MENTAL HEALTH IN NEPAL:

A COMMUNITY SURVEY OF A VILLAGEIN SOUTH LALITPUR. CENTRAL NEPAL.

ADHIKARI, K.P.& DENISON, B.D.B.
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CONTENTS

FOREWORD

The United Mission to Nepal started its Mental Health Programme in 1984. Since then work has included the building a community mental health programme, providing specialist teaching at the National Teaching Hospital, developing specialist services at hospitals around the country, providing support for other Non Government Organisations, and advising the government with their National Mental Health Policy. Part of this work includes adding to the epidemiological database. For this purpose the Mental Health Programme provided the necessary funding for the present research.

The authors would like to thank several people who have all been instrumental in the successful completion of this study: Dr. Sarah Acland, Mr. Klaas-jan Pol, Ms Raija Kiljunen, and Mrs. Gyani Sharma for their valuable advice and continued support throughout the research; Professor Regmi for his contributions in the translation of the screening instruments; Ms Gyanu Shrestha for her patient secretarial skills; and the village of Gotikhel, without whose hospitality and friendly cooperation there would have been no study.

Mental Health Programme

United Mission to Nepal

P.O. Box 126

Kathmandu

Nepal.

ABSTRACT

Previous epidemiological studies contradict the view that remote areas of the world suffer from fewer mental disorders. With the National Mental Health Policy awaiting implementation, Nepal is in need of further epidemiological data on which to base future plans. The study selected a village which has received much health input, both physical and mental. First stage screening of adults used the Self Rating Questionnaire (SRQ, Harding et al. 1980). Diagnostic interviews then were conducted using a diagnostic flow-chart. Groups within the community were then called for an assessment of mental health awareness. The small number of interviews conducted necessitated calculations of prevalence of mental disorder from first stage screening. Conspicuous psychiatric morbidity was observed in 10.2% of the population. Rates were higher in women (11.8%) than men (8.5%). For women, factors related to higher levels of emotional distress were marriage at a young age, living in an extended family, and having many children. Higher socio-economic status was associated with less emotional distress in both men and women. Knowledge, awareness and practices of mental health in the community was of a high standard. Observations were made of the decline in standards of the Health Post's services in the years since hand-over to the government. This study reasserts that prevalence of non psychotic mental disorder is similar throughout the world. The implications from this study are discussed, as are the methodological issues and ideas for further research.

1.0 INTRODUCTION

1.1 MENTAL HEALTH IN THE DEVELOPING WORLD

With the advent of increased technology in the industrialsed western world in recent decades, there has been an increasing awareness of the concept of stress in modern man's life. An opening up of the world through tourism, and improved communications, have allowed for increased comparison between the life of western, industialised man, and that of his cohort in the developing world. It is now almost 70 years since Freud claimed that "primitive man was better off, for he knew nothing of any restrictions on his instincts. Civilised man has exchanged some part of his chances of happiness for a measure of security" (Freud, 1930). Yet this image of traditional societies living in a state of reduced stress still lingers on to colour our views about mental health. That developing rural populations may not be plagued by time pressures and increasing crime rates, hides the fact that man has always been prone to the stresses that come from social living. It is unlikely that a traditional society peopled by vengeful deities and ghosts, angry neighbors and envious relatives is less stressful than that in the Western world.

Epidemiological studies provide quantitative support to this argument. Multi-centre epidemiological studies have revealed that the incidence and prevalence of severe incapacitating mental disorders is similar to that seen in developed countries. It has been shown that the point prevalence of severe mental disorders is around 1%, while the life-time risk of such disorders is approximately 10% (Mubbashar, in Tantam et al. 1996). Thus, mental illness presents at higher rates than both leprosy and tuberculosis. In terms of

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numbers, depression is psychiatry's major disorder. Primary health care attendance figures indicate that as many as 20-30 % of cases are presenting with depression as the principal or secondary reason for seeking care (Desjarlais et al., 1995). Prevalence rates of epilepsy vary from 5-30%, in developing countries, compared to 0.9-1.2% in the developed world. Severe mental retardation among those below 18 years of age is estimated to be about 3 per 1000, whilst the prevalence of mild and moderate mental retardation is estimated at about 50 per 1000 (WHO, 1978). Substance abuse is a rising problem, though it is difficult to monitor due to lack of policies governing the sale of alcohol and psychotropic drugs.

Mental illness is often confounded in many developing countries by the presence of preventable aetiological factors. Infections and infestations may contribute to the development of mental illness, especially when accompanied by reduced food supplies, low quality drinking water, and low levels of vital nutrients. Insufficient levels of iodine, for example, has many detrimental effects including the lowering of mental ability. The age structure of the developing world is another factor in the overall picture. Approximately 50% of the population of underdeveloped countries is under 15, with an annual growth rate of around 2-3% (Mubbasher, in Tantam et al. 1996). As the age of highest risk of developing schizophrenia is 25-30 years, this projects to figures of 23 million individuals suffering from schizophrenia by the year 2000 (ibid.). At the other end of the age range, there are more people living to age 65 and beyond, therefore producing a substantial increase in senile dementias (Kramer, 1989).

In response to this world wide picture of mental illness, the World Health Organisation incorporated mental health into its Alma Ata Accord of 1978, stating that

"Health is a state of complete physical, mental and social well-being" (WHO, 1978). However despite these good intentions, there have been several practical barriers to providing the level of mental health care needed. Firstly, countries struggling with the earlier stages of national development typically assign a low priority to social welfare matters, and psychiatric services usually find themselves as the Cinderella of the health care budget (Higginbotham 1979). In the US 16% of the health budget goes towards mental health; in Tanzania, this figure is 4% (Desjarlais et al., 1995). Conventional public health statistics tend to focus on mortality rather than morbidity or dysfunction. Furthermore, deaths have been ascribed to their proximate causes, rather than to the behaviours underlying them; thus death is from liver failure rather than the causatory alcohol abuse. Thus health officials often derail plans for an expanding mental health care system on the grounds that that such care is a premature goal for nations where infectious disease remains unchecked (Harding, 1975). Infectious diseases, therefore receive a greater worldwide spotlight, and the ensuing focus of resources. Yet, mental illness is responsible for immense suffering both to the individual, the family, and society in general. One of the causes of mortality from mental disorders is suicide, which accounted for 1.6% of the world's mortality in 1990 (World Bank, 1993). It is among the top ten causes of death in countries that report rates, and is one of the top two or three causes of death among the young (Desjarlais et al., 1995).

The 1993 World Development Report estimates that mental health problems the world over produce 8.1% of the Global Burden of Disease (measured in disability adjusted life years-DALYs), a toll greater than that exacted by tuberculosis, cancer or heart disease (Desjarlais et al., 1995). For those aged 15-44 in the developing regions in 1990,

depression was the leading cause of DALYs; 9% of the total, in comparison with tuberculosis, the second leading cause of DALYs, at 5.4% of total disability. The 1998 WHO report reported that more working days are lost from mental illness than physical illness (WHO, 1998). Therefore, apart from the significant mortality rates of major mental illness, the costs of secondary disabilities - injuries, other physical disease, self-harm, social violence, educational loss, job failure, economic loss, as well as family and marital disharmony, damage to psychosocial development of related children, and even family disintegration - need to be taken into account by health planners (Wright, 1991).

Furthermore, in most mental health systems around the world, a large burden of psychiatric illness presents itself in the offices of primary health (Wittchen & Essau, 1990). Recent epidemiological studies have confirmed that patients with all forms of mental disorder make 83-100% more medical visits than persons without mental disorders. (Regier et al., 1985). Wright et al. (1990) found that 91% of psychiatric patients presented with physical rather than psychological complaints. Cross-cultural epidemiological studies suggest that somatization of depression is a common phenomenon in non-Western societies (Jablensky et al., 1981), and a study in south India revealed that social stigma was positively related to depressive symptoms, and negatively related to physical symptoms (Raguram et al., 1996). Without the necessary training in diagnosis of mental disorders, up to 60% of all mental disorders in primary care go unrecognised (Wittchen & Essau, 1990). This results in poor prognosis for the patient, unnecessary recurrent visits, mismanagement of expensive and dangerous drugs, and a general waste of scarce resources (Giel & Harding, 1976).

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The second barrier hindering the provision of mental health care is that of resources (Higginbottam 1976). A WHO report of 1975 stated that "mental health resources, as defined by manpower, training opportunities, and specialised facilities, are conspicuously absent" (WHO, 1975). Almost 25 years on, this picture is only changing slowly, and the situation needs continued attention by health planners.

A third barrier is that of community acceptance (Higginbottam 1976). Centuries-old notions about the causes of mental disorder involve concepts of sin, taboo violation, and witchcraft (Asuni, 1975). Typically the family and village reaction is to seek out the sorcerer culprit with the services of the traditional healer, or hide the shameful offender. Thus health care planners need to work within this community framework, providing services that are culturally appropriate. Indeed it was the negative attitudes to mental health held by planners, professionals, and politicians themselves that were seen by the WHO (1975) as a major obstacle to the development of rational mental health services.

1.2 NEPAL- COUNTRY BACKGROUND.

Roughly the size of England and Wales, Nepal sits increasingly insecurely nestled between the Asian superpowers of India and China. The physical diversity is illustrated in the rise from the low-lying flatlands of the Terai on the Indian border to the spectacular heights of the peaks of the Himalayas, 8 of which rise above 8000 feet. Therefore, although the Terai is highly productive, only 29% of the country supports cultivation (Harvard School of Public Health, 1997). There are few roads, and thus much of the land is only accessible by foot.

The latest population estimate (for 1996) is 23 million, 40% of whom are under 15 years of age. The average household size is 5.6, the average population density 125.6 per square km (27.9 in the mountains, 137.3 in the mid hills, and 253.6 in the Terai). 14% live in urban areas, though at a 7% annual growth rate, Nepal is the fastest urbanising country in South Asia. Ethnic groups are plenty, ranging proportionately from the Chetris (16%) to the Sherpas (0.6%) (ibid.)

Literacy over 16 is averaged at 27.5% (14% in women, 40.9% in men) (Unicef, 1998). This varies considerably across the country, with a high of 58.2% in men in the Western region, to a low of 14.9 for women in the Far Western region (Central Bureau of Statistics, 1996). Child mortality is 79/1000 (Unicef, 1998)), whilst life expectancy at birth is 53.35 for women, 53.93 for men (ibid.). Nepali women are unusual in term of the world picture, therefore, in that they have a lower life expectancy than Nepali men. Women in Nepal from a young age are involved in physically very demanding work. Compared to other cultures there is less of a sexual division of labour, and it seems that women's work indeed takes its toll.

The geographic extremes in Nepal are matched by its cultural diversity, boasting many different ethnic groups and languages. Nepali is the lingua franca, but although spoken by most men, it is less well represented by the women and those of the remote places. English is common in the cities, and is the official language of the business world. Traditionally, attitudes to disease, especially mental, reveal the extent of religious and magical beliefs. The caste system, though officially illegal and considerably less extreme than in India, still has a tight grip on a person's educational and occupational opportunities.

The GNP per capita is $200 (ibid.), with 49% of the population living below the poverty line, and 52 % earning less than $1 a day (ibid.). Nepal remains to be one of the poorest nations in the world. This is not helped by the frequent ministerial changes and transfers that seriously hinder any smooth running of planning implementations. Secondly, the large foreign donors often hold more sway with developmental plans than the government, and as these donors change, so too do the prominent policies and objectives.

1.3 MENTAL HEALTH IN NEPAL

Until the 60's, there was no specialist service, though an asylum has existed in Malunga, central Nepal since the 1930's. The first psychiatrist returned from his overseas studies in 1961 and started a small out-patient department in the national hospital, expanding to some inpatient provision in 1965. In 1980 the WHO started to provide ongoing funds for mental health work. In 1983 the psychiatric unit becomes what is today the Mental Hospital, providing 42 beds. In 1984 United Mission to Nepal (UMN) started a mental health programme, which in 1985, incorporated a pilot community mental health programme in Lalitpur district, Central Nepal, as a demonstration project. This is still running today, though most health posts have now been handed over to government management. In1986 the Tribhuvan University Teaching Hospital (TUTH) of the Institute of Medicine (IOM) opened the Psychiatry department. There are 12 beds in the psychiatric ward, and an out patient department.

In 1989, the necessary funding and government agreement was obtained to form the Community Mental Health Project, starting in Morang. Since the establishment of the

Western Region Community Mental Health Program (WRCMHP) in 1992, 4 of the 75 districts are now covered- Morang, Kaski, Banke, Syanja.

In1991 the Nepal Medical Association requested a draft of the 'National Mental Health Policy' from IOM. The final plan was accepted by the government in 1996, and at present is awaiting implementation at the Ministry of Health. It is proposed to make a Unit for Mental Health at the Ministry of Health, or Department of Health

There are currently 21 psychiatrists working in Nepal, though only 3 of these are regularly outside of the capital, Kathmandu. This figure compares with that of 2-3000 doctors. There are 10 trained psychiatric nurses, and 4 clinical psychologists. Specialist training is now ongoing at the Institute of Medicine in psychiatric training for doctors, a clinical psychology degree, and soon there will be training for a diploma in psychiatric nursing.

To set directions for future plans, the Western Region Community Mental Health Program was evaluated by two outside experts in 1996. Amongst their findings was the lack of epidemiological data, and so called for work to be done in this area. A research database is required to set priorities for action, evaluate the effects of policies, monitor the quantity and quality of services, and respond to the changing environment (Pol - pers. comm.). Tausig and Subeni report that the "health department has no epidemiological data regarding prevalence or incidence of mental illness" except for a small scale survey from 1983, and that the findings from this survey are the sole scientific data available for planning (Tausig & Subeni, 1997).

1.4 GOTIKHEL

The Pilot Community Mental Health services program was started by United Mission to Nepal in1984 to serve as a working example for the government. Initially the program was introduced to selected areas of Lalitpur district in the central region of Nepal, before spreading to cover the whole district in 1990 . As part of this program, services were introduced to Gotikhel health post in 1988.

Gotikhel is a predominantly Brahmin community with a population of approximately 2019 at the last local census in 1996. Gotikhel is situated in the south of Lalitpur district, approximately 55 km from Kathmandu, and linked by a non tarmac road which remains open for most of the year, subject to landslides. The central bazaar lies in the valley floor, and the community, divided into 9 wards, is settled along the river, and up into the hills, where the steep slopes require that families are sparsely populated in order to share the land. Originally home to only Tamang people, they have gradually sold out the low land to the Brahmins and Chetris, and many have shifted their homes to the higher ground.

Due to its geographical position and physical layout, Gotikhel has become a main centre for south Lalitpur over the years. Almost 95% of the population is dependent on agriculture, though few families can afford to sell their crops, so the vast majority are subsistence farmers. There is considerable ownership of buffalo, and the daily sale of milk to a dairy near Kathmandu allows a regular low level of income. Land production is generally not sufficient for the whole year, and so many search for manual work to supplement income.

In the central bazaar there is a government High School (started in 1977) and private primary school, whilst in the village's hills there are a further 4 primary schools. Awareness about education has raised school attendance levels of children, and given impetus to women's groups in the village. There are welfare clubs, income generating schemes, literacy programmes, and health awareness raising programmes. The Agricultural Development Bank was established in the village in 1989, providing loans for local farmers. In 1994 electricity was brought to the village with the help of outside funding. In the same year, a solar powered phone was set up from funds raised by the village development committee (VDC). The village also houses a police station, post office, several shops, and eating houses. There is a health post, and 2 private medical halls, well-stocked, but the Kathmandu prices restrict accessibility to the community. The nearest hospital is in Kathmandu, and the only regular transport is with the morning milk truck.

In the past decade there have been many changes in Gotikhel, both in terms of increased facilities and the social response to them. Before the road was built nine years ago, the only mode of transport was by foot. Five years ago, the monsoon effectively closed the road for two months a year, but improved maintenance now allows the road to remain open for most days of the year. This link has allowed the daily delivery of milk to the dairy, and vegetables to be sold in Kathmandu's markets. Technological development has seen the introduction of electricity, flour mills and the introduction of high yield seed, whilst socially there are improved opportunities for education, both formal and non-formal, and there are now many development groups in the village. Land cost has risen, as immigration of people from other villages for the available facilities outnumbers those who are emigrating for work and further study. Thus, although at present Gotikhel is an

example of a more developed area of Nepal, this has only been the case in the past decade, before which it was comparable to other parts of Nepal in terms of health, technological and agricultural development.

During the years of UMN's management of the health post, (1988-1995) several mental health trainings were provided to the health post staff, and groups within the community; traditional healers (TH), traditional birth attendants (TBA), female health volunteers, schoolteachers, and senior High School students. These were regularly held and supported by refresher trainings. Since the hand over of the Gotikhel health post to Government in 1995, there has been no further training in mental health, and at present none of the health post staff have had mental health training. Nevertheless, the village has received a level of input into mental health education that is amongst the highest in the country.

UMN has had a close working relationship with Gotikhel, even after the hand over to government. There have been several studies carried out within the community. Wright (1991) included Gotikhel as one of the seven health posts included in an evaluation of the first five years of the community mental health programme. Pashupati Mahat (1997) interviewed traditional healers in Gotikhel as part of a comparative study in the treatment methods of traditional healers in mental illness. In September 1998, Becki Thapa (pers. comm.) collected data for a study into the pattern of suicide in Gotikhel.

This close relationship between UMN and Gotikhel was the foundation for choosing the village as the study site. Furthermore, one of the authors was the resident health post in-charge during the years 1990-1994. It was hoped that this relationship would facilitate the cooperation from the village authorities and the community necessary

to carry out the study. It would also be of interest to assess the present level of mental health awareness amongst the community, as there has been much input into this area, though not since 1995.

1.5 OBJECTIVES

The perceived view that mental disorders are rare among people living in remote parts of the world is unjustified (Mumford, 1996). That the precipitating stressors are different from those observed in the western world, does not mean that they are absent. Epidemiological studies indicate comparable rates of prevalence of mental disorder across the globe. It is rather with the services developed to help treat those afflicted that the difference lies. Previously, planners were slow to develop these services due to lack of awareness of the seriousness of mental disorders. With funds lacking, mental health has traditionally been sidelined in favour of other health priorities, understandably focusing on mortality rates. Yet this economic argument is short sighted, and health planners should be looking for ways to invest in mental health services, and thus help to reduce the cost of mental illness to the community; both with regard to human suffering, and economically, in terms of work lost through disability.

Yet to develop these services, and have the confidence to increase funding, governments need data to work from. Thus there arises the problem of limited research data with which to base decisions about increases in funding and personnel, and the cyclical effect of lack of funding and personnel to carry out the necessary research.

Research feeds research and United Mission to Nepal have therefore funded this research program in order to start to build upon the limited foundations of epidemiological data in the field of mental health in Nepal. The objectives of this study are threefold:

1. To estimate the prevalence of non psychotic mental disorder in Gotikhel, South Lalitpur.
2. To identify socio-demographic factors which are related to the prevalence of mental disorders.
3. To ascertain the level of awareness of the community to mental health.

The methodologies designed for this study have been based on previous work in mental health in Nepal. It is hope that this will allow for a consistency from which future research can work.

2.0 LITERATURE REVIEW

Harding et al. (1980)

Harding et al. conducted a study of the prevalence of mental disorder in primary health care in four developing countries; Colombia, India, Sudan, and the Philippines. A Self Rating Questionnaire (SRQ) was designed for the study, comprising 20 questions designed to detect non-psychotic disorders, and 4 questions to detect psychotic conditions. The first 20 questions were selected from items in 4 instruments; the Patient Self-report Symptom Form (PASSR) (Climent & Plutchick, 1980; in Harding et al. 1980), the PGI Health Questionnaire (Verma & Wig, 1977), the General Health Questionnaire (GHQ) (Goldberg, 1972), and the shortened version of the Present State Examination (PSE) (Wing et al., 1974). The 4 items designed to detect psychosis were based on items in the Foulds' Symptom Sign Inventory (Foulds & Hope, 1968).

Health care attendees aged 16 or over were screened, and as the majority of those screened were illiterate, the SRQ was read to each patient. A cut-off score for the 20 non-psychotic questions was selected for each study area, based on the score that was likely to yield optimal sensitivity and specificity. The cut-off scores for the four areas were 10/11, 5/6, ¾, 6/7. All patients scoring above this cut-off point or scoring at least one positive item on the psychotic questions were regarded as 'potential cases', and followed up. In addition, a sample of those scoring less than the cut-off, and with no positive psychotic items were also followed up. This follow up procedure consisted of a structured psychiatric interview (the shortened version of the P.S.E.), a diagnostic assessment and formulation, and a case register. 1624 patients were screened, and the prevalence of

mental disorder in the four areas was 10.8%, 17.7%, 10.6% and 16.3%, combining to give an overall prevalence of 13.9%.

Mari and Williams (1986)

Mari and Williams conducted a study to assess the feasibility and validity of the Self Reporting Questionnaire (SRQ, Harding et al., 1980) as a screening questionnaire for psycho-emotional disturbance in primary care clinics in Brazil. As the study was carried out in a primary care setting only the first 20 questions (SRQ-20), designed to detect non-psychotic disorder, were used. The SRQ was validated against the criterion of the Clinical Interview Schedule (C.I.S., Goldberg et al. 1970)- a semi-structured psychiatric interview which was designed to detect non-psychotic disorders in extramural settings. A Portuguese translation, validated in primary care settings in Brazil, was used.

The study was conducted in three primary health care units in the city of Sao Paulo, with a time-sample of attendees aged 16 or more. 875 patients filled in the SRQ-20 questionnaires and a subsample of 260 were interviewed by the psychiatrist. The SRQ-20 was shown to be a feasible screening instrument for psycho-emotional disturbance in these settings. The sensitivity was 83%, specificity 80%, and the questionnaire was a good indicator of morbidity. A correlation was found between questionnaire total scores and independent clinical judgment ($r = +0.70$).

Mumford et al. (1997)

A community survey of stress and psychiatric disorder was carried out in rural Punjab, Pakistan. A two stage screening methodology was used to estimate the prevalence

of minor psychiatric morbidity in a village in the Punjab, to identify social factors and stressors that correlate with the prevalence of psychiatric disorders and emotional distress, and to be able to compare this area with others studied.

The first stage screening instruments used were the Self Rating Questionnaire (SRQ, Harding et al. 1980), and the Bradford Somatic Inventory (BSI, Mumford et al. 1991). Only the first 20 questions from the SRQ were used (SRQ-20). The BSI was developed from symptom reports by psychiatric patients in Pakistan and Pakistani patients in the UK with clinical diagnoses of anxiety and depression. Previous studies with the BSI proved it to be an effective screening instrument with a sensitivity of 80% and a specificity of 77%.

At each house in the village, a list was compiled of those present and absent. Both the SRQ and BSI were administered orally to the 664 villagers present aged 18 years and over. About a quarter of the men were living away from the village at the time of survey. Two thresholds for the SRQ were used; 5/6 and 9/10. Selection for the second stage was made on the basis of BSI and SRQ scores, with psychiatric assessment made on all participants scoring above the cut-off on either the BSI or SRQ, and a random sample of those scoring below these thresholds. The psychiatric interview was made according to ICD-10 Diagnostic Criteria for Research (DCR; WHO 1993).The higher thresholds yielded a point prevalence of 66% for women, and 25% for men; the lower threshold increased prevalence rates to 72% for women and 44% for men. Using the lower threshold, the sensitivity of the SRQ was 85% and the specificity was 70%. Despite these extremely high figures, it was felt that the methodology was sound enough for the prevalence estimates not to be an artefact.

Levels of emotional distress increased with age in both genders. Women living in unitary households reported more distress than those living in extended or joint families. With younger men and women, levels of education were associated with greater risk of psychiatric disorders. Social disadvantage was associated with emotional distress

Shrestha et al. (1983)

This study was designed as a first attempt to measure the prevalence and distribution of mental illness in a semi-rural community in Nepal. The research procedures were guided by a format designed in India by Carstairs and Kapur (1976), and the study followed a multi-stage procedure (Goldberg et al. 1970). Firstly, the 202 households in the village were surveyed to establish demographic and socioeconomic conditions. This was followed by a preliminary psychiatric interview of all residents over the age of 9, and those identified as potential cases were followed up with an in-depth psychiatric examination using diagnostic criteria contained in the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM III). The preliminary screening used the Indian Psychiatric Survey Schedule (Kapur et al. 1974), chosen for its broad range of psychophysiological symptoms, and its inclusion of syndromes specific to the South Asian context. Of the 803 people interviewed, 113 were identified as psychiatric cases, giving a prevalence of 13.6%

Analyses were carried out to determine whether age, sex, marital status, income, educational status or family type were related to the presence of psychiatric disorder. Rates of psychiatric cases were non-significantly higher amongst in women than men. For both men and women, the highest rate of prevalence was amongst those aged 21-30,

perhaps reflecting the pressures of marriage and the subsequent adjustments. No statistically significant differences were found amongst the different income groups. There was a significant relationship between marital status and mental disorder; those widowed or separated (18%) had higher rates of mental disorder than those married (15.7%), whilst those unmarried had the lowest rates (7.8%). Education status showed no significant relation to mental disorder. The rates of psychiatric cases amongst those living in nuclear families was higher than amongst those in extended families, though this difference was not significant.

Wright et al. (1990)

Patients were screened in 2 primary health care settings in Nepal in order to estimate the number of presenting patients with psychiatric morbidity. The patients were screened for potential psychiatric disorder with the SRQ, as developed by Harding et al. (1980). One further question was designed to identify epileptic or psychogenic fits, since both are common and usually managed by psychiatrists in Nepal. This was the first time the SRQ was used in Nepal, and so translation into Nepali was undertaken with back translation and modification as necessary. In a comparison of 'psychiatrically ill' and 'normal' populations, a cut-off score of 10/11 was selected. The SRQ was read to the patients. 146 patients aged 16 or more were screened at a semi-rural health post, whilst another 150 patients were interviewed at a hospital outpatient department in the capital, Kathmandu. The prevalence of patients with psychiatric morbidity was 23% in the health post, and 28% in the hospital; all of whom had presented with physical, rather than psychological complaints. Health workers were largely unable to recognise and diagnose

this group of patients, and so the results from this study had important implications for the inclusion of mental health care into health workers curricula.

Wright et al. (1991)

This study was carried out as an evaluation of the first five years of the pilot community mental health programme in Lalitpur, Nepal. Under consideration were the utilisation of services; the socio-demographic and clinical profile of patients; the knowledge, attitudes and practices (KAP) of community members regarding mental illnesses; the KAP of the community health workers regarding mental health problems and work related to them; the costs of the programme; and the usage of the programme as a teaching and demonstration base.

The community interviews were held with village health workers (V.H.W.), traditional birth attendants, and traditional healers from 7 health posts in Lalitpur; one of these was Gotikhel. Short case histories providing examples of depression, epilepsy, mental retardation, and psychosis were given. These were followed by questions regarding the presence of such problems in their community, their beliefs about the causes of the such problems, and suitable treatments. Awareness ranged from 14% of traditional healers with regard to depression, to 75% of V.H.W.'s recognising epilepsy and mental retardation. Only about one third of these group members regarded the health post as the most suitable place for treatment. However in contrast, 66-73% acknowledged that help was available in the health post, possibly reflecting the lack of confidence amongst those interviewed. 87-95% recognised the helpfulness of medication in the treatment of mental

illness. The most frequently cited causes of mental illness were 'mental weakness or brokenness', inadequate diet, and constitutional or physical factors. Overall, it was felt that there was a low level of awareness of mental illness amongst the community, and although help was acknowledged at the health post, there was still a preference for hospital treatment.

Pol et al. (1998)

Set in the working area of the Yalla Urban Health Project (YUHP) of UMN in Pathan, Nepal, this study had 2 objectives; to estimate the prevalence of psychiatric illness in the area, and to assess the community response to this illness. In the first respect, the study incorporated a two stage design as used by the World Health Organization's Collaborative Study on Strategies for Extending Mental Health Care (Harding et al., 1980, 1983). The first stage screening instrument was the Nepali version of the SRQ as used by Wright et al. (1990). This was also translated into the local regional language, Newari. The questionnaire also contained items about socio-demographic data, and usual patterns of help seeking behavior. The second stage used an instrument which was based on a flow-chart made by Essex and Gosling (1982), and the diagnostic decision tree of Giel (1988). People for the second stage were chosen at random, and the interviews were done blind by 1 psychiatrist and 1 psychiatric nurse.

Of the 20 non-psychotic questions on the SRQ, 8 relate to physical problems, whilst 12 are psychological in nature. Cut-off for the SRQ was 10/11 on the non-psychotic questions, or 6/7 on those non-psychotic questions that are psychologically related. Of the 252 interviewed, about 11% had a mental disorder. Of the 33 interviewed at 2nd stage, 23

had no mental disorder, 2 were psychotic, 5 epileptic, and 3 had a mood disorder. Analysis of the socio-demographic data revealed that there was no significant relation between having conspicuous psychiatric morbidity (CPM) and gender, age, number of children in the household, household size, or educational status.

During the community study, 14 key informants were interviewed who had not been involved in the previous interviews, and in areas where YUHP had not held any health activities. The aim was to detect whether major psychiatric problems are recognized in the community, how they are labeled and how the patients are treated by the community members. Short non technical stories of patients with psychosis, depression and epilepsy were presented, and participants were then questioned about their knowledge and attitude towards these patients.

The community study revealed that younger, more educated people were more aware of the possibility of treatment of mental disorders, and held less superstitious views regarding explanations of mental disorder. No one interviewed was aware of the fact that mental illness could be treated by psychological methods, but most of those interviewed acknowledged the benefit of supportive behaviour in the community.

3.0 METHODOLOGY

3.1 Sample population

The physical features of Gotikhel's situation, and time restrictions of the data collection meant that the sample population was not able to be chosen randomly. Instead, the study population was defined as those adults aged 16 and over living in the three central wards. This area was chosen due to its several suitable characteristics. Local census data from 1996 listed the total population aged 16 or more at 396. We expect a prevalence rate of mental disorder of about 11% (Pol et al., 1998), and taking 7% as the lowest acceptable frequency, then the sample size must be 337 to allow for a 99% confidence level. Therefore, even though a number were expected to be absent at the time of the survey, it was estimated that this sample would provide the interviews required. Secondly, the proportional representation of ethnic groups approximated that of the village as a whole. Finally, with the time restrictions facing the research assistants, the central position of these wards reduced the time spent traveling to and from households.

Permission was obtained from the Village Development Committee (VDC), and introductions were made in the High School, and to the police. A map was drawn of the three central wards, and the number of houses in each ward noted from the local census data (1996).

3.2 Screening instrument

The Self Reporting Questionnaire (SRQ, Harding et al., 1980) was chosen as the screening instrument, as it has been used in previous research done in Nepal, and therefore allows for some consistency. The first 20 questions are designed to detect non-psychotic disorders, and were selected from items in 4 instruments; the Patient Self-report Symptom Form (PASSR) (Climent & Plutchick, 1980-in Harding et al., 1980), the PGI Health Questionnaire (Verma & Wig, 1977), the General Health Questionnaire (GHQ) (Goldberg, 1970), and the shortened version of the Present State Examination (PSE) (Wing et al., 1974). The 4 items designed to detect psychosis were based on items in the Foulds' Symptom Sign Inventory (Fould & Hope, 1968). The further question designed to detect epilepsy was added by Wright et al. (1990), and also used by Pol et al. (1998). The Nepali version of the SRQ used by Wright et al. (1990) and Pol et al. (1998) was chosen for the present study. Additional translations and back translations were made, and necessary adjustments were made by the authors with advice from the Professor of Psychology at Tribhuvan University, Kathmandu.

Attached to the SRQ were further questions inquiring about socio-demographic information. These included household type, number of people living in household, number of rooms in the household, educational status, occupation, income levels and food supply, substance use, marital status, age when married, years married, and number of children. A copy of the SRQ and additional questions used is presented in appendix II.

3.3 Training

Two male and two female research assistants were chosen from M.A psychology graduates of Tribhuvan University, Kathmandu. They were trained in the administration of the SRQ in a one day training, during which practice interviews were observed by the authors. Satisfactory interrater reliablility standards were achieved. A pilot study was then completed over two days in the psychiatric and medical out patient departments of a city hospital, and in a semi-rural settlement about 10km south of Kathmandu. From this study, points of difficulty in administration and community response were then discussed with the authors before departure for the study site.

3.4 First stage

A two stage screening procedure was used as in Harding et al. (1980). During the first stage, all female participants were interviewed by the female research assistants and male participants were interviewed by the male research assistants.

At each house occupants were given a brief explanation, and their consent was obtained. A list was then compiled of all the adults and children living in the house, and of those family members who were absent and the reason for their absence. Each house was given an identity number. As many of the participants were illiterate, the SRQ was administered orally in Nepali to every member of the household aged 16 or more. Interviews were conducted in as much privacy as possible. Research assistants had to make multiple visits to some houses in order to obtain data for all adults in the study sample, and thus reduce any possible selection bias.

3.5 Second stage

Selection for the second stage was based on SRQ scores. Previous studies using the SRQ have used a variety of cut-off scores ranging from ¾ to 10/11 on the 20 neurosis questions. For the present study, the cut-off was chosen at 6/7 on the neurosis questions, and all participants scoring above this threshold, or scoring at least one positive item on the psychosis or epilepsy questions were chosen for second stage diagnostic interview. In addition, 1 in 3 of those scoring below the cut-off and with no positive items on the psychosis or epilepsy questions were also selected for interview. This is a lower threshold than that used by Wright et al. (1990) due to the present study being carried out in the community and not in primary health. Using this lower cut-off for the first stage allowed for a wider net to be cast for the second stage diagnostic interview.

Once selected, participants were given an identification number, and directed to the health post for further interview as soon as possible. Interviews were conducted by K.A. and B.D. using an instrument based on a flow-chart made by Essex and Gosling (1982), and the diagnostic decision tree of Giel (1988). Interviews were made without knowledge of SRQ scores, and diagnosis was made after discussion between the interviewers. It was decided to make the broad diagnoses of depression, anxiety, psychosis, mental retardation, and epilepsy, as these are the categories used in the health posts. At this stage of development of mental health in rural communities in Nepal, it was felt that more complicated diagnosis would not be manageable by the health post staff.

Physical checks were also made by K.A and all diagnoses were referred to the health post for treatment and clinical recording.

3.6 Data analysis

As the necessary criteria for the use of parametric statistical tests were not met, non-parametric statistical tests were used. This helps to instill confidence in the differences found. Mean SRQ scores between different groups were compared using the Kruskal-Wallis comparison of means test.

4.0 RESULTS

The data collection was carried out during the first three weeks in February, 1999. One hundred and forty nine households were surveyed from the selected wards, a greater number than that recorded by the most recent village census data from 1996. Whilst there may have been remote households that slipped the net, it was felt that this number represented 100% of the households in the selected area.

4.1 Demography

There were 376 adults (184 men and 192 women) and 252 children under 16 years living in these 146 households during the survey. Figure 1 shows the distribution of Gotikhel's population by age and gender. Current residence was defined as eating from the family stove daily. Family members who were living away from the house for work, study or otherwise were excluded from the study frame. Fifty-four percent of absentees were away for work, mostly in Kathmandu, many taking their dependents with them. Almost a third of the men were living away from the village at the time of the study. The proportion of the population under 16 was 41%, thus typical of developing countries. Of the ethnic groups, the majority were Brahmin (61%) or Tamang (27%); the remaining 12% of the population consisted of Chetri (4.7%), Newar (3.9%), occupational groups (2.2%), Gurung (1.1%), and Terai groups (0.3%). The entire study population were either Hindu (72%), or Buddhist (28%). 80% of the adults were married, 16% were single, and 4% widowed. The average age at marriage was 16. Literacy rates were 78.4% for men, and

37.6% for women. These are considerably higher than the average rates for the middle hills in Nepal-61.8% for men, and 31.0% for women (Central Bureau of Statistics, 1996).

Households were categorized into unitary (parents and children only), joint (with married sons, their wives and children), and extended (three generations). The majority were unitary (65.8%), with 23.5% extended, and 10.7% joint. The mean household size was 2.5 adults, and 1.7 children, though this includes several houses with only one occupant, and two central houses solely accommodating students, living away from their families.

The socio-economic picture showed that 51% of men and 71% of women were farmers, whilst 59% of men had had some formal education, compared to 32% of women. Mean household income was about 3000 rupees per month, whilst around a third earned less than 2000 rupees monthly. 60% of households claimed to have enough food for the whole year. 86% of the houses were owner-occupied, 90% had a tin roof, and the average number of rooms per household was 3. 11% of households had only one room.

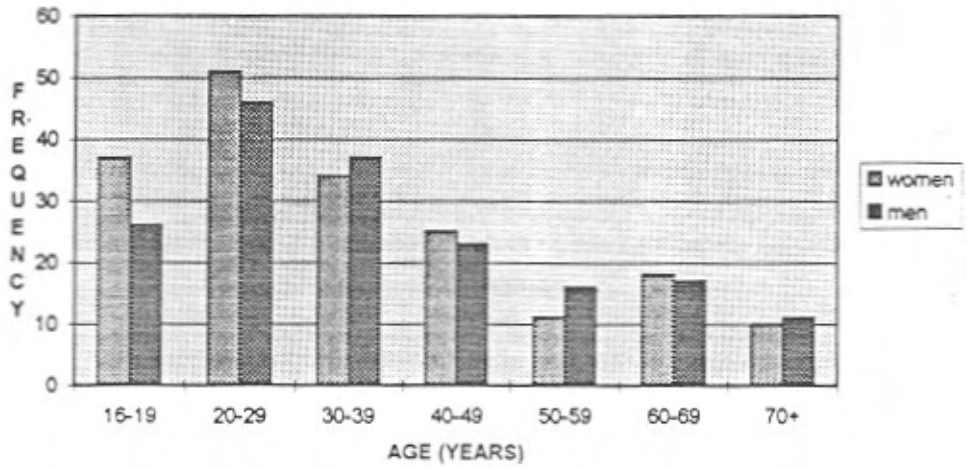

Figure 1: The population of Gotikhel by age and gender

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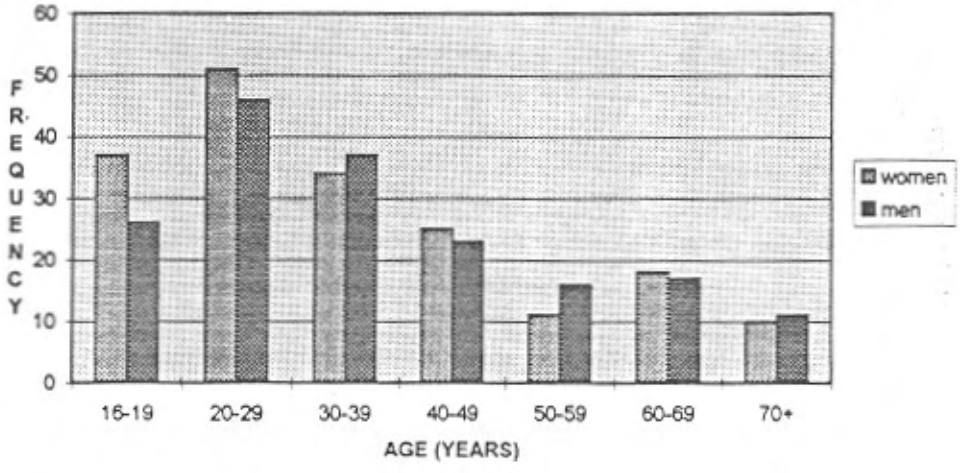

Figure 1: The population of Gotikhel by age and gender

4.2 First stage

The SRQ was administered to 362 adults in wards 1, 2, and 3, representing 96% of the total adult population in the study frame (n = 376). Nobody refused to participate in the survey, though 14 people were excluded; 8 were always out, 4 were deaf, 1 was dumb, and 1 was drunk. Figure 2 shows the mean scores on the neurosis questions of the SRQ by age group and gender; men scored higher than women in every age group except those over 70 years. These differences between genders were non significant except in those aged16-19 (K-W h score = 10.061; p=0.0015). Figure 3 shows the mean scores on the psychological questions by age and gender, and again the pattern was the same, with the only gender difference reaching significance was in the 16-19 age group (K-W h = 7.337; p=0.0067).

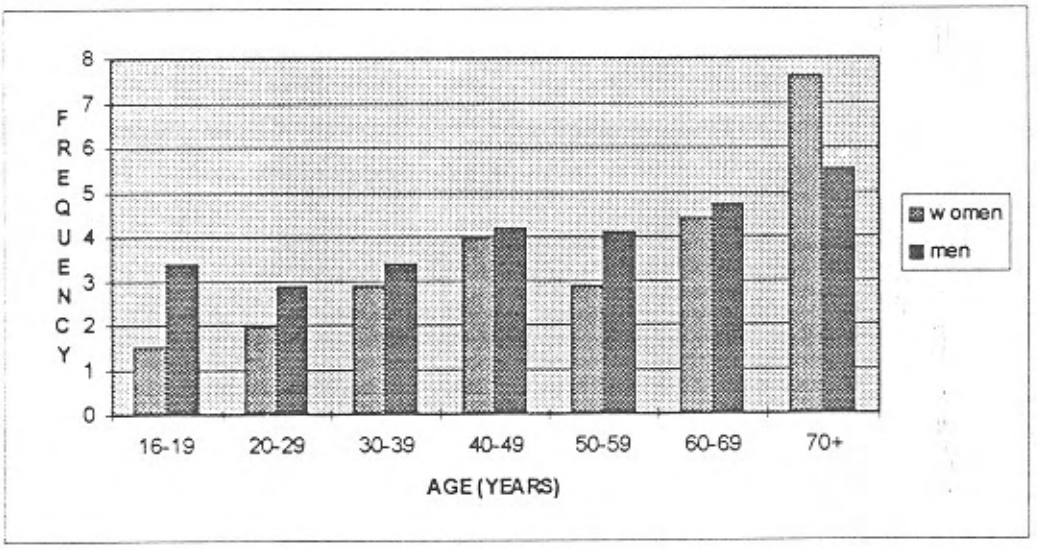

Figure 2: Mean SRQ scores by age and gender

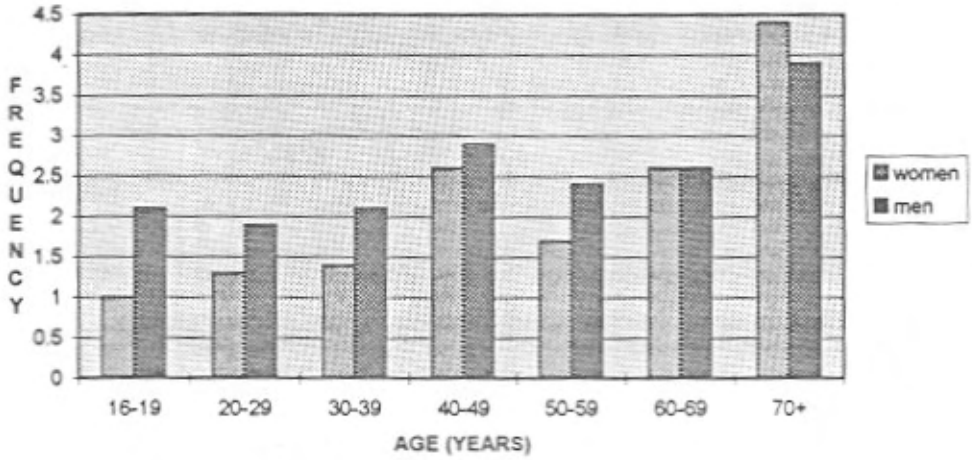

Figure 3: Mean scores on psychological questions by age and gender

To screen for psychiatric illness, a cut-off score of 6/7 on the 20 non-psychotic questions of the SRQ (SRQ-20) was used; 19.4% of women and 15.9% of men scored above this threshold. Of those scoring below this threshold, 74 answered yes to at least one psychosis question, and 13 answered yes to the epilepsy question.

4.3 Second stage

Selection for interview

It was decided that those scoring over 6 on the neurosis questions of the SRQ, or any of the psychosis or epilepsy questions might have a mental disorder. Therefore, all those who thus scored, and 1 in 3 of those who did not were selected for 2nd stage diagnostic interview. However, of the 137 selected, only 53 attended interview.

Diagnosis at interview

	WOMEN	MEN
NO CPM		
no diagnosis	8	17
depression	6	2
anxiety	1	3
epilepsy	0	0
CPM		
no diagnosis	1	5
depression	6	3
anxiety	0	0
epilepsy	0	1
TOTAL	22	31

Despite the high numbers of participants scoring positively on the psychosis and epilepsy questions, there were no diagnoses of psychoses, and only 1 diagnosis of epilepsy. Of the 37 interviewed scoring below the cut-off for CPM, 25 were indeed found to have no diagnosis, whilst 10 of the 16 scoring above this cut-off were diagnosed as having psychiatric illness. Due to the small number of attendees for the second stage interviews, the diagnostic information has been presented, but not used in any further analyses.

This absence of diagnostic data necessitates the calculation of prevalence to be made from the first stage screening only.

Prevalence

It was decided that the threshold for Conspicuous Psychiatric Morbidity (CPM) would be set at scoring 11 or above on the non-psychotic questions of the SRQ (SRQ-

20). Alternatively, regardless of total score on the SRQ-20, it was felt that a score of 7 or more on the psychological questions of the SRQ was evidence of possible CPM. This higher threshold allowed for a greater specificity, and a consistency with the choice of cut-off used by Pol et al. (1998). These criteria yield a point prevalence of **10.2% - 11.8% in women** and **8.5% in men.**

4.4 SRQ scores and socio-demographic factors

Gender

Figures 2 and 3 show that men score higher than women on both the neurosis and psychological questions (except for the 70+ age group), with this difference reaching significance in the 16-19 age group. This seems to contradict the data for prevalence rates. This is accounted for by the higher number of women than men scoring zero the SRQ-20 (as shown by figure 4). Thus although there are more women than men above the cut-off for CPM, these higher numbers of zero scorers reduce the overall mean scores for women, to below those of men.

Which groups of women scored zero? There was a greater proportion of those aged 16-29 (compared to those over 30 years) who were scoring zero on the non psychotic questions (50% v. 27%); the same pattern occurred on the psychological questions (63% v. 29%). Therefore, those aged 16-29 were extracted for further analysis. Of those aged 16-29, a greater proportion of single women than married women scored zero on both sets of questions (52% v. 49% & 68% v. 63%). Analysis of literacy in those aged 16-29 revealed a greater proportion of literate women (compared to illiterate women) scored zero on both question sets (52% v. 46% & 67% v. 61%). Therefore the

greater proportion of women who scored zero on the SRQ-20 are young (16-29), and of these the majority are single, and literate.

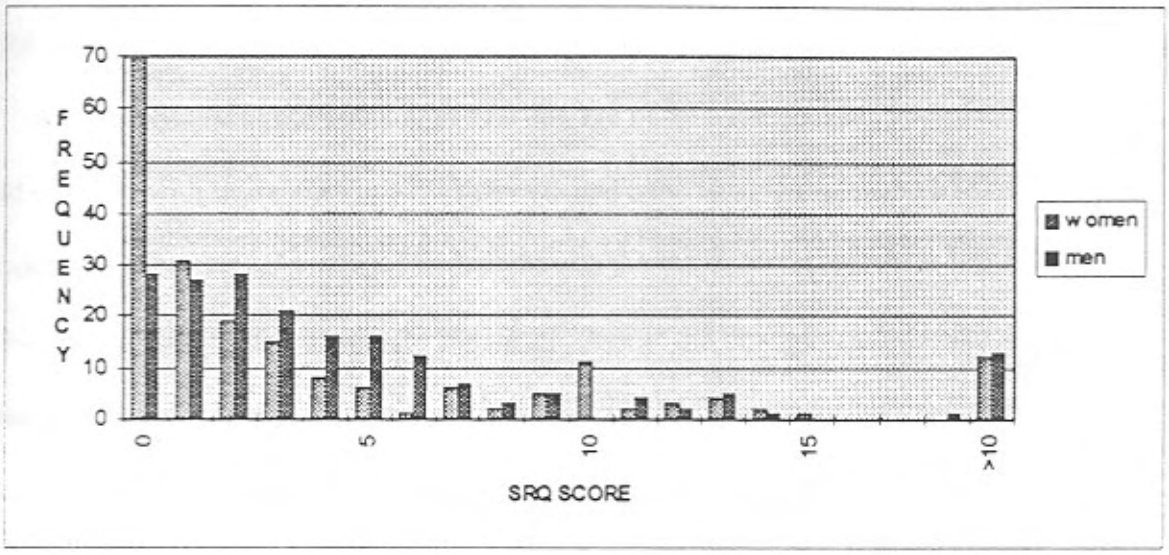

Figure 4: Distribution of SRQ scores by gender

Age

Figure 2 shows that there is a gradual increase in mean SRQ scores in women, dipping slightly in the 50-59 age group, and rising steeply in the over 70 age group. In men the picture is not so clear. Those aged 16-19 have a high mean SRQ of 3.4. It is at the later age of 40 that men's mean SRQ scores increase, again dipping slightly at 50-59.

Ethnic group

There were no significant differences in mean SRQ scores between different ethnic groups. However, the 2 men and 6 women interviewed from occupational groups (tailors) had a mean SRQ-20 score of 8, more than twice that of the average SRQ score for the

whole sample. These eight participants were from the same family, and their small number restricts further analysis.

Marital Status

As the majority of the population over the age of 30 were married, analyses were carried out only with those aged 16-29. Young married men had higher mean SRQ scores than young single men (2.3 v. 1.0). This pattern was the same for young women (3.5 v. 2.3). Neither of these differences were significant. Age at the time of marriage was analysed; those women who had married before the age of 16 had significantly higher mean SRQ scores than those marrying at a later age(K-W h = 6.189; p=0.013). There was no such trend in men.

Number of children from marriage

As number of children from marriage is related to age, analysis was only carried out with those aged 50 or less. Women who had had 5 or more children had significantly higher mean SRQ scores than those who had had 4 or less children (5.1 v. 2.5: K-W h=4.83; p=0.02). Whilst the pattern was the same amongst men (5.5 v. 3.5), this difference failed to reach significance. It had been thought that with the cultural importance of having a son in Hindu society , that levels of distress might be affected by not having a son. However, whilst the differences did not reach significance, mean SRQ scores were in fact higher for those adults who had a son!

Household type

For married women, mean SRQ scores were similar for those living in unitary and joint houses (2.8 v. 2.9). However those living in extended households had higher SRQ scores (3.9), which reached significance (K-W h=4.645; p=0.03). However, for single women, those living in unitary households had higher mean SRQ scores than those from extended households (1.2 v. 0.6); these differences fail to reach significance because of the small numbers. The patterns were the same amongst married and single men, though there were no significant differences between mean SRQ scores.

Number in household

There were no indications that the number in the household had any effect on mean SRQ scores.

Educational status

With few women having gone to school, analyses were in terms of literacy, and as numbers of literate women were very low above 40 years of age, analyses were done only with women aged 16-40. Whilst young illiterate women had higher mean SRQ scores than young literate women, this difference was not significant. Men aged 16-40 were categorized into groups of those who were illiterate, those who had gone to school and not passed SLC (School Leaving Certificate), and those who had passed their SLC. Illiterate men had higher mean SRQ scores than both the other groups, though this difference was not significant. Analysis of literacy by age is shown in figure 5; whilst rates

decrease with age in both men and women, this decrease is more pronounced among women. Thirty eight percent of women were literate, compared to 78% of men.

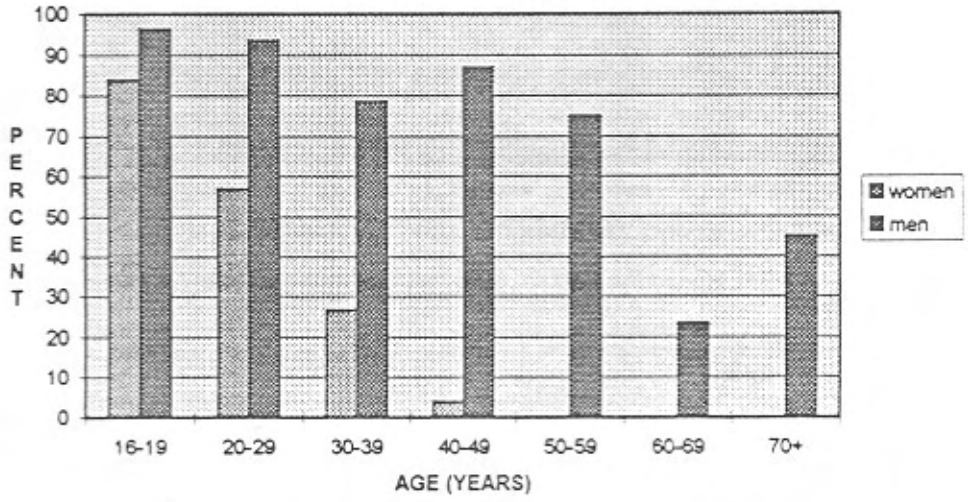

Figure 5: Literacy rates by age and gender

Occupation

SRQ scores for different occupations amongst men are shown in figure 6. Although farmers' mean SRQ score was higher than most groups, these differences were non-significant. Extracting those aged 16-29 for further analysis, students had a lower mean SRQ than those in work (2.3 v. 3.4), though this difference was non-significant.

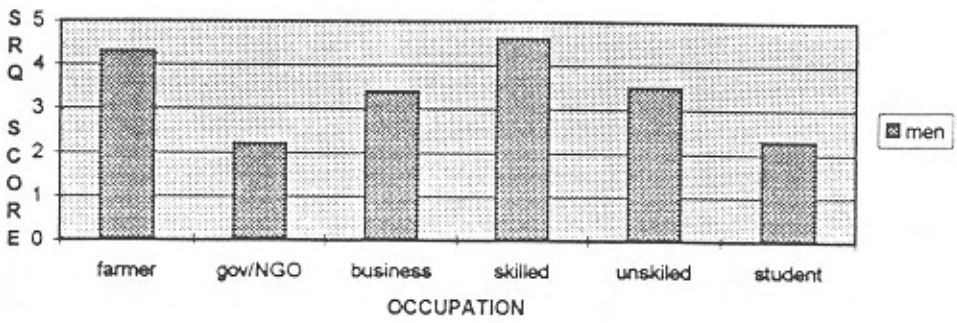

Figure 6: Men's mean SRQ score by occupation

Women's occupation was categorised as traditional or nontraditional due to small sizes of the occupational groups. Farming and housework were included as traditional occupations (n=137), whilst nontraditional occupations (n=47) include students (n=21), teachers (n=3), and shop owners (n=21). Nontraditional occupations had non-significantly lower mean SRQ scores than traditional occupations (2.4 v. 3.1).

Income levels

The average monthly income for men in the village was about 3000 rupees. Income levels were therefore analysed to see whether earning less than the village average was related to levels of distress. Indeed, men scoring below this average had higher mean SRQ scores than those whose earnings were above average (4.3 v. 3.0). This difference was significant (K-W h=4.942; p=0.023). There was no such difference in women.

There were significant ethnic differences in income level, with the average monthly income for Brahmins significantly more than that for the Tamang population (3450 v. 2800 rupees).

Food supply

It was felt that it may have been difficult for some families relying on subsistence farming to calculate their monthly income. Therefore participants were asked whether they would have sufficient food for the whole year. It was hoped that this would give an alternative socioeconomic factor. For women, not having enough food for the year was related to significantly higher mean SRQ scores (4.3 v. 2.4: K-W h=7.217; p=0.007). For men this lack of sufficient supplies was also related to higher mean SRQ scores (4.1 v. 3.4), but here the difference did not reach significance.

Substance use

There was an interesting difference between men and women in terms of the effect of substance use on mean SRQ scores. Women users of both cigarettes and alcohol had lower mean SRQ scores than those who didn't smoke or drink (3.0 v. 2.4, and 3.1 v. 1.7 respectively). These differences were not significant. However, men who smoked and drank alcohol had significantly higher mean SRQ scores (both 5.1) than those who didn't (2.9 and 3.4 receptively) (K-W h=15.9; p=0.00006, and K-W h=6.407; p=0.011). Figures for those who chewed tobacco revealed no such trends.

Further analysis of male smokers, revealed that they had significantly more children than non smokers (3.9 v. 3.1), and were more likely to be married (95.2% v. 72.8%) and

illiterate (33.9% v. 14.9%) than non smokers. A similar analysis of male drinkers revealed that they were more likely than non drinkers to be illiterate (80.5% v. 63.6%).

4.5 Discussion groups

Of the five groups chosen, the VDC was a complete group, whilst the participants representing the other groups were brought together by a senior member of each group who was contacted by the authors. The groups were :-

1. 13 male students (7 Brahmin, 6 Tamang) from the three senior classes in the High School. They were aged 16-18, and lived in different wards.
2. 8 young mothers (5 Brahmin, 1 Tamang, 2 Indian) from a group that meets monthly at the health post for child health checks. They were aged 22-30, each with 1-4 children, and all lived in the central area of the village.
3. 12 fathers (8 Brahmin, 1 Tamang, 2 Indian) from a men's group within the village. They were aged between 23-46, had 1-6 children, and all lived in the central area of the village.
4. The 8 members of the Village Development Committee (5 Brahmin, 3 Tamang). There was one female member, and they were from different areas of the village. Members are elected for 5 year terms.
5. 11 traditional healers (7 Brahmin, 2 Chetri, 2 Tamang), all men and all living in the central area of the village. All had received training in mental health provided by U.M.N.

A summary of the questions asked is provided in appendix III. Below is a summary of the groups' discussions.

(i) mental health awareness (for students, mothers, fathers, VDC)

What do you know of health?

Students and fathers group acknowledged both the physical and mental aspects of health, the students also mentioning spiritual well-being. The importance of keeping the environment clean, and maintaining personal hygiene were also stressed. The mothers saw their role in satisfying the family's needs as important in the health of the family.

What do you know of mental health?

The students were alone in stating that mental health required adequate intelligence. The mothers were alone bringing in a spiritual element into the discussion. They suggested that one's evil deeds had negative effects on mental health. A lack of worry, tension and no alcohol problems were all seen as being complementary to mental health.

What is your experience of mentally ill people?

All groups had seen people within their community whom they recognised as mentally ill. When asked to describe these people, references were made of social isolation and excessive walking, talking and thinking, and of antisocial behaviour.

What are the causes of mental illness?

Both physical and psycho-social causes were suggested as causes; brain injury, tension, financial problems, significant life events, alcohol abuse and lack of education. The students also mentioned "love tragedy" as a significant cause of mental illness.

What would be a good response towards mentally ill people?

The students were alone in recommending a visit to the traditional healer. Other suggestions included providing social support and rehabilitative work. It was suggested that the work role would prevent excessive thinking, and help the person 'rejoin' the community. The VDC recommended counseling the community in ways to help the individual.

Where is there treatment available?

Again the students were alone in their recommendation of the traditional healer as a source of treatment. Whilst for their group a visit to an allopathic centre such as the health post or hospital was suggested only as an option if recommended by the traditional healer, the other groups all gave allopathic treatment as their first option.

Where did you learn these things from?

The students listed school and books as their source of knowledge, whilst the other groups all mentioned their life experiences, as well as social and media sources. The mothers had gained some of their knowledge from conversations from health workers.

(ii) depression story questions (for mothers, fathers, VDC, traditional healers)

Pabitra is 20 years old. Six months ago she got married, and in the time since she left her maternal home (maiti) she has not returned to visit her family. She is now living with her husband's family who live in a village four hours walk from her maiti. In her new home she lives with her husband, his mother and father, and his younger brother and sister.

In the last month, she has been having headaches, dizzy spells, and has had a poor appetite. She wakes frequently in the night, and during the day her limbs feel heavy and she tires easily.

She has not spoken about these problems to anyone, although her husband's family has noticed her loss of energy.

What is the cause of these symptoms?

All groups recognised that the wife was socially isolated by her recent move to her husband's family house, that she was therefore lacking confidence, and too shy to tell of her negative feelings. The mothers also suggested that she was perhaps lacking enough nutritious food.

Why does she not tell of her problems?

It was felt by all that she was too shy to talk to her husband's family, and too far away from her maiti for a short visit to be possible.

What should her family do?

Support was recommended, as well as a visit for a checkup. The VDC suggested that she go to the mental hospital and not the traditional healer. Interestingly the mothers thought that giving extra work responsibility would help, whilst the fathers recommended a decrease in work pressure, and sending her to her maternal home (maiti).

(iii) attitudes towards health post (for mothers, fathers, VDC, traditional healers)

What changes have you noticed in the past five years?

All groups had noticed a decrease in the medication available, and in the quantity and quality of staff. The traditional healers also mentioned that this has resulted in less community confidence in the health post, and they are noticing that more patients return to them for more of their traditional methods, having found the health post to be lacking.

What should be done to improve the situation?

Again all groups focused on the staff and medicines, both needing to be increased and improved. Both fathers and VDC also commented on the sustainability of the health post, with suggestions that villagers should be encouraged to pay their health insurance, and that the VDC should have control of the budget.

The VDC estimated that 40% of the village paid the 50 rupee yearly health insurance (HI). The VDC stated that they would like to have 95% of the village paying. Mothers and the VDC thought that the annual HI should be increased to 100 rupees to cover extra expenses for the required improvements. The fathers made the point that perhaps HI should be linked to size of family, or that there should be a small extra charge

per visit to cover the costs of frequent users. For a good service, they thought villagers would pay 200 rupees annually.

The VDC highlighted that of the main areas of development in the village (including electricity, water supply, agriculture, and health), the health post was unique in its current poor state. Whilst the others were sustainable by the village, this sustainability was seen as lacking in the health post. The reasons put forward focused on the fact that the management of budget and staff was controlled by the District Health Office (DHO), and not within the village. The appointed health post in-charge has never been at post in the village during the last 4 years. Numerous recent visits have been made to the DHO to complain about the lack of staff and medicine, from which there has been little response. To a certain extent the VDC feel that the DHO is facing a similar problem in its relationship with the Regional Health Office, and no doubt they with the central Department of Health. To counter this administration blockage, the VDC stated its desire for a decentralisation of management to a local level, thus allowing for staff monitoring and budget decisions to be made in the village.

The previous management of the health post was by U.M.N.'s Community Development and Health Programme (CDHP), and the VDC felt that whilst this did not provide local level management, the administration was sensitive to the needs of the village, and efficiently run.

(iv) traditional healer information

The traditional healers recognised depression, psychosis, epilepsy, hysteria, and mental retardation, the causes of which were seen as being physical, psychological, social, and spiritual in nature: brain disturbances; excessive thinking; problems at home, in education and financial matters; influence of karma (the result of past actions), evil eye ("spell" cast by others who wish one harm), and the ban jankri (the spirit who attacks lone visitors in the forests). Treatment involves performing the relevant puja (religious ceremony), and then referring to the health post.

It was estimated that whilst there were probably more than 100 people in the community who called themselves traditional healers, they felt that only 50-60 of these were confidently believed in by the community..

5.0 DISCUSSION

5.1 Summary of results

- *Prevalence of mental disorder*

A high cut-off score of 10/11 was chosen on the neurosis questions of the SRQ (SRQ-20) to increase the specificity of the questionnaire. Alternative criteria for CPM was scoring above 7 on the psychological subset of questions on the SRQ-20. Using this threshold, the point prevalence of CPM was 10.2%; 11.8% in women, and 8.5% in men. This is comparable with previous studies in Nepal (Shrestha et al., 1983; Pol et al., 1998), and is also consistent with epidemiological studies in other cultures (Desjaalais et al., 1995).

The high number of participants scoring positively on the psychosis and epilepsy questions raises doubts as to the reliability of these questions in the present population. Wright et al. (1990) found a prevalence of psychotic patients of approximately 2.5% using these questions. However, Mari and Williams (1986), and Mumford et al. (1997) did not include these questions in their studies using the SRQ. In the present study, it was felt that the meaning of some of these questions might have been ambiguous, and the sample population's response indicates that this may have been the case. That such problems have not been presented in previous studies raises the possibility that they are an artefact of the translation used by the present study. Whilst this may have been the case, the authors are confident in their thorough translation methods. Further analysis with results from the psychosis/epilepsy questions was, therefore, not carried out. Indeed the present study

indicates that validation of these questions should be carried out in Nepal before further use. Although there were no diagnoses of psychosis in patients attending second stage interview, two women from outside the sample population were treated for psychosis during our stay. It should be stressed that whilst there are some doubts as to the reliability of the psychosis and epilepsy questions, there were no such problems experienced with the 20 non psychotic questions. That the prevalence rate is comparable with other epidemiological studies is supporting evidence.

What do these figures tell us? In defining CPM, Wright et al. (1991) suggested that patients with CPM were in "further need of psychiatric assessment either because of psychiatric illness, or because of illness behaviour". As only the 20 neurotic questions were used for analysis, the prevalence figures calculated in this study are an indication of the proportion of the sample with a suspected neurotic disorder. The second stage diagnoses made, revealed a high proportion of patients presenting with anxiety and depression. This is in agreement with other epidemiological studies (Desjarlais et al., 1995).

- *Socio demographic factors and emotional distress*

Psychiatric morbidity and ethnicity

There remain many differences in the social position of many ethnic groups in Nepal. In the present study the predominant groups were Brahmin and Tamang. Although many differences are observable in the lives of these two groups including a significant difference in monthly income level, there was no difference in levels of distress amongst those screened. However, there was one family of tailors who traditionally belong to the

occupational groups. The family of 8 had very high SRQ scores. Their small number restricts further analysis, but it is probable that their low social position within the community was a contributing factor in their distress.

Psychiatric morbidity and age

Women's mean SRQ scores increased with age, whilst the corresponding increase in men's scores occurred after the age of 40. A similar trend was reported in Pakistan by Mumford et al. (1997), and in Western studies of major depressive disorder (Weissman & Klerman, 1977).

Psychiatric morbidity and marriage

Marriage for women in Nepal often takes place at a young age; the average age of marriage amongst those surveyed was 16. The wife is collected by the husband's family and taken to the husband's paternal house, where she must settle into the new household. As the new wife, she will often take a low position in the family hierarchy. Indeed, during the community discussions the mothers group suggested that a cause of depression may be lack of enough nutritious food. The new wife often eats last, even if pregnant; this not only affects the mother, but inadequate nutrition during pregnancy is a causative factor of mental retardation. It might have been expected that, of the young women in the sample (aged 16-40 years), those who were married might express higher levels of emotional distress. However, there were no differences between married and single women. Age at marriage did seem to be linked with levels of emotional distress, with women who had married younger than 16 scoring higher on the SRQ than those who had married after

their 16th birthday. It may be that this emotionally intense time of separation has a greater effect on those of a younger age.

Once married, the predominant factors in terms of emotional distress seem to be living in an extended family, and having a large number of children. Brown and Harris's study in London (1978) listed the presence of several young children in the house as a risk factor for depression in women. Mumford et al. (1996), argued that many aspects of child rearing in Pakistan are shared with other adults and older children; a situation that is similar in Nepal. Nevertheless, living in an extended family would mean more work for women as they look after their husband's parents as well as their own husband and children. It does seem that there may be a link between the number of people who must be cared for, and levels of distress in young women. Evidence from India with regard to family type and mental illness is equivocal (Prabhu, 1976). However, in the present study population it seems that the costs of extra work, and competition and tensions between family members outweigh the potential benefits of shared work and the social security that an extended family brings.

Psychiatric morbidity and economic factors

For men, the level of monthly income was a significant indicator of emotional distress. Men earning below the village average of 3000 rupees, evidenced higher levels of distress than those earning more than this average wage. Interestingly, monthly income did not have any relationship with SRQ scores in women. Rather it was the perhaps more concrete reflection of wealth - sufficient levels of food- that indicated levels of distress in women.

Psychiatric morbidity and substance use

The only other factor that was related to men's psychological well-being, was the use of cigarettes or alcohol. Those that did either had higher SRQ scores. It seems likely that men, as opposed to women, use cigarettes and alcohol as a means of dealing with emotional distress. Nolen-Hoeksema (1987) suggested that as the more agentive sex, men are more likely to act on their negative feelings and thus drinking provides a means of reaction to stress. Social pressures may prevent women from drinking heavily, and thus prevent this as a means of relieving emotional distress.

Psychiatric morbidity and gender differences

Community surveys of symptoms of anxiety and depression have generally indicated a female:male ratio of 2:1 (Weissman & Klerman, 1977), a finding supported by the large-scale Epidemiological Catchment Area (ECA) survey carried out in the US, which gave the same figure for the broader category of affective disorders (Myers et al., 1984). The present study found gender differences in line with this pattern, though not of the same magnitude. However, it was interesting that whilst women had higher rates of prevalence of mental disorder, the mean SRQ score of every male age group was higher than their female cohort. This apparent contradiction is accounted for by the high number of women scoring zero on the SRQ-20; these women's scores masked the fact that there are more women than men with CPM. Of women aged less than 30, those who scored zero on the SRQ-20 tended to be single and literate.

The gender difference in mean SRQ score reached significance amongst those aged 16-19. There have been similar findings elsewhere in Nepal, India and the U.S.A. Simpson et al. (1996) noted that amongst Nepalese students at the Tribhuvan University in Kathmandu (mean age of 25.3), men had significantly higher levels of depression than women. Carstairs and Kapur (1976) obtained a similar gender difference among a village in Southern India, and in the United States a similar male predominance was found in psychiatric patients amongst the under 20s (Gove & Herb, 1974).

For 69% of those aged 16-19 in Gotikhel village this is a time of transition, as attendance at the village High School comes to an end. For men of this age, there is the theoretical opportunity of further study or work in Kathmandu. However, financial restrictions prevent most from following either of these paths. Whilst an increasing number of girls are attending school until their School Leaving Cerificate (SLC) exams, the social expectations of early marriage and the subsequent duties remain in place. Pigg (1992) suggested that the stigmatisation of rural life in Nepal as backward, and urban life as more prestigious and full of opportunities, is mediated through educational systems. Thus, whilst the bright lights of the city often become a shattered dream for many young educated men, for young educated women this dream is perhaps never shared. It may be that some young men in this study who remain in the village, are experiencing such a sense of failure.

Furthermore, whilst women assume many household duties from a young age, it is often only at an older age that men make the transition to head of household, and take up a more prominent role. References were made during the discussion groups to the benefit of the work role on mental health. Community work was seen as rehabilitative in its

ability to focus the mind away from excessive thinking. Perhaps young men's lesser work role in the family has a debilitative effect. However, these are merely hypotheses, and further investigation is necessary before conclusions can be drawn.

- *Community awareness of mental health*

The discussion groups provided an indication of mental health awareness amongst different groups in the community in Gotikhel. Overall, the response from each group indicated high levels of knowledge about mental health. Most participants attributed causes of mental illness to physical and psychosocial factors, recommended an allopathic health centre for treatment, and suggested sound advice with regard to psychosocial rehabilitation.

The students were alone in their recommendation of traditional healing as an option for treatment; for other groups this was only suggested as a source of treatment for those elderly relatives who still strongly believed in traditional medicine. Perhaps the students were more honest about their treatment seeking behaviour. Alternatively, it is unlikely that as young members of the household, they have had to make the decision of treatment choice; thus, a comparison of treatment efficacy may not have had to have been made.

Wright et al. (1991) found that less than a third of those community members interviewed in Gotikhel thought the health post to be the most suitable place for treatment. Thus, the confidence in allopathic health evidenced in the present study is an indication of the success of health awareness activities in recent years. Shrestha et al. (1983) suggested that societies generally make health care decisions based on their attribution of the

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disorders' causes. Thus Gotikhel's community perception of causes of mental illness is an indication of their confidence in allopathic health facilities available. Furthermore, all the traditional healers interviewed claimed that their treatment of mental disorders involved a ritual offering (puja), before referring the patient to the health post. Mahat (1997) found that this referral to health post to be one of the main differences between the treatment practices of traditional healers of those who had received mental health training.

These attitudes by the community and traditional healers are different from the findings of other studies. Shrestha et al. (1983) found in their study of a Brahmin/Chetri community in the Kathmandu valley that, "especially for major psychiatric disorders, sorcery or witchcraft are the prime, causal suspects". Stone (1976) reported that although villagers showed a high respect for Western medicine, they were reluctant to use it, as it lacked integration into village life. Complaints about Western medicine included reports that the service provided was dependent on the wealth and status of the patient. On the contrary, Myrdal (1968), ackowledged some of the benefits of traditional healers; not isolating patients from their family, treating patients with their own hands, always being available, and never claiming ignorance of the problem. These studies differ from the present one in time and place, but nevertheless indicate some of the factors involved in the transition from traditional healing to allopathic methods.

That this transition seems to have been made in Gotikhel is a positive sign both for the village and for the possibility of a similar transition elsewhere in Nepal. Traditional healers number about one million, and cross many of the social and practical barriers that restrict many patients from allopathic medicine. They are a valuable source of first line

health care, and evidence from the present study indicates that with sufficient training they can be relied on to refer patients to the health post for treatment.

An evaluation of the health post was not the intention of the present study. However, during the study, observations were made of community's general feeling about the present efficiency of the health post. Therefore, opportunity was given during the discussion groups for an expression of these feelings.

It was felt that in the last five years there has been a general decline in the efficiency of the health post; trained staff are lacking, and the supply of medicines is incomplete. Several suggestions were made with regard to raising the necessary funds within the village to manage the supply of medicines. However, the staffing problem was seen as ultimately resting with the Government health planners, to whom visits had been both numerous and fruitless. A process of decentralisation was called for, whereby the community might have more control over the management of the health post. Funds raised through family health insurance policies might then be directed towards the medicine supply, and staff problems might be addressed locally. The Health Post In Charge (HPIC) had been vacant from his post for the full four years of his 'service', and as yet there has been no action on this matter by the District Health Office.

The success of the other development programs in the village was attributed to their local management. No doubt there is a greater level of care and sense of purpose in those managers who are personally affected by the efficiency of the project at hand.

5.2 Implications from study

This study joins other previous epidemiology studies in stating that the prevalence of non psychotic mental disorders is about 10%. This translates into a figure of over 2 million people in Nepal suffering with such a disorder. This suffering is shared by the family and community and results in many secondary disabilities. The collective weight of these costs - physical, psychosocial, and economic - need to be understood by health planners. Mental illness is expensive for the community, and present economising on mental health care is indeed false economy.

The socio-demographic factors identified as having a relationship with emotional distress are possible points of entry for psychosocial interventions. These may be of use to health and education planners in implementing changes and raising awareness amongst those groups at risk. Family planning is a case in hand. It seems that marriage at a later age, and having less children are related to lower levels of emotional distress in young women. There is evidence that adults in developing countries who have higher levels of educational attainment also have lower rates of fertility (World Bank, 1998). Thus, although in the present study literacy was not a significant factor in levels of emotional distress, it seems that raising the levels of educational attainment in women is a step on the way to making the transitions in family planning that may alleviate levels of distress in women.

The generally high level of awareness in mental health evidenced by the community groups help to instill confidence in the techniques of awareness raising carried out in the village in the years of UMN's CDHP activities1988-1995. The apparent success of this programme is a basis for this model to be a basis for the government to work with in other

areas of the Nepal. At the same time, the decrease in efficiency noticed by the community in the years since the government have taken over the management of the health post should be noted. Again, lessons can be learned from these turn of events.

5.3 Methodological issues

It was thought that participants might give responses based on the perceived expectations of the research assistants. Efforts were made to limit this expectation bias; the short explanation given to the participants prior to the presentation of the questionnaire, excluded health related words wherever possible. Whilst in the village, questions put to the team about the study were similarly answered. Nevertheless, this connection was no doubt made. However, this is the case of health surveys in general, and does not reduce the strength of the present study.

Time and practical constraints necessitated a non-random selection of the sample population. This subsequently narrows the scope of applicability of the results. The sample was chosen from the central wards, all of which have better access to the village facilities than those living in more remote areas of the village. Whilst the ratio of different ethnic groups was similar to that of the village as a whole, there were no doubt many other differences between the study sample and the rest of the village. It is probable that those living in more remote areas of the village have access to less of the facilities that are available in the bazaar, and have been less affected as the village has undergone recent developments. Again, the community groups attending the discussion groups were mostly living in the central wards of the village, and were selected by a member of their group.

Together with the ever present problem of expectation bias, their responses are not necessarily representative of the whole village. Living close to the central bazaar, they have relatively easy access to the health post, and thus have less need to use the traditional healers. The picture may well be different in those areas of the village which are more remote; both in terms of illness behaviour and the attitude of the traditional healers to allopathic medicine.

This selection bias is also relevant in terms of Gotikhel's relation to villages in other areas of Nepal. Relatively close to Kathmandu, and having experienced years of careful health development input, Gotikhel is not representative of the middle hills of Nepal, in which it lies. However, there are areas further to the east of the country in which villages of similar development are situated, and Gotikhel certainly does not stand alone in terms of development. Nepal's social diversity matches that of its physical terrain. There is no 'Nepali' village; rather the country is a collection of areas that can vary dramatically in terms of social structure, accessibility, climate, facilities, and general development. Thus any single site study makes a choice, and can only present results in the context of the chosen area.

The second stage interviews presented two methodological issues. Firstly, the interviewers were not trained in psychiatric diagnosis; rather KA's health training and experience as a health post in charge was the basis for diagnostic decisions. Secondly, the number of attendees was too small to make any further analyses. Whilst every effort was made to encourage participants scoring above the cut-off to attend for interview, attendance was, nevertheless, voluntary. The distance of some houses to the health post no doubt reduced the number of those attending. The low level of attendance for the

second stage diagnostic interview meant that prevalence figures were calculated using only the data from the first stage screening. This was an unfortunate result of the study conditions, and does not allow for a full implementation of the two stage screening methodology as used by Harding et al. (1980). It also means that calculations of specificity and sensitivity are not possible. Whilst not the ideal situation, this lack of diagnostic check up changes the methodology of the study, but not the results. The prevalence figures are still applicable.

5.4 Further research

It would therefore be informative to repeat this study in different areas of Nepal. This would enable comparisons to be made of areas living under different physical and social conditions, and would help build a more complete picture of the country in terms of epidemiological data. With the ensuing implementation of the National Mental Health Policy, it would be beneficial for the government to have this data from which to make plans of action.

To investigate further the effects of some of the socio demographic factors implicated in this study, a full anthropological study might be carried out. This would allow for a more thorough analysis of the effect that these factors have on the mental health of the community.

In future prevalence research in Nepal using this two stage screening method, the present study recommends the use of second stage interviewers who have received further training in psychiatric diagnosis. Furthermore, the number of second stage attendees could be increased by the interviewers visiting their homes. This would require more time, but

would also allow for greater control of the second stage. Perhaps the one in three participants scoring below the cut-off might be omitted from the second stage interviews if time is limited.

5.5 Conclusions

- The prevalence of non psychotic mental disorder in the village of Gotikhel is 10.2%. The prevalence in women (11.8%) is higher than in men (8.5%). This is a similar picture as that presented by other studies world wide, and dismisses the idea that less developed areas of the world experience lower levels of emotional distress.

- For the women of the village there were several factors in their lives that were related to levels of emotional distress. Being married before the age of 16, living in an extended family, having 5 or more children, and not having enough food in the household for the whole year were all linked to higher levels of emotional distress, as measured by the SRQ-20. Men who earned less than the village average also showed higher levels of distress, as did those who smoked cigarettes or drank alcohol. Despite often harsh conditions for young wives, marital status in young women was not linked to levels of emotional distress

- The years of UMN's Community Development Health Programme (CDHP) work in the village (1988-1995) seem to have had a positive effect in terms of increasing awareness of mental health amongst the community. However since the government has taken over, the community has noticed a decrease in efficiency in the management of the health post. It may be that lessons can be learned from these years of health development in Gotikhel, and used as a model for such development in other areas in Nepal.

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APPENDIX I

Abbreviations used in report

CDHP	Community Development & Health Programme
CMHP	Community Mental Health Programme
CPM	Conspicuous Psychiatric Morbidity
DHO	District Health Office
HP	Health Post
HPIC	Health Post In Charge
IOM	Institute of Medicine
IOM/MHP	Institute of Medicine's Mental Health Project
SLC	School Leaving Certificate
SRQ	Self Rating Questionnaire
TBA	Traditional Birth Attendants
TH	Traditional Healers
TUTH	Tribhuvan University Teaching Hospital
UMN	United Mission to Nepal
VDC	Village Development Committee
VHW	Village Health Worker
WHO	World Health Organisation
WRCMHP	Western Region Community Mental Health Programme
YUHP	Yalla Urban Health Programme

APPENDIX II

IDENTIFYING INFORMATION

1. Date of Interview: अन्तरवार्ता लिएको तिथी: (तारिखमा) .....
2. Name: नाम: ..... 3. House No.: घरको नं.: .....
4. District: जिल्ला: ..... 5. VDC: गा.वि.स. ..... 6. Ward No.: वडा नं.: .....

GENERAL INFORMATION (सामान्य जानकारी)

7. Caste: थर: .....
8. Age: उमेर: ..... 9. Male/Female: स्त्री/पुरुष
10. Education: शिक्षा:
    1. Illiterate: निरक्षर:
    2. Can read and write but didn't go to school: पढ्न लेख्न सक्ने तर स्कूल नगएको
    3. School till class: पढ्दै गरेको कक्षा: .....
    4. Passed SLC: एस.एल.सि. पास:
    5. Higher education: उच्च शिक्षा हासिल:
11. Religion: धर्म: .....
12. Speaks other language ? अरू भाषा बोल्न सक्नु हुन्छ ?
13. Marital status: वैवाहिक अवस्था:
    1. Single: एक्लो:
    2. Remarried: दोस्रो विवाह:
    3. Married, only one wife: विवाहित, एक मात्र श्रीमती:
    4. Married, 1st wife, husband has another wife ? विवाहित, पहिलो श्रीमती, लोग्नेको अर्को श्रीमती छ ?
    5. Married, 2nd wife: विवाहित दोस्रो श्रीमती:
    6. Widowed: विधवा:
    7. Divorced: पार पाचुके भएको:
14. Age when married ? विवाह गर्दाको उमेर ? .....
15. Years married ? विवाहित उमेर ? .....
16. How many children ? कति बटा बच्चाहरू छन् ? छोरा ..... छोरी .....
17. Occupation: व्यवसाय: .....
18. Roof Structure: छानाको प्रकार: 1. Tin जस्ता 2. Mud माटो 3. Straw खर वा परान 4. Tile टायल 5. Others अन्य
19. Do you have enough food for whole year ? If no specify what is done ? के तपाईको घरमा वर्षदिन भरीलाई खानपुग्छ ? यदि पुग्दैन भने के गर्नुहुन्छ ?
20. How much do your family earn in one month ? तपाईको परिवारले प्रत्येक महिना कति कमाउनु हुन्छ ?
21. Distance from health post ? हे.पो.वाट घरसम्म कति टाढा छ ? 1. 0-10 minutes 2. 10-30 minutes 3. More than 30 minutes
22. Lives in: बसाई 1. Ghar घर .2. Maiti माइति 3. Deraa डेरा
23. How many people live in the same household ? एउटै घर धुरीमा कति जना बस्छन् ?
24. How many rooms are in your house ? तपाईको घरमा कति कोठाहरू छन् ?
25. Member of the following committees: तल उल्लेखित कमिटिको सदस्य हुनुहुन्छ ?
    (क) गा.वि.स./नगरपालिका (ख) आमा समूह (ग) अन्य
26. Do you smoke cigarettes or drink alcohol ? If yes, तपाई चुरोट वा रक्सी पिउनुहुन्छ वा हुँदैन ? यदि पिउनु हुन्छ भने
    (क) Cigarettes ..... Per day चुरोट ..... खिल्ली दैनिक
    (ख) Alcohol/Beer ..... Glasses/bottles Per day रक्सी/बियर ..... बोतल वा गिलास दैनिक
    (ग) Tobacco ..... times Per day खैनी ..... पटक दैनिक
    (घ) Hemp ..... times Per day गाँजा ..... चिलम दैनिक

27. Do you have intimate friends who you can tell your secrets to ? If yes, how many ? तपाईको आफ्नो गोप्य कुरा कसलाई भन्नु हुन्छ ?

1. Father/mother बुवा/आमा
2. Husband/wife श्रीमान्/श्रीमती
3. Brother/sister दाज्जु/दिदी
4. Friends साथी
5. Others अरू

SELF RATING QUESTIONNAIRE

28. Do you often have headache ? के तपाईको अक्सर (वारम्बार) टाउको दुख्छ ?
29. Is your appetite poor ? के तपाईलाई भोक लाग्दैन ?
30. Do you sleep badly ? के तपाईलाई निन्द्रा लाग्दैन ?
31. Are you easily frightened ? के तपाई सानो कुरामा पनि डराउनु हुन्छ ?
32. Do your hands shake ? के तपाईको हात काप्छ ?
33. Do you feel nervous, tense or worried ? के तपाई अचित, बैचैन वा चिन्तित हुनु हुन्छ ?
34. Is your digestion poor ? के तपाईलाई खाना राम्ररी पच्दैन ?
35. Do you have trouble thinking clearly ? के तपाईलाई राम्ररी सोच्न गाह्रो हुन्छ ?
36. Do you feel unhappy ? के तपाईको मन दु:खी छ ?
37. Do you cry more than usual ? के तपाई पहिले भन्दा बढी रुनु हुन्छ ?
38. Do you find it difficult to enjoy your daily activities ? के तपाईलाई आफ्नो दैनिक काम गर्न गाह्रो लाग्छ ?
39. Do you find it difficult to make decisions ? के तपाईलाई निर्णय लिन कठिन हुन्छ ?
40. Is your daily work suffering ? के तपाईको दिन दिनको काम बिग्रीरहेको छ ?
41. Are you unable to play a useful part in life ? के तपाईले आफ्नो जीवनमा राम्रो काम गर्न नसकेको जस्तो लाग्छ ?
42. Have you lost interest in things ? के तपाईको कुनै पनि कुरामा रुचि हराएको जस्तो लाग्छ ?
43. Do you feel that you are a worthless person ? के तपाईले आफूलाई काम नलाग्ने ठान्नु हुन्छ ?
44. Has the thought of ending your life been on your mind ? के तपाईलाई मरौं-मरौं जस्तो लाग्छ ?
45. Do you feel tired all the time ? के तपाई जति बेला पनि थाकेको जस्तो अनुभव गर्नु हुन्छ ?
46. Do you have uncomfortable feelings in your stomach ? के तपाई पेटमा गडबडी भएको अनुभव गर्नु हुन्छ ?
47. Are you Easily Tired ? के तपाईलाई छिट्टै थकाई लाग्छ ?
48. Do you feel that somebody has been trying to harm you in some way ? के तपाईलाई कसैले कुनै किसिमको दु:ख दिने प्रयास गरे जस्तो लाग्छ ?
49. Are you a much more important person that most people think ? के तपाई अरूले ठानेको भन्दा आफूलाई ठूलो ठान्नु हुन्छ ?
50. Have you noticed any interference or anything else unusual with your thinking ? के तपाईलाई आफ्नो सोचाईमा कुनै किसिमको बाधा अडचन आए जस्तो लाग्छ ?
51. When you sit alone do you ever hear voices that you can hear but others can't ? के तपाई एक्लै बसेको बेलामा त्यस्तो आवाज सुन्नु हुन्छ जुन तपाईले मात्र सुन्नु हुन्छ तर अरूले सुन्न सक्दैन ?
52. Do you some times suddenly fall down and lose consciousness ? Do others say shake during that time ? के तपाई कहिले काहीं अचानक बेहोस हुनुहुन्छ ? के तपाई बेहोस भएको बेलामा तपाईको जीउ (शरीर) पनि काँप्छ ?

APPENDIX III

A summary of the questions asked during the discussion groups.

(i) mental health awareness (for students, mothers, fathers, VDC)

What do you know of health?

What do you know of mental health?

What is your experience of mentally ill people?

What are the causes of mental illness?

What would be a good response towards mentally ill people?

Where is there treatment available?

Where did you learn these things from?

(ii) depression story questions (for mothers, fathers, VDC, traditional healers)

Pabitra is 20 years old. Six months ago she got married, and in the time since she left her maternal home (maiti) she has not returned to visit her family. She is now living with her husband's family who live in a village four hours walk from her maiti. In her new home she lives with her husband, his mother and father, and his younger brother and sister.

In the last month, she has been having headaches, dizzy spells, and has had a poor appetite. She wakes frequently in the night, and during the day her limbs feel heavy and tires easily.

She has not spoken about these problems to anyone, although her husband's family has noticed her loss of energy.

What is the cause of these symptoms?

Why does she not tell of her problems?

What should her family do?

(iii) attitudes towards health post (for mothers, fathers, VDC, traditional healers)

What changes have you noticed in the past five years?

What should be done to improve the situation?

(iv) traditional healer information

Type of mental illness experienced?

What are the causes of mental illness?

How do you treat mental illness?

How many traditional healers are there in Gotikhel VDC?