MENTAL HEALTH AND PUBLIC HEALTH:

Some Methodological Issues

Dissertation Submitted to Jawaharlal Nehru University in Partial fulfilment of the Requirements for the Award of Degree of

MASTER OF PHILOSOPHY

RAKESH KUMAR MISHRA

Centre of Social Medicine and Community Health
School of Social Sciences
Jawaharlal Nehru University
New Delhi-110067
India
2003

CENTRE OF SOCIAL MEDICINE & COMMUNITY HEALTH
SCHOOL OF SOCIAL SCIENCES
JAWAHARLAL NEHRU UNIVERSITY
New Delhi-110067

Date: 21-7-2003

CERTIFICATE

This dissertation entitled **"MENTAL HEALTH AND PUBLIC HEALTH: SOME METHODOLOGICAL ISSUES"** *is submitted in partial fulfilment of six credits for the award of the degree of* **MASTER OF PHILOSOPHY (M.PHIL.)** *of the Jawaharlal Nehru University. This dissertation has not been submitted for the award of any other degree of this university or any other university and it is my original work.*

Rakesh Kumar Mishra
RAKESH KUMAR MISHRA

We recommend that this dissertation be placed before the examiners for evaluation

Rama V. Baru	[signature]	Ritu Priya
Dr. Rama V. Baru	**Dr. K. R. NAYAR**	**Dr. RITU PRIYA**
(Chairperson)	(supervisor)	(co-supervisor)
Chairperson Centre of Social Medicine & Community Health, SSS Jawaharlal Nehru University New Delhi-110067	Dr. K. R. NAYAR Associate Professor CSMCH, SSS Jawaharlal Nehru University New Delhi-110 067	Dr. Ritu Priya Assistant Professor Centre of Social Medicine & Community Health SSS Jawaharlal Nehru University New Delhi-110067

Tel. : (011) 6107676, 6167557/2420, 2492 Gram : JAYENU Fax : 91 (011) 6165886, 6198234

Dedicated To

My Parents

CONTENTS

ACKNOWLEDGEMENT

1.	INTRODUCTION	1-10
2.	EPIDEMIOLOGY AND MENTAL HEALTH	11-24
3.	PUBLIC MENTAL HEALTH	25-44
4.	REVIEW OF MENTAL HEALTH RESEARCH	45-85
5.	DISCUSSION AND CONCLUSION	86-102

BIBLIOGRAPHY		103-106
APPENDIX- I	LIST OF SELECTED CLINICAL BASED MENTAL HEALTH RESEARCH.	107-109
APPENDIX- II	LIST OF SELECTED PSYCHOSOCIAL BASED MENTAL HEALTH RESEARCH.	110-111

Acknowledgements

I owe my deep feelings of gratitude to Dr K Rajshekharan Nayar my supervisor for his erudite and meticulous guidance , unfailing support and encouragement . A lot of people have helped me in the study. Without their wholehearted support this study would not complete in this form.

I am very grateful to Dr .Imrana Quadeer for making me realise the complexity of this topics and provide me encouragement from the very beginning of my JNU days.

I wish to thank Dr Ritu Priya, and others faculty members, for sharing their repertoire of insightful information on this issues. I also obliged to Mrs Rastogi, Mrs Bhatia and Mr Dinesh for their valuable support. A whale of love and thanks to my friends.

I consider myself very fortunate to be here in the midst of these people.

Rakesh Kumar Mishraa

Chapter-1

INTRODUCTION

INTRODUCTION

Good health can fuel the engine of human and economic environment .An improvement in population health will add significant momentum to the forces of economic development and poverty reduction. The phenomenon of 'globalization of disease' has made the countries to pay more attention on the disease, which they believe would never touch them again. There is a sharp transition from communicable disease such as malaria, tuberculosis and leprosy to non-communicable diseases such as heart disease cancer, strokes and diabetes. Now developing countries are experiencing the double burden of disease i.e. one, which is caused by poverty, poor-water supply and sanitation and low standards of living and others, which is due to adopting similar life style as of developed world. WHO said that many of its member states are ill equipped and unprepared to cope with burden for neuro-psychiatric disorder is projected to increase to 15% by the year 2020 and this increase is proportionately larger than cardiovascular disease.[1]

In India, the magnitude of mental health morbidity is becoming as serious as tuberculosis, cancer or heart disease[2]. Individual with the poorest standard of living experience the highest rates of physical and psychiatric morbidity (Blaze et al 1994 & Meltzer et al1995)[3] independent of occupational social class (Davey Smith et al 1990,Weich & Lewis 1998)[4]. According to the recent report by the World Bank, World Development Report (1993) *"Investing In Health"* stated, "Mental disorders are responsible for at least 10% of the total burden of all diseases as measured by DALY's (Disability Adjusted Life Year"). Though there is a lot of problem regarding DALY's.. It quantifies not only the number of deaths but also the impact of premature death and disability on a population combining them into a single unit of measurement of the

1 Murray,CJ.&Lopez A.D. The Global Burden of Disease. A Comprehensive Assessment of Mortality & Disability from Disease Injuries & risk factor in 1990 & projected to 2020.Harvard school of Public Health, WHO and World Bank Boston p,325 1996.

2 Mental Health Advocacy and Science Development in West Bengal, project of the World Federation for Mental Health (WFMH)

3 Weich.S & Lewis .G (1998) Poverty Unemployment & Common Mental Disorder.Population Based Cohort Study ,British Medical Journal 317,115-119

4 Davey Smith G, Bartley M & Blane D (1990) The Black Report on Socioeconomic Inequalities in Health 10 years on. B.M.J. 301,373-377.

overall burden of disease. Instead of this it is being widely promoted as an epidemiological tool for assessing 'burden of disease"[5].

No Health without Mental Health

Health, as defined in WHO's constitution, is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.[6] This definition is considered to be an idealist goal, setting out the standard of positive health with due emphasis on the promotion and protection of health but this definition is failed to examine the relation of individual with the social environment. So by this definition health therefore is a dynamic concept and can be described as multidimensional process it means the number of dimensions contribute to positive health like Spiritual, Emotional, Behavioural and Cultural. It is unfortunate that people, when they talk about health; usually refer to it in physical terms only. Indians old scripture denoted health as a wealth. The Sanskrit word, "swastha" expresses it more elegantly as "one who is collected in self, calm, composed, healthy, at ease etc". The Urdu word "sehat" has a similar root in Arabic — "sehat", meaning "correct, exact, balanced etc. "If one has lost one's mental health — the capacity to work, to enjoy, to think clearly, to express emotion properly, — all things one has acquired are worthless and will bring no happiness.

How interesting it is that in spite of obvious importance of mental health, we have little concerned with mental health in life. Worse still is our attitude towards those who suffer from mental ill health. If someone has a physical illness like heart disease or injuries we rush to express our sympathy but if one has a mental illness like depression or schizophrenia, we tend to avoid one's company and often ridicule the symptoms denoting one's suffering.

It is time we re-examined our attitudes towards mental health and illness. Mental illnesses, including neuropsychiatrict disorders, now constitute one of the biggest causes of the total burden of disease in society. Almost every family has seen the suffering of some of its members due to psychological or emotional symptoms at

---

5 Priya, R. Disability Adjusted Life Years as a Tool for Public Health Policy: A Critical Assessment By Page 154-171). Qadeer.I.Sen,K.Nayar,K,R..Public Health and the Poverty of Reforms The South Asian Predicament. Sage Publication New Delhi

6 WHO " Health For All" Sr No.1 Geneva 1978

various stages in life. The economic loss to the nation and the personal suffering of the individuals and families are enormous. The sad part is that though good methods of treatment to reduce the suffering now exist, the majority of patients remain untreated and uncured for. The biggest barrier to the provision of proper services for the mentally ill is, of course, the stigma against mental disorders that exist in the mind of the lay public as well as medical professionals.

The 'Undefined And Hidden' Burden Of Mental Health Problems

The **Undefined Burden** of mental problems includes the economic and social burden for families, communities and countries. Though this burden has not been measured, because of the lack of epidemiological data and difficulties in quantifying, measuring and evaluating the data. Mental disorder affect the functioning and thinking processes of the people, affecting their emotional, socio-economic status, social role and productivity in the community. In addition, because mental illnesses are disabling and lost for many years, it exerts a huge burden on families and relatives, of patient, especially when the health system is unable to offer treatment and support at an early stage. Some of the specific economic and social costs include:

- lost production from premature deaths caused by suicide.
- lost production from people with mental illness who are unable to work, in the short, medium or long term;
- lost productivity from family members caring for the mentally-ill person;
- reduced productivity from people being ill while at work;
- cost of accidents by people who are psychologically disturbed, especially those people who have more responsibilities like train drivers, airline pilots, factory workers;
- supporting dependants of the mentally ill person;
- direct and indirect financial costs for families caring for the mentally-ill person;

- unemployment, alienation, deprivation and crime in young people whose childhood problems, e.g., depression, behaviour disorder, were not sufficiently well addressed,
- poor cognitive as well as social development in the children of mentally ill parents, and the
- Emotional burden and diminished quality of life for family members.

The Hidden Burden refers to the burden associated with stigma and violations of human rights and freedoms. Again, this burden is difficult to quantify. This is a major problem throughout the world, as many cases remain concealed and unreported Stigma can be defined as a mark of shame, disapproval, disgrace, and rejected by others. The stigma associated with all forms of mental illness is strong and increases when behaviour differs from the 'norm'.

Because of stigma, persons suffering from a mental illness are:

- often rejected by friends, relatives, neighbours and employers leading to the feelings of rejection, loneliness and depression;
- often denied equal participation in family life, normal social networks, and productive employment;
- Stigma has a detrimental effect on a mentally ill person's recovery, ability to find access to services, the type of treatment and level of support received and acceptance in the community;
- Rejection of people with mental illness also affects the family and caretakers of the mentally ill person and leads to isolation and humiliation; and
- A major cause of stigma associated with mental illness are the myths, misconceptions and negative stereotypes about mental illness held by many people in the community.

The stigma can be reduced by:

- Openly talking about mental illness in the community;
- Providing accurate information on the causes, prevalence, course and effects of mental illness;
- Countering the negative stereotypes and misconceptions surrounding mental illness;
- Providing support and treatment services that enable people suffering from a mental illness to participate fully in all aspects of community life;
- Ensuring the existence of legislation to reduce discrimination in the workplace, in access to health and social community services.

There is growing transition in the society and also in the disease pattern. Non-communicable diseases as major causes of death and disability are rapidly replacing the turmoil of communicable diseases. Health professionals have been preoccupied with mortality statistics that tells us only how people die. It is equally important to know how people live and how the total burden of disease, both of death

And disability is shared by society. Like physical illnesses mental disorder are common and cause a huge social burden in most countries.(World Bank1993& Ustun 1999)[7]. It causes extensive disability in rich and poor countries alike, and is increasing. For example, mental disorders (9.7 per cent) rank almost as high as cardiovascular diseases (10.5 per cent) in the total burden of diseases. (World Health Report – 1999). The global burden of disease study thus reveals the true magnitude of the long under-estimated impact of mental health problems. Mental disorders are projected to increase to 15 % of the global disease burden and depression could become the second leading cause in the disease burden after Ischaemic heart disease. The Global Burden of Disease Study has, therefore, been an eye-opener (and a mind-opener) for public health. Newer developments in neurosciences, and the Human Genome map has been meticulously worked out and it is becoming clearer how multiple genes, acting together along with environmental factors, are responsible for many of the well-known mental disorders. The modern brain-imaging (PET, CAT-Scan, MRI,) can now show how

---

[7] World Bank (1993) Development Report. Investing In Health , New York , Oxford Uni Press.
Ustun ,B,(1999) The Global Burden Of Mental Disorder.American Journal Of Public Health ,89,p1315-1318

changes occur response to our thinking, feeling and behaviour and how certain neural circuits fail to function in different disease conditions, how neurotransmitters (Dopamine Seretonin acetycolin) functions in normal and areas which consisted of Pharmacology and Psychology. In pharmacology a large number of anti-anxiety, anti-depressant, anti-psychotic and anti-epileptic drugs are using to treat mentally ill person. Good and cost-effective drug treatments are available for various kinds of depressive disorders, psychotic disorders including schizophrenia, anxiety and panic disorders, obsessive and phobic disorders, alcohol and drug dependence and so on. Psychological treatments like cognitive behavioural techniques an interpersonal therapy is effective in many conditions.

With these many people are now consider mental disorders are disorders and should not be viewed differently from other medical illnesses like diabetes and CHD. The WHO has given two important slogans:

Stop Exclusion:

There is no justification in ethics, science or society to exclude persons with a mental illness or a brain disorder from our communities. The better health-care system can lead the way. No rational exists for excluding mental health services from the general health-care system. The parity between mental health and physical health is vital.

2. Dare to care:

Don't fear those who are experiencing a mental illness. It has the impact on everyone so accept the challenge, myths and misconceptions. Now there is a tendency to experience and communicate psychological distress in form of physical illness and to seek medical help for them.[8]. Somatisation is common through out the world, many of the disturbed patients who are seeking services from health centers in different countries complained of physical rather than psychological distress. In low income countries where morbidity and mortality due to malnutrition and infectious diseases are very common, mental disorder despite epidemiological findings seem to be insignificant and unworthy of attention. As a result mental health and its services are not given its

---

[8] This is called Somatoform Disorders.

due priority. In countries like India poverty, inequality and gender[9] are significant factors contributing to mental illness. Patel studied to show the link between poverty, disability and depression in the Indian state of GOA. He found that 40% of adult attending PHC (primary health center) had a common mental disorder such as anxiety and depression.[10].

RATIONALE OF STUDY:

This study shall deal primarily with the mental dimension of health since it is the "Mind" which is the only controlling and directing force of one's entire life and activity. Every health disorder is affected directly or indirectly by psychological factors. It is truly said that mind matters most. I saw an old issue of WHO health magazine that said the following "Great numbers of mentally ill still live, shut away behind hopeless walls by the prejudices and incomprehension of society. The mentally ill people are like other sick people, who can be cured, this means there is no fear for madness. It is conquered so all the influential members of the social hierarchy do not understand that mental health is not only the business of specialists but must concern the whole community".

In this Dissertation we look at the mental health as a public health perspectives. It also provides critical view of relevant issues in published and selected journals of India and abroad. Through this work we will be able to understand the conceptual and methodological issue related to mental health as a programmed. This will also help us to understand in which areas mental health research is necessary.

In our country district mental health programmed (DMHP) with a community-based approach was launched under the NMHP (National Mental Health Programme) in 1996-97. This was started on a pilot basis in 4 districts, one each in the state of Andhra Pradesh Assam, Rajasthan and Tamilnadu, and now it is currently under implementation in 19 districts covering 22 states and UT's in the country. It is important to understand the prominent research pattern before the launching of program and after the launching of program. Are published research papers going in

---

9 Davar B. The Mental Health of Indian Women: A Feminist Agenda. New Delhi: Sage (India); 1999

10 Patel ,V Pereira J,Coutinho,L,Fernando,R.etal Poverty,Psychological disorder and Disability in primary care attenders in Goa ,India .British Journal Of Psychiatry 1998,171: 533-536.

the direction of our NMHP and policy or it following the route of western interest areas?

It became apparent that the leading cause of death was no longer acute infectious diseases, but had been replaced by chronic illness, which were closely related to particular types of individual behaviour and lifestyles that developed with the rapid changes in society. In an Epidemiology study conducted in North India Garg, V.N.Mishra, Bhatnagar, R.B.Singh, B.Srivastava (1988) found that 59% of total sick population in rural areas was suffering from chronic diseases. A number of these chronic diseases are frequently associated with personality characteristics, attitudes and lifestyle of the people [11]. The other motivating factor behind this work was my educational background of psychology.

OBJECTIVE OF THE STUDY:

Objectives of the study are as follow:

1. To understand mental health in a public health perspective
2. To review the Indian mental health research
3. To know the compatibility between program and research

METHODOLOGY:

A well-designed study must address issues of timing, sampling, measurement and interpretation of data with special care. Some studies were done targeted either the small population or the non-student youth and general population. However if one looks carefully into the methodology and main findings of individual studies, one is immediately struck by the large variation in the prevalence of disease. It is evident that methodological issues and considerations are important in planning a worthwhile study not only to make results meaningful and valid but also to guide policy makers to formulate effectively intervention and preventive strategies. An acceptable methodology would also help in meeting the need of comparability of information on mental health.

---

[11] Garg ,S.K. Mishra,V.N. Bhatnagar, M ,Singh,R.B.Srivastava,B & Garg,A. (1988) Chronic Illness Among Rural Population . Indian Journal of Medical Sciences, 42,60-63.

Until recent years, it has been the tendency for each investigator to develop and use own instrument and methods for assessing mental health. For this reason alone, it has not been possible to compare results of studies from different countries and it is rarely possible to compare the results of studies for investigators within the same country. Such comparisons are important for planners and policy makers, who must examine trends overtime in order to assess the effectiveness of legal, educational and treatment programs. Here in this dissertation this is the relevance of discussing methodological issues. These will now be elaborated under three major headings-

(1) Sampling considerations

(2) Data collection considerations

(3) Administrative considerations.

Methodological question is relevant to the evolution and interpretation of data. We have to discuss some methodological issues in the study of mental illness, because methodological questions are relevant to the evaluation and interpretation of data concerning various forces affecting the occurrence of psychopathology.

A retrospective methodological review of all research from 1991 to 2002 was conducted mainly by the following journals:

- Indian Journal of Psychiatry,
- American Journal of Psychiatry,
- Acta Psychiatrica Scandinavia,
- British Journal of Psychiatry,
- Indian Journal of clinical psychology.
- Indian Journal of Social Work.

The rationale for selection of these journals was that these were all high impact renowned psychiatric journals. The study has also largely relied upon various others secondary sources like books, government reports, and articles published in non psychiatric journals.

We analysed the research which had done by Indian researchers viewing the context of India The logic behind this is, to see the current research pattern in the area of mental health. By this we can see that either the studies are going in the direction of people's felt need, sociocultural rationality & mental health policy framework or inclined to promote ongoing research into the causes and treatment of mental disorder. There is a need for psychiatric research, which reflects the diverse realities of the health systems and cultural factors. It is crucial to find out whether research is to inform local health policy and practice or just replication of western ideas and concerns. .

Limitations of Study:

We mainly reviewed the work of Indian mental health professionals and scholars. Because of time constraints it would not possible to review all the researches so the research that had done before and after five year of DMHP (1996) was being chosen. The selected study characterized on the basis of two approaches, (Biological based, & Psycho-Sociological based) which were mostly used in the treatment of this illness. In the selection process very few articles of Indian researchers had found in the renowned international journals and literature. Despite the growing recognition of the global burden of psychiatric disease, there are very low representations of articles by Indian researchers in high -impact journals. The possible reason were low submission rates, lower quality of submitted paper, poor research design and methodology and opportunities for training and supervision in research are very limited.. These reasons suggest that there is a need for systemic mental health research in our country.

Chapterisation:

This dissertation consists of three main chapters followed by introduction and conclusion. The first chapter deals with the epidemiology and mental health. In this chapter we discuss the conceptual issues and concerns related to the epidemiology of mental health. The second chapter gives a broad perspective of public mental health. In this chapter the basic focus is on the understanding of mental health as a public health problem. The third chapter provides the methodological critics on the selected research and provides some conclusion, which has emerged from selected research. Finally last chapter deals with the conclusion and discussion based on the review of studies.

Chapter-2

EPIDEMIOLOGY AND MENTAL HEALTH

EPIDEMIOLOGY AND HEALTH

The relationship among disease, urbanization, living condition and daily hassles is well known. The socio-political & socio-economic events are also responsible for the developme of Epidemiology, Sociology, Geography, and Psychology Anthropology. Traditionally epidemiology has been associated with disease prevention. The Oxford dictionary[12] defines epidemiology as "that branch of medical science which treats epidemics". The term epidemic means *acute outbreak of infectious disease.* The roots of today's epidemiology can be detected in the work of William Farr, who established a tradition of careful application of vital data to problem of public health & other broad public concern. Vischow and Max Von Pettenkofer in Germany Francois Melier and Louis Rene Villereme in France and William P. Alison in Scotland exposed the deficiency of the Sanitary Reform approach and emphasized that poverty and destitution were the primary sources of disease. Edwin Chadwick's investigation published in 1842 as "The Sanitary conditions of the Laboring population of Great Britain[13] illustrated the close relationship between sanitary reform and disease[14]. Friedrich Engels in his condition of the Working class in England published in 1844 reversed Chadwick's causal order to show that poverty caused disease. Like other Engel saw health as a social and political value in its own right.

There may be some disagreement that epidemiology is a science or simply a method.[15] Most modern epidemiologists consider themselves as biomedical scientists investigating "particular paradigm i.e. the interaction of hosts, environment and agent to explain the occurrence of disease in populations. There is no confusion regarding the contribution and importance of epidemiology. It is reflected in a common definition of epidemiology, "the study of the distribution and the determinants of disease frequency

---

12 The compact edition of the Oxford Eng. Dic. (1971): Oxford University Press, Glasgow

13 E.Chadwick (1842) Reporton sanitary condition of the Laboufing population of Great Britain 1842 cited in L. Doyal op.. cit. pg. 149.

14 F. Engles cited in M. Susser (1974): Ethical Components in The Definition of Health" International journal of health services vol.4 , pg. 539-548.

15 D. Rath (1976) :The Scientific Basis of Epidemiology. An Historical and philosophical enquiry cited in w. Winkelstein Jr (2000) Interface of Epidemiology and History : A Commentary on Past, Present, Future, Epidemiology, Review, Vol.22pp 2-6.

in human populations".[16]It is the health science, which describes health and disease in populations rather than individuals. So population perspective to the study of health and disease is the key feature of epidemiology. The dominant paradigm of epidemiology is as an inductive science. In the dominant practice of epidemiology, the causal concept is essentially a reductionistic, mechanical one. Thus epidemiology as presently constituted to face up to the question of how to promote health at the most basic & essential levels. Epidemiology is a discipline, which is concerned with health and its maintenance in a population. By definition it is interdisciplinary in nature and calls for skills beyond disciplinary regimes, which many social science approaches fall short of, whether in sociology, anthropology, as psychology. In disease centric epidemiology, social factors are hardly used in conceptual frameworks. So the role of social sciences in health was however to provide explanations and offer solution in the practice of medicine.

Hence epidemiology is the study of the distribution and determinants of disease frequency in population. The two main concept distribution & determinants give the description and explanatory part of any disease. The predominant purpose of epidemiology is the search for causal association between disease and environmental exposure.

Epidemiological Transition:

Epidemiological transition could be influenced by three factors:

1. This could be due to changes in the age structure of the population consequent to demographic transition

2. Altered disease pattern could be consequent to changes in resistance and exposure potentials to disease causing organisms or lifestyles.

3. Introduction of new health intervention..

The so-called "new" epidemic diseases have emerged with profound impact on populations. The new millennium commenced with a great pandemic of new disease,

[16] B. Mac Mohan and D. Trichopoulous (1997): Epidemiology : Principles and Methods, Pub, Little Broun and Company Inc. Boston.

such as; AIDS and MENTAL HEALTH, which affected the population of world and disrupted the health and disease, care resources of many other. In third world country resurgence of old diseases such as malaria and tuberculosis, have shown in addition to these new diseases.

From an epidemiological viewpoint important aspects of Industrial Revolution impacted most prominently on health of population as the form of urbanization, acculturation, alienation and deprivation. These growing realities have been responsible for crowded, insanitary condition of the slum resulted in the repeated attacks of cholera, typhoid fever and small pox in epidemic forms. The popularity of the miasmatic (the idea that epidemic outbreaks of infections disease were caused by the atmosphere) and contagion approach in epidemiology (the idea that specific contagion are the sole cause of infections and epidemic diseases) explains the main source of disease in population.[17] So from above description two fundamental ideas of epidemiologic have emerged:

1). Recognition of the influence of the environment and

2). The utility of a population level of analysis.

The field of statistics and the subsequent growth of biostatistics appeared to have been particularly important factors in the emergence of systematic epidemiology. "The use of quantitative reasoning and statistics is an inherent aspect of epidemiologic thought. The progress of epidemiology has been closely allied to the development and availability of statistical data and quantitative reasoning. Epidemiology contributes in the rationale for public health policies and services. It has also importance in the evaluation research.

The successful eradication of smallpox and elimination of Guinea warm disease are undisputedly major Public health achievements in India. However like many other developing countries, India still has a large burden of diseases that were dominated in the pre-transition period, including infections diseases, maternal and prenatal disorder

---

[17] A.M. Lilienfeld and D. E. Lilienfeld (1977) "what Else is New? An Historical Excursion" American Journal of Epidemiology, Vol.105, pp 169-179.

and nutritional deficiencies while the emergence of new disease patterns are adding to the disease burden.

It is high time to start proper and large-scale national level epidemiological studies in India with proper methodology and adequate funding. The majority of epidemiology studies specifically focusing on mental health were conducted in the 1970's. The impetus for this was increased awareness about mental health at professional, academic and policy-making level, as well as availability of funded projects from sponsoring agencies such as WHO, ICMR and various ministries of Government of India.

We have to see the epidemiology of mental health in Indian context, where a lot of distinct caste and culture groups exist, having different physical appearance, self-identification, sense of belonging, values, attitudes, language, behaviour and knowledge of ethnic group history. We have to encourage the use of potentially powerful epidemiological methods for investigating diseases in population, and avoid inaccurate, misleading or even dangerous conclusions. Epidemiology by definition is the study of disease in populations. Variations in rates of disease across and within population have given important etiological clues to our understanding of mental diseases.

Cultural differences are clearly of importance in many aspects of mental health and illness. Researchers should therefore explain the need for measuring culture in their hypotheses in a way that allows a valid interpretation of their findings and avoids bias and prejudicial intent. Psychiatric research has to be especially sensitive, for the stigma of mental illness and it can't diverse itself from the social impact of its findings since biological or genetic explanation for ethnic differences can be used to rationalize or justify inequalities.

Epidemiology and Mental Health :

Mental ill health has been considered as the "bottom of the medical pecking order" worldwide. Only most severe cases such as schizophrenia receive the minimal health care in developed countries. World is changing at a fast pace. Due to rapid growth in many societies social transformations, changes in the quality of life and human potential are visible. But there is a down side to these improvements along with

increase in life expectancy. An increase has also led to depression, schizophrenia, dementia and other forms of chronic mental illness.

This chapter covers the epidemiological estimate of mental health and mental illness in the world as well as in India. There are no recent studies in India, on the extent of common mental disorders (CMD). The National Human Rights Report 2000 stated that nearly 20 to 30 million people 'appear to need some form of mental health care' -- about 20-30 percent of the population .In 1996, mental health problems were estimated to represent at least 10% of the global burden of disease. This is larger than burden of disease due to hypertension, arthritis and diabetes.[18]

Estimates may be able to show that mental health is a growing public problem. WHO report 2001 showed that 1 in every 4 suffers from mental health problem. Around 450 million people currently suffer from mental or neurological disorders. Major depression affects 121 million, which is a leading cause of disability. It ranked 4 among top ten leading cause of global burden of disease. To show the impact of neuro-psychiatric disease in terms of DALY loss in India and world wide the estimation is 6.1% and 6.8% loss. In India the distribution of DALY loss due to communicable disease such as STD and HIV, Malaria, Worm infection and Maternal causes, is equal to DALY loss due to neuropsychiatrc disease.[19]

---

[18] Source:adapted from Murray and Lopez,1996

[19] Source: No Author(1993),World Development Report 1993;Investing in Health ,NewYork: Oxford Uni, Press (for the World Bank)

The Leading causes of disability in the world 1990[20]

All Causes	Total DALYs(million)	Percent of total
Unipolar major depression	50.8	10.7
Iron deficiency anaemia	22	4.7
Falls	22	4.6
Alcohol use	15.8	3.3
Chronic obstructive pulmonary disease	14.7	3.1
Bipolar disorder	14.1	3.0
Congenital anomalies	13.5	2.9
Osteoarthritis	13.3	2.8
Schizopherenia	12.1	2.6
Obsessive-compulsive disorder	10.2	2.2

[20] Same as above.

Distribution of DALY loss by cause and demorgraphic Region,1990[21] (percent)

Established cause	World	India	Market economics
Population(million)	5,267	850	798
Communicable disease	45.8	50.5	9.7
Tuberculosis	3.4	3.7	0.2
STDs and HIV	3.8	2.7	3.4
Diarrhea	7.3	9.6	0.3
Malaria	2.6	0.3	**
Respiratory infection	9.0	10.9	2.6
Maternl causes	2.2	2.7	0.6
Other	3.5	4.0	0.5
Noncommunicable diseases	42.2	40.4	78.4
Cancer	5.8	4.1	19.1
Nutritional deficiencies	3.9	6.2	1.7
Neuropsychiatric disease	6.8	6.1	15.0
Ischemic heart disease	3.1	2.8	10.0
Pulmonary obstruction	1.3	0.6	1.7
Other	18.0	18.5	25.6
Injuries	11.9	9.1	11.9
Millions of DALYs	1362	292	94
DALYs per 1000 population	259	344	117

** Less than 0.05%

Note: DALY,(disability-adjusted life year) STD(sexually transmitted disease) HIV(human immuno-deficiency virus).

It is not easy to tame mental health like other diseases. WHO global perspective on mental health (1999) stated those mental disorders account for 12% of burden of all diseases. This share was greater in high-income countries (23%) than in middle-income countries (11%). This overall figure is expected to increase up to 15%

[21] Source: No Author(1993),World Development Report (1993); Investing in Health ,NewYork: Oxford Uni, Press (for the World Bank)

over the next 20 years. By 2020 major depression is projected to occupy second in leading cause of global burden of disease. It causes human suffering, disability, increase risk of social exclusion, increase mortality and have an impact on social cost. This is a reality that one-third of the world population has no access to even the most basic services. A popular misconception is that mental illnesses are in a lower priority because they are not so serious to human health compared to other disease. But some evidences that it causes more disability than other diseases have proved it[22]. It is responsible for 21.8% total disability in the ten leading causes of disability throughout the world.

There is also evidence that mental illness also adds to the mortality figure. A study has done in Indian settings; found that schizophrenia causes death among long-term patients. The high rate of mortality among patients with a poor 2-year course is alarming.[23] Some other researches have done by Simpson & Tsuang, 1996;Ringback etal, 1998 in industrialized settings found mortality in schizophrenia.[24]. The risk of death by suicide in persons with depression or substance abuse is well described (Gelder et al 1989). In India, for example the suicide rate increased by 6.2 % per annum between 1980 and 1990. The highest growth in suicide rates was for young adults (Shah 1996). The risk of premature death is higher in psychiatric patients than in general population (Amaddeo 95, Soheman and Lentinen 99). Recent data it has stated that in India over 90,000 people commit suicide each year (National Crime Research Bureau, GOI 1994).

Common mental disorder (CMD) are disorder characterized by the presentation of nonspecific, multiple somatic symptoms, sleep disturbance, psychological symptoms of anxiety and depression. CMD are amongst the most frequent and most disabling of all disorder encountered in primary care. (Ormel et al 1994)[25]. Recent data estimated that more than 400 million people globally are suffering from anxiety disorders and

---

22 Source: adapted from Murray and Lopez,1996

23 Verma.K., Malhotra.S, Misra.K.and Wig.N.N Mortality and Longterm Course in Schizophrenia With a Poor 2-year Course. A Study In Developing Country. British Journal Of Psychiatry(2001),178,71-75.

24 Ringback Weitoft,G.Gullberg.A.&Rosen.M.(1998) Avoidable mortality among psychiatry patients. Social Psychiatry and Psychiatric Epidemiology,33.430-437.
Simpson,J.C.&Tsuang,M.T.(1996)Mortality Among Patients With schizophrenia. Schizophrenia Bulletin,22.485-499.

25 Ormel J Vonkorff ,M Ustun Pini.S. Karten .Oldeninkel T (1994) Common Mental Disorder & Disability across culture.JAMA 272, 1742-48.

another 340 million from mood disorder including depression.[26] Psychiatric morbidity can be detected in up to half of adult primary health care (PHC) attenders in India. (Shamasundar et al 1986 & Sen 1987)[27]

National prevalence rates for all mental disorders[28] (all india rate/1000 population)

	Rural	Urban	Rural and Urban
Median	70.5	73	73
Range	18-142	25-207	18-207
N	6	9	15

Rural/urban Ratio = 100:103.5

For the good and effective implementation of NMHP (1982) we have to estimate the prevalence of mental disorder of this country. This data will definitely help not only to give the understanding of mental health status but also will be useful in planning for prevention and treatment of disorders. The Bhore Committee Report[29] (1946) follows –"even if the proportion for mental patients be taken as 2 per thousand populations in India, hospital accommodation should be available for a little over 10000 beds for the country as a whole. In India the existing number of mental hospital beds is in the ratio of one bed to about 40000 of the population while in England, the corresponding ratio is approximately one bed to 300 population".

Again in 1966, the mental health advisory committee of Government Of India suggested a probable prevalence of mental illness of 10 per 1000 population in general, 18 per 1000 for semi rural and 14 per 1000 for rural areas (Elnaggar etal 1971).[30] A meta

---

26 Women of South East Asia –A Health Profile 2000.

27 Shamasundra, C.Krishnamurty ,S.Prakash,O. Prabhakar &Subbakrishna,D.(1986)Psychiatric Morbidity in a General practices in an Indian city.BMJ 292 1713-1715.
Sen ,B. 1987 Psychritic phenomena in primary health care : their extent and nature.Indian Journal Of Psychiatry,29,33-40.

28 Same as footnotes of 21.

29 Government of India (1946) Report of health survey and Development, Committee (bhare Committee) Vol 111. Appendix Government Of India, New Delhi-75

30 Elanaggar M. N. , Moitra, P and Rao M.N. (1971) Mental health in an Indian rural community ,British Journal of Psychiatry, 118, 499-503.

analysis (1998) of 13 psychiatric epidemiological studies carried out in different parts of the country reported an overall prevalence rate of mental health problems (minor and major combined) of 51.9 per 1000 pop in men and 64.8 per 1000 population in women. The difference was statistically significant (Pl.001).[31] H.C. Ganguli analyzed 15 Indian epidemiological studies on psychiatric morbidity and provided all-Indian prevalence rates for "all mental disorders" and 5 specific disorders.[32] The national prevalence rate for all mental "disorders" arrived at 70.5 (rural) 73 (urban) and 73 (rural and urban) per 1000 population. Prevalence of schizophrenia is 2.5/100 and this seems to be the only disorder where prevalence is consistent across cultures and over time. Uttar Pradesh has the lowest total morbidity, (44.1/1000) while West Bengal has the highest morbidity rate116.4. Urban morbidity in India is 3.5% higher than rural rate. The high-risk groups was housewives, the unemployed, factory worker and the elderly.

A community based study that has been done in rural area in Kerala, out of 1094 household surveyed (having a population of 5284) 77 individuals were found to have priority psychiatric disorders giving a prevalence rate of 14.57 per thousand. Female and lower SES in general showed increased mental morbidity.[33] So the prevalence rate of schizophrenia is 3.6 per thousand while affective disorders is 3 per thousand. This value is high when compared to the similar studies in rural areas. Dube (1970) Verghose et al (19j73) and Metha et al 1985 Reported lower values. In Schizophrena and Dube (1970) verghose et al (1985) have found very low figures in affective disorders While Nandi et al (1979) and Sachdev et al (1986) reported higher figures.

Various epidemiological surveys conducted in our country revealed that about 10 per thousand in any community have severe psychiatric morbidity, which requires active treatment (Sethi etal 1967, Verghese etal 1973). The prevalence rate of present only is 14.57 per thousand is within the range of other studies donein rural area (Dube 1970, sethi etal 1972, Nandietal 1979). Mehta et al (1985) studied the prevalence rate of

---

31 Reddy MV, Chandraskhar C.R. Prevalence of Mental and Behavioural disorder in India . A meta analysis Indian Journal of Psychiatry (1998, 4oc3) 149-57.

32 H C Ganguli- Epidemiological findings on Prevalence of mental disorders in India , 1 Journal of Psychology 2000 43c1) 14-20.

33 Prevalence of Priority Psychiatric Disorders in a rural area in Kerala, in Shajis, Verahere Abraham K. Promodu, Berry George, VP Shibu, India J. Psychiat 1995 ,3732(91-96)

priority psychiatric disorders in a rural area in Tamilnadu and found it be 14.5 per thousand. Sachdev et al (1986) reported a prevalence rate of 22.12 per thousand in an epidemiological study of psychiatric disorder in rural Faridkot (Punjab). Females tend to have higher rates for mental disorders than males on an average about 1.5 times. Examples of male-female ratio are in West Bengal- 1:1.7 and 1:1.2 (Nandki and others 1975,79), in Gujarat-1:1.4 (shah-1980), Tamilnadu 1:1.2 (Vergherc,1973), Pondicherry-1:1.3 Premrojan, 1993), in UttarPradesh-1:2 (Dube 1970. Sethi and others 1967).

National prevalence rates for five mental disorders (rate / 1000, median, range and no of studies)[34]

Mental disorder	Rural	Urban	Rural & Urban
Schizophrenia	3.6	2.5	2.5 1.1-14.2 N=13
Affective disorder-Depression (Psychotic and Neurotic)	37.4	33.7	34 0.5-5.3 N=15
Anxiety Neurosis	15	16	16.5 11-70 N=8
Hysteria	7	3.1	3.3 2.5-17 N=17
Mental Retardation	3.7	9	5.3 1.4-25.3 N=10

Th-10718

34 H.C. Ganguli : Epidemiological Findings on Prevelence of Mental Disorder in India.Indian Journal of Psychiatry.2000,42 (1) 14-20.

Prevalence of schizophrenia:

Author/year	Area	Sample size	Rate/1000
*Dube&kumar**	*mixed*	2,9468	1.49
*Nandi et al***	*rural*	1,060	2.8
*ICMR****	*rural*	146,380	2.2
Verghese et al @	*urban*	1,887	2.6
Padmavati et al $	*urban*	101,229	2.5

* Dube,K.C. and Kumar,N.An epidemiological study of schizophrenia. Journal of Biosocial and Sciences 4:87,1972

** Nandi,D.N,. Agmany,S Ganguly,H Bannerjee,G ,Boral,G.C, Ghosh,A.and Sarkar,S. Psychiatric disorder in rural community in West Bengal-An Epidemiological study .Indian Journal of Psychiatry 17;87,1975

*** Collaborative Study on Severe Mental Morbidity,Report of an ICMR-DST Task Force Study. Indian Council of Medical Research and Department of Science and Technology, New Delhi,1987

@ Verghese,A.,Beg,A.,Senseman,L,A.,Rao,S.S.S.and Benjamin, V. A Social and psychiatric study of a representative group of families in Vellore town .Indian J Med Res 61 :609,1973

$ Padmavati.R, Rajkumar.S, Kumar,N.Manoharan,A. and Kamath,S. Prevalence of schizophrenia in an urban community in Madras. Indian Journal of Psychiatry 31:233,1985

At last the general principles in epidemiology is to determine the distribution of a given disorder in a population and the factors that influence that distribution. Epidemiological studies provide statistical correlation between social variables and the frequency of mental illness .It has been defined as the science of counting. The goal of epidemiological study is to conceptualize, operationalize, and test the association

between aspects of the social environment (family, workplace, home, neighborhood, political economic aspect) and population health and also to identify correlates of disease, to test causal mechanisms, to prevent illness or reduce the burden of disease

But there are a number of limitations in epidemiological studies like:

1. It provides only descriptive and not explanatory data. In India a comprehensive resource base of epidemiological surveys is lacking.
2. Sampling analysis, Data tabulation and others methodological issues like case detection, questionnaires, schedules and test should be standardized.
3. Psychosomatic disorders have not been included in epidemiological data.
4. Epidemiological studies are time consuming and have a lot of information and data.
5. Secondary analysis and evaluation of epidemiological data reveals that information about gender was underscored. Gender has to be given some importance, taking gender relevant information, and making other independent association with variables such as marriage, poverty, age, education etc.
6. The methodology and reporting of epidemiological studies may need standardisation before comprehensive systematic reviews and meta-analyses of the literature can be carried out.

Most of the Indian epidemiological studies have been done on hospital sample and not community based sample. This raises some question about the validity of this data. Utilization data can not be treated as prevalence data especially in the Indian context where cultural, gender, class, caste parity have played a prominent role in accessing the hospital services. Epidemiological studies in India should be based on testing medically and socially useful hypothesis. In the Indian context clinical epidemiological research cannot provide insight. Social epidemiological research should be done which raises question about differences in morbidity and mortality by gender, age, socioeconomic status (SES), caste and class.

Psychiatric Field Surveys In India[35]

Investigator	Centre U/R	Total Sample Size	Rates /1000	Psychosis	Neurosis
SURYA(64)	PONDICHERRY (U)	2731	9.5	3.7	5.0
SETHIetal (67)	LUCKNOW(U)	1733	72.7	4.0	24.2
GANGULI(68)	DELHI(U)	327	140	3.06	125.4
GOPINATH(68)	BANGALORE(R)	423	16.54	7.0	**
DUBE (70)	AGRA (MIX)	29468	17.99	2.64	0.4
ELNAGAR(71)	HOOGLY(R)	1383	27	7.2	1.4
SETHI (72)	LUCKNOW(R)	2691	39.4	1.1	5.2
KAPUR (73)	KOTA (KR)(R)	1233	369	8.1	200
VARGHESE (73)	VELLORE (U)	1887	66.5	5.7	47.6
SETHI (74)	LUCKNOW (U)	481	67	10.3	27.1
NANDI (80)	WEST BENGAL(R)	1060	102.8	40.5	35.8
THACORE (75)	LUCKNOW (U)	2696	82	4.0	20
NANDI (80)	WEST BENGAL (U)	647	207.1	34	165.3
	(R)	1225	88.8	43.2	24.5
SHAH (80)	AHMEDABAD (U)	2712	47.2	16.3	21.4
ISAAC&KAPUR (80)	BANGALORE(R)	4209	81.8	10.5	------
BHIDE (82)	OOTACAMAND(R)	1658	184	17.2	147.1
CHAKRABORTY (90)	WEST BENGAL	13335	129	9.78	66.0

[35] Source ; S .Seshadri,Community Mental Health News,Issue No.2 1986.& Chakrabarati .A.

Chapter-3

PUBLIC MENTAL HEALTH

MENTAL HEALTH AND PUBLIC HEALTH

Psychiatric and social science approaches to define mental health and illness are quite distinct from one another. As a layman mental health is no more than a socially adaptive behavior that allows the person to cope adequately with life and their environment. In a psychiatric approach, a mental disorder is defined in the fourth edition of Diagnostic and Statistical Manual (DSM) of the American Psychiatric Association (APA):

"Each of the mental disorders is conceptualized as a clinically significant behavior, or psychological symptoms or pattern that occurs in an individual and this is associated with present stress or disability ---- whatever its original causes, it must concurrently be considered a manifestation of a behavioral psychological or biological dysfunction in the individual. Neither deviant behavior (e.g. political, religious or sexual) nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual."

APA: DSM, 1994 XXI-XXII

A review of the social science literature on mental health reveals a wide range of approaches to its definition. One social science approach defines mental health on the basis of behaviouristic thought with the notion that maintaining balance, homeostasis or equilibrium during stress at several stimulation levels called mentally healthy person. This definition is basically based on theories of stress and coping processes and would suggest that symptoms of mental health be manifested when our coping strategies have failed in personal crucial circumstances. Another social science approach derived from humanistic perspective, its conceptualized mental health on the basis of 'self' i.e. self acceptance of one's positive and negative attributes reflects positive mental health. When there are discrepancies between ideal self and real self and people could not make equilibrium, then symptoms of mental health are manifested. Mental health is depending primarily on the way the person felt about himself, other people and the world, particularly in reference to his own context. Mental health is not just the absence

of mental disorder. Mental health is stressed in WHO's definition of health as contained its constitution:

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

How does one define mental health?

It is a state of well-being in which the people comprehend their own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to their community. In nutshell, mental health defined as the capacity of the individual, the group and the environment to interact with one another in ways that promote subjective well-being, the optimal development, and use of mental abilities (cognitive, affective and relational), the achievement of individual and collective goals consistent with justice, attainment and preservation of the condition of fundamental equality.[36]

If we closely look at above definition we find this definition going beyond biological individualism and the notion that psychological disorder is primarily an expression of brain diseases and requires pharmacological treatment that do not prove effective. This definition acknowledges the complex interrelationships that extend from the individual to the environment, the critical role of social context, and the importance of justice and equality in determining mental health. There is no one universally accepted system for classifying mental health and mental disorder. Sometimes people have confusion regarding mental illness and mental disorders. A mental disorder is a medically diagnosable illness that significantly impairs an individual's cognitive, affective and behavioral abilities.

Hence there must be an effort to define mental health by values and conceptual considerations on which there exists a scientific and professional consensus. Mental disorders is defined as behavioral or psychological syndromes that are associated with followings-

[36] Dennerstein L,Astbury J, More C. Psychosocial and mental health aspects of women 's health.Geneva : WHO ;1993.

1. Present distress
2. Impairment in one or more important areas of functioning
3. A significantly increased risk of suffering, death, pain or disability.

Mental illnesses are usually categorized as minor or common mental illnesses (neurosis, depression and anxiety disorder) and major or severe mental illnesses (psychosis, Schizophrenia Paranoid).

Public Health-

The term public health creates more confusion than clarity. Public Health is historically rooted in the social reform movements of the 19th centuries. It has been defined as environmental, sanitation, preventive medical science and promotion of positive health as the attainment of the highest level of physical, mental and social well-being. It is a major governmental and social activity, multidisciplinary in nature and extending into almost all aspects of society. Here the key word is "Health" not "Medicine". So public health implies practice of "community side medicine" as opposed to the practices of bedside medicine in clinical fields. Public health is an area of social activity and it is basically based upon biosocial nature of human. Public health deals with the Promotion, Prevention, Protection and Rehabilitation. It is a combination of art and science i.e. it uses the application of medical knowledge to the problem of community and individual health through interdisciplinary approach. The WHO an agency of the United Nations and prominent leader in international health recognizes that " the health of all peoples is fundamental to the attainment of peace and security".

In general term public health refers to the organized efforts of society to control and prevent diseases that is harmful for the community as integrated whole.

Mental Health Is Public Health:

To achieve the first objectives, several steps have to be taken. Recognition of the public health significance of mental health problems has grown steadily for three reasons-

1. The availability of sound epidemiological research that showed the magnitude of mental health.
2. Existence of widespread social disparities in mental health status.
3. Increasing evidence of the interrelations between mental health and physical health.

Mental health is public health in the sense that society has an overriding responsibility to include, in its general system of health services, measures, to prevent and cure mental disease and to rehabilitate those for recovery. Since social and economic factors plays such a great role in mental-ill health, it could even be argued that government bear a greater and more direct responsibility for protecting the health of their people's minds than for protecting that of their bodies.

Mental diseases are chronic and recurring illnesses which may last a lifetime and are a great burden for individuals their families, health care services and society, therefore it constitute a major public health problem.[37] Mental disorder is a major cause of morbidity and dependency, due to both its increasing prevalence and disability it generates. For example[38] it has been estimated that 2.8% of the US population have severe mental disorders, a situation which implies a high level of personal invalidity. Unfortunately this is only the tip of the iceberg, because the prevalence of low-grade chronic anxiety and depressive disorder is estimated to be 15%. Which is comparable to that of other important problems such as cardiovascular diseases.

One important question which arises is that generally public health indicators are derived primarily from mortality statistics, which have very little relevance to mental health disorders, because it have a small impact on mortality but generate high levels of chronic disability. But recent advances in psychiatric epidemiology including mental health measures and the standardization of diagnostic algorithms through the ICD (International Classification of Diseases) and DSM(Diagnostic Statistical Manual) have provided empirical basis for policy makers to consider it as a public health issue. A

---

[37] Goldberg D P, Lerubier Y, Form and Frequency of Mental disorders, across, centres, In: Ustrum T B, Sartorius N, eds. Mental illness in Gereral Health Care: An International Study Chichester : John Willey and sons 1995, 323-334

[38] Regier D A, Narrow W E, Rec D S, Mandercheid R W, Locke BZ, etal. - The Defacto Us Mental and Addictive Disorders Service System : Epidemiologic Catchment, Area prospective 1-year prevalence rates of disorder, and services: Arch Gen Psychiatry 1993 50:85-94.

series of new indicators such as QUALY(Quality Adjusted Life Years) and DALY (Disability, Adjusted Life Year) have been developed for estimation of the impact of disease on people functioning. These tools have been used to assess the relative effectiveness of different clinical or public health interventions.

Why Public Mental Health ?

This is because of two reasons, which is historically rooted. -

1. It calls attention to the current trend for governments to take more responsibility in all the matters of health including mental health.

2. It suggests that the methods and approaches first applied by public health authorities in the field of somatic medicine should now be applied, to the field of mental health.

Despite some biological correlation of mental illnesses, the contribution of other factors like *social transformation* (nuclear family, lack of parental warmth, lack of supervision, harsh punishment, break down of social support, stress of modern living) *political gradient* (war, trauma) and *economic aspects* (Recession Inflation, unemployment, poverty, multiple moves) can not be underestimated. How do people forget their high pressure, fast paced, post-industrial, post modern, capitalist, consumerism society which contribute to the appearance of behavioral problems or more and more people feeling desperately out of control, lonely alienated and anxious. This shows that all controls over our life are taken from us.

In the present scenario a new way of looking at mental health and mental disorders is enviable. To reexamine the concept of metal health in terms of the new information, that mental disorder is understandable as well as treatable. Now, we are in a stronger position to deal with this problem in a public health perceptive. Amid growing interest in mental health issues, mental health disciplines undoubtedly contribute to unprecedented availability of public mental health services and a reduction in the social stigma associated with mental illness.

In these perceptive two broad reasons are available to say mental health is a public health problem in Indian settings:

(1) **By epidemiology of mental health:** As we had known that epidemiology of mental health was beginning to provide valuable scientific data or the prevalence and distribution of mental illness. This was discussed in chapter (2) on 'epidemiology and mental health.'

(2) **The widespread social disparity in mental health status:** Social disparity much more transparently perceived in socio-eco status (class, caste, and gender). This disparity has not only perceived in the mental health status but also it has seen in the mental health-seeking behavior and also in providing mental health services.

Do social influences significantly contribute to the development of various mental disorders?

To analyse this issue we look at the contemporaries research and find out the answer to this question.

Individuals react differently to stressful situations. Loss of a loved one can potentially lead to a depression. Loss of work is associated with heavy alcohol use, suicide and depression. Poor nurturing environments, whether they are the result of broken families or violence in the home or community, can result in an increased risk of mental illness. In some places of the world, mental illnesses are thought to be caused by evil spirits. This is a difficult issue. It pits faith against fact, faith healers against doctors, cultural beliefs against scientific knowledge. Several studies documented on inverse relation between socioeconomic status (SES) and a particular mental disorders (eg. Dohrenwend and Dohrenwend 1969). A cross-sectional survey of 8191 adults aged 16-75 in private households in England, Wales, and Scotland showed the association between income inequality and prevalence of the CMD varied with individual income level.[39] Among persons with the highest incomes, CMD were more frequent in regions with greater income inequality, the opposite was true for those with the lowest group. So by this study it showed that income inequality was associated with worse mental health among the affluent individual. Higher income inequality may experience greater stresses because people may have to work harder to maintain their

[39] Income Inequality and the prevalence of CMD in Britain. Sottweich, Glyn Lewis and Stephen Ienkim, BJP 2001, 178. 222-227.

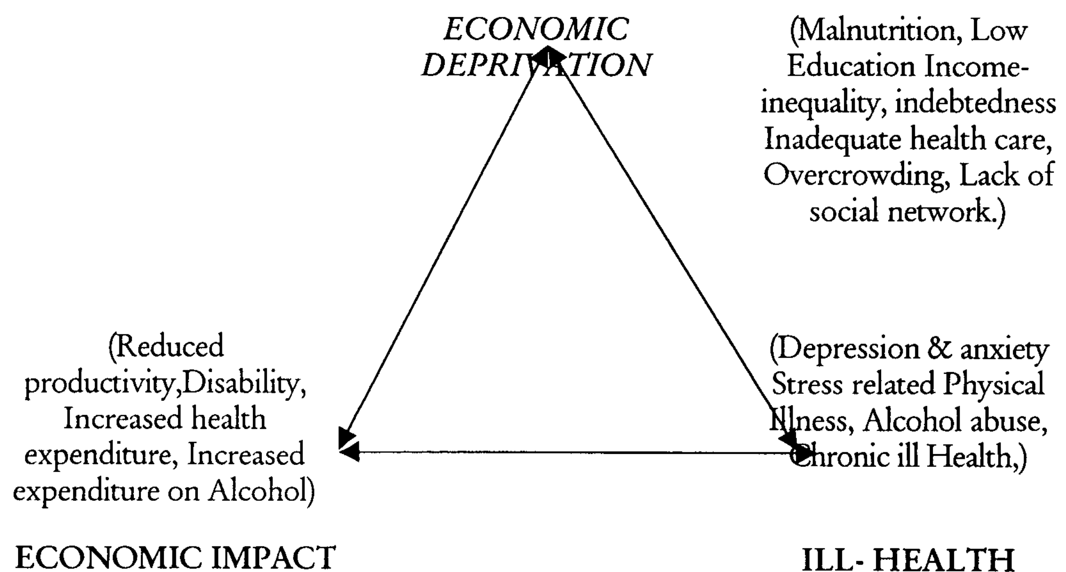
social position. The relationship between poverty and mental health is crucial. The living condition of poor is characterized by overcrowding, pollution, crime, domestic violence, battering, lack of basic amenities (Water, Sanitation, Food) and so on.

Can we really afford to be mentally well, when our bodies are sick and our stomach empty?

These are the question, which is always striking in the mind, and force to explore the reality. It is obvious that poverty in itself doesn't cause mental illness, in the same way as poverty per se doesn't cause any physical illness. Poverty is a means for disease, it works as catalysis, and it leads to suicide, alcoholism, tuberculosis, anemia and other chronic diseases. It gives the reason to explain why the poor are more vulnerable to depression and anxiety.

Impoverishment and mental illness: What is the relationship?

The Vicious Cycle of Poverty and Mental Disorder.



We can look this question in two different ways;

1. Whether being poor causes mental illness, and

2. Whether having a mental illness can lead to poverty.

Does poverty cause mental illness?

Poverty increases the level of stress in people's life. The constant struggle for survivals have great impact on their mental health, and bring about mental health problems.

Clearly, it is easier to have good mental health if you have material comfort than if you live in poverty. However, the causes of mental illness are varied and complex. It is hard to say that poverty alone directly causes mental illness. Mental illness occurs in all classes of society, and the great majority of people who live in poverty may have mental illness.

Does mental illness cause poverty?

Having a mental illness can make it very hard to find a steady job. The chances of becoming poor are greater if someone is mentally ill. For instance, recent studies show that the numbers of homeless people with a mental illness are rising. Still, many people with mental illness hold down well-paid jobs. A key factor for many of these people is a strong support network of family and friends. So we can say that poverty may contribute to mental health problems, and that mental illness can make it difficult to live above the poverty line. After that, the connections are not simple. Again, the support of family and friends is key. Poor people who don't have support networks are at higher risk of becoming mentally ill. Likewise, people with mental illness and no solid support networks are more likely to become and stay poor.

Despite the major advancements in identifying biological correlation of mental illness in the last few decades the contribution of social factors such as urbanisation, poverty and technological change cannot be underestimated. These social changes exert differential effects based on the economic status, sex, race and ethnicity. The technical discussions at the 27-world health assembly in may 1974 bring out very clearly the multitude of social factor those influences mental health and disease. We are facing the intricate, complex world, its present and future life industrial mass-production, uninterrupted economic growth, increased utilization of earth's resources- is in fact compatible with mental and social health.

One of the most striking social change occurring recently has been the process of urbanization. Urbanization and migration is growing exceedingly in India as well as in the world. India has 27.78 % of population in urban area (census of India 2001). The complex and intricate life pattern in urban settings produces stress in interpersonal relationship, occupational changes, and vertical mobility. A study has done by Mawner and Eaton showed that major depressive episode, depressive syndrome and dysphasia are strongly associated with the psychosocial dimension of the demand-control model.[40] It was hypothesized that individuals working in occupation with high psychologic strain (high psychologic demands and low decision authority) would have a higher prevalence of depressions relative to these working in occupations with the other three possible conditions i.e. (High-High, Low-Low and Low-High). In a Meta analysis of epidemiological studies in India by Reddy and ChandraShekhar, 1998 the prevalence of mental and behavioral disorders in India for urban sectors was 80.6% and it was 48.9% for rural sector. Illness like endogenous depression, mental retardation, all neurotic disorders (except dissociative disorders) and behavioural emotional disorders were significantly high in the urban communities.[41] Urbanization as such may not any deleterious effect on the total mental health but the altered life style make vulnerable to mental disorder. Though evidences concerning the rural-urban differences in disease prevalence are a vexed issue, giving contradictory results but there is a no doubt about urbanization detrimental effect upon mental health. Dohrenwend and Dohrenwend (1974) noted that 8 out of 10 studies reviewed the urban rate was higher than the rural, but the median differences for total rates only 1.1%.[42] A field survey done by Nandi (etal, 1980) wanted to show the affects of urbanization on rate of psychiatric morbidity.[43] They found that mental morbidity rate of depression (Neurosis) in the urbanized Santhal Community is higher than in rural Santhal Community.

Is mental illness not largely due to consumerism and materialism?

---

40 H. Mawner-Danch and W. W. Eaton, American Journal of Public Health, Volgo, Issue 11, 1765-1770, 2000. Psychosocial work Environment and Depression, Epidemiologic Assessment of the Demand-Control Model.

41 Reddy,M.V& Chandrashekhar, C.R. (1998) Prevalence of mental and behavioural Disorders in India :A meta -analysis. Indian Journal of Psychiatry, 40 : 149-157.

42 Dohrenwend BP and Dohrenwend BS (1974) social and culture influences on psychopathology. Annual review of Psychology 25, 417-452.

43 Nandi D, Chawdhary A.N., Banerjee T.,Boral G.C.,Sen B, Banerjee C. , Urbanization and mental morbidity in certain tribal communities in West Bengal.

Globalization & privatization may lead to accumulation of wealth in, special interest groups. That has also a complex influence on health. Income growth and distribution, economic, political instability, stress and other factor mediate its effects. In middle-income countries, acute and sudden economic crises, is responsible for rise in unexpected unemployment, job insecurity and income inequality, have been major sources of depression and other mental disorders, alcoholism, domestic violence and stress- related deaths, attributable to cardiovascular and suicide. Large increases in inequality and poverty erode social cohesion, the control of deviant health behavior and criminal activity, and mutual help in society. Sudden increases in unemployment generate a loss of skills, cognitive abilities, and motivation and can be a source of acute stress by causing loss of self-respect, feeling of being unwanted, dependent and without a social role, and anxiety about the future. These effects have been observed in the countries of former Soviet Union, where a sharp rise in unemployment, income inequality and material deprivation leads to humiliation, hopelessness, social segmentation, corruption and ascription. These problem reduced the role of state to provide law, order and health care.

High level of income and inequality create political instability and destroy social cohesion. The social tensions compress growth substantially and rise in domestic conflict. The countries or societies where different ethnic, class, caste, religion & regional tension are existed the consequences of this may be an increase in social instability & it leads to mental illness either common or severe. In Banerji's[44] words conceptually then, Indian planners recognized the need for tackling problem such as unemployment, malnutrition social justice, having and environment sanitation, along with developing integrated health services to the entire population. But at implementation level anyhow it had never seen. Highest rates of mental disorder have reported in several studies on refugees. The major causes of stress generated by migration viz., economic uncertainty, coping with unfamiliar, and often hostile culture, disruption of family structure, and social network. The increasing flow of refugees is because of – socio-economic development and sometimes by enforced. IMF and WB policies such as SAP, which lead to marginalization of large group, often stimulate the socio-economic development and they compelled to go beyond their own territories.

---

[44] D Banerji health and family planning services in India, 1985 p.23

The enforced migration is also because of political and ethnic conflict which is in turn have added insecurity, oppression, dehumanization, torture and other forms of human right violation.

The health care system is rooted in the political economy of each country and its links with the global processes of economic and political change. Economic policies around the world being shaped by international financial institutions, such as IMF and WB, have direct effect on the health services system. So adjustments are not necessarily a response to either people's needs or the growing body of public health knowledge (Qadeer).[45] The cuts on public sector increased the burden on poor, because two nation wide surveys (NSSO 1992, NCAER 1992) on the pattern of utilization of medical institutions reveal that expenditure for getting treatment for diseases was the second most common cause for rural indebtedness (after dowry) among these impoverished people.

So in future maintaining the quality of life is a matter of priority because several factors tend to lower the sense of physical and psychological well-being. Perhaps to prevent a situation from taking a turn for the worse, mental health professionals can work with healers so that those who cannot be helped by traditional medicine can receive conventional treatments. Mental health professionals serve the community better by understanding the cultural and social context within which their work is to be carried out.

Gender Disparities and Mental Health :

Gender understood as a social construct and category has much more related to power and exposure. How different social categories occupied by women and men affect, how they perceive, experience and understand the world and themselves. The meaning of sex and gender lead to a systematic bias that conceals interactions between there biological and social determinants. As we had known that gender differences in health are often characterized as women living longer and experiencing greater morbidity than men do. So as in the context of mental health, we can easily prove it so. However gender differences in morbidity vary with specific phase of life, like wise

[45] Qadeer.I.Sen,K.Nayar,K,R..Public Health and the Poverty of Reforms The South Asian Predicament. Sage Publication New Delhi

gender differences in health service use. Overall rates of psychiatric disorder are almost identical for men and women but striking gender differences are found in the patterns of mental illness.

Gender :

Gender is a critical determinant of mental health and mental illness. Gender determines the differential power and control men and women have in their society as well as in family. . It also determines their mental health, lives, and their susceptibility and exposure to specific mental health risks. Gender differences occur particularly in the rates of common mental disorders (CMD's) - depression, anxiety and somatic complaints. These disorders, in which women predominate, affect approximately 1 in 3 people in the community and constitute a serious public health problem. Depression is not only the most common women's mental health problem but may be more persistent in women than in men. More research is needed to specify these phenomena in great detail. The lifetime prevalence rate for alcohol dependence with another common disorder is more than twice-in men. Men are also more than three times more likely to be diagnosed with antisocial personality disorder than women. There are no marked gender differences in the rates of severe mental disorders like schizophrenia and paranoid. Gender differences have been reported in age of onset of symptoms, frequency of psychotic symptoms, course of these disorders, social adjustment and long-term outcome. The disability associated with mental illness occurs more who experience three or more 'comorbid' disorders against women predominate.

All mental disorders are significantly related to gender specific factors, such as gender-based roles, stressors and negative life experiences and events. Gender specific risk factors for common mental disorders that disproportionately affect women include gender based violence, socio-economic disadvantage, low income and income inequality, low or subordinate social status and rank and greater responsibility for the care of others.

The high prevalence of violence (such as civil strife, war, sexual violence, domestic violence, street violence, community disintegration, substance abuse, and family breakdown) produces high rate of Post Traumatic Stress Disorder (PTSD) renders women the largest single group of people affected by this disorder. Violence

related mental health problems are also poorly identified. Women are reluctant to disclose a history of violent victimization unless physicians ask about it directly. It showed that women are prone to become victimised. The mental health impact of long term, cumulative psychosocial adversity has not been adequately investigated.. There is a positive relationship between the frequency and severity of social factors and the frequency and severity of mental health problems in women. Severe life events that cause a sense of loss, inferiority, humiliation or entrapment can predict depression 'Restructuring' of our surroundings has a gender specific effect on mental health. . Economic and social policies that cause sudden, disruptive and severe changes to income, employment and social capital that cannot be controlled or avoided, significantly increase gender inequality gender discrimination and the rate of common mental disorders.

Gender bias

Gender bias occurs in the treatment of psychological disorders. Doctors are more likely to diagnose depression in women compared with men, even when they have similar scores on standardized measures of depression or present with identical symptoms. Female gender is a significant predictor of being prescribed mood altering psychotropic drugs. Gender differences exist in patterns of help seeking for psychological disorder. Women are not more likely to seek help and disclose mental health problems to anybody untill it become serious, while men are more likely to seek specialist mental health care and are the principal users of inpatient care. Communication between health workers and women patients is extremely authoritarian in many countries, making a woman's disclosure of psychological and emotional distress difficult, and often stigmatized. When women dare to disclose their problems, many health workers tend to have gender biases, which lead them to either over-treat or under-treat to women. Gender stereotypes regarding vulnerability to emotional problems in women and alcohol problems in men, appear to reinforce social stigma and constrain help seeking behaviour. Despite these differences, most women and men experiencing emotional distress and psychological disorder are neither identified nor treated by their doctor.

WHO has given certain guideline for women's Mental Health, which looks like utopia in present scenario. It suggested to:

- Build evidence on the prevalence and causes of mental health problem in women as well as on the mediating and protective factors.
- Promote the formulation and implementation of health policies that address women's needs and concerns from childhood to old age.
- Enhance the competence of primary health care providers to recognize and treat mental health consequences of domestic violence, sexual abuse, and acute and chronic stress in women.

Some Indian Findings.

The number of studies shows the importance of women mental health. A study has done on Indian sample shows that common mental disorders were present in nearly half of the sample. (Shamasunder etal 1986).[46] These disorders with strongly associated with gender poverty and other socio-demogiaphic variables. The findings are consistent with studies both industrialized and low income countries (Gunnell etal 95, Bahar etal 1992, patel etal 1997).[47]

Notions of women's greater biological based vulnerability of mental disorder were embedded in the long history of hysteria and malfunctioning of women's reproductive organs and hormones (Gitlin and Pasnale 1989). Research have been done to prove the relationship between reproductive-related events such as - menstruation, pregnancy, miscarriages, childbirth, premature delivery, infertility, abortion and menopause -and women's higher rates of depression. A study had done by Patel, Rodrigues etal(2000) [48] on post natal depression, and found that depressive disorder is

---

46 Shamsundar, C; Krishna Murthy S. , Prakash G. etal (1986) Psychiatric morbidity in a general practice in an indian city. BMJ, 292, 1713 - 1715.

47 Gunnell D.J., Peters T. J. , Kammerling R M etal (1995) Relation between parasuicide, sucide, psychiatric admission and socioeco deprivation, British Medical Journal 311, 226-230./Bahar E, Henderson A. S. , and Mackinnon A.J. (1992) An epidemiological study of MH and socio-eco conditions in Sumatra, Indonesia. Acta Psychiatrica, Scandinavica 85, 257-263./ Patel V. , Todd C. H. , Winston M etal (1997) common mental disorder in primary case in Haryana . Zimbabwe: associations and siskfactors, BJ of Psychiatry 171, 60-64.

48 Gender poverty and Patriatal depression: A study of mothers in Goa, India. Patel V, Rodrigues M, Desouza N, AMJ Psychiatry 2002, 159: 43-47.

detected in 23% of the mothers at 6-8 weeks after childbirth. 78% of these patients had clinically substantial psychological morbidity during the antenatal period. The preference for male children is deeply rooted in Indian society. Such gender bias and the limited control women have over their reproductive health may make pregnancy a stressful experience for women. Thus women who already have a female child face grater stress because of their wish that their new infant be a boy. In the event that the child is a girl, the risk of depression is greater. Analysis shows that there is a strong interaction among many risk factors, such as economic deprivation, marital violence, and the infants gender. Violence against women, a major public health concern in a country in which more than 1/3 of women report being beaten by their husbands was found to be common, and not surprisingly, the factors was above those.[49] In a recent issue of The Tribune (Her World, Sunday April 14, 2002) Leena Prasad has reported that almost every six hours, somewhere in India, a young married woman is burnt alive, beaten to death or forced to commit suicide. Lesser forms of beating and humiliation are suffered in silence and hardly reported.

Gender's socialization and stigmatization influence men's and women's help seeking behavior differently. As the 1997 UNDP report put it " No society treats its women as well as its men." In society women's status and life opportunities remain "tragically low" worldwide. How many women experience of self-worth, competence, economic independence, autonomy safety and security those are so essential for good mental health. This is the effect of socialization by which males predominate in what are called externalizing problems, which include aggression and other types of antisocial behavior. Female is predominating in internalizing problems, such as depressive symptomatology and anxiety (Miller and Eisenberg 1988). These differences hold across cultures. These differences can be explained by the physical superiority or strength, between male and female or by norms for expressing their emotions, in this ways. Dohrenwend and Dohrenwend (1976) points out, that males and females social position and experiences lead them to mental health problems.[50] Recent evidence

---

[49] Jejeebhoy, Is wife beating in rural India a husband's right? Evidence from survey data. Economic and Political Weekly, April (ii), 1998 00 855-862.

[50] Dohrenwend Bruce and Barbara Dohrenwend 1976. Sex difference in Psychiatric Disorder." American Journal Of Sociology 81: 1447-54.

showing that gender differences in depression and antisocial behavior originate in early adolescence, it points to the importance of socialization and internalization of values.

In every society the public and private spheres of work are divided more sharply by gender. The private realm consists of domestic affairs, nurturance and caretaking, while public realm is associated with production, independence, self-sufficiency, and self-assertion. Women regardless of their employment, still have to bear responsibility of domestic work caring for young and old. Gender also shaped power through men and women economic resources. In the labor force women earn less than men, whether in different jobs are in equal jobs. The feminization of poverty i.e. growing and disproportionate number of women living in poverty creates women to economic vulnerable. But studies like Sethi and Gupta (1972) explain the greater frequency of illness among men and they give the reason to obligation and responsibilities that a male must fulfill are full of challenge and stress. Patriarchal system is responsible for women's vulnerability to mental illness in term of the compulsion to obey, to compete, to succeed, to "be a human" and so on. These compulsions also have their own consequences in the life women as well as men.

Some studies by Sethi, Gupta, Mahendru and Kumari (1974) and Thacore, Gupta, Suraiya(1975) do not show any significant correlation between high prevalence of mental disorder in women, while other studies such as Carstairs and Kapur (76) Chakrabarty (1990) Dube(1970) Isacc and Kapur (1980) Nandi et al (1975, 1979, 1980) Shah, Goswami, Maniar, Hajariwala and Sinha(1975), Ullrich(1987,1988) all show that mental illness is more among women. Women, in general report higher psychological distress and rural women are found to be the most distressed (Prakash , 1988).[51] The discrimination is also perceived in terms of health services. Studies consistently find that women are about twice as likely as men to make an outpatient mental health visit, whether self reported (Katz et 1997, Lealf et al 1985,Lin et al 1996)[52] or record-based investigation (Tataryn, Mustard and Derkseh 1994)[53] But in

[51] Pradash I. J. (1988) Psychological well-being of the aging women: urban and rutal differences Vidya Bharate, 10. 37-42.

[52] Katz S., Frank etal - The Use of Outpatient Mental Health Services in the US and Ontario. The impact of mental morbidity and perceived need for care. American Journal of Public Health , 87, 1136-1143.

[53] Tataryn D. , Mustard C. Derksen S. - the utilizationof medical services for Mental Health disorders Manitoba (p-1-109) 1991-1992, Department of Community Health Sciences , University of Manitaba.

Indian context things is not so obvious. The main reason is to conceal the women's mental health problem. The diagnostic criteria and assessment of mental health depend on theoretical constructs of human behavior on normal and pathological men. So androcentric bias is emerged that means, where man's experiences are taken as the norm.

Caste is also having a prominent role in the emergence of mental disorders. Nandi and Others (1980) reports that a Brahmin group of high caste Hindu living in the village had a mental morbidity rate of 142 and government officers from a nearly township, a rate of 199/1000.[54] This may be possible due to their social value system, child rearing and way of life. Brahmins and Government officers followed "a rigid formal and codified value system" in their personal and community life.

There is lot of evidence, which show that mood, and individual disposition that is physiologic factor produces the mental illness. For example high ambition, optimism, explanatory style, self-esteem, is positive aspects of individual disposition that have been shown to suppress the effects of stressful life event.

The effect of violence on mental health:

Violence has traumatic effects on the health of the individual, group and society. It may be domestic violence or social violence or torture. It has led to states of anxiety, depression, unexplained fear and panic, physical symptoms of various kinds not responding to treatment, sleeplessness, agitation and so on. Sometimes, the depression is so severe that it leads to an attempt at suicide. In such circumstances many patients resort to drugs and alcohol. One special type of syndrome seen has in these cases is what is called Posttraumatic Stress Disorder (PTSD). In this condition, after some exceptionally painful experience of violence, torture, war, riots etc, a person goes into a morbid psychological state in which there are repeated flashbacks of painful experience. For example, to a victim of torture even a picture of torture in a newspaper is enough to start panic reaction. Entire life is changed. A person is unable to relax and enjoy life as he used to do before. There are repeated bouts of anxiety, panic and depression with inability to work and sleep properly. Movement, or in riots, hundreds

54 Nandi D N, Das N. (eetal 1980) mental morbidity and urban life: An Epidemiological Study. Indian Journal Of Psychiatry 22(4) 324-330.

of people die. Children are orphaned; women are raped and humiliated. It has a terrible social impact. The children who have lost their parents easily fall prey to a life of crime, violence and drug addiction. In a way violence breeds more violence does enormous harm to health. The WHO World Health Report 2001 has mentioned that over 520,000 people died of violence (intentional injury) in the world in the year 2000. In addition, 310,000 died in various wars. About 815,000 people committed suicide. Violence constitutes the sixth leading cause of disability in males between the ages of 15 and 44 years. The WHO has estimated that there are over 50 million refugees in the world. The physical and mental health of the refugees is a major health problem of our times

One of the worst sufferers in any conflict is a young child. A recent UNICEF report on "Psychosocial Assessment of Children Exposed to War-related Violence in Kabul - Afghanistan", by Dr L. Gupta (1997) graphically describes how children had been emotionally traumatised by war events. About 41 per cent had lost one or more parents. Over 90 per cent children expressed the fear of dying in conflicts. Over 80 per cent felt that they could not cope with the events and thought that life was not worth living. Many complained of different kinds of bodily and psychological symptoms.

There are other similar evidence regarding the effects of negative aspects of individual disposition on physiologic processes. For example- hostility, and anger, emotional distress, and exhaustion have been shown to be important in the etiology of heart disease. There is also emerging trend of somatoform disorder[55] i.e. a tendency to experience and communicate psychological distress in form of physical symptoms in the absence of any pathological findings, to attribute them to physical illness, and to seek medical help for them. This disorder is responsible for the multiple unexplained physical symptoms, and attending various mental care settings (Bridges and Goldberg 1985).[56] Likewise, emotional distress has been associated with immune function and subsequently; cancer incidence and mortality have taken place. Anxiety Neurosis is the distorted effects of stressful life event. Indian researchers have also emphasized the somatic presentation of depressive illness in psychiatric settings.[57] Although DSM-IV

55 The process by which psychological distress is experienced and communication in the form of somatic symptoms is called somatization.

56 Bridges R. N. and Goldberg D.P. (1985) somatic presentation of DSM-(iii) Psychiatric disorders in primary care, Journal of Psychosomatic Research ,29, 563-569.

57 Gada M T : A cross- cultural study of study of symptomatology of depression: Eastern versus Western patients, Int J Soc Psychiatry 1982, 28:195-202.

recognizes that in some cultures depression may present with somatic complaints, such as headaches, gastrointestinal, disturbances and unexplained pain, symptoms of which include loss of appetite, constipation, weight loss, loss of libido, and insomnia.

India's federal government has worked on developing community-based approaches to mental health care, but the $62 million programme begun in 1997 has not reached enough people. This incidence showed the stigmatizing nature of our society, towards the psychiatrically disabled. A community mental health program, which promises more but at implementation it has not met their goals in a majority of states. Institutional treatment was a matter of past, it was costly and violated ethnic and human rights. The change at family, community, policy and law level can help to deal with this problem on public health perspectives.

As a result of above considerations we argue that mental health should have seen in the perspective of public health approach, because all the concepts of mental health overlap with public health views and policies. The principles of Alma Ata Conference (1978) also inspire the field of public mental health that inculcate the inclusion of mental health as part of primary health care. From a public health perspective two principles are clearly visible in our NMHP-

1. Priorities should be clearly specified and reflected in the programme and fund.

2. Mental health and communicable disease must be integrated within the sphere of existing health service system.

Handling mental health in isolation is not a productive way to deal with it. Policy must be built on people-based principles and practices of "holistic" health. The need of people is well acknowledged through the epidemiological analysis as well as felt need for mental health services. NMHP in fact has tried to do so but in practice it tackled several obstacles. The concept of public mental health is the only way that will remove the obstacles.

In a nutshell the public mental health means the discipline, the practice and the systematic social action that to protect, promote and restore mental health of a population. Public health measures focused more on the health of society and less on the health of individual, and now mental health problems and its coverage exceed the

boundaries of individual space. Public mental health approach is necessary because as we have known that health is an integrated concept of physical/social environment, families' communities, and social institutions. Integration, Change and Adaptation are the three key elements by which public mental health will grow in its full extent.

In the following chapters, we would review the studies of mental health to understand how far research has woven into the programs as well as to understand the conceptual and methodological problem in the research.

Chapter-4

REVIEW OF MENTAL HEALTH RESEARCH

INDIAN RESEARCH REVIEW

The main causes of mental disorder were analyses in detail in previous chapter. Now, in this chapter, we would like to see the mental health research, which had done in India by Indian researcher. The selections of studies are on the basis of two main categories:

- Clinical based
- Psychosocial based

All the clinical based researches were based upon new psychotropic drug related with Antidepressant (Thymaleptic) and Antipsychotic (Neuroleptic) effect group. Mostly all the research were hospital based and deal with issues like; clinical trials of medicine, comparison between two drugs, its efficacy, side effects as well as safety and compare between the other biological based therapy. Pharmacotherapy has produced wonderful benefits for many victims of mental illness. Some studies were based upon the neurological abnormalities, sex differences and fertility issues.

While in the psychosocial aspects of research the main emphasis upon family intervention, relation with societies, coping strategies, family burden, social support, marriage, socio-eco development, gender effect, quality of life, and suicidal intent. All researchers had used the diagnostic criteria of ICD or DSM classification. They used other instrument, for measuring severity, dysfunction in social, cognitive and familial, aspects. Thus there is a lot of suspicion upon the reliability and validity of these instruments in Indian settings.. Psychosocial research is having importance from the programme point of view. A large number of studies have done in this field. In this chapter we reviewed some of them.

The finding demands the compound (biological and psychosocial) approaches to defend the public mental health. The consideration of psychosocial factors in illness is not a betrayal of biological or medical thinking. It is not possible to fixed solely on drug and ignores social causes. Family environment has important predictors of and (probable influence) in relapse in mental disorder. There have also been several studies, which show that structured psychosocial interventions such as family psycho-

education, and social skills training can significantly improve the conditions of mental patients (schizophrenic) beyond that attained by medical treatments alone. Treatment of schizophrenia, manic and other forms of mental illness is expensive, unavailable to many countries and worst of all very limited in effectiveness. Mental illness is not only misery for patient but also it strike family and create great public sacrifice in terms of human potential as well as national health care loss. The past few decades have seen major advance in the understanding of mental illness. It is now clearly understood that schizophrenia bipolar depression and other mental disorders are caused by imbalances in brain neurotransmitters.. Any psychotropic drugs, has specific effect on certain neurotransmitter, but it will sometimes alter the others neurotransmitter. The net-result is likely to be changes in behaviour or other side effects. We should not expect that psychiatric medication would have effectiveness without some unwanted alteration of brain function. Moreover, schizophrenia, bipolar depression and other mental disorders are not single illnesses but it covers a lot of disorders, each having different biochemistry. So any single drug may have different outcomes for different peoples. The development of new psychiatric drugs will not conquer mental illness, but it can use as a additional therapy for treatment. Since mental illnesses are diverse and individual patients are biochemical unique, so combination of medications will have beneficial effects. Thus in future, these psychotropic medicines will be available at impressed effectiveness and

Pharmacotherapy has produced wonderful benefits for many victims of mental illnes. The ultimate remedy for mental illness may not be a collection of drug medications. After 1960, the birth of community model health movement was started, which shifted the trend of treatment from mental institution to community or family settings. The side effects of these drugs have a prominent role in the genesis of communities based research

Stressful events and life experiences are also viewed as aggravating factors that may trigger a breakdown in mental functioning. This improved understanding has led to a revolution in the treatment of mental illness. In important reviews of the research literature on the treatment of mental disorders have shown the challenging and long-held idea that combination treatments are the most effective method. In this context Pai and Kapur have correctly pointed out that launching CMH programme without

assessing the burden family have to face may have deleterious consequences for the families as well as programme itself.[58] So, the new trends of research is emerging, which focused on the impact of the patient's illness on the relatives and significant others. WHO multicentric study reported by Giel etal(1983),the center from India, reported that in families of patients with psychosis, burden was chiefly felt in financial and interpersonal spheres and it was commented that certain socio-cultural factors contributed to a pattern of burden unique to the Indian milieu.[59]

Studies of social and familial burden have great relevance for India settings became here so much emphasis on public health care and community participation as advocated by NHMP. The entire research has Indian psychiatric mostly based on psychosis though it has small proportion, but it covers all social intervention, research and medical attention. Psychosis particularly schizophrenia is not only causes maximum disability but it is still a challenge to medicine. Pharmacological intervention is the commonest mode of managing patient with schizophrenia. Do all people define psychotherapy in the same way or are there important differences? This question is highly relevant to the practice of psychotherapy in India. Unfortunately, in today's corporate-controlled media, we never hear the voices of psychiatric survivors and ethical psychiatrists, who call for the reform of and abolition of biomedical psychiatry. Multinational drug companies, complicit psychiatrists, instead drown them out

So, an attempt have to make for a formal integration of biological and psychosocial approaches to the study regarding mental health.. Mental health care system must be humanistic, and in caring way that we can work with those in our society who suffer from emotional and mental problems. Labeling such people, and then drugging them, is destructive and morally wrong. Why don't we look at the ills of our society, which lead people to employ the behaviors associated with "mental illness" as a coping method? We have to understand the concept of "mentally ill" as well as environmental conditions that lead to such illness. Don't promote a harmful, biological theory that has never been proven conclusively and probably never will be.

---

[58] Pais-Kapur RC. The burden on the family of psychiatric patient. Development fo an assessment scale, Bq. J. Psychiatry 1981: 138; 332-335.

[59] Geil.R. de arango,M.V.& Hafeiz,Babikis,A.(1983)The burden of mental illness on the family : results of observation in $ devoloping countries, Acta, Psychiatrica, Scandinavica, 68,186-200.

PART A

Review of Psychosocial research in mental health:

A. Studies on family burden have been mainly conducted with schizophrenic subjects. This study is very interesting because it is devoted to evaluation of burden among families of schizophrenia as well as affective disorder especially depression. The basic aim was to compare the extent and pattern of burden experienced by families of schizophrenia and patients with affective disorders.. The extent of objective burden was significantly more perceived by relatives of schizophrenia than relatives of affective disorder, but totally different picture emerged regarding their perception of subjective burden due to illness of the patients. Burden was perceived in the areas of family routine, family leisure, family interaction and finances. The emotional health of family was relatively untouched and the impact on physical health of the caring relatives due to burden of care was almost negligible.

However this is a hospital-based study and sample was selected from a population of patients attending the psychiatric services. The number of 78 relatives of patients in the affective disorder group and 60 patients in schizophrenic group. In sample selection male have the majority and apart from age and marital status there were no significant differences between the two groups (Schizophrenia and Affective disorder) on socio-demographic parameters except for lower mean age and greater number of single patients in schizophrenia group. Patients were diagnosed on the DSM III criteria by two investigators to avoid any faulty diagnosis.

Instrument- Family Burden Interview Schedule-(API and Kapur 1981)

Dysfunction Analysis Questionnaire- (Pershad 1985)

Comprehensive Psychopathological Rating Scale-(Arberg (1978)

The Scale for the Assessment of positive symptoms (Anderson 84)

The Scale for the Assessment of negative symptoms

The inter-rater reliability of Interview schedule for family burden was assessed to avoid observer bias, other test was also having the reliability and developed through a standardized method but were not developed in Indian contexts.

This research has clearly showed that the extent of burden among families of schizophrenia patients is more than among affective disorders, but we can not ignore the considerable burden of affective disorders. This study has showed the important implications for management of patients with mental health disorder. Maximum burden was seen in the spare of routine family activities. For clinicians dealing with the patients, acknowledgement of problem faced by family will help them in dealing more effectively with the mental ill patients and his family. Effective family intervention strategies can be implemented on such type of patients.

In this study the proportion of nuclear family was greater than non-nuclear family, so it is not clear which type of family faced more burden in the areas of family routine, family leisure, family interaction and finances. Certain socio-cultural factors unique to the Indian setting could have contributed to the particular pattern of burden. The joint family system has acted as a buffer against stress, but rapid urbanization fragmented the joint family system and give birth to nuclear families. Nuclear families do not protect more effectively from stress. Researchers did not provide any explanation for the result--why affective disorder and negative schizophrenia were having higher dysfunction and greater in the burden experienced than positive schizophrenia.?

B. This study is very relevant for the Indian context because it asserts that there is a need for ethnographic studies on mental health needs, conceptions and resource for formulating culturally informed and effective therapeutic strategies for health-care planning and policy levels. This is a single case illustration and narrative, but the analysis of this highlights the crucial role of family in the care and management of chronic mentally disturbed women and in the rearing of their children. Family system is responsible only for rehabilitative potential in the long-term management of chronically ill in the community. This study addressed the patient-hospital- family triad from the user's perspective.

We had known that family caring had played important role in the chronic mental illness. The family members of patients have a lot of burden and distress. So the coping style which are used by these families and their relationship to burden have not been studied in Indian families. This research gave psychological help to schizophrenic patients. Analysis of the coping strategies of the relatives is essential before clinical interventions with families are planned to improve the coping skills of the caregivers.

As today schizophrenic patients constitute the major group in the search on family burden. But in this study the burden of case experienced by family members with major affective disorder was evaluated. This is a very interesting study because conceptualizing, defining and measuring burden however proved difficult and only a few studies have attempted to assess its extent among populations. For India social burden studies seems to have great importance because of NMHP[60], which emphasized on community participation. Pai and Kapur have correctly pointed out that starting community mental health program without assessing the burden of families have to face and have harmful consequences for the families as well as for program itself.[61]

The criteria of diagnosis as per DSM-III, and sample was randomly collected and divided into two groups. One was based on DSM-III and other was based on treatment and responses to lithium.

Instruments- Family burden interview schedule (pai)

(2) Dysfunction Analysis Questionnaire

(3) PGI Locus of Control Scale (quantify locus of Control)

(4) Comprehensive Psychopathology Rating Scale (Asberg)

The relatives who were experiencing the maximum burden had chosen. These above instrument except CPRS(Comprehensive Psychopathology Rating Scale) all were developed and standardized keeping in the mind the socio-economic and cultural condition prevailing in Indian context. The result showed that the extent of burden in

---

60 NMHP for India: New Delhi, India, MOH and FW, 1982.

61 Pais and Kapur RL. The burden of the family of a psychiatric patient: development of an assessment scale, Br J psychiatry 1987: 138: 332-335.

these families was considerable. The interesting and surprising findings was that Gender, Education, Occupation, Locus of control of patients or relatives, Marital status of the patients or relatives, religion, type or the size of family and treatment or sub classification group to which the patient belonged were not significantly correlated with the amount of burden. There was not any explanation given by researchers, for above findings, but as we know that, marital status, size of family, occupation, these are the part of social network & interpersonal relationship. This will give new dimensions of research, regarding schizophrenic disorder. A lot of researcher had been done on the coping strategies of schizophrenic patients, but families and their relatives in patient-care concern this one with the coping styles used. The coping styles used by families and their relationship to disease burden has also played a prominent role in the remitting of this disorder. Because of the joint family system in the context of India, it would be relevant to study the various life situations. This study looks at the different coping style used by relatives to cope with schizophrenia patients and to identify the factor that correlate with the coping style.

Diagnosis: ICD-10 Classification

Instrument: Family coping questionnaire (Maglian 1996)

- Family Burden Interview Schedule (Pai adn Kapur 1981)
- Brief Psychiatric Rating Scale
- Scale for Assessment of Positive Systems (Andreasen 1984)
- Scale for Assessment of Negative Systems (Andreasen 1983)

These scales have a satisfactory content validity and intra-rater reliability. Though the family coping questionnaire was translated into the local language with the help of a bilingual expert. The back-translated version was found to be similar to the original version.

Sample: In 44 patients and 44 relatives were included in this study. The proportions of women were higher in relatives as well as patients. This showed that caring responsibility were more fixed with women. The sample included this study had

higher proportion of negative symptoms. No attempt was made to use a blind procedure at a time of interview 40 patients and relatives. This study is cross-cultural in nature so one cannot be sure of the precise nature of association between the variables. The results are not generalized to other situations such as psychotic excitement, as the study has been conducted on a stable schizophrenic population. The influence of psychological morbidity among the relatives on the family burden has not been evaluated in this study. This study showed that caregiver show high levels of resignation while coping with the patient's illness. The use of the resignation strategy has a positive correlation with feeling s of burden especially with family burden (resignation showed a significant positive correlation with Negative symptoms), which indicated that this strategy is not useful in reducing the burden. It is obvious that these relatives are in need and showing no burden.

The schedule of Pai and Kapur to measure burden created a doubt about the validity and reliability because this scale was developed to measure burden faced by the families of schizophrenia, is it justifiable to use it in assessing the burden of families of affective disorders? The result of stepwise multiple regression have raised the question that other variables like socio-demographic or clinical except two variables (dysfunction and duration of illness) do not have any bearing in determining the burden of care. The correlation between burden and place of residence of the patients was almost significant, but the place of residence itself would not define very clearly in this research, and if we assume it as a rural or urban. Then it did not specified by researcher that in which place more burdens had felt. The extent of burden in families of bipolar patients was significantly more than with major depression. This difference could not be explained by either the socio-demographic or clinical variables.

Therefore studies that assess the effect of variables on different aspects and areas of burden such as financial burden, clinical variable, the degree and extent of burden of care and effect of family functioning would provide a clear picture of the complex relationship. I found some other studies that have also documented a similar prevalence of burden among the families of individuals afflicted with mental illness.[62]

---

[62] (a) Gautam S, NIghawan M. Burden on families of schizo and chronic lung disease patients, Ind J Psychiatry 1984: 2c: 156-159.

They did not give any explanation for personality constructs such as locus of control, which have been not found to have significant influence.

E. This research is very beneficial for further studies because it provides the comparison regarding QOL in schizophrenia and depression patients. The diagnosis was based upon ICD-10 criteria. This is cross-sectional research in nature and compare between schizophrenia and dysthamic disorder. The perception regarding QOL in specific areas among patients with psychotic and neurotic disorder is different. Dysthamic patients rated themselves or having a relatively poorer QOL than schizophrenia patients. This reflected that although the depression and negative or deficit symptoms are similar in both cases but the influence on QOL is different.

This is hospital-based study. Sample were 50 with schizophrenia, and 30 with dysthymia, the criterion of sample selection was based upon stability of patient condition, which had defined in terms of drug dosages. Those patients for whom the drug dosages was not increased by more than 50% during the three month immediately prior to the study were regarded as stable. So stability means low level of psychopathology. Sample was fairly homogenous, sample had no demographic or SES information, so generalization of our findings to all type and section of patient is not possible.

Instrument:

(1) Brief Psychiatric Rating Scale (BPRS) (overall and Garham)

(2) The scale for the Assessment of Positive Symptoms (Andreasen).

(3) The scale for the Assessment of Negative Symptoms (Andreasen).

While Dysthemic patients were assessed by means of the Hamilton Rating Scale for Depression (HRSD) and the overall functioning of both groups was assessed by means of the Global Assessment Scale (GAS). All the patients were assessed by means

---

(b) PAI. S, Kapur RI. Impact of treatment information on the relationship between dimensions of clinical psychopathology. Social dysfunction and burden on family of psychiatric, patients. Paychal Med 1982, 12: 651-658.

of the quality of life enjoyment and life satisfaction questionnaire (QOLES) of Endicott. Schizophrenic patients were administered an additional scale, namely the Quality of life self-report-100, of Skantze.

This research faces lack of accepted definition, lack of consensus about domains of QOL, has doubt on the psychometric measurement. Is quality of life and standard of living is same concept? Researcher in this research, while defining QOL had not specified this. Though it was a cross-sectional research which means compared psychiatric patients in different settings. But there were big problems of assessment in multisocial, multi-cultural, and multilinguistic societies, which definitely influenced the measurement of QOL etc.

In this research one interesting finding was that schizophrenic patients were showing greater satisfaction with regard to knowledge, education and finance. This is because of family environment, shared income and joint family system and close social ties that are prevalent in India, do help to maintain contacts. We found lots of discrepancies in the assessment of satisfaction/dissatisfaction in schizophrenia subjects on two different scales, one which is specific for schizophrenia and other is generic for QOL for example. Schizophrenia reported dissatisfaction with regard to leisure-time activities on the QOLES, while on the QLS-100 this was expressed the greatest amount of satisfaction. They did not provide any explanation for the difference with regard to the domains of inner experience and work. Directly or indirectly this study confirm there was still poor QOL in schizophrenia and dysthymia despite significant improvement with pharmacological treatment. So there is a need for modification in QOL assessment and its cultural aspects.

F. This study compared subjective and family member's views of QOL, in-patients with schizophrenia in India. Though the conceptual framework to define quality of life have its own limitations, because sometimes QOL assessed by standard of living and sometimes by satisfaction parameters. The sample consisted of two groups, One group of 38 patients, had chosen, on the basis of ICD-10 classification, and other group was healthy relatives of the patients were the study group. In sample selection unemployed and housewives patient were higher, which showed a selection bias.

Instrument- BPRS, (Brief Psychiatric Rating Scale)

Lehman's QOL Brief Version assessed QOL.

For the purposes of this study some minor changes on objective domains were taking place in the QOL Inventory, this raised some doubt upon the reliability as well as validity of the test. WHOQOL-Brief field Trial Hindi Version also used for measure subjective responses of patients. There was not resemblance on the rating patterns of subjective as well as objective domains; it had also a lot of effect upon the response pattern of subjects. In this research the correlation was found between subjective and objective QOL, it shows SQOL (Subjective) and OQOL (Objective) can be substitute for each other, so there is no content validity between two tests.

I looked at the table and found that the individual domain of QOL was generally in good agreement with work and school activities, but much lower or no significant agreement for other life domains. Especially family relation and finances, which suggest that subjective and objective measure can not be regarded as proxy, measure for investigation. There is also greater agreement between relatives and patients perceptive regarding QOL; this may be because of context of joint family set up of Indian culture. The social support, which is provided by parents, siblings and their families, is having much greater knowledge of patient's problems.

The definition of QOL, which had been given by researchers, was also inadequate and much more related with subjective biases. Larger social networks are positively associated with better functional outcome. The findings showed that relatives could be used as a substitute, in studying QOL in severe mental illness. This approach must be useful in treatment at least in India.

G. This is a longitudinal cohort study. This study examines the long-term course and mortality in schizophrenia, patients. The findings from this study showed that a high rate of mortality among patients with a poor 2-year course is alarming. This study is based upon two incidence cohorts of first contact patients. The findings from this study need to be considered in the context of its limitations. Not all of the members of the 2-year cohort could be interviewed for the 15-year follow up. The whole country is not similar in socio-cultural, economic and health services characteristics. Therefore in

generalizing from this study in other areas of country, need great caution. There was no meaningful differences have found between the urban and rural settings, with regard to association of short-term course with long-term course and mortality.

Before replication, the result of this study needs to be interpreted with carefully. Ascertainment of timing and cause of death was based on interviews with relatives and medical records, where available. The data obtained from these sources are less standardized than registry data. For the diseased patients and those who lost to follow up long-term course rating was based on a review of medical records and interview with relatives, which might not be as reliable as interviewing the patients themselves. This study stated that a 2 years course was strongly predictive of poor prognosis and mortality, which is raised the question of our adequacy of mental health care for such patients. It raised challenges to our policy makers and health professionals to recognize and accommodate the special needs of the families of poor-prognosis patients. These data raise concern about the continuity of treatment for patients with a poor course of illness.

H. It is important to know the coping patterns of relatives of mentally ill people, because family members feel an increased burden of care. This study gave assertion for family intervention in schizophrenia patients. This would be useful in techniques of psycho-educational and behavioural means to reduce distress in family and enable families to cope such behaviour. This study was to determine which symptoms were perceived to be distressful by the family and to determine the severity of such distress for family. The associations between demographic as well as clinical variables were also found in this study.

This is a hospital-based study and 62 patients were diagnosed according to research diagnostic criteria. Most of the patients were male and married and belonged to nuclear family. The relatives were administered on the scale for assessment of family distress. In this study the myth about schizophrenia patient that they performed aggressive and antisocial behaviour were not perceived to be very distressful. This may be due to the inherent qualities of families, their endurance and patience. In the context of India, where joint family system is prevalent so, it is quite natural to worry about the individual (patients) who does not do work and earn or slow and inactive to participate

in daily routine.. There was no difference in marital status of patient, however women were perceived to be more distressful. Distress was more perceived when patients were older in age, this is because more burdens have felt with increasing age. They used the point biserial and biserial correlation coefficients between patients and relatives education with the distressful behavioural groups.

In this research the variables and data did not show real dichotomy and it is not clear that data were fulfill the assumption of normal distribution. This study will useful for educating the family about the nature of illness and ways to handle the difficult behaviour at home.

I. This study reports the relationship between mental disorder and marriage problem. A Approximately in most of the research sample of schizophrenia patients belonged to unmarried categories. This paper represented data on the rate of marriage occurring in a group of defined schizophrenia patients over last 10 years. The paper also looks at the prospect of getting married and examines gender differences in this issue. The sample of 76 patients was diagnosed by modified Feignnes's criteria.

It is also a hospital-based study; males had the predominant in selected sample and did not differ on age, education, type of family, history of illness and other demographic characteristics.

Instrument: Present State Examination (PSE)

Personal and Psychiatric History Schedule (PPHS)

Interim follows up schedule.

The study of marital status in schizophrenia showed that the overall rate of marrying and intact marriages were high in-patients. More males were seen to marry less, but if they did so less of the chances for broken marriages, than in females. Marriage breaking had taken place when wife was sick or unable to bear child, this reflected the socio-cultural attitudes and practices regarding marriage in the predominantly Indian society. In the study population though married females were greater in number than males, this may be because more females got married at a younger age than males. Mostly female patients wanted a lot of care and protection

from society as well as from health services. The course of illness was having significant relation to getting married. Chronic undifferentiated a hebephrenic types was associated within a lower rate of marriage. Hence, marriage is responsible for lessening the severe mental health problem.

J. This study explored the relation between the socio-cultural setting and the course of non-affective psychosis. This study looks at the relation and level of the socio-cultural development to the course of non-affective psychosis. The course of psychosis differs in different socio-cultural settings. To find out the solution of this relationship researchers had chosen the modern (urban) and traditional (rural) site which although differ in level of socio -economic development (income, occupation, industrialization) but were same on cultural milieu (religion, values and belief system). In this study non-affective psychosis of the patients have nuclear and non-nuclear schizophrenia system, which were diagnosed by ICD-9 criteria as well as a CATEGO computer programme. This study showed that course of psychosis differs in different in different socio-economic and cultural setting. This study is the extension of analysis of data from the WHO determinants of out comes of severe mental disorder (DOSMD) study. To examine the incidence rate and two-year course of schizophrenia and other non-affective psychosis sample consisted of 11 subject in which, the majority of patient (71) belonged to schizophrenia.

Instruments- Present State Examination (Wing 1974)

Psychiatric and Personal History Schedule (Jablensky 1992)

Diagnostic and Prognostic Schedule (Jablensky 1992)

The result showed that superior outcome in rural areas as compared to the urban site. But one must be cautious about generalizing this finding to other state in India. This study raises the possibility that the effect of socio-cultural factors on the course of schizophrenia depends upon how the illness is defined. In this study the possibility of migration between rural and urban settings, which might decrease the differences between urban and rural. So this fact has to be consider a relevant. Relatively small sample size resulting in low power to detect small differences in course of illness. This study did not have all cases of psychosis in the respective communities.

This might have mostly happened in rural area than urban because in urban area the services were more readily accessible. So broader definition of psychotic illness may need to be considered in studies on the course of illness. One most interesting thing was found that the level of development might affect the course of non-affective psychosis independent of the cultural milieu. CATEGO classification (a computer programme) is new technique to diagnosis the nuclear schizophrenia psychosis, including, schneideria symptoms and was prominent in WHO reports.

K. This study has given a lot of new insight because it is the first report of a detailed assessment of a large number of factors that have been found to be associated with acute psychosis in Indian settings. Acute psychosis has been reported to occur more frequently in the developing countries, and in females. This study compares Schizophrenia with acute psychosis states (with regard to gender differences in the experience of stress, presence of fever, childbirth proceeding, the onset of psychosis and month of onset of psychosis). It is a case-control study, sample were drawn from three-cohort study regarding SMD, acute psychosis and acute and transient psychotic disorders conducted at different point in time during the period of 1978-1995. In this articles researcher took 58 cases from acute non-organic psychosis from first cohort, 37 cases of non-affective acute remitting psychosis in second cohort and 40 cases from the study of family history of acute and transient psychotic from third cohort. In sample selection of study group (135 cases) and control group (81 cases) there is no specific classification had given. ATPD group characterized by heterogeneous group of disorder and for those disorders there is no evidence of organic causation. This disorder may or may not be associated with stress, so the conceptually driven definition also not very operationally defined. Clinically description of ATPD disorder is not clearly visible. The control group was also a prototype of schizohrenic psychosis. Researcher showed through the discriminant analysis that two groups could be significantly discriminated with regard to predictor variables. There was significant differences in the control and study group regarding some demographic variable sex, area (urban/rural) and stress (present/absent) , but on the level of SES they were equal .Acute psychoses are a heterogeneous groups of disorder in which only one subgroup associated with biological factor as highlighted in this study, other must be included with in the concept of schizophrenia. In sample selection female proportion was greater than male, it showed the female preponderance of acute psychotic disorder, but its

higher frequencies in rural patients has not been reported, while a large proportion of population live in rural area. Control group in this study showed a male preponderance and higher frequencies in urban location, which raises the question of risk factors, associated with gender and rural living. In many ways this study is methodological sounds. The main advantages of study are its large sample size, systematic thorough assessment of intake and follow-up of patients, carefully defined criteria for onset and course and the use of standard diagnostic system-i.e. ICD-10. Nature of sample is homogenous But the use of prototype of schizophrenia as the control group could raise the question of the validity of this assumption. This issue relates to the concept of schizophrenia because non-remitting course of schizophrenia shows the constricted approach to the diagnose.. Researcher would not specify what are the risk factors associated with gender and rural living. So, by the result we can say those females are vulnerable to development of psychosis under conditions of stress than males. This issue wants further analysis. They gave reason that hot and temperate climate environment for acute psychoses. The possible biological explanation like neuroendocrine changes, physiological stresses, triggering are also responsible for psychosis, which need to be pursued further. Fever had constituted a significant factor among all of the patients with acute psychotic disorders, but measurement of actual degree of fever and its pattern, and investigation to assess the cause of fever including viral studies were not carried out. This study only tries to emphasis on the biological factors towards etiology of acute remitting psychoses.

L. This is a case control study to investigate the association between antecedent fever and acute brief psychosis. The main limitation of this design is that the conceptually defining of a brief psychosis is separated from other psychosis; the operational criteria for those diagnoses need refinement. It is a kind of descriptive study not explanatory study. The sample was selected by WHO Life Events Schedule sub-study. This sub-study was designed to investigate the role of stressful life events in precipitation of psychosis. ICD-9 diagnoses pattern is included. For analysis in specific category or strata, the number of subjects in the study was small. The cause of fever was not consistently documented, while the occurrence of fever was documented. Life event data do not consistently reveal the etiologies of fever, however they do provide careful documentation of fever histories.

In this study if we restrict the analysis to cases and controls followed up for two years, the association between fever and acute brief psychosis remains not as strong. Acute brief psychosis may require the interaction of fever with other potential etiologies for its expression. Since the specific ICD-10 criteria for ATPD were not applicable in this setting, we relied upon our criteria for acute brief psychosis, which adhere to the spirit but not the letter of the ICD-10 grouping. The diagnosis criteria of ICD-10 failed to differentiate acute brief psychosis from other remitting psychoses or from schizophrenia. Antecedent fever may be a biological cause for acute brief psychosis. It is important to understand physical as well as psychosocial stress as a potential etiology of acute brief psychosis.

M. To examine the long-term course of remitting psychosis this study is the comparison of acute brief psychosis with other remitting psychoses for 42 years after onset. This study showed that whether a distinctive group of psychoses with acute onset and short duration is separable from other remitting psychoses. Though in this study researchers define the concept of acute brief psychosis in operationalize terms, cohort design was used. They were diagnosed using ICD-10 criteria since the specific ICD-10 criteria were not applicable and effective in separating cases. Here the term remitting is different in both group of ABP(acute brief psychosis) and ORP(other remitting psychosis). The instruments (Diagnostic and Prognostic schedule) used to assess the patient by present state examination for standardized and reliable ratings of psychotic and other symptoms. The result were showed that majority of both groups were diagnosed as having schizophrenia. So the more research should be done toward the definition of acute brief psychosis disorder. Though it is clear that acute brief psychosis has a distinctive and long-term course when compared with other remitting psychosis.

N. This study is interesting because sometimes the diagnosis is not classifiable up to that extent which could lead to any definite conclusion. When the symptomatology confirms to no other distinct category of disorder then it called NOS (Not Otherwise Specified). For this also the relationship between socio demographic and clinical variables have crucial role. The study had done in Pondichery. It is hospital based study.. The socio-demographic profile showed that unspecified psychosis seems to occur more in the younger population. Only significant differences we have seen in the

patients who had a more acute onset of illness. The relationship between clinical and socio-demographic variables on age, marital status and sex is not showing statistically significant. Further investigation is necessary to understand more about specific etiological factors and psychopathological characteristics of unspecified psychosis.

O. This is very relevant research that relates public health indicators to mental health. We accepted this issue that for good health indicator of any country IMR should be low. This study was based on record-data. This study showed that higher IMR means more infants with perinatal complications, and infants with such trauma died.

It has limitations, first of all the study is based on record-based data, so it is difficult to relate AAO(age at onset) from the case files to onset of psychosis reliable. The role of familial loading was not examined in this record-based study that is why female has higher incidence of familial morbidity. It also showed that perinatal complication may influence the sex differences in AAO(age at onset)future studies on sex differences in AAO of schizophrenia may have to control for perinatal complications and perhaps familial loading. Gender differences in AAO(age at onset) may be a function of perinatal complications.

P. This study has showed the sex differences in schizophrenia in India. This study is based on hospital data based data, using DSM IV criteria for diagnosis. To define age at onset was much more subjective and it has some doubt that it was correct or not. Clinical psychopathology was rated on the Positive and Negative syndrome Scale (PANSS). After statistical analysis it would be clear that there is no significant difference between the sexes in age at onset of first psychotic symptom, when the other diagnosis classification system was used instead of DSM-IV, there was no sex differences in age at onset were detected. Authors gave the reason that this might be because of erroneous estimation of age due to absence of documented date of birth. For some patients, researchers have the accurate estimation of age. Survival analysis of that patients showed those female subjects had a significantly higher risk of developing schizophrenia at younger age i.e. lower survival rates. The result is more interesting, when we look at the different diagnostic classification system of male/female; significantly more males were diagnosed as schizophrenic. This arose the questions on Diagnostic tools. Both neurodevelopment and cultural explanation are also do not

differ significantly between the sex in an Indian population, which differs from results reported in the western literature.

Q. This study is trying to show the genetic contribution of schizophrenia. The fertility of patients with schizophrenia has been repeatedly shown to be lower than other psychiatric disorder as well as of general population. So in this study they measured and compared the fertility rate among schizophrenia patients and relatives across three generations (grand parents, parents and their siblings) and also compared the changing pattern of fertility in families of patients and in general population, used DSM-IV criteria hospital based cross-sectional study. This study showed that the fertility of patients was lowest, lower than that of the general population but the parents of patient were showing higher fertility than other relatives and general population. This study compared fertility rates among individuals who had completed their reproductive activity and patients or siblings who were younger than their other relatives. How could they be considered to have completed their period of maximum reproductive activity? The one more limitation is that its findings relate specifically to individuals with chronic schizophrenics, who were receiving treatment, as out patients. The two issues that fertility relation with severity and genetic loading for schizophrenia has not been clearly addressed.

The increased fertility among the parents and siblings of patient is responsible for increased genetic contribution to the morbid risk for schizophrenia and maintained in the face of reduced re-productivity of the patients themselves.

R. This study stated that "is there any type of differentiation between the coping strategy in depressive patients." This is hospital-based study and patients were diagnosed on ICD-10. This cross-sectional hospital based study. The design was a Case control study. In sample male is predominant, but the fact is that depression is common into women. The case and control groups were comparable. The depressive used a significantly more avoidance coping responses as compared to the control group. Depressives were also found to use fewer, approach coping responses and problem solving behavior. This study is a pilot study. It determines the association between coping responses and depression. Some more studies should be done on coping responses in different episodes of depression, endogenous version non-

endogenous, depression and psychotic versus non-psychotic depression need to be studies. They would not given any further analysis regarding on sex, age, religion, domicile, educational status, marital status, employment, family type to the coping style. This should also be included.

S. Through this study the researchers would like to show that for suicidal intent, depression played a vital role. This was also a hospital-based study at Lucknow. In this study purposive sampling was using, the instrument were case sheet performa, ICD-10 criteria for classification and HRSD (Hamilton Rating Scale for Depression, Suicidal Intent Questionnaire). This is a self-report questionnaire developed and validated in the Department of Psychiatry Lucknow by Gupta et al (1983) and Hopelessness Scale (Beck 74). Sample has more males representation. The present study shows highly significant correlation between suicidal intent and hopelessness, hopelessness and depression, depression and suicidal intent. Though it might be possible that the entire instrument has reliability and validity, but in this article writer has not mention these things. The implications of this article will be use as a therapy of suicidal incidence. In random assignment of sample the factor of selection bias and experimental mortality, contemporary history and maturation have affected the validity.

T. This is also hospital-based study and purposive sampling was done. This research is based on referred groups of patients and not on a community sample of the general population, so it will not be replicated and generalized. Two groups were not comparing in all factors. Further research should be more influential if it examine the role of those variables that are capable of reducing the negative impacts of chronic strains, such as social support, personality styles and coping skills, and taking control groups in which non depressed, non suicidal and depressed but non suicidal adolescents which conform the findings. This is also co-incidence that in this study majority of adolescents have reported interpersonal problems belongs to nuclear family, this is also a factor which is the limitation of this study.

There should be some questions on Suicide Intent Scale, Risk Rescue Rating Hopelessness Scale, Montgomery Asberg Depression Rating Scale, and Presumptive Stressful Life Events Scale. Though majority of the adolescents attributed interpersonal problems of the reason for attempt suicide, while some claimed physical as well as

other reasons for their problem, so there must be some other factor which have to be taken into account by further research. Most of the patients have psychiatric morbidity, so it is proved that psychological problems lead to suicidal attempts.

U. This study showed that physical illness (Bronchial asthma, epilepsy) not only itself a problem but it generates the other psychiatric problems like depression. This is also a hospital-based study on epilepsy patients. ICD-10 clinical and diagnostic criteria, was used. Sample was recruited from a large tertiary hospital and findings cannot be generalized to the community. Study design was cross-sectional case control design, therefore causal attribution could not be possible. Psychosocial variables and life events were not assessed in this study. This research used the structured diagnostic instrument to detect lifetime episodes of depression. Future research could be on community samples to detect prevalence rates as well as to study both biological and psychosocial variables.

V. This study had been done to find out the correlation between severity depression and suicidal intent. This is also a hospital-based study and sample was collected from hospital. For diagnosis they are using ICD-9 criteria. They used HRDS, Suicidal Intent Questionnaire of Gupta, and found scale reliability. The correlation between suicidal intent and depression are not so strong. Sample size was small. Duration and other variables like employed, male, may have a non-linear correlation with suicidal intent expression. Influence of treatment variable could not be controlled further work is required.

W. This research indicated that stress had consequential effect on depression, some of the ego functions also played a significant role in determining the overall psychopathology of depression. This study is concerned with the role of ego organization. The samples were chosen on the basis of ICD-10 category. Male and female were equal in this selection. This is a hospital-based study. This is a type of experimental research in which two groups were participates. One was clinical group and other was normal group. Normal group was a purposive sample comparable to clinical group in age, education, occupation family condition, and marital status and income level. They used:

- GHQ (Gender Health Questionnaire-)

- The Beck Depression Inventory or BDI.

- The Presumptive Stressful Life Events Scale.

- The Ego function Assessment Scale (Modified)

. As there are specific deficit in Ego functions for depressed persons, the therapeutic program can be planned accordingly to enhance those specific functions. This study shows that the better three functions were (the ability to use social resources, ability to abstract and think rationally, cognitive flexibility, positive self cognition and neutralize minor disturbance) less is depression. Researchers adopted the Bengali version of Basu and Dasgupta"s which raised the question of validity and reliability of test. Are these tests were having the content validity. The translations of words have the same meaning as it has in the real version. The tests were having the test retest reliability or not. It did not specify by researchers. Instead of these limitation this study is useful and also having the implications for the therapeutic management of depression.

X. In this study the researcher had showed that panic disorder co morbid with depression is a much more severe illness compared to pure panic disorder. Though in this study certain limitations such as a failure to distinguish between primary and secondary depression. It is a cross-sectional study based on patients help-seeking behavior from tertiary care center. Further Longitudinal studies are needed to clarify the relationship between panic disorder and depression. In this study some of pure panic disorder patients have develop depression later during the course of their illness. It showed that panic disorder co-morbid with depression in a much more severe illness than pure panic disorder. Subjects were evaluated on Composite International Diagnostic Interview (CIDI) (Robins etal 1988) for life time psychiatric diagnosis according to DSM-IV criteria, Panic disorder severity Scale (Shear 1997) and the Global Assessment Scale (Endicott 1976) were used for assessing the severity and overall functioning of a subjects. In discussion and analysis they did not give explanation regarding significant differences in any of the variables among the diagnostic group.

Y. This study has showed the importance and influence of social support on psychosocial dysfunction in patients with major depression, by using Social Support Scale (SSS) and Dysfunctional analysis questionnaire (DAQ). Researcher gave proper operational definition of social support and psychosocial dysfunction. Social support

and depression appear to be inversely related. This study was undertaken to assess whether the extent or quality of social support has any relation to the dysfunction experienced by patients with depression. This was a hospital-based study and patients were classified on the basis of (DSM III-R). Though researcher was so much conscious about to control the extraneous variable, and effect of treatment on ratings. Informed consent was taken from all patients. In this research experimenter gave description of the scales, which were developed and standardized in India. He used Hindi adaptation of both tests, which has been found to have superior test-retest reliability and stability.

Higher statistics were used in this study because apparently total SSS scores were found not to affect the DAQ scores (i.e. there is no significant relationship was observed between social support and psychosocial dysfunction.) Some item group of SSS does so inter-item analysis to find out if dysfunction scores could be linearly influence. There are some doubt emerging regarding measurement of social support and methodological problems such as distorted perceptions of psychiatric patients about social support this makes the relationship more complex. DAQ measures dysfunction in five areas. This instrument was developed and standardized in India (Pershad etal 83,85) and has been found useful by a number of research workers in India for studying psychsocial dysfunction in psychiatric as well as no psychiatric patients.

The finding has therapeutic value, in that depressed patients should be facilitated to active functioning rather than providing only care and concern. Some important clusters of social support which were unexpectedly not found to affect the dysfunction like getting praise and regard for being good at work, unnecessary criticisms, feelings of loneliness in social gatherings and lack of confident relationship.

Being its cross-sectional nature and the inability to control the influence of distorted perception on the assessment of social support, which could have affected the result. Considering the complicated nature of the relationship between social supports, which could have affected the result. Considering the complicated nature of relationship between social support, psychiatric disorders, and the accompanying dysfunction there is a need for prospective longitudinal studies, taking care to minimize the methodological problems associated with measurement of social support. The present study has some limitations such small sample size and absence of control

group. A larger sample would have facilitated details of the relation of different type of dysfunction with various social and demographic and clinical variables. In all hospital based psychosocial research, mainly few of them deal with the coping style of family member and relatives. This was a myth that only schizophrenia disorder is devoted to burden among families. In the Indian context we had known that joint family system sometimes acted as a buffer against stress, but the family member of the patients have to bear a lot of burden and distress. There is a need for ethnographic stymies on mental health needs and conception for making good mental health policy. The role of family is crucial in care and management of chronic mentally patients. Some stymies should be done on the coping styles of families. Are gender, education, and occupational level, which are the part of social network and interpersonal relationship can affect the burden among families. How much degree and extent of burden of care effect the family functioning. The variables such as family type (Nuclear and Joint), background (rural/urban, Rich/Poor, Higher SES/Low SES) the sort of patients and relatives, education level are bound to influence the burden differently in different culture. Such information would be more useful to establish a cross-cultural perspective. Some researches, which have deal the concept of quality of care is, definitely have to explore. Sometimes the QOL assessed by standard of living and sometimes by satisfaction parameters.

In all the research the instrument that were used by the researchers were almost same in all research. Relatives can be used as a substitute in measuring QOL. Marriage is also responsible for lessening in the mental health problem, but we have to understand the growining pattern of l9ove marriage in Indian context. Is this really plays a role for lessening the mental health problem or not. The level of development in terms of SES may affect the course of illness. In all study researchers used the higher statistics only to prove their hypothesis, without considering the assumption and methodologies.

In some of the study the error was so huge that the generalization could not possible. They were using the socio-demographic concept only as dummy variables. all the research would concern only to define and specify the new disease. These study though it looks like they were dealing the issues of social aspects, but indirectly its emphasized on the biological concept, like study Q. Which stated the genetic transmission patterns.

PART -B

Review of Clinical based research: in Mental Health:

(1) Hospital based empirical research (Guwahati) Medical College.

This study compares the efficacy of Resperidone and Haloperidol in patients of first episode drug native acute and transient psychotic disorder and result showed that Risperidone represent a useful first line agent in the treatment of ATPD.

Design: Single blind -Randomized Groups Design.

Diagnoses: ICD-10 ,

Sample: 30, (35) patients

Instrument: Brief Psychiatric Rating Scale (BPRS)

Global Assessment of Functioning Scale (GAF)

Sample Selection: In sample selection the researchers used the age group from 16 to 55, but there was not a single individual, which was above the age of 35. Secondly the researchers have selected the patients in the first episode of the disorder, not the second episode. It is not clear whether all the selected subjects have any past history of any psychiatric morbidity. They excluded the subjects, who were not having the other psychiatric illness like bipolar disorders, schizophrenia, but in the selected sample the majority were having acute schizophrenia like psychotic disorder. They included the subjects, who were not having any past history of psychiatric morbidity, but in the group of Risperidone and Haloperidol nearly 40% of selected sample belong to families, which were having history of psychosis. Does genetic and environmental have any effect upon individual for emergence this type of disorder? Majority of the Haloperidol groups belongs to lower socio-eco status; this is indirectly showed that more disorder pervades in this strata.. Though rate of improvement is more significant in first two weeks than last two weeks, the reason is not properly explained. They compared the scores in dimensions of psychopathology on the basis of thinking disturbance (Hallucinatory behavior), hostile suspiciousness (Hostility, Suspiciousness), withdrawal retardation (Emotional withdrawal) anxious depression, motor retardation,

guilt and conceptual disorganization. They have not analyzed the socio-demographic variables with relation to these dimensions of psychopathology. Though this research showed the efficacy of Risperidone but because of some side effect and small sample size generalization might not be possible.

(2)- This is also the same type of study in which researchers tried to find out the efficacy of Risperidone on conventional Anti-psychotics like (Haloperidol, Chlorpromazien or Trifluoperaizne), and ECTs (Electrical convulsive therapy)

Design: Same as above.

Sample: 30 Patients

Diagnosis: DSM-IV

Instrument: PANSS (Positive and Negative Syndrome Scale)

Sample Selection:

The selection was predominantly based upon the subjects who were showing the negative symptoms not positive symptoms. This showed the selection biases (in 7 patients there was a reemergence of positive symptoms) and there is no description of subject's socio-demographic status. The other factor like contemporary history, testing instrumentation, maturation must have adverse effect on the internal validity of this research. How we can say that Reisperidone is effective, while 4 patients had increase in rating on suspiciousness and hostility, 2 patients reported auditory hallucinations, and 1 patient developed delusion and conceptual disorganisation. The first study that has proved that Risperidone is effective, create doubt after reviewing of this study.

(3) This study also showed the efficacy and safety of new Antipsychotic drugs called Resperidone in schizophrenic patients,

Sample - 30 Patients 27 completed [28 males, 2female]

Diagnosis: DSM III -R Criteria

Instrument: PANSS, BPRS, CGI(Clinical Global Impression)

EPSR (Extra Pyramidal Symptom Rating Scale)

In sample selection there is no equal ratio of male and female. Some adjunct medications were used when extrapyramidal symptoms had seen. These extrapyramidal side effects were also pose the important problem with conventional neuroleptics, It raised some question upon the efficacy of this medicine. Researchers have not discussed on the socio-demographic and cultural aspects.

(4) This study also showed the efficacy of Risperidone. In this study there is a comparison between drugs Risperidone and Haloperidol in-patients of schizophrenia, on various clinical and psychosocial parameters. Like, second study here also Risperidone was responsible for reemergence of positive symptoms of schizophrenia but effective for negative symptoms of schizophrenia. This study also deals the same issues, but in addition it showed that improvement not only perceived in the signs and symptoms but also in the other areas of life such as social integration and quality of life.

Sample- 125(100) Patients

Design: Non-Equivalent Control Group Design

Diagnosis: DSM IV

Instrument: Clinical Global Improvement Scale (CGIS)

Positive and Negative symptoms scale (PANSS)

Sample Selection:

There is homogeneity in treatment process, but due to open trial some biases of clinician in favor of Risperidone have been found. This study seems to show a mutual relationship between pharmacotherapy and improvement in quality of life. It also emphasized that improvement in sign and symptoms by pharmacotherapy tends to improve the other areas of life, which are important for social integration as well as overall improvement of patients suffering from schizophrenia. This is an open trial study so there was no control on selection bias and due to this the internal validity

seems to be a problematic. There were significant differences in the mean age of the two groups; this might be possible due to clinical aspects. There was no significant difference noticed between the Resperidone group and Haloperidol group except on general psychopathology subscale. Some doubt and questions on the validity of PANSS have emerged. The findings of this study needs to be taken with caution because it is an open trial and also showed that discrepancy in the result of PANSS and CGIS assessment. Clinical improvement in psychosocial areas has also showed no significant difference between two groups on the parameters of economic dependence and severe exacerbation. In discussion, researchers have not mentioned this. Only education and no suicidal intent aspects showed significant improvement in psychosocial areas. So from this finding it appears that both drugs may be comparable as far as the improvement in signs and symptoms of schizophrenia is concerned.

(5) The basic aim was to compare the efficacy between Centbutindale and Haloperidol in schizophrenia. This is very interesting research because the medicine named Centbutindale is a new antipsychotic developed by Central Drug Research Institute Lucknow.

Design: Double Blind Parallel, so it prevent any type of preference among samples as well as researchers

Sample: 39.

Diagnosis: ICD-10

Instrument: Positive and Negative Syndrome Scale

Clinical Global Impression

Uku Side Effect Scale.

Sample Selection

This is also a hospital-based study the samples were selected on randomized basis. There was no significant difference between Centbutindale and Haloperidol groups with respect to age, sex, domicile, on set durations and number of episodes. Though in this research by PANSS scores, the steady decline was observed from 3 to 6

week but no significant differences have been found between the two drugs. All the four individual factors namely thought disorganization activation, energy and paranoid showed significant decrease from their baseline scores, at different point of time but it did not show that this was due to different type of drugs. There was no significant difference in these individual scores due to drugs. After third week there was no difference observed between these drugs. Only on the basis of CGI scale it could not be generalized that Centibutindole had better result than Haloperidol. The side effect had also appeared, in both groups. Two side effects Akathisia and Dystonia emerged. In Haloperidol group while no patient developed these side effects in Centbutindole group. So this indigeneous drug showed its effectiveness.

(6) This study is also having much importance because antipsychotic like Clozapine prescribed more frequently. The drug has seen to have an effective response on positive as well as negative symptoms. This study was undertaken to evaluate the efficacy of clozapine in an open trial in schizophrenia who were non-responsive to the classical antipsychotics.

Sample: (25)

Diagnosis: ICD-10,

Design: Researchers used open study design. This design has not given much more emphasis on sampling technique, selection criteria, matched sample, balanced variables and extraneous variables. Hence generalization may not possible to great extent.

Instrument BPRS (Brief Psychiatric Rating Scale)

PANSS (Positive and Negative Syndrome Scale)

Global Impression Scale (GIS)

General Psychopathology * * *.

* Side effects scale,

* Blood count cell (HB, TLC, DLC)

* Blood pressure, pulse, temperature.

All patients were treated with two neuroleptics either Clozapine or Haloperidol. The improvement on these scales was not showing a tremendous effect. None of the patients had improved beyond 50% as compared to the baseline. The PANSS scores also showed improvement, but results were more divergent. This initial study has shown the benefits of Clozapine in chronic patents but it cannot be generalized very profoundly. The side effects observed in this study were sedation, hypersalivation, tachycardia, postural hypotension and dizziness. Clinicians should be cautions in using it because this was showing a potentially life threatening side effect such as agranulocytosis. In this study researchers did not differentiate between deficit and non-deficit schizophrenia. There is no significance difference has been found in negative as well positive symptom.

(7) Now this is the first study that dealt with the area of depression. There have been very few studies on the use of Anti-depression for CMD in India. There are many antidepressants available in pharmacological profile. This clinical trial was undertaken to evaluate and compare the efficacy safety and acceptability of two antidepressant drugs namely Mirtazapine and Amitriptyline.

Diagnosis: DSM (IV)

Sample: 39 patients

Design: Parallel Group Study Design.

Instrument: HRSD (Hamiltons Rating Scale for Depression)

CGI (Clinical Global Improvement Scale)

Sample Selection-- In this study sampling is incidental and based on HRSD scores. Patients who were having the history of alcohol dependence and bipolar depression were excluded from this research. This research is based on randomized clinical trial. Researchers used ANOVA for statistical analysis. This was quite good to evaluate the differences between the treatment groups, because 't' test was definitely more time consuming. There is some doubt regarding homogeneity of variance and also regarding

the independence in sample. By using accidental sampling the researcher have some bias and prejudice that would definitely put a question mark on its creditability. Treatment emergent adverse events were also reported more in Amitriptyline treated groups. Mirtazopine group showed a slightly higher level of depression then Amitroptyline as measured by HRSD total scores at baseline. The result of this study indicates that Mirtazapine is effective in the treatment of depression, but primary treatment outcome of this study suggests that both drugs is equally efficacious. The secondary variable (CGI) showed benefit of Mirtazapine in the treatement of depression. Both drugs were equally effective in improvement of depressive symptoms and depressed mood. So it created some doubt upon the relative efficacy in Mirtazapine group. The response and recovery time with Mirtazapine was relatively short as compared to Amitriptyline.

(8) This research is very interesting, because it challenges the notion that most primary care patients in India are prepared to take medication in preference to other options such as psychological treatments. Thus there is also a need to compare the acceptability and cost-effectiveness of pharmacological and psychological intervention in general health care. It is clear that side effects pose a major challenge to trials with antidepressants in general health care settings. In developed societies there is a growing evidence for the effectiveness of antidepressant for CMD, but given the varying nature of health system, and cultures in developing and underdeveloped countries especially in India it is necessary to evaluate the effectiveness of pharmacological treatment approaches.

In this hospital based study sample size were small. This limitation must be taken into account because while we were interpreting the findings of trends that are statistically non-significant but could be significant had the sample sizes been larger. The discontinuation rates were so high that for examining the difference in efficacy between the 3 groups was not feasible. (Fluoxetien 20mg, Imipramine 75mg Inipramine/50mg)

Instrument: 5 Item Konkani GHQ (General Health Questionnaire) was used Revised Clinical Interview Schedule. (For measurement of CMD in **community.)**

Sample: 61,Patients

Diagnosis: ICD-10

Design: Randomized Group Design.

Sample Selection-

This is single blind study. Sample selection has certain biases, with females constituting about 97%. This showed that female more prone to depression. Majorities of patients had not completed school, and were unemployed. They did not give any reason for discontinuation; it might be possible due to the adverse effects of the drugs. Because the more discontinuation rate 'has been found in the Imiprimine 150mg group. Thus it is our view that the full dose of Imiprimine has limited value in general health care settings and it poses a major challenge to trials with Antidepressants in general health care settings. The reason for providing fluoxetine in morning and Impiromine 75 and 150mg at bedtime was not discussed. In daytime subjects obviously faced more stimulus than night. So it must be a treatment bias. There is a need to conduct a randomized placebo - controlled trial to examine the efficacy of these drugs. There must be some doubt in translation and use of the Konkani version of CIS and the validation of the GHQ -5, and subject were selected on the basis of obtained scores in GHQ and CIS. The validity is questionable. There is also doubt on inter item validity.

(9) This is also a study of efficacy and acceptability of new antidepressant drug called Amineptine. Prior drugs were Amitriptyline, Imipramine, Fluoxetine. This is a detailed open study, along with efficacy and acceptability of Amineptine and also they assessed the effect upon work impairment.

Sample: 50 (35)

Diagnosis: DSM III R

Instrument: Montgomery and Asberg Depression Rating Scale. (MADRS)

HDRS (Hamilton Rating Scale)

ZUNG-Self Rating Depression Scale (ZUNG)

Social Adjustment Self Reporting Questionnaire (SAS)

Hamilton Anxiety Rating Scales (HARS)

Clinical Global Impression (CGI) - Severity of Illness,

CGI-Global Improvement,

CGI- Efficacy Index

AMDP- 5 Somatic Scale.

Sample selection: It is not representative on the basis of normal probability curve. Majorities were males with major depression, of moderate severity. This might be because male were more reported their illness than female. Among 50, 15 were reported early withdrawal from the study. Researchers did not discuss the main reason. Discontinuation rates are not explained.

There was significant treatment effect with Amineptien in all clinical outcome measures at each assessment regarding depression, social activity, CGI, somatic Anxiety Scales and also on AMDP-5 somatic scale.. The limitations were that in this study there was no control group, to compare the findings. Social adjustment scale showed that the improvement in social adjustment this means this drug may allow patients an early resumption of work and a normal life style.

We have not generalised the findings because of withdrawal rate (15 patients 4 showed) and lack of efficacy. The traditional drug (Imipramine and Amitroptyline) continued to be the treatment of choice in major depression. But in the short term Amineptine may be suitable as a first line drug for major depression. For long-term follow up is required more further investigation. For statistical analysis they used chi-square test to show the difference in response between assessments and for change in outcome variable. As for as the conditions or characteristics of chi-square is concerned it is being used when the sample is small and it can be used when there is a doubtful normal distribution. But here anyhow the researchers want to prove the association statistically, so they used statistics, they did not provide proper explanation for higher peak dose of neuroleptics dystonia.

10. This is very interesting research, because above all the research have showed the efficacy and acceptability of antipsychotic or antidepressant drugs in the treatment of schizophrenia or depression. This is a type of prospective study that showed that neuroleptic treatment (Haloperidol, Chlorpromazine, Pimozide Lithium, Trifluoperazien, Fluphenazien Decanoate Thioridazine) leads to the acute dyskinesis in manic and schizophrenic patients.

Diagnosis: Research Diagnostic Criteria.

Design: Double blind study

Sample- 83, (50 mania, 33 schizophrenia)

Only males were included in this research.. The sample size did not represent the population. The substantial difference on the type of neuroleptic used in the two groups did not provide generalized framework. Peak neuroleptic dose emerged as the single most significant risk factor for dystonia. Thus there is a need for carefully controlled prospective studies with larger groups of patients.

(11) This study suggest that depressed people exhibit deficits in cognitive functioning, they also reported concentration problems, memory deficit and signal detection difficulties. So this impairment in cognitive function could be evaluated more objectively by neurophysiological tests. Event related potentials (ERP) are important measures of brain function. The most widely studied of late ERP is the P300 component. This study has evaluated the P300 latency and amplitude in-patients with depression (P300 serve as a biological markers for depression). Total 40 subjects were chosen on the basis of ICD-10 and scores on HRSD (Hamilton Rating Scale for Depression) and Cornell medical index (CMI), Mini Mental State Examination.

The experimental and control group design were used in this experiment, so better comparison was possible to show the effect of independent variables on dependent variables. Control groups were related from the normal healthy relatives of patients.[63] The patients, who were having depression, HRSD score was significantly higher and also have abnormal P300 as compared to those with a normal P300. The

[63] All subjects were right handed, so there is not any suspicion upon the function area of brain, because in every subject left hemisphere was more responsible for cognitive activity.

P300 was abnormal in 12 patients with depression (30%). HRSD scores were significantly higher in those with abnormal P300 as compared to those with a normal P300. By this study it was showed that P300 abnormalities in depression may be considered to reflect abnormalities of cognitive processing. The exact usefulness of P300 in-patients with depression is still uncertain as the changes lack sensitivity and disease specificity.

(12) This is also a good work, which has done on the normal healthy people and it showed that people with unstable cognitive including inattention might not perform the task accurately. This study had done on the 150 health people. The selection of sample is based upon detailed neurological examination,, cognitive evaluation (MMSE, Mini Mental Status Examination) and Roven's Progressive Matrices.

The linear regression equation between P300 latency and age were showed large amount of error, that means the difference between an observed value and a predicted value is large. Based on the findings that prolonged latency, taken as predicted value for all age as determined by the regression equation may not possible, because of SEE. There must be some error in selection of sample. The value of "b" was also very high. Though scattergram was showed that the density of response was not in scattered wave but the SEE (Standard error of estimation) created some doubt.. These types of errors were found in small sample, then what will happen when sample were large. For eliciting of P300 waveform subjects must be in cooperative and attentive mood, if any time auditory targets are ignored the P300 would not be generated. If the patients have auditory disorders like deafness then P300 may not be a useful objective clinical adjunct to behavioural measures of cognitive processes. This type of research have been done to prove only that depression leads to cognitive dysfunction, but what is the relevance of further analysis to the treatment of this disease. There was not so much difference between the latency and Amplitude of male and female, but in reality female is more preponderance towards mental disorders. Researchers did not discussed their findings in the right of demographic characteristics, these demographic characteristics played only like a dummy variables with using higher statistics they were showing that P300 latency was significantly prolonged and P300 Amplitude significantly lower in depressives. The sex of the patient clinical subtype and duration of present episode did not have any significant relationship with P300 Latency and amplitude. Will it possible

that altered P300 have association with schizophrenia, infantile autism, childhood attention defect disorders and alcoholism? P300 is unlikely to serve as a biological markers for depression, it only showed that depression have structural and functional abnormalities of limbic / hippocampal function. The exact usefulness of P300 in-patient with depression is still uncertain. Directly or indirectly this research had only emphasized on the medical or biological based therapy.

(13) Now I would like to review research on biological based therapy such as ECT or drugs. Only one research which touched this area. This study has importance because it compared the efficacy of ECT and Imipramine (Tricylics) in major depressive disorders. There was first line of treatment in major depression. The scores of HRSD confirmed by DSM-IV criteria, and diagnoses of patients also.

Sample: 28 included from 152 samples and randomly divided into two groups of ECT and Imiprimine (IMN). Two groups did not differ on any of the demographic and clinical variables except pretreatment HRSD, ECT group have more HRSD scores than IMN.

Instrument: HRSD (Hamilton Rating Scale for Depression)

Montgomery Asberg Rating Scale (MADRS)

Clinical Global Impression (CGI)

DSM (V) Melancholia Checklist

Beck's Depression Inventory (BDI)

VAS (Visual Analog Scale)

Columbia Side Effects Checklist.

The result showed ambiguously that ECT was not more effective than tricyclic anti-depressant drugs, but the side effect profile was worse in Imipramine group. It raise question: "Has ECT a place as a first line antidepressant treatment"? This is a double blind study, although the study design did not follow the standard methodology of double blindness and differences between the groups were missed. Type II errors

have found. Some other methodological pitfalls like heterogeneity (illness severity was lesser in the IMN than ECT groups) of patient population escalating doses of tyicyclic antidepressant drug, relatively low doses of IMN and unclear antidepressant status. This study had limited the role of placebo response. Patients were admitted into the study only after confirming that they showed no placebo response to B complex tables during one week of observation in the ward. Both treatment groups showed a high remission rate although no treatment was superior to the other in therapeutic response. The study should include bipolar depressives, psychotic depressive and elderly depressed. Small amount of drugs had been given to the patients who were above the age of 30. It is very amazing that why researchers could not include these type of disorders in their sample selection. Though it proved short-term efficacy but there is a need to assess the long-term effects. Though by statistically patients had significant showed reduction in depression scores over time but there were no differences between the two treatment groups. There is a need to assess the long-term efficacy of they two treatment approaches. This study finding provides an opportunity to reassess the issue the ECT could be an effective and never inferior to a course of antidepressants in major depressive. This study is the first step to show that ECT might have given as a first line of treatment. But in conclusion distinction of therapeutic efficacy between ECT and Imipramine is not visible.

(14) This research analyzed the various clinical predictors of response to ECT in major depression. What are the best responses, which can show the efficacy of ECT? Can the initial response to ECT used as predictors of outcome in-patients with major depression? The above questions were dealt in this research. This research is most relevant because it stated that still the ambiguity pervades for the clinical prediction of response to ECT in major depression in spite of extensive research over many years. This study gave the various clinical predictors of response to ECT in-patients with major depression. But further research would clarify the ambiguous issues regarding prediction of response to ECT in depression

Sample: 30

Diagnosis: DSM III R, and HRSD.

Design: Prospective design

The sample consisted of 13 males and 17 females. The major criteria were that subject who had no past history of affective episode or any other psychiatric illness were includes. Onset of illness was acute in 9 patients, melancholic feature were present in 20 patients, while psychotic features were observed in 12 patients, 11 patients were showing no improvement or had improved only by less than 50% on HDRS. So these issues raises the question upon the regimen of ECT. To detect the variables, which could reliably be used as predictor outcome of depression treated with ECT, regression analysis was employed. The two groups differed significantly on variables diurnal variation of mood and Delusion and baseline HDRS score for hypocondriasis.

This has not been analyzed properly in discussion. Regression analysis was not also showing the overall improvement it only showed that approximately 20% of variation could possibly be predicted. It leads to controversy about the significance of any antidepressant effect early in the course of ECT. Sample size was selectively small (it affects the use of higher statistics), sample consisted predominantly of patients from a lower socio-eco background and therefore is not very representative. This study also showed the importance of biological predictors of response to ECT in depression. Though early improvement in depression treated with ECT has a significant correlation with the overall improvement after the full course, but it predictive appears to be weak. Baseline mean total and HDRS scores had not found significantly different in the responders and non-responders. Predictive variables namely delusions, diurnal variation of mood and hypochondriasis in relation to response to ECT, still remains uncertain and need further research. Approximately 56% of variability in outcome could be predicted by above 3 variables taken together.

Presence / absence of delusion was associated with a good response to ECT. They did not define what is good response, it is reduction in HDRS score or some others. Some variables like depressed mood, suicidal impulses, anxiety, loss of insight, did not find significantly different in the responders and non-responders group. What they did to avoid the affects of diurnal variation of mood and ECT related immediate side effects. This might be influenced the assessments.

(15) This study is much more related with the above study, there is a lack of consensus on the clinical variables that predict response to ECT. It is necessary for good therapy

to identify clinical variables that could help in predicting the type of response before the start of ECT. This study fined out which clinical factor (diurnal variation of mood, delusion, hypochondriasis) indicates good response to a course of ECT.

Diagnosis: ICD-10

Sample: 22

Design: Prospective Design.

Instrument; HDRS for assessing the severity of depression.

BPRS- Brief Psychiatric Rating scale (assessing the presence of psychotic symptoms)

To avoid diurnal variation of mood and ECT related immediate side effects they used scales before one day to the course of ECT and again 30 hours after the ECT. This study indicates that certain (longer duration of post depressive episodes, severity of suicidal thoughts, and decrease in appetite) variables were predictors of good response to ECT in depression. Small sample size, lack of monitoring of ECT related parameters and restricted number of ECT constricted us to make generalization. They did not much specify the concept of endogenous depression. Variables like duration. of illness, polarity of illness, severity of illness, past history of affective disorder, were found to be non-predictive as regards response to ECT. NO further statistical analysis was done for this scale because the distribution of amongst the GR and PR (good and poor responders) were inappropriate and cases were also small. Study (no-14) seemed to be similar to the present research but it did not show the significance on suicidal impulses, so here suicidal impulse variables were predictors of good response to ECT in depression.

(16) This study is purely biological in nature and it showed that in schizophrenic abnormalities which type of neurological sign has emerged. They found that schizophrenic patients had more neurological signs than their relatives and normal control groups. So this may be important in the pathophysiology of schizophrenia. This is also a hospital-based study

Diagnosis: DSM-III.

Sample: 24 patients.

The subject patients were in the primary stage of schizophrenia. Two other groups of 29 biological parents and siblings of these patients and 28 subjects without any personal or family history of psychiatric illness were included in this study.

Instrument- Cox and Ludwing's tests devised for assessment of neurological signs.

Subjects were similar in age, sex and education, one interesting aspects which was not discussed by researcher was, why education had significant effects on the neurological scores i.e. those who have low level of education tend to have more neurological abnormalities. Education was not found to have significant effect on the subscores of frontal lobes. This is very amazing because frontal lobe is responsible for complex, mental work, like researching, motivation, memory, recall, learning, and problem solving. This has to be mentioned in discussion. Variable like age and sex did not have any significant effect on scores.

They said that this is because some central nervous system abnormality that underlies the neurological abnormalities may also effects the scholastic performance and thus cause lower education attainment in these patients, so it is obvious that more studies are required in this area.

The groups of relatives have had higher total subscore than control group. Though there is some doubt on the tests devised by Cox and Ludwig through which the assessment of neurological sign was performed. One thing was not clear that was whether these patients with having neurological abnormalities were differing from those without having neurological abnormalities. This area must have to be explored. At last schizophrenic patients had more neurological signs than their relatives and normal controls. Presence of neurological signs in the absence of schizophrenic symptoms in the group of relatives studied accepts this view that signs are not sufficient to cause schizophrenia. But this finding is useful in pathophysiology of schizophrenia because schizophrenia patients as a group have more neurological abnormality.

In the whole selected research none of the investigators have followed any uniform operational definition of case as well as diagnosing the subjects. All the researches, which emphasized on the biological based therapy and almost neglecting the psychosocial aspects. In all the research though researchers did not neglect the social aspects but more emphasis was given to curative aspects. With review of these research the main emphasis of the researchers were on to show that which pills would be much efficacious (how good it is) and acceptable. Research should not only to prove the notion of miasmatic era, but also deal the issues like cost of medicine, the side effects, and the income level of the family. The new expensive medicine is more effective than the older medicine. That is the reason Resperidone may produce better results in people with schizophrenia than Chlorpromazine but researchers did not do any research on the cost of these antipsychotic drugs. There is not much more research on affective disorders. As today schizophrenic patients constitute the major group in which research interest in family burden and drugs has been sustained. The affective disorders have not attracted much attention, because of the episodic nature of illness and false notion for schizophrenia. Affective disorders do not entail chronicity or much adverse effect on the functioning of patient's cognitive behavior and co native aspects. What is the economic burden of these drugs in the family of mental ill person? Which drug is more cost effective and what is the role of pharameuciticals industry in mental health drug regimen. These are the issues, which we have to consider in a broader public health approach.

Chapter-5

DISCUSSION AND CONCLUSION

DISCUSSION AND CONCLUSION

The key concepts of this dissertation is to see the efficacy of studies and assessment methodologies so we can evaluate and assess where our program is moving which will provide guidelines for future mental health service research. In this dissertation we reviewed studies, evaluated methodologies, of recent studies, with special attention on methodological developments. A comparison between major methodological approaches and detailed discussion on research methodology is presented.

We started with some reflection on the diagnostic instrument. The research diagnosis was based either on ICD (International Classification of Disease) or on DSM (Diagnostic and Statistical Manual) criteria. These classisafication evolved by WHO and American Psychiatric association (APA) (as an Internationally acceptable classificatory system). These Classification Systems have the important version named ICD-9, ICD-10, DSM-III, III-R, DSM-IV version, which were mostly used in mental health research. We already know that the draft of the tenth revision of the ICD chapter V "Mental, Psychoneurotic and Personality Disorders" was subjected to extensive field trials through out the world.. In India, 9 Field Trial Center (FTC) conducted field trials to show that ICD-1O was quite adequate in its trace validity, reliability, applicability, ease of use[64] and having the concept of goodness of fit.[65].

There are problems in diagnosis by the International Classification of Disease (ICD-10, 1992) and the Diagnostic and Statistical Manual (DSM-14 1994) existed. Cultural variations of expression, perception and experience have considerable effects upon these manuals. The DSM and ICD are produced after much negotiation along mental health practices around the world. It has a number of important features that revitalized the psychiatric classification and accepted by all. It is based more or less on theoretical approach in its descriptions of the disorders. It was easily accessible and widely used by clinicians and researchers of various orientations. It introduced

---

64 WHO sponsored study - ICD-1O field trials in India- A Report written by Dr. R Raghuram and C. Shamasundar

65 To what extent the new classification describes adequately the various type of psychiatric disorders seen in patients and how well the description of the disorders in the draft ICD-IO matches the patients clinical data

operationalized diagnostic criteria in place of glossary definitions and it encouraged the use of a multiaxial system that ensured attention was given to certain types of disorders, aspects of environment and areas of functioning that might be overlooked if the focus were on only assessment. The development of DSM-IV was initiated by the WHO paralleled development of ICD-10. The DSM-IV development process was characterized and based on empirical data as the basis for making changes, expensive input from a wide variety of sources and documentation of the basis for changes.[66] Undoubtedly the most important strength of DSM system has been its widespread acceptance by clinicians, researcher, administrators and others. Such acceptance is due to its 'theoretical' nature regarding its, etiology, making it accessible to persons with different clinical experience and orientation, its more precise and reliable diagnostic criteria, manifested by its increased concordance with ICD system and its translation into multiple languages.

Despite much significant contribution to diagnosis of mental disorder, it has some limitations like significant difference between the ICD and DSM classification and absence of clearly etiologies for the major disorders, multiple diagnosis within the same person etc.

Some comments of DSM-IV on its categorical approach to mental disorders are:

1) **The DSM definition of mental disorders**: The definition, which was given, by the DSM on mental disorder has not clearly specified the boundary between normal life experiences and pathological conditions giving size to criticisms that DSM. pathologies the normal.[67]

2) **The quality of research for many disorders:** There have been some problems regarding the research base on which DSM-IV came into existence. The first problem deals with limitations of the revision process itself, because it has been argued that the DSM-IV work group neglected the potential value of basic behavior and social science

---

[66] WHO: the ICD-10 classification of mental and Behavioral Disorders, Clinical Descriptions and Diagnostic Guidelines, Geneva, WHO, 1992.

[67] Regier DA, Kaelber CT, Rae DS, Farmer ME, Knauper B, Kessler RC, etc- Limitations of diagnostic criteria and assessment instruments for mental disorders. Implications for research and policy. Arch Gen Psychiatry 1998: 55: 109-115.

research, particularly to children and adolescents. The second problem is with the quantity and type of research supporting DSM diagnosis. We had known that the research base for mental disorder and classification should be broad based, including epidemiology, genetics, clinical research, brain research, the social and behavior sciences and psychometrics. This research base varies widely in the reliability and validity of diagnosis among clinicians and scientists.

3) **Gaps in Classification:** There are also a lot of disorders, which do not fit in this. Further, the rationale for placement of several disorders on their respective axis has been questioned for example- spectrum disorder such as cyclothymic disorder are coded in Axis I, whereas other spectrum disorders such as schizotypal personality disorder are coded on AxisII.

4) **Use of the DSM in diverse population and settings:** The use of DSM-IV to diverse population is limited- Need for improved classification of disorders for infants and very young children has led to the development of a separate diagnostic system. The significant developmental changes beyond young adulthood are also underdeveloped in DSM-IV.

There is also some doubt regarding the validity among different population, with limitations in its cross-cultural applicability. Although DSM-IV and ICD tends to reflect a western model of mental disorders, it does not fully address the different meanings of illness, and treatment.[68] Finally these classifications are not particularly well suited for use in non specialty treatment settings such as primary care, because at this place the condition are not conducive to the full psychiatric evaluation that both requires.[69] In OPD session the number of patient are large and the pattern of disease are in wide range. There is increased diagnostic discordance between ICD-10 and other classificatory systems. The cases of schizoaffective disorder in ICD-10 receive a diagnosis of mood disorder with psychotic features in DSM III R.[70]

---

68 Alarcon RD. Culture and psychiatric diagnosis, Impact on DSM-IV and ICD-10, psychiatric in North am 1995: 18: 449-465.

69 Olfron M, Broadhead WE,weissmanMM, LeonAC, Farber L, Hoven C, Kathal R: Subthresheld psychiatric symptoms in a prmary care group practice: Arch,Gen Psychiatry 1996, 53: 880-886

70 Comparative study of classification of psychosis of childhood and adolescent onset Janardhan Reddy Girimaji SR. Srinath S. CAota Psychiatr Scand 1993: 87, 188-191.

In the light of above these limitations the research developed to stimulate a broad base of support with long-range impact, contributing not only to DSM-V, but to subsequent editions of the DSM and ICD as well. For more comprehensive, reliable and valid psychiatric diagnostic system, more empirical research is needed.

Some others methodological problems, in diagnosis are also found in these research such that:

- It is impossible to make reliable diagnosis across raters because of discrepancies between different diagnostic scales. The fact that different scales select different population for the same clinical entity. A diagnostic measure used in surveys is not a clinical evaluation but it is just an inventory of symptoms.

- There is gender bias in diagnostics; the diagnostic scales can be too restricted, leaving the women-selected distress, such as sexual problems, victimization and PTSD. Some cultural stereotypes of women overlap with clinical categories, such as hysteria or neurosis.

- The differences in administering the diagnostic scales to a study population can also reflect in the data that a survey generate. Sethi et al (1972) for example obtained information from the head of the family, or when he was not available, the housewife. However, the head of family may not be aware of women's mental health status. Anxiety neurosis, other neurotic symptoms, somatisation disorders were not reported at all by the heads of families.

- The more data is used to give us complete picture as possible regarding incidence of mental health. However just as there is a lack of specificity in the studies reviewed in defining mental health, the same vagueness was observed in the data source. These differential classifications make it difficult to compare data sources.

The standardized DSM was first released in 1952, and still in its infant stages and has been repeatedly item of discourse between mental health professionals. After 8-10 years of experiences of the DSM IV (Diagnostic and statistical manual) and the 10th edition of the ICD (International Classification of Diseases) it is an ideal time to begin looking at the clinical and research consequences of these diagnostic problems. While

further study is needed on, how to address issues such as clinician bias and diagnostic accuracy, the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders,* now under development, will extend and elaborate the "Glossary of Culture-Bound Syndromes," the "Outline for Cultural Formulation," and other concepts introduced in DSM-IV regarding the role and importance of culture and ethnicity in the diagnostic process Like this some relevant issues concerning the application of psychiatric measures across cultures are also very important. Some psychiatric measures like Geriatric Mental State and WHO Quality of Life Instrument (WHOQOL)[71]. PSE = The Present State Examination Interview Details, Quality of Interview (QOLI). Brief Composite International Diagnostic Interview, Quality of Life Scale (QLS) and WHOQOL are also having the cross-cultural applicability. A study done by Lobana, Matto Basu and Gupta (2002) to assess convergence validity of QOLI (modified as per the Indian cultural background) i.e. Quality Of Life Interview and result support the applicability of QOLI in a different socio-cultural setting.[72]

So, there will definitely some strength and limitations in using psychiatric measures across cultures. Not all instruments however are as amenable to cross cultural application... The tool like Composite International Diagnostic interview (CIDI) is comprehensive concise and suitable for cross-cultural epidemiological and comparative studies. But CIDI is not evaluated extensively in rural areas. In most of the research the (CIDI) had used for diagnosis, which has based on defined criteria of the International Classification of Disease (ICD-10) and DSM-III R with high validity and reliability. In India large number of the population is living in rural areas and majority of mentally ill patients belongs to these areas. So there is strong need for the testing of CIDI in rural areas. The CIDI has been designed by WHO and the US Alcohol, Drug and Mental Health Administration (ADAMHA) for use in the variety of cultures and settings to detect the mental morbidity. In the study done by Kishore et al, they found that a non-psychiatrist physician might use the CIDI with fairly good reliability and high acceptability.[73] But there is some limitation in this – though a high predictive value of

---

[71] WHOQOL-100 and WHOQOL-2C or QHOQOL

[72] Indian Journal of Psychiatry 2002, 44(2) 118-124.
Convergent Validity of QOLI in an Indian setting: Preliminary findings
Aprajita Lobana, Surendra K. Matto, Debasish asu and Nitin Gupta.

[73] The composite international Dignostic Interview (CIDI): ITS Reliability and Applicability in a rural community of Northern India. Indian Journal of Psychiatry 1999 41(4) 350-357 Jugal Kishore, Vinay Kapoor & V.P. Reddaiah.

the CIDI is expected, but we know that the predictive values of the test are affected by prevalence of disease. Although the CIDI provide lifetime prevalence of mental disorders but it could not be compared with current clinical diagnosis that is based on DSM criteria

People who develop and use instruments such as SRQ the CIDI, assume that the concept of abnormal behavior is universal, that the symptoms are universal, classification of these symptoms into specific diagnosis is universal and the experience is similar across culture. Some argument is necessary that mental illness is culture specific or universal. We cannot ignore cultural variables because culture however influences how one thinks and feels, how one interacts with others, and the norms that determine acceptable and abnormal behavior. The cross sectional study design limits causal inference. The use of self-administered measure of psychiatric morbidity means that a proportion of those identified, as "cases" would not have met diagnostic criteria for clinical disorders. Diagnosis manuals such as ICD, DSM is like any other tool of science has conceptual limitations. Nobody would attempt to learn the laws of heat by looking at a thermometer. So also, diagnostics does not give explanatory laws about mental illness in any direct ways. . It is evident that in psychiatry it is difficult to verify diagnosis, therefore classification of patient's true illness can't be known with certainty.

There is a question of the cultural validity of the diagnostic tool and classification system emerging in mental health research. For example the notion of trauma itself covers a broad range of natural and human made experiences. APA 1994 referred is as an event that involved actual or threatened death or serious injury or a threat to the physical integrity of self or others. How would this definition apply to situations where violence is the norm, the long-standing insurgency in Kashmir or the chronic feudal violence in parts of Bihar? In this situation where majority believe that violence is an appropriate action in certain circumstances, does the construct of trauma hold the same significance as it would.

In India, documented reports on the methodologies used in developing and standardizing instruments are few. India has vast, distinct varieties of culture. Every part of the region has different cultural norms; culture bound syndromes differing extents of somatization of psychological stress. There were a lot of inadequacies in

psychiatric research instruments, which was developed in the west. As had been pointed out by Kapur (1992) that, at the time of interpretation of instrument, things may be expressed quite differently in the two cultures, that is why the instrument developed in one culture is unsuitable in another. Some attempts have been have been made by a few researcher in India to obviate these difficulties by developing culture specific measures (Kapur and Carstairs 1974, Pai and Kapur 1981) Diversity that exists in languages and in particular culture may show different results. Some difficulties have also occurred while using and translating English version of any psychometric test into Hindi, because: Some of the English words and sentences (Crazy, Keyed up on edged, Weakness, though racing) used in tests do not have simple Hindi synonyms. Similar difficulties have been reported in different languages. Some of the questions were irrelevant and better to avoid as- A Non-user of alcohol who is being asked repeatedly about the activities under its influence. Similarly an unmarried woman is being asked about her sexual practices.

It is quite difficult to maintain an absolute privacy in the case of interview with a patient in rural setting, so some question might have loss its validity. So there is a need to improve content validity and procedural validity that may further improve the test-retest reliability. Pre-validated tools thus have definite advantages and are a pre-requisite for international comparability. Issues concerning cultural, relevance and acceptability, translation methodology, weighting of scores and deciding on cut off points need to be closely scrutinized. In the measurements, the threats to questionnaire validity arise when they are used in cultures other than the ones they were developed in. So qualitative methods offer a strong set of validity checks regarding the practices and conditions of people framing of items, so that they would be culturally appropriate. Questions have to be written in the language of the field center and thereby retaining the cultural flavor.

Other relevant issue:

The cultural influences on mental disorder are relevant if research findings are to be implemented in health interventions. For example- if depression has not been seen as a psychiatric problem, how and where should interventions for depression be delivered? Comparative analysis of empirical studies of mental disorders reveals a

consistency across diverse societies and social contexts. Poverty, domestic isolation, powerlessness (resulting, for example, from low levels of education and economic dependence), and patriarchal oppression are all associated with higher prevalence of psychiatric morbidity in women as well as men. In the world of work, this is well known fact that employment may bring self-esteem and independence; however, low paid or unpaid labor may contribute to oppression rather than independence. Many women work a "double day" maintaining households, raising children, carrying out economically productive activities in marketing and agriculture and in household-based industries.

The research on mental health problems in India has followed two distinct types of study methods. Universalistic or 'Etic' approach emphasis on diagnostic categories of mental disorders and the accuracy of diagnostic methods. In the studies, which are based on the universalistic model use standardized interviews; most often translations of interviews developed in the west and based on international biomedical classifications of mental disorder. Etic studies are the single most dominant model of psychiatric research in India. Etic methodologies have been criticized because they are based on a number of untested assumptions and domined by Anglo-American models of illness. In this type of research there is risk of confounding culturally distinctive behaviour with psychopathology in different culture.

The next approach is Emic.. It evaluates phenomena from within a culture and its contents aiming to understand its significance and relationship with other intra-cultural elements. In this approach include such type of research like the studies of community attitudes in mental illness, indigenous classification of illness and the traditional treatments of mental illness. These types of studies were unable to provide data, which can be compared across cultures. The reliability of emic studies is in doubt because of the lack of standardization of research methods and bias leading from their findings.

Despite the limitations of the Etic and Emic approach, new cross-cultural psychiatry was needed where the emphasis is not on biomedical categories, but on the varying contexts of mental illness in different cultures. Psychiatric epidemiology needs the ethnographic and quantitative techniques. So far as mental health consequences are

concerned the core issue is the validity of specific psychiatric categories associated with any disorder. Studies in all cultures have clearly shown that the symptoms of depression and anxiety can be elicited and that most are universally applicable. But this does not always extend validity of diagnostic categories contained in the international classifications. The term depression is taken as being internationally valid; it is notable that many languages in India have no conceptually equivalent term for depression. Depression, when used by health professionals in the West, evokes a general concept of illness, its translation into Indian language result in terms, which convey only the emotion of sadness. The issue of cross-cultural validity of psychiatric categories is even more relevant when one consider disorder such as PTSD, dissociative disorder a borderline personality disorder. The cultural construction of the symptoms is an important determinant of help-seeking behavior. Some authors have suggested that there is also a danger in the medicalisation of social problems as mental disorders since this leads to detach from the context as well as obligation from society.

Thus drawing a distinction between mental illness with its biological and disease-oriented contexts, and mental health with its universal, a socially oriented context is needed. For some disease, which may not have existed in a cross-cultural context, attempts to translate, these terms to India languages are not possible. This does not mean that these disorders are not present in Indian populations or professionals cannot recognize them. What it really means is that research using these psychiatric categories will lead to data with limited meaning for the community from which it is derived.

Research is essential to generate information that can influence health policy and practice. In the light of the earlier discussion on cultural influences on mental disorder, the research design must take care to ensure that the information generated is not only of high scientific standards, but is also culturally valid. Thus there is an urgent need for research, which can describe relevant cultural factors. Multidisciplinary research partnerships are essential and should be reflected both in the methodologies used (qualitative and quantitative) as well as in the settings of research (NGO general and mental health care). So the conceptualization of disorders needs to be widened beyond the medical definition to include the diverse interests of different disciplines

and special psychosocial needs of populations and individuals. The meaning attributed is dynamic and changes from time to time

The classification of psychosis in childhood and adolescence has always been controversial. Major classificatory systems (ICD-10 and DSM-IV) have no special category for diagnosis of psychosis in children and recommend the use of adult criteria.

The application of Westernized explanatory concept to India context has been questioned. The Indian worldview differs from the western view. Kakar (1978)[74] stated Indian culture is influenced by social reality and culture specificity. However majority of psychologists hesitate to talk about Indian heritage (Sinha 1984). The traditional thoughts are internalized in the individual mind and serve as guiding principle in life. The areas in which Indian traditional thoughts contribute to understanding psychological process are self, states of consciousness and yoga, counseling, and the concept of mind. So researchers have a responsibility in this regard to study psychological and social factors along with biological because of great social, economic, political, and ecological crises of our time.

An important question, which needs to be answered while evaluating effectiveness of any treatment, is that concerning the relative contribution of specific and common factors in determining the treatment outcome. Common factor such as the quality of patient-therapist relationship and the attitude and expectation of both the patient and therapist may contribute to improvement. The contribution of these factors needs to be considered. Generally research attempts to control this variable included a placebo control group in which pseudo-treatments were given. This forms of control is however not always possible, because ethical dilemma of keeping the patient without treatment may constrict the researcher from using such forms of pseudo-treatment control.

Another important sources of bias, which can affect the validity of results, are the process of evaluation itself. The evaluator's attitude and expectation may cause conscious or unconscious distortions while evaluating improvement. In order to over come the blind evaluations have been used. The necessity for this form of control is

---

[74] Kakar. S. 1981) The inner world (2nd ED) Delhi Oxford univ. press, Sinha D. (1984) Reactions on measurement of human motivation in India. Psychological studies, 29, 1-99-206.

also highlighted by studies, which compare drug therapy with psychotherapy. Without any form of control, it becomes difficult to determine the cause of such differences between clinician's rating and other independent measures of outcome.

In several researches we found discrepancy in clinical rating and psychological tests, which arose as an artifact of the nature of measurement. Thus, while assessing outcome, it is necessary to use different methods of evaluation in order to minimize the possibility of erroneous conclusions arising due to artifacts of measurement. The evaluation made by psychological tests was confined to specific neurotic symptoms such as anxiety, depression, social disability etc. In order to obtain a reliable and valid picture of nature of changes induced by a particular treatment modality, it is necessary to evaluate the same symptom e.g. Anxiety, depression etc. by independent methods and then pool the data obtained, before making interpretation regarding the efficacy of treatment. As most studies do not specify the relevant clinical characteristics such as severity of symptoms and duration of illness. It is impossible to understand the contribution of these important variables to the treatment outcome.

In almost all the research the reason for dropout is also important, especially when a new treatment modality is being examined. A dropout arises several problems in the interpretation of data. For example if dropouts constitute treatment failure and those who completed the treatment from a biased sample, then generalization of conclusion obtained to a larger sample will be erroneous unless the reasons for dropout can be established. We know that evaluation research methodology is found to be the most effective approach in the study so researchers should make an attempt to do research on this perspective. Inadequate research strategies and methodologies have been cited as the primary reason why research has not been studied. Mental health research cuts across the disciplines of economics, sociology, epidemiology, political science and psychology. One of the prime purposes of mental health research is to provide empirical evidence and support to guide policy decisions at all levels of government and non-governmental organizations (NGOs). However, until recently, very few efficacy studies of mental health program have been reported in the professional psychological literature. Indian researchers should do research on mental health services and develop new strategies. Until recently, clinical psychologists and psychiatrics have tended to ignore and not pursue mental health services research. This

has been a direct result of the limitations in methodological training that psychologists receive and a bias against such research in the publication standard of the professional and academic literature. Studies that assess success rates and program effectiveness in mental health service programs have been worth while in Indian context and it will provide the background for policy and planning evidence to our health planner. In addition, most clinical psychologists, psychiatrists and clinical researchers are trained in experimental and quasi-experimental techniques that make it very difficult to adequately evaluate the multifaceted effects found in natural context.

The methodological deficits and bias toward the scientific method have made it difficult for psychologists to develop and utilize research methodologies to fully assess the efficacy of mental health programs, which is useful in the public health perspective. For example, in an investigation of a psychotherapy research, investigators may choose to only examine the mean or median number of therapeutic hours received in a voluntary outpatient. Though this may or may not relate to overall patient satisfaction, motivation and progress, such measures do not determine the overall performance or effectiveness of research as well as treatment. Thus, almost no programmatic conclusions can be made on the basis of this information.

Within the mental health professions, there is a general awareness that large hospital based research become professionally and therapeutically bankrupt and ineffective. This result compelled the researchers to begin the community mental health centers, which are provided alternatives to the low levels of institutional care. So an essential need is emerging for research on the long-term effectiveness and on the family education. Both are useful in helping the patient and in reducing the family's burden. In most of our psychosocial research, families with mentally ill and relatives have faced varities of problems such as financial, emotional, societal tensions, violence, and substance abuse and other psychopathic disorders. Investigators must focus on the predictable, frightening and violent behavior that patients may exhibit toward family members, with the goal of developing more efficient criteria for predicting such behavior. Such studies must place a high priority on meeting the needs of families for early education, prevention, and intervention. In this connection, attention should be given to identifying techniques of family adaptation and have proved effective. Dealing with mental illness is expensive. Families become frustrated and angry. If we will use

the comprehensive research technique i.e. research will follow both approach compound of (psychosocial and therapeutic) elements will provide the solution to obtain the most effective services even with limited personal resources.

Studies by addressed the quantity of psychotherapeutic interventions in also have so much methodological problem. These studies basically assessed the dose response rates of therapeutic intervention in psychotherapy. Some studies have attempted to demonstrate a relationship between the amount of psychotherapeutic time and effective treatment outcome by adopted a causal comparative study design. On the other hand, some investigation used a correlation approach to compare the amount of positive therapeutic outcomes. Though they utilized two different methodological approaches, both studies concluded that time and 'dosage' of therapeutic intervention had an impact on psychotherapy outcomes.

Most of selected studies are dealing with correlation method. This method is well suited to establishing relationships between the variables; it cannot demonstrate cause and effect relationships by itself. The correlation method is restricted to quantifiable data in the data set and therefore limited in its utility. Though it is readily applicable to quasi-experimental study situations, it's often difficult to apply in natural settings where identification and measurement of the most important variables often becomes difficult. The correlation method becomes almost useless in defining what works, for whom, under what circumstances. Other type of study has the causal comparative method. It is described as well suited to demonstrating significant relationships, group norms and traits in natural settings. This method can be also be used in study situations where experimental manipulation is difficult or impossible, such as in mental health service studies. However, the causal comparative method can only demonstrate causality from the data presented within the narrow scope of the study variables and is therefore, also limited in its ability to suggest causality in either experimental or natural settings. Alternative interpretations are often possible when this method is employed. Thus, this method is similarly limited in it utility and comprehensiveness to demonstrate a research efficacy.

This problem was not demonstrated in several studies, to answer the question of "Who needs what services and what degree of care?" So research has to be done

with the notion to identify and link the psychological, social and physical functioning needs of individuals with severe and persistent mental illness. In most of the clinical studies critical variables of patient recovery were not taken into account. The effects of patient's level of motivation for treatment, demographic profiles, diagnostic groupings, level of patient satisfaction, program modeling, program milieu/environment, and other factors may also play an important role in determining whether a patient will respond to treatment within a given treatment program or not. Using correlation and causal comparative method, these variables could not be taken into account. Thus, the results of this study remain inconclusive.

New type of research methodologies should be included in the future for further study to demonstrate the effectiveness of treatment and program. In several researches the methodologies are used to determine the effectiveness of drug or therapy but there is a need for the evaluative method to demonstrate descriptive relationships, not analytic ones which is most applicable to the study of mental health program efficacy.

Evaluation studies should be used to point out cause and effect relationships in natural settings. Without the constraints of the experimental study controls or sole use of quantifiable data sets, evaluative studies can identify the most salient relationships among all quantitative and qualitative variables in service programs. Because of this, the evaluative method is more comprehensive and has a higher degree of utility in natural settings than the other two methods. The primary advantage of using this method is to provide data to policy and decision-makers that can be used to improve program performance to more successfully meet program goals. Thus, it is both comprehensive and readily applicable to studies in naturally settings that require data for not only research purposes but for improvements in program or program component performance as well. The evaluative method is an applied research method that focuses on the future plan to deal with this monster. This approach differs from correlation and the causal comparative methods in that it does not only looks at the relationship of a few, obvious variables to determine a cause, but examines all observed variables that may impact the goals of the program under study. All the clinical or psychological research uses the quantitative statistic to prove its hypothesis and deal with the

psychological aspects of human life by establishing the mathematical relationship. How far this objectivity is valid to make prediction about the mental disorder and its remedy?

Most of the biological based study is using the higher statistic. This not only makes their research paper very complex to understand the basic findings, but it also violates some statistical assumptions. In the small sample size, while using the higher statistic produced a lot of variance and standard error of estimation (SEE). This makes the findings unpredictable and generalizing the conclusions difficult because many of the salient variables change from one study to another. There is a need for useful approach in determining the concept of 'what works, for which patients, under what circumstances' in mental health treatment. So research should be done in to this perspective.

Finally, the research with related to mental health could incorporate the views of variety of disciplines, program administrators, patients, families, and community action. In addition, it can be more applicable in the evaluation of previous research, which were done in the Indian context. Since the basic aim of research is to provide the explanation of the problem, control the extraneous variable, so that we can make good prediction and generalization. Most importantly, research should not only be conducted on the effective treatment programs but also on the parameters of patient's families and financial, social, and personal costs of mental illness.Comparison of research findings undertaken in different cultures could be misleading unless common methodologies are adopted. Distortion could be further compounded by differences in languages and cultural background of the subjects. Testing for conceptual, semantic and technical equivalence thus, becomes both important and necessary (Satorius and Kayken 1994).

Conceptual equivalence refers to whether the instrument measures the same theoretical construct in each culture.

Semantic equivalence refers to the denotative (Cognitive meaning) and connotative sameness (emotional meaning) of words used in instrument and interviews. For example the word for depression can be understood as 'worry' 'sad', 'unhappy' as 'extreme unhappiness' depending on individual perceptions.

Technical equivalence means whether the methods of assessment are comparable in each culture. The most practical and feasible alternative, which I have seen in many researches, is the translation of existing measures. It is not so much effective as the original one. These translation strategies have limitations, which affect the applicability of the instrument to the new culture; it does not guarantee the validity of the new language version. Questionnaires are likely to have weaknesses even in their original form. There may be items which do not translate into the same sense in the new language version, some item may be important for the culture for whom it was originally created but not so much meaning for the new one and crucial items for the new culture may be missing in the original questionnaire.

WHO used a methodology involving bilingual and monolingual groups to obviate potential drawback in translation.For example: During the development of WHOQOL in Madras, the WHOQOL, which was conceived in Tamil, was initially given to a monolingual group (those who knew only Tamil) to obtain their comments on language and measurement. It was then again translated into English by bilingual group (those who knew both English and Tamil) and the two versions compared for its equivalence. In this manner comparability and cultural applicability were maintained.

Take DALYs for example, a tool that has been acclaimed as a valid and instrument for planning. It converts death and disability into a common denominator – the time lost. In public health, decline in total mortality is the first step. DALY's tend to overshadow this success by compensating decline in 'time lost' through death by time lost through increased morbidity. They may not show any marked shifts over periods of transition and thus undermine achievements in public health in poor countries with high morbidity.[75]

We know that qualitative research is often mistaken to be as semi-scientific research, while the quantitative method is ascribed as perfect and scientific research. However quantitative method often deal with hard facts without entering into the socio-cultural aspects of a given society or its culture, which guides and governs many practices in the field of health, economic and other social-cultural norms. Qualitative

75 Qadeer, I. Impact of SAP on concepts in public health (pg. 116-135) in Qadeer, I.sen, .Nayar, K.R. Public health and the poverty of reforms. The South Asian Predicament. Sage publication New Delhi.

methods provide data from people about their experiences, opinion feelings and knowledge..

In this review of studies in mental health ,it is the obvious that both methods have to be used to achieve generalization, and triangulation's (i.e. a data triangulation, the use of a variety of data sources in a study, methodological, triangulation, use of multiple methods, to study a single problem, as interview, observation, questionnaire, theory triangulation, the use of multiple perspectives to interpret a single set of data). Without knowing these important variables our research work will only the replication of western work, like only investigate the efficacy and acceptability of new psychitropic, antidepressive drugs on Indian sample. Our objectives are to ensure the availability and accessibility of minimum mental health care, promote community participation in mental health services and reduce the stigma attached towards mental health. The activities of mental health service providers should also keep in the mind.. We must familiar with the actual and potential capacity to implement and support the strategic agenda, and the opportunity for new and strengthened partnerships. Ministry of health should help to built capacity at Central, State and local levels through training programmes transfer of information technologies, disease surveillance and strategy development.

BIBLIOGRAPHY

BIBILOGRAPHY

1. Abound E Frances: (1999) *Health Psychology in Global Perspectives."Mental Health and Illness"* Sage publication New Delhi., pp 244-270.

2. American Psychiatric Association (1994): *Diagnostic and Statistical Manual of Mental Disorders,* Ed.4, Pub APA, Washington.

3. Bennett,P.& Murphy Simon (1997): *Psychology and Health Promotion* Pub Open University Press, Buckingham.

4. Careil J, Bryant A, Henderson.J. et al (ed): Forthofer S. .M (2001): *'Public Mental Health' Social and Behavioural Foundation of Public Health* Sage Publication, Inc. New Delhi, pp. 285-300.

5. Chadwick P. (1997): *Schizophrenia: The positive perspective: In search of Dignity for Schizophrenic people.* Pub Poutledge. London.

6. Coleman C. James (1986). *Abnormal Psychology and Modern life,* Oxford Press,New Delhi.

7. Crossley L.Michele (2000): *Rethinking health psychology: Approaches to mental illness.* Pub. Open University Press, Buckingham. Ch (6) pp.102-120.

8. Cancela, L.Victor.. Chin, L. Jean and Jenkins, M. Yovonne (1998): *Community Health Psychology: Empowerment for Diverse Communities.* Pub: Routledge London.

9. Davar, B (2002): *Mental Health: Serious Misconceptions;* Economic and Political Weeckly. Vol.31., 5 Jan 02, pp 20-22.

10. Davar, B.V(2001) *Women Centred Mental Health. Issues and Concerns.* Vikalp Vol. IX pp. 117-128.

11. Di Matteo, R.M.(2002): Health Psychology :Pub Allyn & Bacon, Boston.Ch 1 pp.1-41 & Ch 7 pp 241-274.

12. Draft National Health Policy- 2001, http:/nonfw.nic.in/np2001.htm. pp. 1-28.

13. Dalal. A (1995): *"Health Psychology" A Review chapter prepared for the IV the ICSSR Survey of Research in Psychology*.(unpublished)

14. Dejong Joop (Ed.): *Trauma, War and Violence Public health in Socio-Cultural Context.*

Kluwer Academic/ Plenum publishers. New York, pp. 1- 91.

15. Edwards Allen (1998): *Experimental design in psychological Research* Third Ed: American Pub Co Pvt. Ltd. New Delhi.

16. Haralambas. M(1996): *Sociology Themes and Perspectives* Oxford University Press New Delhi.

17. Hogan J(1998) The Journal of Mental health policy & Economics Vol.1, pp 151-152.

18. Indian Council of Medical Research Bulletin(2001): *Development in mental Health Scenario: Need to Stop Exclusion; Dare to Care.* Vol.31/32,No.4, pp. 49-57 ICMR-NEW DELHI Publications

19. Jones Linda *'The social context of health and Health work.* Chapter I&II.

20. Jenkins. R. *Making Psychiatris Epidemiology Useful: The Contribution of Epidemiology to Government Policy.* Acta Psychiatry 2001: Vol, 103; pp. 2-14.

21. Kakan G, Raghunathan T,Smith G. et al (2001) *Income Inequality: The psychosocial environment and health: Comparisons of Wealthy nations.* Lancet, vol.358: Jul 21, pp. 194-200.

22. Kapur. R.L.(1995) *Community Involvement In Mental Health Care:*FRCH News Letter. Vol. IX No. 2 March-April pp. 1-4.

23. Loewenson R. Rao, M.(1996) *The Political Economy of The Assault on Health.* People's Health Assembly Ethical Consumer Jun, pp. 1-8.

24. Lefton,A Lester (1997): *Psychology* 4th Edition Allyn & Bacon Pub Boston.

25. Lilienfeld, E. David. Stalley, P.(1994): *Foundation Of Epidemiology* 3rd Edition Pub Oxford University Press Inc. NewYork.

26. Mckenzie J, Pinger R and. Katecki J.C.(1998): *An Introduction to Community Health* Third Edition, Web enhanced, Publication Jones and Bartlett., London Ch.11, pp. 344-379.

27. Mehta, P. (1998): *Psychological Strategy for alternative human development. India's performance since independence* Sage, Publication. New Delhi.

28. Mukharji, N.Partha (2000):Introduction: Methodology in Social Research: Dilemmas & Perspectives. Sage Publications New Delhi.

29. Murty R. Burns B. (Eds) (1992): *Proceedings of the Indo-US Symposium on Community Mental Health:*held Oct 27-30, 1987 at the NIMHNS, Pub Kanthi Offset Bangalore.

30. Park. K. Park E.J.(1991): *Park Textbook of Preventive and Social Medicine,* 13th Ed. Banarsidas Bharat Publishers,New Delhi..

31. Qadeer I.(1998): *Reproductive Health A Public Perspective.* Economic and Political Weekly, Oct pp. 2675-2683.

32. Qadeer I. and Sagar A.(2002): "*Health*". Alternative Economic Survey 2000-2001: pp. 120-125

33. Qadeer,I.(1985): "Social Dynamics of Health Care-The Community Health-Worker Scheme in Shahdol District". Socialist Health Review, Vol 2, No.2, pp. 74-83.

34. Regier, D, Narrow N, First M and Marshall T (2002):*The APA Classification of Mental Disorder: Future Perspectives.* Psychopathology Vol. 35 pp, 166-170.

35. Singh P.S.(1997): *Ethnicity in Psychiatric epidemiology* B ritish Journal of Psychiatry Vol, 171, pp 305-308.

36. Singh A.K. (1997): *Advanced General Psychology*: Pub Motilal Banarasi Das, New Delhi.

37. Singh AK(20001): *Modern Abnormal* Psychology Pub Motilal Banarasi Das Press New Delhi.

38. Sinha D. Tripathi R.C. and Mishra G. (1982) *Deprivation: Its social roots and psychological consequences,* New Delhi: Concept.

39. Snodgrass J. Berger G. Haydon M. (1992): *Human Experimental psychology* Oxford University Press, New Delhi.

40. World Health Report(2001) *Mental Health: New Understanding: New Hope*

41. .http://www.who-int/whr2001/main/en/media/pressrelease.htm.

42. Welsh. S. Deahl P.M.(2002) : *Modern Psychiatric Ethics.* The Larcet Vol. 359, 9 Jan.

APPENDIX

Appendix:: 1

Part-A

Psychosocial Research In Mental Health

A. Comparison of the Extent and Pattern of family burden in Affective disorders and schizophrenia Subho, Chakrabarthi, Lok Raj, Parmanand Kulhara, Ajit Avasthi, Santosh R. Verma Indian Journal of Psychiatry 1995, 37(3) 105-112.

B. An Ethnography of family burden and coping strategies in chronic schizophrenic. Renu Addlakha, Indian Journal of Psychiatry 1999, 41(2) 91-95

C. Coping strategies of the relatives of schizophrenic patients R. Chandrasekaran, Sivaprakash, B and S.R. Jayestri Indian Journal of Psychiatry 2002 44(1) 9-13.

D. Extent and determinants of burden among families of patients with affective disorders.S. Chakrabarti, P. Kulhara, I.K.Verma Acta Psychiats Scand 1992:86, 247-252.

E. Quality of life in schizophrenia and dysthymia. S. Gupta, P Kulhara, S K Verma Acta Psychiatry Scand, 1998, 97: 290-296.

F. Quality of life in schizophrenia in India: Comparison of three approaches. Aprajita, Labana, Surendra, K.Matto, Debasish Basu, Nitin Gupta Acta Psychiatry Scand 2001, 104: 51-55.

G. Mortality and long term course in schizophrenia with a poor 2 year course. A Study in a Developing Country. R. Mojtabai, Vijay k. Verma, Savita Malhotra, SK Matoo, Arun k. Mishra, Narendre N. Wig. Adn E Susser, British Journal of Psychiatry 2001, 178, 71-75.

H. Marriage and Gender in Schizolphrenics R. Thara and J.N. Srinivasan Indian Journal of Psychiatry 1997, 39(1) 64-69.

Distressing behaviour of schizophrenics at home P.S. Gopinath, S.K. Chaturvedi Acta Psychiatry Scand, 1992: 86: 185-188.

J. Effect of level of Socio-eco development on course of Non-affective paychosis. Vijay verma, Alan S. Brown, NNWig, B.M. Tripathi, Arun K. Mishra, CB Kahre, Hemen R. Phookun, DK Menon, and Ezra S. Susser, British Journal of Psychiatry , 1997, 171, 256-259.

K. Onset of acute psychotic state in India: A study of Sociodemographic seasonal and biological factors.S. Malhotra, V.K. Verma, A.K. Misra, S.Das, NNWig, P.J. Santosh. Acta Psychiatry Scand, 1998: 97: 125-131.

L. Fever and Acute brief Psychosis in Urban and rural settings in North India. Pamela Y. Collins, Vijay K. Verma, Narendra, N Wig, Ramin Mojtabai, Richard Day and Ezra Susser. British Journal of Psychiatry 1998, 173 (226-230)

M. Long term course of acute brief psychosis in a developing country setting. E. Susser, V.K.Verma, SK Matto, R. Mojtabai, B.M. Tripathi, AKMishra, NNWig. British Journal of Psychiatry 1998, 173 (226-230)

N. Psychosis not otherwise specified-charge of diagnosis at 5 year follow up. V. sivakumar and R. chandrasekaran. Indian Journal of Psychiatric 1993; 35(2)

O. Age at onset and schizophrenia: reversed gender effect. BN Gangadhar, C. panner Selvan, D.K SubhaKrishna, N. Janakisamaiah Acta Psychiatry Scand, 2002, 105, 317-319.

P. Sex differences in age at onset of schizo-discrepant findings from India. GVS Murthy, N. janakiranaiah, BN Gangadhar, DK Subbakrishna. Acta Psychiatry Scand, 1998, 97: 321-325.

Q. Fertility and schizophrenia: Evidence for increased fertility in the relative of schizophrenia patients. T.N. Srinivasan, R. Padmavati, Acta Psychiatry Scand 1997, 96: 260-264.

R. Is Depression a result of faulty coping strategies? Y.K. Satija, G.B Advani, SS Nathawat India Journal of Clinical Psychiatry, Vol. no. 24, No. 1, 65-69.

S. A study of Hopelessness, Suicidal intent and Depression in cases of attempted suicide. V. Jain, H. Singh, S.C. Gupta, and S. Kumar India Journal of Psychiatry 1999, 41(2) 122-130.

T. A study of psychosocial and clinical factor associated with adolescent suicide attempts Indian Journal of Psychiatry 2000, 42(3) 237-242.

U. Sudhir Kumar, and R. Chandresekaran.:. A study to assess depression its correlates and suicidal behaviour in Epilepsy: Rajesh Jaco.Suresh Kumar, R. Raj kumar and V. Palaniappun. Indian Journal of Psychiatry 2002 44(2) 161-164.

V. Expression of suicidal intent in depressives, Sunil Srivastava and Namita Kulshreshtha Indian Journal of Psychiatry 2000, 42(2), 184-187.

W. The relation of stress and ego functions to experienced depression Jayanti Basu, Saugata Basu and Somnath Bhattacharya. Indian Journal of Clinical Psychiatric Vol. No. 24, No.2, 125-130, 1997.

X. A Study of Panic Patients with and without depression K. Srinivasan and Iby Neerakal Indian Journal of Psychiatry 2002, 44(3), 246-252.

Y. Social Support and Psychosocial dysfunction in depression R.K. Chaddha, Indian Journal of Psychiatry, 1995, 37(3) 119-123.

Appendix: II

Part-B

Clinical or Medical based Research in Mental Health

1. Resperidone versus Haloperidol in Acute and Transient Psychotic disorder. Bijoy Pratim Chaudhuri, Dipesh Bhagabati, and Dipanjali Medhi Indian Journal of Psychiatry 2000, 42(3) 280-290

2. Remergence of Positive symptoms of Schizophrenia during the course of treatment with Resperidone Priya Bajaj, Nikhil Nihalani, Nilesh Shah, Neena Desai, Nilesh Shah, Vena Shinde and Nivedita Raut.Indian Journal of Psychiatry 1999, 41(2) 96-99.

3. Resperidone in schizophrenia Mohan Agashe, D.M. Dhawale, Gabries, Cozma and Vinod Mogre Indian Journal of Psychiatry 1999, 41(1) 54-59.

4. Comparative Study of Resperidone and Haloperidol on Clinical and psychosocial parameters in treatment of schizophrenia-A Randomized open Trial Ameresh Shrivastava and Sarkhel Gopa Indian Journal of Psychiatry 2000, 42 (1): 52-56

5. A comparative Efficacy study of Centbutindoel and Haloperidol in Schizophrenia. Harjeet singh, J.S. Srivastava, Charu Raghuvanshi, PK Dalal, and OP Asthana, Indian Journal of Psychiatry 1999, 41(4) 325-328

7. An open clinical trial with Clozapine in treatment Resistant Schizophrenia. A.K. Agarwal, Mukul Sharma, Shrikant Srivastava, Mrinal Mullick, Ashutosh Kumar, Indian Journal of Psychiatry 1997, 39(1) 70-75

6. A comparative study of efficacy and safety of Mirtazapine Versus Amitriptyline in the treatment of major depression.Anand Mathur, Ashok Chowdhary and Mahendra Jain, Indian Journal of Psychiatry 2002, 44(3) 260-265

7. Which Antidepressants are best tolerated in Related Potential in Depression R. Singh, R. Shukla, PK Dalal, PK Sinha and JK trivedi Indian Journal of Psychiatry 2000, 42 (4) 402-409.

8. Therapy with Amineptine, A Dopamine, Reuptake inhibitor in patients with major depression.
9. S .M. Channabasavanna, and Sumant Khanna.Indian Journal of Psychiatry 1997, 39(2) 147-153.
10. Prospective study of Neuroleptic- Induced Dystonia in Mania and Schizophrenia Rakesh khanna, Arunava Das, Saji, S. Damadaran American Journal Psychiatry 149, 4 April 1992.
11. P300 Event Related Potential in DepressionR. Singh, R. Shukla, PK Dalal, PK Sinha and JK trivedi Indian Journal of Psychiatry 2000, 42 (4) 402-409.
12. P300 Event related Potential in normal healthy controls of different age groups- Indian Journal of Psychiatry 2000, 42(4) 397-401 R. Shukla, J.K.Trivedi, R. singh, Y. Singh, and P. Chakravarty.
13. Comparison of Therapeutic Efficacy of ECT and Imiprime A Randomized Controlled Trial C. Pahneer Selvan, Prashanth M. Mayur, B. N. Gangadhar, N. Janakiramaiah, D.K. Subbakrishna and N-Murali Indian Journal of Psychiatry 1999 41(3) 228-235.
14. Predictors of Response in ECT in Major depression B.Sivaprakash, R. Chandrasekaran, Ajit Sahai. Indian Journal of Psychiatry 2000 42(2) 148-155.
15. Clinical variables as predictors of response to ECT in Endigeneous depression.Nitin Gupta, Ajit avasthi and Parmanand Kulhara Indian Journal of Psychiatry 2000 42(1) 60-65.
16. Neorological abnormalities in schizophrenic patients and their relatives k.s. Shaji, j. Richard, Abraham Verghese Indian Journal of Psychiatry 1990 ,93(3) 223-228.