personality-Disorders and eminently qualify for preventive-interventions, if only because they are in intense emotional distress.

In an attempt to document the role of "stressful" life events in illness, a major effort has been made to quantify them with the aid of the Schedule of Recent Experience (S.R.E.) (Holmes and Rahe, 1967).

Cooke and Hole (1983), using psychiatric patients, found that 32 to 41% of psychiatric illness can be attributed to stressful life events. The correlations, in a large number of studies, between the incidence and prevalence of illnesses (including psychiatric ones) and life-change scores, though statistically reliable are still low (in the range of 0.2 to 0.3).

The low correlation between life-event and disease-onset, can be understood, if we realise that there are innumerable factors determining the effect of the life-change events on an individual's health, and these include:- the meaning of the event to the individual, his personality-profile, the quality and amount of social support available, age and the coping strategies employed - Hinkle (19774) found, in his study, that those who did not succumb to the
stress associated with life-events, were 'more content', fitted their environments, enjoyed their work and liked their families and associates. Leighton (1987) also found, in his own study that a capacity to find enjoyment, even under difficult circumstances seems to enhance other assets, to facilitate use of resources and mitigate the adverse effects of stress.

The SRE assigns the highest weighting to bereavements due to death of an intimate relative. Human relationships, it seems, are crucial to the maintenance of physical health and psychological well-being. Wolff et al. (1964), while studying parents of children who were dying of Leukemia, predicted that the more effectively a person defends himself against impending loss, the lower will be his mean 17-Hydroxy corticosteroid excretion-rate and his hypothesis was confirmed.

It has been reported that the health of about 67% of widows, declines within one year of bereavement (Parkes, 1972; Maddison, 1968). Major depressions are particularly frequent in bereaved persons. In one study, 45% became severely depressed within one year after the loss (Clayton et al., 1974). The bereaved would therefore, appear to be a very apt high-risk group for preventive interventions.

RESILIENCE AND PROTECTIVE MECHANISMS

A significant trend in current stress research is to learn more about psychosocial resilience and protective mechanisms (Rutter, 1987). We need to ask why and how some individuals manage to maintain high self-esteem and self-efficacy inspite of facing the same adversities that lead other people to give up and loose hope. This shift in focus has important indications for preventive interventions.

Rutter (1987) identifies four mechanisms that might act as predictors in protective processes viz., reduction of risk impact, reduction of negative chain reactions, establishment and maintenance of self-esteem and self-efficacy, and opening of opportunities.

Reduction of risk impact probably occurs via two different routes; alteration of the meaning or danger of the risk variable for the child; and alteration of the child’s exposure to or intimate involvement with the risk situation. The first route reflects the fact that most risk factors are not absolute that are independent of the person’s cognitive appraisal. For example, hospital admission constitutes a stress experience in early childhood, in part because it involves child’s separation from its parents, in part because of discontinuous care-giving provided in the hospital and in part because of the frightening nature of some of the hospital procedures. Very young infants are less at risk, probably because they lack established selective attachments that could be threatened by separation. School-age children are also less at risk, probably because they have the cognitive capacity to appreciate why admission is necessary. The riskiness of admission can be reduced by seeking to avoid hospitalisation during the period of greatest risk; by giving them appropriately graded experiences of happy separations in secure circumstances and by preparing them for the admission experiences (anticipatory guidance). Life involves unavoidable encounters with all forms of adversities and stressors. It is not realistic to suppose that children can be so sheltered that they can altogether avoid such encounters. Rather, protection may lie in "steeling" qualities that derive from successful coping with the hazards when the exposure is of a type and degree that is manageable in the context of the child’s capacities.
The second route to the reduction of risk-impact is through mechanisms that alter the child's exposure to the risk situation or which reduce involvement in its risky aspects. Thus Wilson (1980) found that strict parental supervision and regulation of children's peer group activities outside the home reduced the risk of delinquency for children reared in a high risk environment. It is also recognised that within the same family exposed to high-risk environment like parental depression or family discord, all children are not equally at risk. Children with "easy temperaments" are less likely than those with different ones to be scapegoated or become the targets for parental irritation. Children's own action in physically removing or emotionally distancing themselves from a bad situation may also be effective in reducing exposure to risk. For example, children reared by seriously mentally ill persons, may cope effectively by developing their emotional and social ties with other well-functioning family member and people outside the family and through their ability to accept that the poor relationships at home are a function or parental illness rather than any deficiency in themselves or malevolent feelings on the part of parents.

The second group of protective mechanisms concerns those that reduce the negative chain reactions that follow risk-exposure and which serve to perpetuate the risk-effect. Thus, the ill effects of parental loss in early childhood stem not only from the lack of affectionate care, but also from the institutionalisation that follows. This implies that protection would stem from support of the remaining parent or from the provision of high-quality alternative care that ensures continuity in relationships.

The available evidences suggests that it is protective to have a well-established feelings of ones own worth as a person together with faith and confidence in coping successfully with life's challenges. In this context, secure and harmonious love-relationships especially in childhood and successful accomplishment of tasks important to the individuals would appear to be important determinants. It must be borne in mind that self-esteem or self-efficacy are not fixed attributes of the individual; changes do take place as a result of new experiences, which may be viewed as potential turning points in peoples lives. Adolescence, with its challenges in love-relationships, and in personal autonomy, followed by work careers, marriage and parenting all provide possible turning points whereby success in the form of personal relationships or task accomplishments may change the life-course on to a more adaptive trajectory.

The operation of the last mechanism, viz., opening up opportunities is most clearly evident in the education process, when success in examinations provides a passport to higher education or the credentials for skilled jobs.

MODEL PROGRAMMES

It may be seen that there is an impressive fund of knowledge about populations at risk for specific psychiatric disorders, but the problem is planning appropriate intervention - strategies and outcome - evaluation studies, which are more difficult. The American Psychological Association Task Force, set up to identify model prevention programmes for high risk groups (Price et al., 1989), for example, invited submissions of model programmes from roughly 900 prevention researchers and practitioners in USA. Out of 300 submissions received, only 14 fulfilled the criteria for 'model programmes, viz., clear description of the group at risk, the emotional and behavioural condition to be prevented rationale for the intervention proposed, description of the actual intervention, specification of observable and measurable program-objectives, description of
programme, evaluation, monitoring and follow-up data, and the transferability of the intervention to other settings. To cite an illustrative programme, Davidson (1985) set out with the objective of providing an intervention for delinquent youths outside the Criminal Justice system, which will reduce the likelihood of recidivism. His target group was youths charged with offences against persons and property and referred by the Courts. Interventions consisted of trained selected, college-student volunteers working one-to-one with the youth for 18 weeks, 6 to 8 hours per week. Specific interventions included: behavioural contracting, relationship-building and youth advocacy within the family. The outcome was: significantly lower levels of recidivism as measured by court petitions 2-1/2 years after intervention. Successful programmes, according to the Task Force, have a number of common features like careful targeting of the population, the capacity to alter life-trajectory, the provision of social support, the teaching of social skills and rigorous evaluation of effectiveness.

Controlled evaluation-studies have shown that crisis-intervention can be of value in several high-risk groups like automobile-accident victims (Bordow and Porritt, 1979), recently bereaved widowed (Raphael, 1977), and rail-disaster victims (Singh and Raphael, 1978). In the spectrum of short-term treatments which extends from emergency psychiatric treatment at one pole to short-term dynamic psychotherapy at the other, crisis intervention lies between the extremes, learning towards one or other pole, depending upon the orientation of the practitioners and (hopefully) on the needs of the patient. It can be of value in dealing with several high-risk groups like victims of disasters, terrorism and rape, the bereaved, the suicidally prone and family in crises.

Health promotion is the other facet of Primary prevention, and is defined as "any combination of health education and related organisational, economic and environmental supports for individual or collective behaviour conducive to health" (Green and Jhonson, 1983). Two points worth noting about the definition, are: its focus on behavior and the inclusion of health education as necessary component, which reflects the recognition that people must actively accept the behaviour recommended if it is to be sustained over-time and integrated in one's life-style.

The importance of health promotion can be recognised, when we learn that 50% of all mortality in USA is due to unhealthy behaviour or life-style (Michael, 1982).

Health promotion can be carried out not only in medical care settings, but also in schools and work sites.

Traditional teaching methods in schools may not have effective influences on health-related behaviour and factual information alone may not have the desired impact. A study in Michigan evaluated effects of education about drug abuse for junior high school students. Result showed that the programme might have increased adolescence drug taking (Stuart, 1974).

More encouraging results for short-term behavior have emerged from recent experiments with non-traditional school programmes that are based on behavioral sciences theory and not limited by narrow curricular concepts. For example, in one study (McAlister et al., 1980), sixteen-year olds with diverse backgrounds led 12-year olds in learning sessions designed to encourage non-smoking behaviour and to train them in skills for resisting peer pressures towards smoking. The objectives of the programme were to influence perceptions of social desirability and to train the students in communication-skills, rather than convey facts about smoking and its hazards. A follow-up after two years showed that the non-traditional
Programme was associated with a decreased rate of smoking.

Programmes at work sites largely tend to be addressed to alcoholism, physical conditioning, blood pressure-control and coping with stress.

Mass media may be employed to help change consumer behavior in the matter of eating the right amount and categories of food, and in cessation of smoking and alcohol consumption.

Clinical psychologists are increasingly getting involved in Health promotion programmes using electromyographic data, hand-temperature, heart-rate and alpha-wave activity are being explored in the search for procedures for management of Anxiety-States (Gander and Montgomery, 1977). Type 'A' personality pattern has been shown to be a statistically significant predictor of Coronary Heart Disease (Rosenmann et al., 1975) and modification of the pattern has been attempted through Relaxation-Training and different forms of psychotherapy, to prevent the incidence of Coronary Artery Disease. Behavior-modification programmes have also been applied to the control of excessive drinking and smoking and for weight-control in the obese.

Meditation has been employed not only to facilitate relaxation-response (Benson et al., 1974), but also to promote emotional and spiritual growth (Bhaskaran, 1991). Studies of Seeman et al. (1974) and Venkatesh et al. (1989), show that meditators change more than control groups in the direction of positive mental health, positive personality-change and 'Self-Actualisation'. These changes include such elements as self-perceived increases in: the capacity for intimacy, spontaneity, self-regard, acceptance of aggression and inner-directedness. Regular practice of meditation, might, perhaps, aid in acquiring the capacity to find enjoyment even under adverse circumstances and feeling more contented, attributes identified by Leighton (1989) and Hinkle (1974) as mitigating the effects of stress and enhancing one's assets.

PRIMARY PSYCHIATRIC PREVENTION IN THE NATIONAL PERSPECTIVE

The crippling inadequacy of resources, both in terms of funds and trained professional personnel, make interventions on the basis of what little we know and conducting research in the field very difficult, in developing countries, including India. The goal for preventive intervention, namely identifying populations-at-risk and providing the needed services for them and Health Promotion are as valid for developing countries as they are for the developed countries. The differences are in the scale and degree of sophistication of operations, the populations-at-risk chosen for attention, and in methods employed to tackle the problem of manpower-shortage, especially in the rural areas. The National Mental Health Programme from India (DGHS, 1982) is based on the principles of decentralisation of mental health services and integrating delivering of mental health care with that of primary health care. What applies to remedial mental health services, naturally applies to preventive services also. The rudiments of preventive intervention may be incorporated into the training programmes for primary physicians, public health nurses, social workers and school-teachers. Similarly, programmes for community-education in Mental Health should include material on prevention. To overcome the problem of manpower shortage, the resources of numerous voluntary agencies engaged in services for the mentally disabled, in one way or another, among other things. Crisis-intervention services may be organised in general hospitals, and support, encouragement and consultation services...
extended to voluntary organisation offering crisis-counselling services.

Many Health Promotion programmes may be added on to the existing services in our institutions with only a marginal addition to the existing staff and other resources. Some example of such programmes are: Stress-Management, Social Skills Training to enhance personal competence, Behaviour Modification for stopping smoking and drinking, reducing weight and Health Education.

Pilot Intervention Programmes, on a modest scale, can be undertaken for specific high-risk groups like victims of natural disasters and of forced migration, multiple-problem.

Disasters take a heavy toll of human lives every year in addition to causing damage to property and livestock. According to information compiled by the WHO Collaborating Centre in Brussels, between the year of 1960 and 1989, India had suffered from 40 major accidents, 26 cyclones, 9 droughts, 19 epidemics, 8 earthquakes, 38 floods and 27 storms; as a result, nearly 1,50,000 were killed, 2,11,000 were injured and 1.75 billions were affected (Sudha, 1991). Disaster Psychiatry Services, capable of being mobilised at short notice, in addition to offering direct service to the affected, will also enable us to undertake a study of the short-term and long-term consequences of disaster-experience protective mechanisms in the relatively unaffected and the nature of the help needed by different groups. Similarly, the problem of migration has been with us since 1947 and the psychiatric effects associated with migration have been well-documented, but studies of the mental health needs of the migrate-population are scarce, if not non-existent.

It must also be realised, that there is considerable scope for preventive intervention in the course of our routine clinical work. Follow-up of those who attempt suicide, screening and follow-up of the close relatives of those who attempt and who commit suicide, screening of the family members or chronic schizophrenics, who are cared for at home for evidence of adverse effect on their physical and mental health etc are some example.

REFERENCES

Albee, G.W. (1982). Preventing psychopathology and promoting human potential. American Psychologist, 37, 1043-50.

APA Task Force on Prevention Research. (1990). American Journal of Psychiatry, 147, 12, 1701-1704.

Auerbach, S. and Kilmann, P. (1977). Crisis intervention: A Review of outcome research. Psychological Bulletin, 84, 1189-1217.

Bhaskaran, K. (1991). Meditation from a Mental Health perspective. Indian Journal of Psychiatry, 33, 87-95.

Benson, H., Beary, J.F. and Carol, M.P. (1974). The Relaxation Response. Psychiatry, 3, 97-98.

Bordow, S. and Pornitt, D. (1979). An experimental evaluation of crisis intervention. Social Science of Medicine, 13A, 251-256.

Bormstein, P.E.; Clayton, P.J.; Halikans, J.A.; Mauri, W.L. and Robins, F. (1973). The depression of widowhood after 13 months. British Journal of Psychiatry, 122, 561-566.

Caplan, G. (1964). Principles of preventive psychiatry. Basic books, USA.

Clayton, P.J.; Herjanic, M.; Murphy, G.E. and Woodruff, R. (1974). Mourning and depression. Their similarities and differences. Canadian Journal of Psychiatry, 19, 309-312.

Cooke, D.J. and hole, D.J. (1983). The aetiological importances of stressful life events. British Journal of Psychiatry, 143, 397-400.

Davidson, W.S.; Blakley, C.H.; Redver, R.; Mitchell, C.M. and Emsbof, J.G. (1985). Diversion of Juvenile Offenders: An experimental comparison. East Lansing, MI. Ecological Survey Programme, Michigan State University.

D.G.H.S. (1982). National Mental Health programme for India.

Earls, F. (1989). Epidemiology and Child Psychiatry: Entering the second phase. American Journal of Orthopsychiatry, 59, 279-284.
Gittelman, R.; Mannuzza, S. and Shankar, S. (1985). Hyperactive boys almost grown up. Psychiatric status. Archives of General Psychiatry, 42, 937-947.

Goldston, S.E. (1976). Defining Primary prevention: In: Albee, C.W. and Joffe, J. (Eds.), Primary Prevention of Psychopathology. Hanover, New Hampshire: University Press of New England.

Goldston, S.E. (1986). Primary prevention: Historical perspective and a blueprint for action. American Psychologist, 41, 4, 453-460.

Green, L.W. and Johnson, K.W. (1988). Health education and health promotion. In: Mechanic, D. (Ed.), Handbook of Health, Health care and the Health professions, p-744, New York: John Wiley and Sons.

Graham, P.J. (1977). Epidemiological approaches in child psychiatry. London: Academic Press.

Holmes, T.H. and Rahe, R.H. (1967). The social readjustment scale. Journal of Psychosomatic Research, 11, 213-218.

Hinkle, L.E. Jr. (1974). The effect of exposure to culture change, social change, and change in interpersonal relationships on health. In: B.S. Dohrenwend and B.P. Dohrenword (Eds.), Stressful life events - their nature and its effects. New York: Wiley.

Lamb, H.R. and Zusman, J. (1979). Primary prevention in perspective. American Journal of Psychiatry, 136, 1, 12-17.

Leighton, A. (1987). Primary prevention of psychiatric disorders. Acta Psychiatrica Scandinavia, 337, 78: 6-13.

McAllister, A.; Perry, C. and Killen, J. (1980). Pilot study of smoking, alcohol and drug abuse prevention. American Journal of Public Health, 70, 7, 719-721.

Michael, J.M. (1992). The second revolution of health - Health promotion and its environmental base. American Psychologist, 37, 936-941.

Mitchell, C.M. and Emshoff, J.G. (1985). Diversion of Juvenile Offenders: An experimental comparison east Lansing, MI. Ecological Survey Programme, Michigan State University.

McCord, J. (1978). A thirty year follow-up of treatment-effects. American Psychologist, 101, 141-148.

The President's Commission of Mental Health. (1978). Report to the President, Washington, DC, U.S. Gove. Printing Press.

Price, R.H.; Cowen, E.I.; Lorish, R.P. and Rasmus-Mckay, J. (1939). The Research for effective prevention programme: What we learnt along the way. American Journal of Orthopsychiatry, 59(1), 49-58.

Raphael, B. (1977). Primary prevention: Fact or fiction. Australian and New Zealand Journal of Psychiatry, 42, 163-174.

Rosenblum, S.I2. (1986). Primary Prevention: Historical perspective and a blueprint for action. American Psychologist, 41, 4, 453-460.

Rutter, M. (1966). Children of sick parents - An environmental and psychiatric study. Maudsley monograph 16, New York: Oxford University Press.

Rutter, M. (1977). Primary prevention: Historical perspective and a blueprint for action. American Psychologist, 41, 4, 453-460.

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. American Journal of Orthopsychiatry, 57, 3, 316-331.

Seeman, W.; Nidich, S. and Banta, T. (1974). Influence of transcendental meditation on a measure of self-actualisation. Journal of Counselling Psychology, 19, 184-187.

Singh, B.S. and Raphael, B. (1978). Mortality of the bereaved. A possible role for preventive psychiatry. Presented at the 15th Annual Congress of the Royal Australian and New Zealand College of Psychiatrists, Singapore, October, 1978.

Sudha, T.P. (1991). Looking back at disaster, Times of India, 10th April.

Stuart, R. (1974). Teaching fact about drugs: Pushing or preventing? Journal of Educational Psychology, 66, 189-201.

Tyhurst, J.S. (1957). Psychological and social aspects of civilian disaster. Canadian Medical Association Journal, 76, 385-393.

Ursin, H.; Baade, E. and Levine, S. (1973). Psychobiology of stress: A study of coping men. New York: Academic Press.

Venkatesh, S.; Catherine, J.; Murthy, H.N. and Desraju, T. (1989). Alternation of personality profile with yogic practices. Indian Journal of Psychology and Pharmacology, 33, 5.

Weiner, H. (1985). The concept of stress in the light of studies on disasters, unemployment and loss - A critical analysis in stress. In: Health and Disease (ed.) Zales, M.R., New York: Brunner.

Wilson, H. (1980). Parental Supervision: A neglected aspect of delinquency. British Journal of Criminology, 20, 203-235.

Wolff, C.T.; Friedman, S.B.; Hofer, M.A. and Mason, J.W. (1964). Relationship between psychological defenses and mean urinary 17-hydroxycorticosteroids excretion rates - A predictive study of parents with fatality of children. Psychosomatic Medicine, 26, 576-591.