STATUS OF PSYCHIATRIC RESEARCH

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Introduction

Psychiatric Research in India has been acknowledged world over and Indian researchers appear to be most prolific amongst the low and middle-income countries. We have a long tradition of preparing accumulated research documents reflecting major research initiatives taken in the country. First such report was prepared by Wig and Akhtar (1974), which covered the period of 1947 to 1972. Second was prepared by Agarwal and Aga (1994), which covered the period of 1972 to 1992.The current report will cover the period of 1982 to 2007.

This presentation is based on the scanning of the Indian Journal of Psychiatry, which is the official journal of the Indian Psychiatric Society, and most of the researches done in India do get reflected in this journal. The Indian Council of Medical Research, which is a major funding agency for medical research in India, has prepared two documents (ICMR New Delhi, 2002; 2005) summarizing all its funded projects. They have also been used as resources for this review. Director General of Health Services Government of India has published a book entitled Mental Health an Indian Perspective 1946-2003 (Agarwal, 2004). This book summarizes major developments in the field of mental health and has been used as a resource document. All major research centers in the country were requested to provide titles of the research work done in their centers during this period but the response rate had been very poor and only a handful of centers sent the required information. This document thus cannot claim to have surveyed all research work done in the country during this period but should possibly represent major research initiatives.

Psychiatric epidemiology

Indian researchers were sensitive to develop epidemiological data and earliest initiatives were taken by Surya in 1964 at Pondicherry (Surya et al., 1964) and later by Dube in 1970 at Agra (Dube, 1970). The 70's saw maximum epidemiological researches, which became more refined in the 80s and more emphasis was laid on specific disorders as well as their antecedents. There had been few incidence studies by Nandi (Nandi et al., 1976) and Raj Kumar (Raj Kumar, 1995). Recently there was a meta-analysis of selected studies by Reddy and Chandrashekhar (Reddy & Chandrashekhar, 1998) and another pool data analysis by Ganguli (Ganguli, 2000).

Prevalence of psychiatric morbidity ranged from 6.7 per thousand (Sethi et al., 1974) to 207 per thousand (Nandi et al., 1978). These differences are largely due to differences in the definition of case ness as well as in rigorousness of the research effort. Meta-analysis by Reddy and Chandrasekhar (1998) estimated the

prevalence of psychiatric disorders to be 58.2 per thousand, while Ganguli (2000) estimated it to be around 70.5 in rural areas and 73 per thousand in urban areas. These estimates are much below the prevalence rates in Epidemiological Catchments area study (Regier & Kaelber, 1995) where rates of psychiatric morbidity are around 22%. Most of the Indian epidemiological studies appear to have missed a large portion of minor or common mental disorders specially depressions and anxieties as well as drug abuse. There is a definite need to start a long-term epidemiological catchments area study, which should reflect different geographic areas. Such studies can provide answers to many complex epidemiological issues, which at present remain unanswered. We should also initiate a process of Registry of mental disorders specially diseases like schizophrenia and bipolar disorders .A review article (Gururaj & Isaac, 2004) on epidemiological research is available which analyses all researches done till 2003.

Psychiatric disorders in children and adolescents have been studied in an ICMR funded study at Lucknow and Bangalore (ICMR, New Delhi 2005a, 2005b). The prevalence rate of psychiatric morbidity at both centers was 12.1 and 12.5% respectively. Common disorders were enuresis, simple phobia, stammering, ADHD, ODD in descending order of frequency .Sex and area of residence were not significant in overall morbidity. These epidemiological studies were well planned and properly executed however none of the adult epidemiological studies meet these standards.

Mental health Indicators (ICMR, New Delhi 2005c)

An ICMR-WHO project was undertaken to prepare a questionnaire to assess the subjective well being of the individuals. This is a very useful instrument for assessing the subjective well being dimension of the individual. It has not been extensively used by researchers and should be used more often in clinical research. Another instrument developed by ICMR relates to quality of community life. Researchers who feel that the status of community is an important variable should use this instrument to assess the quality of community life. Similarly another instrument has been developed to assess psychosocial stresses. These are very significant developments and should be of use in research as well as for clinical intervention.

Community mental health care

Indian Government decided to integrate mental health care with primary health and decided to develop models of health delivery systems. Various researches were undertaken to develop the most appropriate methods (Murthy 2004, Nagarajaiah et al, 1994; Naik et al, 1994). Researches have been done in the training of primary health care physicians and non-medical workers. This in turn has resulted in development of various training manuals as well as methods of evaluation specific to our country. There are still many gaps in this area and unfortunately the zeal of researchers in this area seems to have declined while

now is the most appropriate time for research in this area as the government has increased the numbers of districts in the district mental health program.

Study of disasters

Disaster research started with the MIC gas tragedy of Bhopal (ICMR, New Delhi 2005d). Thereafter all the major disaster has been studied for their impact on mental health. The disasters include earthquakes in Maharashtra, Gujarat, Uttaranchal, cyclones in southern India and Orrisa and various fire tragedies (ICMR New Delhi, 2005e, 2005f; Nambi et al, 2007). MIC disaster study revealed that the prevalence of mental morbidity was 96.66 per thousand in the exposed area while it was 24.85/thousand in the control area. Anxiety states and neurotic depressions were the commonest disorders. Diagnosis of Posttraumatic stress disorder (PTSD) does not find a mention, as it was not a very popular diagnosis at that time. This also reveals that one observes what one expects to find. A very high number of patients with organic brain syndromes were identified. Marathwada earthquake, which took place in 1993, was also studied for psychiatric morbidity and the total morbidity in the affected population was found to be 139/1000 vs. controls 68/ thousand. Bulk of cases suffered from alcoholism and stress related disorders and PTSD constituted nearly 1.6 % in males and 0.95% in females. The diagnosis of anxiety and neurotic depression had been replaced by these diagnoses. Gujarat earthquake studies revealed that 70 to 90 % had psychological disturbances, which were transitory, 30 to 50% had moderate to severe psychological symptoms and 5 to 15% had long-term mental morbidity. After Super cyclone of Orrisa 80% had possible psychological symptoms. PTSD was seen in 44.3%, anxiety disorders in 57.5% and depression in 52%. These figures indicate that the diagnoses were overlapping. Recent studies after Tsunami in Tamilnadu revealed a prevalence of mental morbidity was 27.2% and PTSD was 12.5 per thousand. This data reveals wide variation in numbers as well as diagnosis. This is largely because of different definitions of caseness as well as timings of the studies.

Drug dependence

Indian researchers have studied almost all facets of drug abuse. There had been a number of surveys to study the prevalence of drug use. A survey carried out at Delhi, Lucknow and Jodhpur (ICMR, New Delhi 2005g) revealed that drug use of any kind varied from 34% to 42%. Fifty percent of these were tobacco users. Most drug users were occasional users while dependent drug use was very little. The investigators wondered whether surveys of this type missed the habitual users. The drug use in females was restricted to tobacco. Use of heroine was very little. Opiate use was 1.19% in Jodhpur, 0.5% male in Delhi, and 0.04% at Lucknow. Another study done at Delhi (ICMR, New Delhi 2005h) indicated that drug use was largely a male problem. Tobacco use was most common and was seen in nearly 28% while only 3.2% used alcohol exclusively. Cannabis was only used in urban villages where it had been used traditionally. Drug use was high in urban villages,

resettlement colonies and unauthorized colonies. All these areas are where large-scale changes are occurring in life style and may also have more disorganized community life.

Last two decades have been focused on drug abuse and all aspects have been studied including biological basis, psychosocial etiology and various models of treatment including follow up. Main centers involved in drug studies are Delhi, Banglore, Chandigarh, Lucknow and Mumbai (Arun et al 2004, Grover & Basu 2004, Saraswat 2006).

Suicide

Suicide is emerging as a major killer all over the world and suicide rates in India are no less. The figures of completed suicide provided by National crime records (Shukla et al, 1990) are much less compared to rates observed by various researchers. Individual researchers reported suicide rates for Jhansi to be 29/100000, a rural area of West Bengal (Banerjee et al 1990) 43.4/100000, and for Madurai (Venkoba Rao, 1986) it was 43/100000.According to crime report bureau the southern states have suicide rates of around 15 per lac while northern states like Bihar, Punjab, Uttar Pradesh and Jammu & Kashmir report suicide rates of less than 3 per lac. These figures do not reflect the reality but are influenced by low reporting in the northern states. High literacy, better reporting system, lower external aggression, higher socioeconomic status and higher expectations are the possible explanation for high suicide rates in Southern states (Vijaykumar, 2007).

The suicides are usually due to multiple factors and mental illnesses have been found to be a major contributory factor in nearly 80% of completed suicides. The suicide rates in women in India are much higher than in the West. The main factors associated with high suicide rate in women are inability to get married, divorce, dowry, failed love affairs and illegitimate pregnancy .The recent spate of suicides by farmers in Andhra and Vidarbha tend to focus on the sociological theories of suicide where in the social disorganization and economic factors appear to play a vital role. Suicide pacts and multiple suicides in families are also issues, which require more research.

Genetic research

Genetic studies (Nimgaonkar et al 2004) have been undertaken at few centers in the country. The NIMHANS group has investigated several loci for schizophrenia and bipolar disorder. A research group at Ram Manohar Lohia, Hospital New Delhi is also actively involved in family based genetic studies. These genetic studies are likely to be of major interest in coming years.

Clinical studies

Maximum researches have been done in studying various clinical syndromes for their etiology, symptomatology, treatment and long-term prognosis. Two of the most quoted studies are ICMR sponsored studies of acute psychosis (ICMR, New Delhi 2005i) and factors effecting course and outcome of schizophrenia (FACOS). The acute psychosis study (ICMR New Delhi 2005i) helped to establish that there is a separate category of acute psychosis, which deserves a separate diagnostic label.

FACOS (ICMR New Delhi 2005j) study was a follow up study of schizophrenia and indicated that the course of schizophrenia is better in India than the West. A point, which is still debated.

Schizophrenia has been the focus of research in this country. Status of schizophrenia research in the country has recently been reviewed (Avasthi & Singh 2004). Incidence of schizophrenia has been found to be 0.35/1000 and prevalence around 2.5 per thousand. There have been attempts to find out biological factors as traits or part of pathology in this disorder. Most robust finding which confirms the finding in the West is decreased brain ventricular ratio. NIMHANS group is involved in various biological studies and they have reported reduced caudate volume (Venkatasubramanian et al 2003) in never treated schizophrenia. There have been studies on biology (Venkatasubramanian, 2007) symptomatology, treatment and course (Thara, 2004) and outcome (Patel et al., 2006) of this disorder.

Depression and bipolar disorders have also been studied similarly (Mohit et al., 2006; Srivastava & Kumar, 2005). Other diagnostic categories like Panic; Obsessive Compulsive disorders have also been studied. The disorders, which are chronic and are difficult to treat are subject of more focused in research. OCD, which is difficult to treat, has been focus of research for genetics, biological factors and treatment (Khanna, 1994).

Dhat syndrome (Singh, 1985) is a culture bound syndrome described by different researchers in India and it has been accepted as a syndrome by ICD system.

A major initiative was taken by Central Drug Research Institute to develop indigenous compounds for psychiatric disorders, one compound was studied as an antipsychotic i.e. centbutindol (Singh et al., 1999) and another as an antidepressant centpromazine (Singh et al 1996-97). Both showed initial promise but could not come into clinical use. Another drug has been tried as a memory enhancer, which is still under study (Raghav et al., 2006).

The drug trials are usually a major part of research as they get easy funding. Most drug trials are undertaken to obtain approval from controlling agencies for sale and manufacture and are funded by pharmaceutical industry. However the

number of published drug trials is declining as many sponsors are not interested in publication but are mainly interested in obtaining approval from authorities.

Electro Convulsive Therapy (ECT) (Gangadhar, 1992)

Indian researchers have developed a new prototype of ECT machine, which has been patented and is available in the market. They have also studied the type of current, the amount of stimulus and the duration of seizure etc. This research effort has been noticed by the world and has improved the standards of clinical practice.

The aforesaid is a brief description of psychiatric research in this country. The selection of researches and their presentation is largely based on the importance of research and its impact on clinical practice. There are a large number of other important researches which have not been included as to include all would have made the presentation unwieldy. The quoted references are neither comprehensive nor the most important but have been selected to provide some information on the topic and may be helpful in finding out cross-references to the interested reader. The selection of topics and areas may reflect the author's bias.

Challenges of the future

Psychiatric research in India suffers from the twin maladies of lack of research cadre and absence of long-term financial support. Researchers have not generally concentrated on specific areas in long term barring a few. The shifting research focus dilutes the efforts. Most of the published research has been the result of M.D. Dissertations of postgraduate students. These research works are time bound and the focus is on completing the projects and in this process the quality suffers. There is a need to develop a pool of dedicated research scientists who are involved in specific areas and the quality of research is likely to improve. We in this country have very poor documentation of clinical work and if we can improve the documenting process then we can get answers to many unanswered questions

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