The interface between mental health and reproductive health of women among the urban poor in Delhi

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Contents

Executive summary

This study looked at the intersection of reproductive health and mental health of women among the urban poor in Delhi, India. It is part of a larger study that seeks to understand how differences in experiences of migration, clustering of low-income, middle-income, or upper-income households in a locality, type of practitioner markets, as well as other neighbourhood characteristics influence household decision-making with regard to health.

Recent work has shown that while there are no consistent gender differences in low-prevalence and severe mental disorders such as schizophrenia and bipolar disorder, gender differences appear to be significant factor in common mental disorders such as depression and anxiety. We tried to see whether reproductive health, defined not in terms of clinically defined conditions such as pregnancy and postnatal depression, but in terms of the cumulative experience of pregnancy, miscarriages; and child mortality, could provide a lens to see women's overall life experiences that impact on mental health.

Our larger study is located in seven neighbourhoods in Delhi, four of which have large clusters of low-income families. For purposes of indexing mental health at the community level, we have complete responses from 789 individuals to the SCL-90-R questionnaire that is widely acknowledged to have cross-cultural validity. A detailed women's health questionnaire was administered to a sub-sample of married women. In addition, we conducted one hundred ethnographic interviews with a sub-sample of the married women who had responded to the women's health questionnaire. The ethnographic interviews were semi-structured but used an amplificatory technique of interview allowing women to structure their own emplotment of stories relating to relations in both the natal family and the conjugal family.

The relation between poverty and common mental disorders has been found in several studies, and our study confirmed these findings. In addition there were specific factors that were important – so mental distress decreased with age. Women who were engaged in earning activities even in poor households suffered less. The mental distress increased if women had faced harassment in their conjugal families. Adverse reproductive experiences strongly affected the mental health of women and these experiences were not necessarily of the immediate past. We find a close association of the state of physical health and mental health. Physical illness significantly contributed to adverse mental health. While some important reviews of mental health

burden have pointed out that co-morbidity is associated with mental illness the combination they consider is that of psychiatric morbidities. None of the studies we have seen try to correlate physical and psychiatric co-morbidity in a systematic way.

We tried to construct a picture of domesticity through the ethnographic interviews. We find that state definitions of reproductive choices in terms of limiting families had been internalised even in the poorest neighbourhoods but instead of leading to systematic health care these simply resulted in widespread use of abortions and terminal contraceptive methods to control the size of the family.

Our interviews also revealed that women were most vulnerable to harassment in spaces in which there was a desire for the new – for college education, for marrying by choice, and for commodities. While images from the media have introduced new desires there were very few opportunities for bringing these to fruition. Hence first generation female college students, those living in families where the husband had temporarily migrated to earn money, and families who felt they were unable to maintain the status appropriate to their caste or neighbourhood standards, made women much more vulnerable than those who were living in relatively homogenous neighbourhoods in terms of income and assets. This is not to suggest that these desires are suspect but to show the high costs of aspiring to set new norms for the domestic.

Domestic violence was more pervasive in low-income neighbourhoods than in middle-income or high-income neighbourhoods but women had a stake in maintaining relations even with husbands who were beating them. This does not mean that women accepted this as a sign of love – they would have liked community participation in resolving this problem. There was great suspicion of the State especially as experienced in the figure of the policeman, which was why state intervention was not welcomed as solution. Communities themselves had notions of unacceptable violence but the men who brutally beat their wives were more likely to be the ones who had reputations of violence even against men – hence local leaders were afraid to intervene in these cases. One of the most protective factors for women was the strong interest of the natal family to continue to provide support after a woman's marriage.

Chapter 1
Introduction

In recent years there has been much discussion about the conceptual frameworks within which the question of women's health is studied at the level of both policy and programs in public health. In their influential report on *World Mental Health*, Desjarlais, Leonberg, Good et al [1] pointed out that many of these programs define women's health as reproductive health and that sometimes the health of children is seen as a proxy for the health of the mother. The authors of this report urged that the definition of women's health should be defined as her total well-being that is not determined solely by biological factors and reproduction, but also by effects of workload, nutrition, stress, war, and migration, among others.

Indeed the impact of social and environmental factors on health is extremely important, but marrying theory to evidence has proved much harder as different studies produce contradictory results. Further, there is a tension between those who would prefer to define health in terms of clearly articulated objective criteria and those who would like to include the broader experience of ill-being or lack of well-being as an important factor in health. [2]. For issues pertaining to mental health, these questions become even more difficult to track since culturally available idioms of distress, plurality in available therapeutic strategies, as well as social positioning of the subject make the boundaries between normal and pathological, normal and normative, societal norm and individual norm, extremely hard to draw. [3].

There is large literature that examines the impact of socio-economic inequalities on health inequalities. While there is general agreement that it is not only absolute poverty but also the gradients of inequality that impact upon the health of populations, there is no clear agreement as to what constitutes socio-economic inequality or for that matter what are the units of comparison. Authors such as Wilkinson [4] and Farmer [5], who are the most influential proponents of the theory of the impact of inequality gradients upon health, have frequently shifted the definitions of socio-economic inequality from inequality measured thorough income to inequality in social status. The unit of comparison can also vary from whole countries to well- defined gradients within a bureaucracy to even groups of primates.

When we review the different data sets across countries, we find contradictory results so that in some contexts economic status is a better indicator of psychiatric morbidity than residential status but in other cases the relation is reversed. The Brazilian psychiatrist Naomar Almeida-Filho found that studies in 1982 in Bahia, Brazil showed that migrants were more distressed than non-migrants, but in 1993 the situation was reversed and lower class men who held jobs in the formal economy suffered more neurotic disorders than those working in the informal economy. In such cases explanation is offered post-factum so that one is tempted to say that these explanations work when they work and don't when they don't. [6].

On the contradictory findings on the relation between poverty and mental health, it might be salutary to quote Desjarlais, Eisenberg, Good et al when they state that, "Though poverty is linked to mental ill-health, economic prosperity does not translate directly into either personal or social well-being. Epidemiological data on adolescents from Western Europe and the United States in the past 50 years show an increase in psycho-social disorders (antisocial behaviour, alcohol and drug abuse, depression, suicide, and eating disorders) during the very time interval (1950-1973) when social and economic conditions were improving most rapidly…The challenge to conventional wisdom is that there is an increase in disorders during a time interval when living conditions were improving, even though cross-sectional data show that social disadvantage per se is associated with disorder." [1].

In addition to the above, the identification of mediating factors has proceeded more by speculation than production of evidence. In a recent paper, Vikram Patel rightly noted that, "At present there is little understanding about the mechanisms or mediating factors between low socio-economic status

and depression" –and then went on to offer some plausible explanations. For instance, he argued that unplanned urbanisation was posing great strains on traditional support systems. And that "…lack of social support and breakdown of kinship structures is probably the key stressor for the millions of migrant labourers." [7].

Yet, in our study of urban neighbourhoods, which contain migrant households, we have not found a single household that did not have other kin resident in the same locality or in the same city. We also found that the number of joint households in low-income neighbourhoods is larger than in upper income neighbourhoods so that one cannot assume that kinship structures have broken down in urban settings for the poor (see next chapter). Indeed, this might be expected given that migration to cities for those working in the informal economy follows existing networks of kin. We are not arguing that other configurations might not be found in other urban settings but urging caution in a field that is high on explanations and low on production of usable data.

Thus while we agree that the questions of the relation between socio-economic status and health inequity remains a very important question, we feel that carefully designed micro studies have much to contribute to the understanding of pathways between poverty and health, especially with reference to gender. Our study starts with acknowledging the difficult issues raised by these and other debates. Over the last three years we have been engaged in a detailed study of health- seeking behaviour, practitioner markets and use of pharmaceuticals in seven neighbourhoods in Delhi. These neighbourhoods were chosen to reflect the heterogeneity of urban life in a metropolitan centre. We were especially interested to see how differences in experiences of migration, clustering of low-income, middle-income, or upper-income households in a locality, type of practitioner markets, as well as other neighbourhood characteristics would influence household decision-making with regard to health.[1] We welcomed the opportunity provided by a small grant from the Ford Foundation through the Achutha Menon Centre for Health Science Studies, to do a systematic study of the relation between mental health and reproductive health.

Although, as we said earlier, many people have rightly pointed out that women's health should not be defined only as reproductive health, we submit that reproductive health provides a very good lens through which we can see how larger social factors such as migration, a precarious place in the local economy, and health policy decisions impact upon women's health more broadly. A broader definition of mental health such as that provided by Desjarlas, Eisenberg, Good et al [1] provides an opportunity to not only look at psychiatrically defined disorders but also at psychological distress.

While there is an emerging literature on the intersection between reproductive health and mental health, this looks at specific conditions such as gynaecological morbidities [11] or post-natal depression [12,13,14]. Moreover, the findings of these studies are contradictory. To take one example, in a well-defined random sample of women who had planned pregnancies, one study found that although pregnancy precipitates many physical and psychological changes, there was no evidence of either emotional turmoil or enhanced emotional well-being among women who were pregnant as compared to those who were not. [13]. Other studies find that symptoms of depression and anxiety are common during pregnancy. [4]. We submit that this manner of looking at the intersection of mental health and reproductive health through well- specified discrete events cannot take into account the *cumulative experience* of loss of pregnancies and child mortality that turn out to be of far greater significance for mental health of women in our sample than any particular morbidity or clinical conditions such as post-natal depression. This relates to the wider point that such cumulative experience of loss gauged though the entire reproductive history sheds a better light on the layering of various conditions in women's lives that are productive of common mental disorders.[2]

There is a further fact, which is of some importance. In earlier studies on urban health our team

[1] For details of the methodology and the findings with regard to questions such as morbidity burden, health expenditure and use of pharmaceuticals see [8, 9]. For an understanding of the medical environment in the localities, especially with regard to practitioner competence and dispensing practices see [10].

[2] This point has been made with great finesse by Leth Mullings and Alka Wali for African American women living under stressful conditions in Harlem. [15].

of researchers has shown that one of the characteristics of urban neighbourhoods is that the practitioner markets are not insulated from pharmaceutical markets so that there is a heavy infusion of drugs into urban households through various channels. [8,9,10]. The impact of this on low-income households is particularly severe since there is a concentration of practitioners with lower skills in these areas. Surprisingly this is true regardless of type of training received or location in the private markets or in the public hospitals and dispensaries [10]. With the greater availability of psychotropic drugs and the tendency to dispense medicines in these areas, how people experience psychological distress may have a strong impact on inappropriate use of psychotropic medicines as it has already happened for antibiotics.[3]

In order to get a broader picture of the mental health issues in these neighbourhoods we have used a combination of survey techniques and open-ended ethnographic interviews. The rest of the report is organised as follows. We first provide a description of the sample and of the data- collecting techniques deployed followed by an indexing of mental health status in terms of result obtained from administering an SCL-90-R questionnaire to around 800 respondents, both male and female, in these seven localities. We try to see the gender differences in terms of one or more measures and also the differences obtained between different localities. The next chapter provides an explanatory model of the observed locality differences for women, utilising several variables such as household income, earning status of the respondent, reproductive history, the overall disease burden of the household, and family size and composition. We then turn to the ethnographic interviews and provide an analysis of the shifting meaning of domesticity in two localities with the highest and second highest mean score on the Global Severity Index of the SCL 90–R questionnaire. We provide some case studies of households dealing with illness to show the kind of conditions under which those who placed in the top decile of the Global Severity Index, live and negotiate various kinds of health facilities including health institutions. The final chapter consolidates the salient findings of the study.

[3] For a perspective on the dangers of unregulated pharmaceutical markets, especially in the case of psychotropic drugs, see [16].

Chapter 2
Description of the present study

2.1 The larger longitudinal study

The present study is part of a larger longitudinal study of urban health in Delhi being carried out since 2000. This larger study covers seven localities in Delhi, and has used a two-phased 16-week panel of 1,621 individuals. We chose four neighbourhoods through initial research contacts and three neighbourhoods through a school health questionnaire. After the initial selection of the neighbourhood and the streets within the neighbourhood, we contacted every fourth house until we had the requisite number of households. We explained the project to any adult member who was present in the household, and consent was obtained from all adult members who agreed to participate. The rejection rate to our request to join the survey was less than four per cent.

Our aim is to build longitudinal data on health-seeking processes and to collect information on the social support networks. We have completed two years of survey and ethnographic interviews. Weekly morbidity surveys were conducted in two cycles of 16 weeks each, carried out from August to December 2000 (first wave in four localities) and January to April (second wave in three localities) when each household was visited every week on the same day by the same researcher The questionnaire that we have developed, translated, and tested prior to administration consists in getting information on both sickness weeks and sickness episodes, followed by detailed probing of symptoms, practitioner visits, medications, expenditure incurred, and impact on work and income. This survey instrument has also been used in a comparative study being conducted in Chad.

In addition, we have also surveyed 500 practitioners in these neighbourhoods. The practitioners were identified by a field researcher mapping the practitioners in the area within a walking distance of 45 minutes around the clusters of sample households. Intensive fieldwork with a sub-sample of 245 practitioners including observation of one full day in the clinic or dispensary of each practitioner was conducted. [8, 9, 10].

2.2 Objectives of the study

The objectives of the present study were:

- To examine the relationship between women's physical health, reproductive histories, and mental well-being
- To understand the processes through which women's mental well-being was affected by their reproductive histories

The study consisted of two components. The first component aimed to index community mental health and examined its interrelationship with women's physical health and especially their reproductive health. The second component consisted of ethnographic interviews to understand better the connections between their mental well-being and their domestic setting, both as a site of reproduction and as a site of everyday violence.

2.3 Methodology and sample selection

For the first component of the study we used the SCL-90-R questionnaire to index community mental health, a detailed women's health questionnaire which was designed to elicit information on reproductive histories, relations within the household, incidence of domestic violence defined by experience of physical violence, as well as self-reported harassment. The SCL-90-R questionnaire was administered to a selection of the sample population covered by the larger study mentioned above. All members of 18 and above in age in the seven localities were the potential population of our study. A few of the very old people were not included since they were considered difficult to converse with by our field-researchers.

The SCL-90-R questionnaire was translated in Hindi and every respondent was given the option for self-administration or interview in English or Hindi. We have 789 completed responses including 405 men and 384 women. The refusal rate was less than 2.2 per cent. Out of the total, 92 respondents self–administered the questionnaire. A majority of these respondents belonged to the group who had higher education and were younger. For all other respondents the field researchers administered the questionnaire.

Two items, which were related to sexual behaviour, posed some dilemma in the field. The researcher was given the freedom to decide whether to administer the items depending on the cultural norm or the specific field situation. All respondents were told that they were free not to respond to a question if they so wished.

The women's health questionnaire was administered to the 569 married women in the sample (see sample description in Table 1.1) who had completed the SCL-90-R questionnaire.

The second component comprised of ethnographic interviews with a sub-sample of 100 married women who had responded to the women's health questionnaire. These ethnographic interviews were semi-structured but used an amplificatory technique of interview allowing women to structure their own emplotment of stories relating to relations in both natal family and conjugal family. The interviews were recorded and transcribed. In the records of the data, assigned personal identification numbers (PID) have been used. Names used in this report are pseudonyms.

All interviews were conducted by female interviewers of ISERDD or by Veena Das, one of the Principal Investigators. The staff was trained in qualitative research methods through methodology workshops and hands-down training in the field.

2.3.1 *Description of SCL-90-R*

For the mental health study we used the SCL-90-R questionnaire developed by Leonard R Derogatis. [17,18]. The symptoms checklist of psychological distress was developed over a period longer than half a century for a self-report mode of assessment. The present version of a 90-item questionnaire was introduced in the 1970s and has been in use both for clinical and community studies over various populations in many countries. [17,19,20,21,22,23]. Many of these studies bring out gender sensitivity and cultural differences in test scores in the sense that psychological norms can vary between gender and across different cultures. Regarding discrimination across psychopathological states, it is often observed that test scores only weakly discriminate highlighting a few dimensions. However in spite of its limitations it has emerged as a widely used tool for assessing community mental health within a cultural region.

In SCL-90-R, each of the 90 items is scored on a five-point scale (0-4) of distress. A total of 83 items (questions) relate to nine psychiatric symptom dimension:

1. Somatization
2. Obsessive-compulsive
3. Interpersonal sensitivity
4. Depression
5. Anxiety
6. Hostility
7. Phobic anxiety
8. Paranoid ideation
9. Psychoticism

The remaining seven items do not fall under any of the primary dimensions but are clinically significant conjointly with other items. All the 90-item scores are summarised in three aggregative indices reflecting the psychopathology of the subject. These are Global Severity Index (GSI), Positive Symptom Distress Index (PSDI), and Positive Symptom Total (PST). GSI is computed as the sum total of all the item scores divided by 90. This is used to indicate both the extent and depth of the psychological distress and is considered to be the most important indicator of mental health in a large number of studies. The count of items with positive scores is recorded as PST. To compute PSDI we divide the total item score by PST. This is an intensity measure sensitive to the number of symptoms. As noted earlier the studies using the SCL-90 questionnaire usually bear out the fact of gender difference and are occasionally found to be sensitive to cultural norms. The responses in our data covered from 85 to all 90 items.

2.4 Ethical issues

An ethics committee consisting of a representative from a women's organisation, an expert in Child Development, a representative from the community who is a schoolteacher, and one member of ISERDD, was formed for this project. The committee met twice to review the protocols and the findings.

The objectives of the interviews were explained to the women. Consent was obtained from each woman – she was assured of anonymity, and also told that she could stop the interview at any time. We tried to take the interviews in private but in some cases other female relatives were in the vicinity. This was especially true in Noida where there was no place in the hutments to sit inside.

2.5 Sample characteristic

Table 2.1 gives the overall profile of our sample respondents.

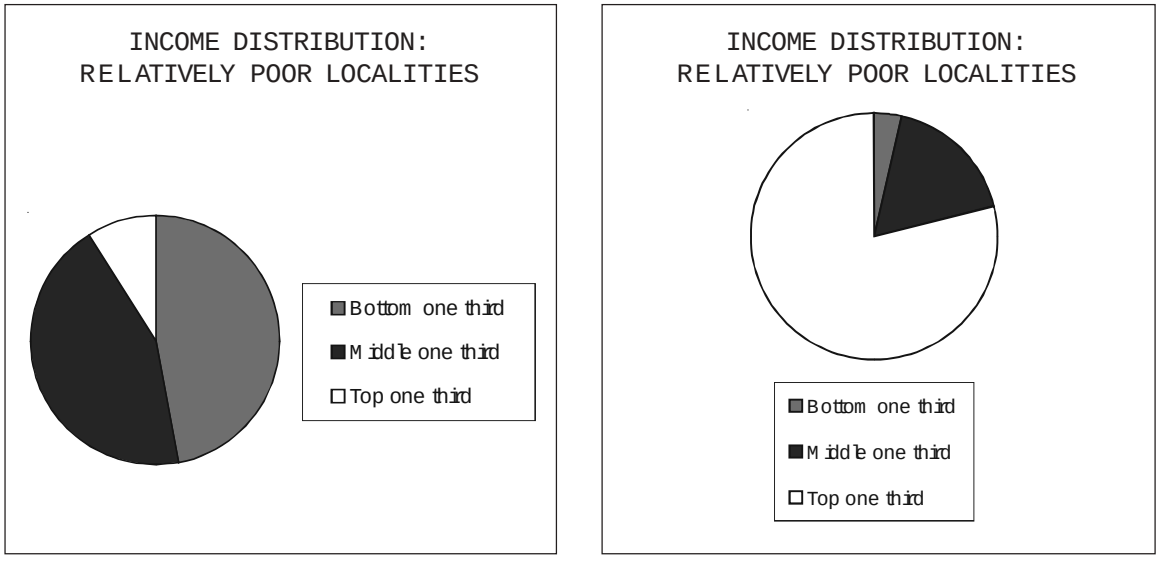
Table 2. 1: Sample characteristics

Location	B Khera	P Nagar	Noida	J Puri	S Vihar	K Nagar	S Delhi
Total sample	111	131	100	148	113	100	86
Male 56	66	50	83	59	48	43	
Female 55	65	50	65	54	52	43	
Average age male	35	37	36	36	44	40	39
Average age female	36	37	32	36	41	41	36
Median age male	35	34	30	34	45	38	40
Median age female	33	35	31	34	38	38	40
Married 87	95	84	96	86	61	60	
Not married	15	31	13	46	19	29	21
Widowed	9	3	3	6	7	10	5
Separated/ divorced		2			1		

In separate papers our co-researchers and we have analysed the consumption, assets, and income of the households in our larger study. [8,9]. For the present study we have chosen to use estimates of per capita household consumption for a tripartite classification of the sample households. We have classified the bottom third of this consumption expenditure distribution for all households as the poor, the middle third as middle-income, and the top third as the rich. Based on the above analysis we conclude that four of the seven localities namely, B Khera, Noida, P Nagar and J Puri form a cluster of poor localities as the habitat of poor households. K Nagar is a middle class locality and S Delhi and S Vihar fall in the richer class. K Nagar is lumped with the other two as the rich for the purpose of this analysis. It is important to remember that localities are not homogeneous in terms household income (or consumption expenditure). The distribution of households in terms of these income categories is shown in the pie charts

Both S Vihar and K Nagar have people who are relatively older. Otherwise the age distribution of respondents across localities was similar and nearly symmetric. The respondents were mostly married and the never married category included the largely younger age group.

Chart 1: Income distribution by localities



2.6 SCL-90-R scores

How consistent were the respondents in their item responses? We re-interviewed five respondents from each of the localities chosen randomly. This was done after a gap of one to 10 months. We compared the GSI scores for the two interviews for each person. The correlation between the GSI scores is 0.74. The mean difference between the GSI scores is statistically not different from zero.[4] This shows that to an extent scoring has been statistically reliable.

Table 2.2: Correlation between male and female positive item responses

Locality	Correlation coefficient
B Khera	0.72
J Puri	0.95
Noida	0.8
P Nagar	0.72
K Nagar	0.79
S Delhi	0.85
S Vihar	0.82

How different were men and women in these localities regarding the item responses? To examine this we computed item-wise the percentage of people with positive response in each locality for male and female separately. Table 2.2 gives the correlation coefficients of positive response percentages between men and women in their responses within the same locality. The gender differences in positive symptoms were least in J Puri, and highest in P Nagar and B Khera. Overall there were significant differences in positive symptomatology across gender in almost all localities.

Table 2.3: Aggregate mean GSI score by localities and gender

Localities	Aggregate mean GSI score	Aggregate mean GSI score
	Male	Female
B Khera	0.44	0.50
J Puri	0.50	0.71
Noida	0.49	0.69
P Nagar	0.59	0.87
K Nagar	0.26	0.37
S Delhi	0.33	0.40
S Vihar	0.56	0.61

As we show in our analysis to follow, women in general showed a higher mental health burden. First we look at the GSI scores in the aggregate for all the localities. Table 2.3 corroborates our assertion that women bear a higher burden of mental disorders as measured by mean GSI score. This is consistent with the general findings in the literature that show gender disparities in mental health.

In the following exercise we examine the mean symptom score differentiating across gender and localities. For the purpose of comparison we also report results from three other studies. They are of Derogatis [17] for an American population, of Wilnise [20] for a population of African descent in the US, and Noh and Avison [21] for a Korean population.

The American data is based on a stratified random sample of 493 males and 480 females from a non-patient normal (unscreened) population. Eighty seven per cent of the sample respondents are white and the average age is 46 years. The Korean data comes from a randomly selected sample of 420 respondents of which 58 per cent are male and 42 per cent are female. The median age in the sample is 30 years. The sample of African descent in US consists of 194 respondents of age 18 years and older from a county in one of the eastern states. The mean age of the sample is 31 years.

We offer this comparison to illustrate the deviations from scores for the dominant white population in North America. The Koreans represent a minority community that is culturally different from the while community while a population composed of people of African descent within North America shows how disadvantaged populations score in comparison to the average scores of the dominant population. Tables 2.4 a, b and c give the mean dimensional scores and GSI for all communities. The corresponding charts are in the annexure.

[4] The t-value for paired t-test for testing zero mean difference in the two sets of scores is 2.35, which is not significant at 1% level of significance

Tables 2.4a,b,c: Mean GSIs score for males and females: communities and sample localities

Table 2.4a

Mean scores of the nine symptom dimensions for communities						
Symptom	Dimension	Americans	Koreans	African descent	B Khera-M	B Khera-F
Somatization	Dimension 1	0.36	0.85	0.75	0.40	0.75
Obsessive -compulsive	Dimension 2	0.39	1.17	1.08	0.33	0.41
Interpersonal sensitivity	Dimension 3	0.29	1.00	0.96	0.39	0.54
Depression	Dimension 4	0.36	0.98	0.88	0.58	0.78
Anxiety	Dimension 5	0.30	0.89	0.72	0.30	0.62
Hostility	Dimension 6	0.30	0.81	0.79	0.35	0.31
Phobic anxiety	Dimension 7	0.13	0.52	0.42	0.08	0.31
Paranoid ideation	Dimension 8	0.34	0.79	1.01	0.61	0.48
Psychoticism	Dimension 9	0.14	0.66	0.68	0.26	0.30
Global Severity Index	GSI	0.31	NA	0.84	0.46	0.54

Table 2.4b

Symptom	Dimension	Noida-M	Noida-F	S Vihar-M	S Vihar-F	S Delhi-M	S Delhi-F
Somatization	Dimension 1	0.42	0.76	0.42	0.67	0.31	0.43
Obsessive –compulsive	Dimension 2	0.39	0.59	0.65	0.70	0.33	0.40
Interpersonal sensitivity	Dimension 3	0.65	0.91	0.67	0.63	0.35	0.50
Depression	Dimension 4	0.79	0.98	0.74	0.78	0.47	0.53
Anxiety	Dimension 5	0.39	0.70	0.42	0.54	0.26	0.28
Hostility	Dimension 6	0.50	0.63	0.72	0.54	0.33	0.45
Phobic anxiety	Dimension 7	0.12	0.41	0.25	0.34	0.05	0.24
Paranoid ideation	Dimension 8	0.85	0.98	0.62	0.69	0.43	0.45
Psychoticism	Dimension 9	0.34	0.44	0.40	0.38	0.21	0.22
Global Severity Index	GSI	0.49	0.71	0.56	0.62	0.33	0.40

On the basis of the mean symptom scores we can infer that the females scored higher in almost all dimensions in all the localities. This is consistent with several case studies in India and in South Asia. [24,25]. The localities S Delhi and K Nagar show a better mental health profile with scores nearly as low as the white Americans. The worst performances were obtained in communities in P Nagar, J Puri and Noida in particular for females.

We find our data lie within the range of comparison defined by the American, Korean and the African American populations. The dimensions of depression and paranoid ideation are prominent symptoms in our record. In addition to these dimensions interpersonal hostility is significant for females in Noida and P Nagar. Davar in her review of several epidemiological studies in India notes higher prevalence of depression among women. She also

Table 2.4c

Symptom	Dimension	J Puri-M	J Puri-F	P Nagar-M	P Nagar-F	K Nagar-M	K Nagar-F
Somatization	Dimension 1	0.38	0.67	0.51	0.92	0.19	0.45
Obsessive –compulsive	Dimension 2	0.56	0.75	0.72	0.84	0.29	0.36
Interpersonal sensitivity	Dimension 3	0.72	0.87	0.75	1.22	0.28	0.38
Depression	Dimension 4	0.63	0.99	0.78	1.15	0.34	0.54
Anxiety	Dimension 5	0.33	0.56	0.49	0.85	0.24	0.36
Hostility	Dimension 6	0.53	0.59	0.77	0.81	0.23	0.29
Phobic anxiety	Dimension 7	0.17	0.59	0.25	0.56	0.04	0.13
Paranoid ideation	Dimension 8	1.03	1.16	0.91	1.17	0.48	0.46
Psychoticism	Dimension 9	0.36	0.44	0.47	0.53	0.15	0.22
Global Severity Index	GSI	0.51	0.72	0.61	0.89	0.26	0.38

notes higher incidence of symptoms of somatization, obsessive-compulsion and hysteria. [24]. Our community study bears out some of these findings though we are not using the obsolete category of hysteria.

In general, poorer localities showed larger psychological burden. However the richer locality of S Vihar also showed relatively high scores of mean GSI, cautioning us that the relation between income and mental health is not a linear relation. This is clearly demonstrated in the analysis of GSI score in the top quartile and in the top decile.

normative scores for adolescents than for adults with SCL-90. Whether this has partly contributed to this inflation of numbers is a moot question. However for women the effect of age on stress has been found to work in both directions. [25].

2.7 'Caseness' in psychopathology

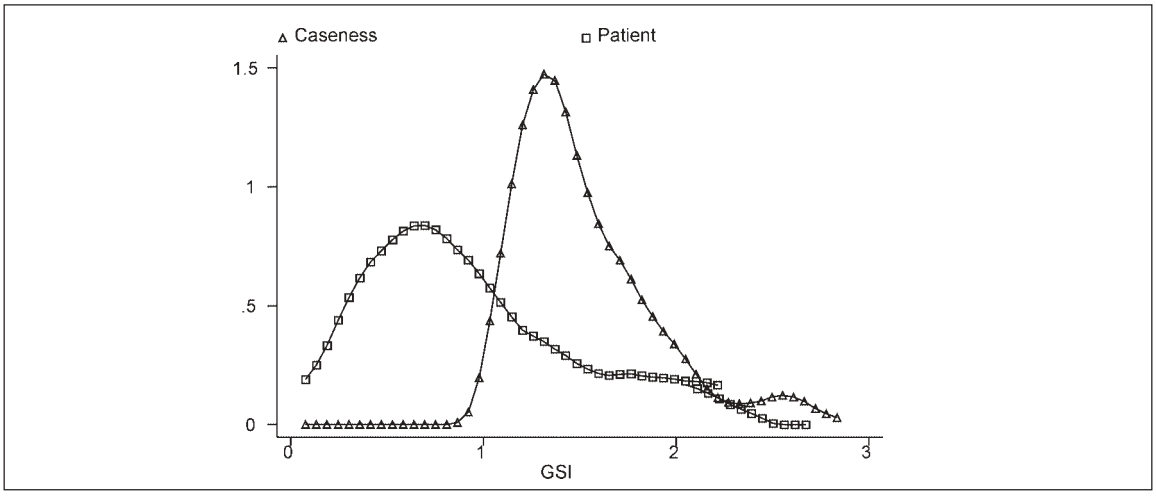
One way in which self-reporting symptom inventories have been used is to facilitate epidemiological screening of the population for psychiatric disorders. Although our purpose was not to identify cases for clinical intervention, we find this

Table 2.5: Caseload in the top quartile and top decile of GSI score

Locality	Top quartile			Top decile		
	Total	Male	Female	Total	Male	Female
B Khera	22	8	14	7	4	3
J Puri	45	16	29	18	7	11
Noida	28	8	20	8	1	7
P Nagar	61	21	40	31	13	18
K Nagar	7	3	4	2	1	1
S Delhi	6	1	5	2	1	1
S Vihar	29	13	16	11	5	6

When we classify the same sets of records by age then we notice that the younger age group carry a disproportionately higher burden of mental distress. The caseload for the age group of 18 to 30 years is 44 per cent in the top quartile and 43 per cent in the top decile. The charts for age distributions for the top quartile and top decile of GSI scores are given in the annexure. Todd et al [22] had noted higher concept useful for identifying individuals who exemplify the consequences of living in situations of poverty and vulnerability at its worst. We use an operational definition of "caseness" that follows the prevalent procedure in this literature to put the individuals in the top decile of the distribution of GSI score as belonging to the category of "caseness." A GSI score of greater or equal to 1.09, which is the

Chart 2: Kernel density of distribution of patients and respondents in 'caseness' category



ninetieth percentile score, is therefore indicative of a positive case. It is important to emphasise that the cut off thus determined is sample dependent and will vary across populations. It is an operational criterion and not a normative criterion.

The proportion of males and females in the caseness category for our sample population was eight per cent and 11 per cent respectively. According to Davar community surveys in India point that prevalence rates for mental disorders are 11 per cent for men and 15 per cent for women. [24]. We also collected data on clinically diagnosed mental health patients to examine how their scores compare with the scores of those who are identified as positive in our sample. The following chart depicts the kernel densities [5] of GSI scores of the two groups – patients and the caseness.

The relevant part of the density for caseness is the part right to the GSI score of one. The density for caseness dominates the density for patients excepting at the extreme right tail. This brings out the large undiagnosed caseload in our caseness category and those who might benefit under clinical diagnosis and possibly treatment. We want to add though that this category might also include individuals who have had to cope with extremely stressful conditions resulting from a high load of physical illness of the family, and that social interventions in the form of better work opportunities or better health care could be as effective as clinical interventions. Forty per cent of the females in the caseness category belonged to the 18-30 age group and the age distribution tapered off with increase in age. Ninety per cent of the women who were in the caseness category were married, divorced or separated, and out of this percentage 86 per cent lived in poor localities.

In conclusion we can say that women in general showed a higher mental health burden, more so in poor neighbourhoods. Younger women showed higher distress than older women. In the next chapter we explore an explanatory model using data on economic, social, reproductive and medical histories of women from our survey data.

[5] Kernel density is a statistical estimate of the empirical frequency distribution and do not require any assumption about the underlying probability distribution.

Chapter 3
An explanatory model

3.1 Introduction

In the previous chapters, we have presented a picture of community mental health based upon the various dimensions in the SCL-90-R questionnaire. In this section we shall attempt to explain the variations in the mental health burden with reference to several factors such as age, economic status, reproductive history, physical morbidity burden, and relations in the household in this chapter. This is done with the aid of a quantitative analysis of a statistical model. It will be helpful at this stage to summarise the findings of some of the recent studies on gender disparities in mental health burden in South Asia.

Some recent studies on gender and mental health in South Asia have used a general health questionnaire (GHQ) developed by Goldberg. [26,27]. The GHQ has originally 60 items and has been found useful in a variety of psychiatric and non-psychiatric contexts. A shorter version of 12 items of the original consists of "those items that were most discriminating in determining clinical status and were not endorsed by a physically ill control group." [27]. Like SCL-90 the GHQ assesses mental distress by scoring each item and the total score is the summation of scores in each of the items.

Jayaweera [28] administered GHQ to women workers in garment and textile industries in Sri Lanka. She found that women have higher mental distress than men but those who are engaged in earning activities have lower distress. Both marriage and education at least up to secondary level, reduces distress while aging increases it. Zohir [29] in her study of households of female EPZ workers in Bangladesh found in the GHQ responses that women show less distress than men but among those who score positively women show higher level than men. Aging increases stress while gainful work reduces it. Mukhopadhyay [30] in the Indian case corroborates increasing stress with aging and higher stress for women.

Siddiqui, Hamid, Siddiqui and Akhtar [31] in case of Pakistan supported that women who are income earners have lower stress than those who are not working but have higher stress than working men. Contrary to the abovementioned studies, they found that females in the 25 to 29 age cohort showed higher level of stress than those of older age groups. Using a survey instrument for measuring well-being they found that a poor asset base and living environment negatively affect mental well-being. In our quantitative analysis we address similar questions of effect of aging, earning-status, education, and environment on the mental health of women. In addition we bring in reproductive experience and medical history of acute and chronic diseases as determinant of mental health. We claim that this is a more comprehensive framework to address the issues of mental health of women.

3.2 Women's health survey

Our data is based on interviews with 314 ever-married women from the seven localities in Delhi. This is a sub-sample of all women who were administered the mental health questionnaire. Of the total 235 married women living in the four low-income localities who were administered the SCL-90-R questionnaire, 200 agreed to answer the women's health questionnaire. Thus they constitute 64 per cent of the sub sample and the rest are in the three middle class and rich localities. The households in the poor localities are not homogeneous in income. For instance around nine per cent of households in this survey in the poor localities belong to the top third of the income distribution of all households in our longitudinal study. However these localities suffer from disadvantages accompanying urban poverty, that include poor environmental factors in terms of public utilities, housing, education, medical facilities, and employment opportunities. We have chosen the data relevant for the present study from our larger study and provide a broad summary in terms of the following collectives:

- Economic variables
- Relational variables
- Reproductive history
- Morbidity burden

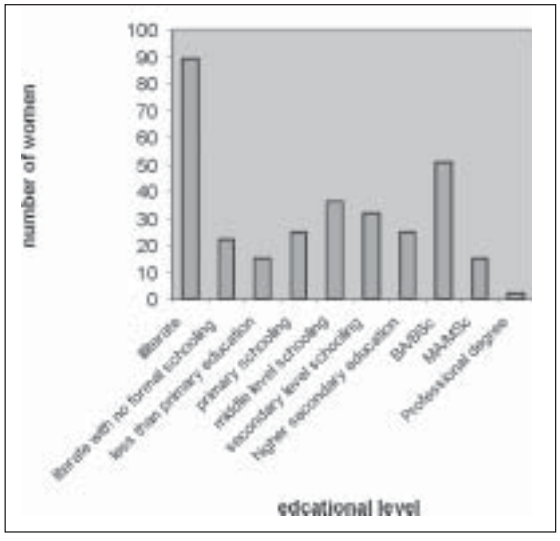
Further details on the variables, their distributions and charts are given in the annexure.

3.3 Economic variables

We start our discussion with the variable, education, which can be taken as a proxy for skill level. Of all the women in the poor localities 36 per cent were illiterate and they constituted 82 per cent of all illiterate women in our sample. Only 12 per cent of women with a college education lived in these localities and they constituted four per cent of the sample of women living in these localities.

The overall distribution of education levels is depicted in the histogram (Chart 3).

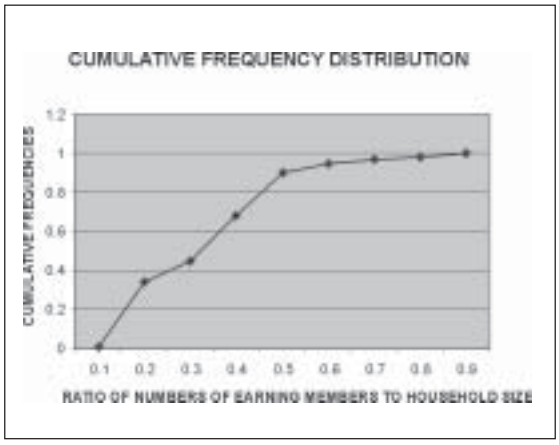
Chart 3: Educational attainment



However 41 per cent of women in these localities were engaged in some form of earning activities and they constituted 77 per cent of all women thus engaged. Although thus engaged 63 per cent of them had no formal employment. In order to assess the income security of the households we also looked at the employment status of the main earner of the household and the proportion of the total number of earning members to the household size. Regarding the first we found that that 26 per cent were employed in the public or private sector and 70 per cent worked in the informal sector or were self-employed. Thus overwhelmingly these households derived their income from the informal sector and therefore were subject to larger insecurity associated with this sector.

If we look at the ratio of earning members to the household size, it is less than 0.4 for around 70 per cent of the households. This is clear from the cumulative distribution graphed below. Typically a household of five or six members had not more than two earning members. Given the insecurity of income in the informal sector this may be an added source of vulnerability.

Chart 4: Cumulative frequency distribution of ratio of numbers of earning members to household size



3.4 Relational variables

The modal household size for the entire sample was four and 70 per cent of households had five or less members. For the poor localities 64 per cent of women lived in households with six or more members. Only 20 per cent of women in these localities came from nuclear households. In rich localities this figure was 50 per cent. Among the currently married women 88 per cent said that they had good relations with their husbands and none of the women reported bad relations with their husbands in the rich localities. In the poor localities 10 per cent of women asserted that their relations with their husbands were bad and 50 per cent said they were good. We are not taking this as an indication of the true state of affairs, for questions of status might prevent women from high income or middle-income localities to report on this sensitive matter. The ethnographic interviews would give better insight into this question but for this report we shall be using only the ethnographic interviews with women from low-income localities.

When asked whether they faced any harassment in their conjugal family, 25 per cent of these women answered in the affirmative. This was true for 15 per cent of women in the rich localities. Since alcoholism of husbands has been recognized as a source of domestic discord, we obtained information about the husband's drinking. Among the respondents 38 per cent in the richer localities and 54 per cent in the poorer localities answered in the affirmative.

3.5 Reproductive history

We collected detailed information on reproductive history of all the women in the sample. This constitutes information on numbers of pregnancy, living children, abortion, and deceased children. More women in poor localities had larger number of pregnancies and higher number of living children. The women in poor localities lost more children than the women in the rich localities. The kernel densities of number of pregnancies (n_preg) for the two classes of localities show that a greater proportion of women in the poor localities had a larger number of pregnancies in comparison with those in the richer localities. But women of both classes reported incidences of abortions including miscarriages. The histogram below shows that both classes of women experienced child mortality but again it was higher for poorer women. When we look at the distributions of women by the number of living children (n_livchd) we notice that comparatively poorer women had families with larger number of living children.

Chart 6: Distribution of deceased children

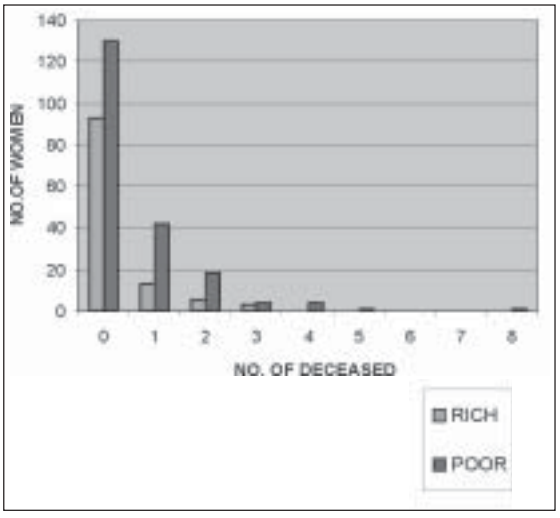


Chart 5: Kernel densities of number of pregnancies for two classes of neighbourhoods

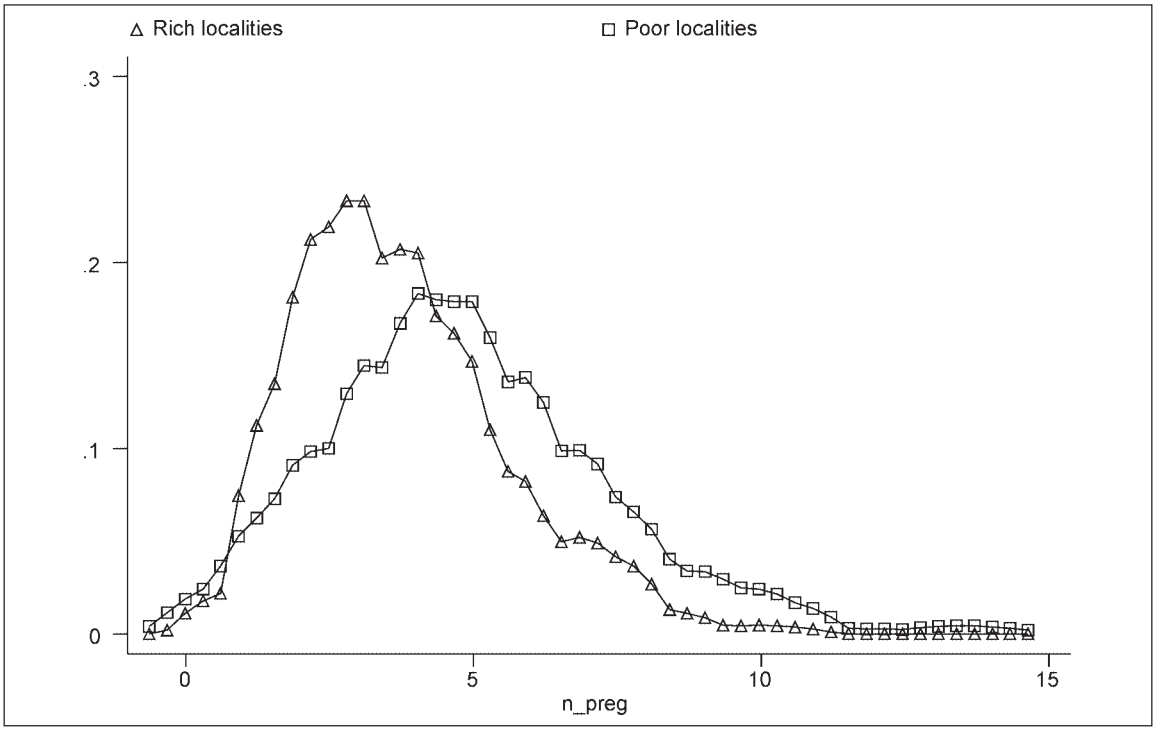
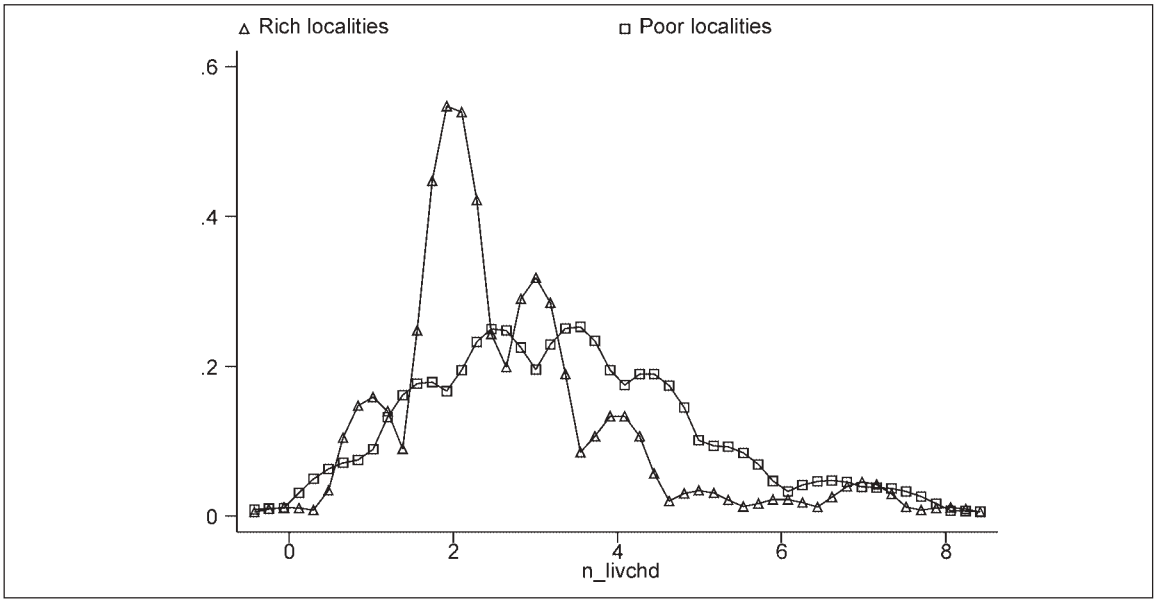


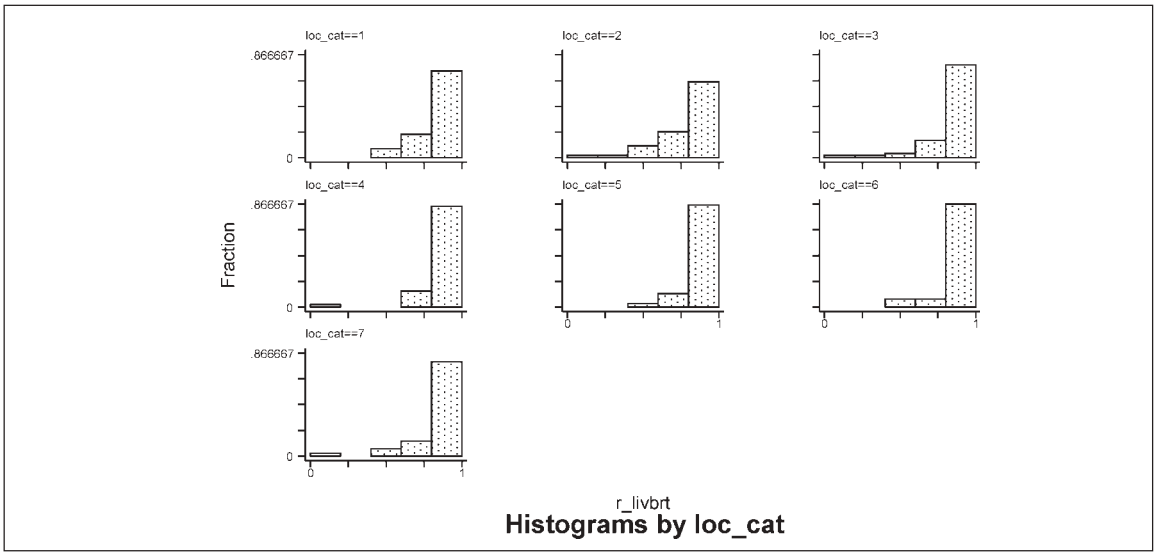
Chart 7: Kernel densities of number of living children by classes of neighbourhoods



We have derived two measures to reflect compactly the data described above. The ratio of the number of living children to the number of live births reflects essentially infant and child mortality. The ratio of the number of living children to the total number of pregnancies in addition to child mortality reflects the antenatal maternal experience. Chart 8 depicts the ratio of living children to live births (r_livbrt) by localities (loc_cat). The first four localities are the poor localities in our survey.

What is of interest here is the left half of the distributions. We find that the women of the poor localities had slightly worst outcomes though in the extreme left tail the outcomes are almost the same. Here we may point out that this result is partly due to the fact that the first of the poor localities had more women of younger age group whereas the last of the rich localities had a higher number of older women. Thus locality difference has got relatively attenuated due to the differences in the age cohorts. A similar interpretation holds

Chart 8: Histogram of ratio of living children to live births by locality category



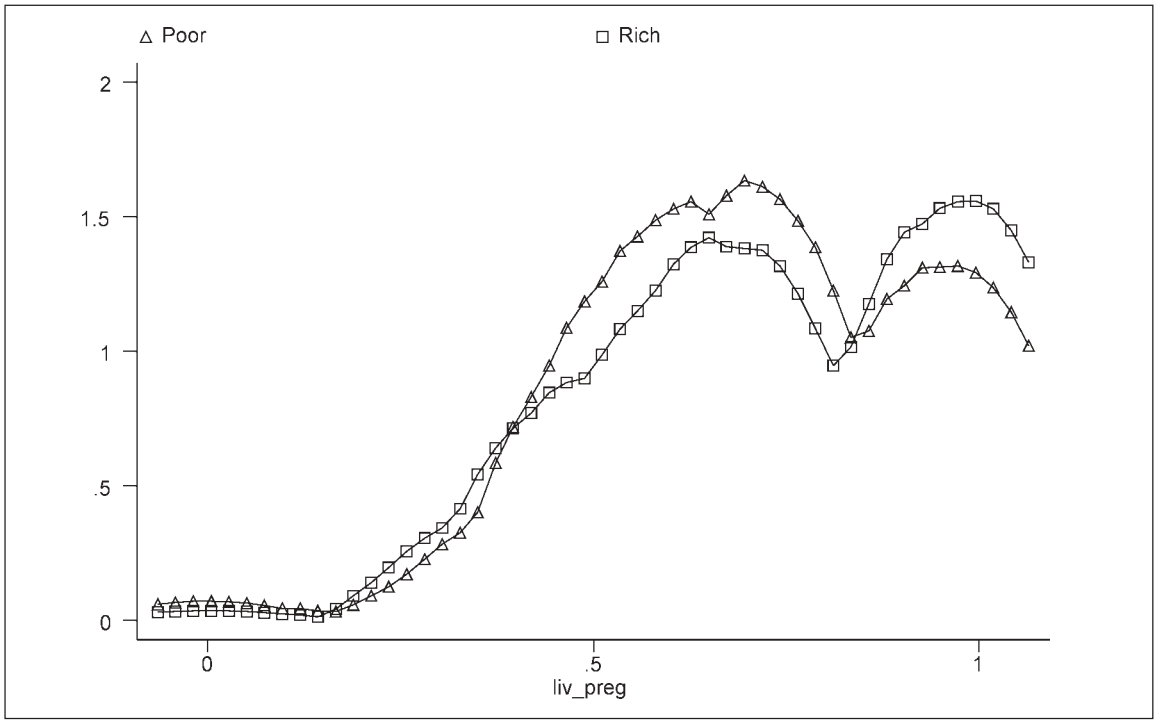
for the ratio of total number of living children to total number of pregnancies (liv_preg).

We provide kernel densities for this ratio by aggregating across two sets of localities. (Chart 9). More women in the rich localities had better reproductive outcomes as is evident from the right tail of the distributions. As we move to the left of the first crossover point women in the poor localities start dominating for increasingly worst outcomes. Again for the worst outcomes in the left tail the story is almost the same. Thus though there had been extreme outcomes for some women cutting across class boundaries we can conclude that women in the poor localities had greater experience of adverse outcomes.

3.6 Morbidity burden

As stated earlier the sample for this study is a sub-sample of a longitudinal study on urban health. We collected data on chronic and acute diseases for all the members of the sample households on a weekly basis over a reporting period of 16 weeks in a year. Among all the localities S Vihar (loc_cat 7) reported highest incidence of chronic diseases and Noida (loc_cat 1) reported the least.[6] (Chart 10). The result corresponds approximately to the age distribution in the population across different localities. The categorical value of 1 denotes the presence of chronic disease.

Chart 9: Kernel density of ratio of living children to pregnancy



[6] The method for identifying chronic diseases was complex. We looked at diagnostic reports that households possessed and matched symptoms as well as medications being taken in order to determine whether a disease fitted into any of the known chronic diseases. The longitudinal study and the length of interactions with households makes us certain that the margin of error is much smaller than is to be expected in the usual studies based upon methods of recall.

Chart 10: Histogram of chronic illness by localities

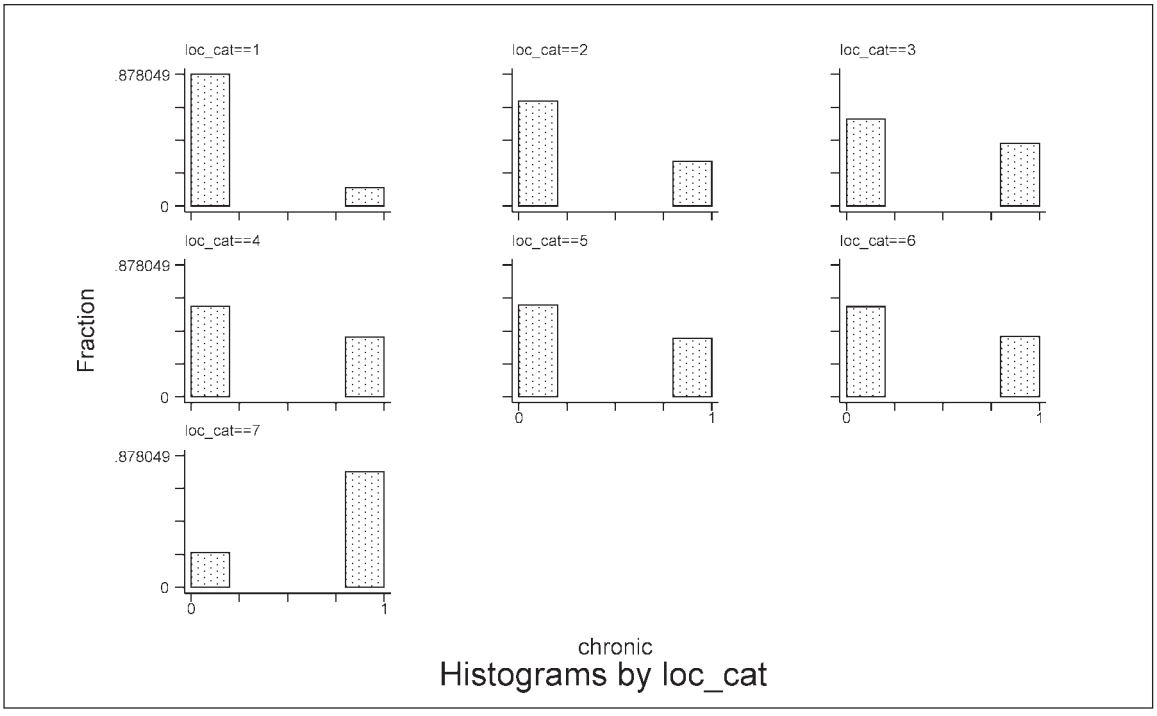


Chart 11: Kernel densities of self-morbidity

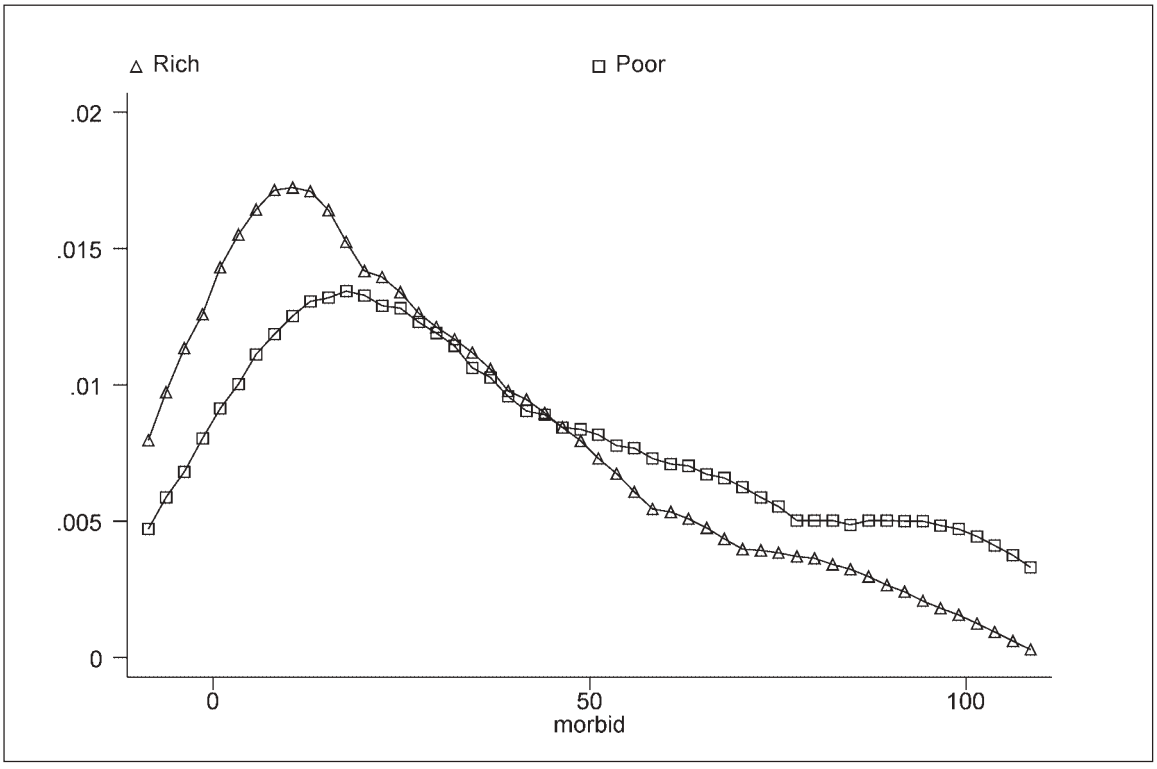
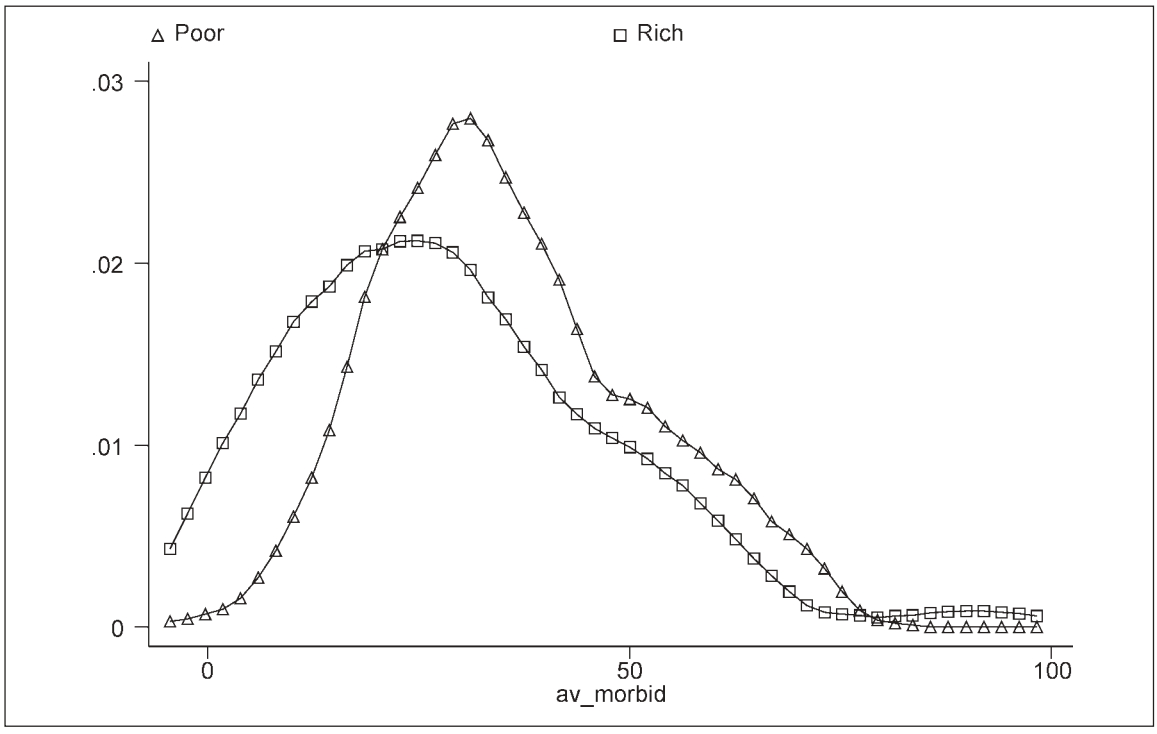


Chart 12: Kernel densities of average morbidity in the households



In fact we find a strong correlation between the two sets of records – illness of the self and illness in the households. In conclusion we can say that not only larger number of women in poor localities reported more acute sickness but they also came from households which were in the same predicament.

3.7 Statistical modelling: Estimation and results

In the earlier section we computed the Global Severity Index (GSI) scores for all the respondents in our mental health survey. In community studies GSI scores are taken as a comprehensive measure of mental health. In this exercise our task is to explain these scores with the help of the variables we have been discussing above. A complete list of the variables and their distributions are given in the annexure.

Among all the variables locality, age, educational level, earning status, number of abortion, ratio of living children to live births, harassment in the conjugal family, incidence of chronic diseases, and morbidity of the self and of the household emerge as statistically significant explanatory variables for GSI score. For age we have used both reported age and category-wise grouping to reduce presumed reporting errors. Both variables work equally well. As mentioned earlier morbidity of the self and morbidity in the household were strongly correlated and so were locality category and educational status. We had to exercise some choice to include one of the pairs. The income category of individual households does not perform significantly as an explanatory variable. It comes in indirectly through our locality category and in that sense larger local environment emerges as a significant determinant. The results from two estimated regression equations are presented in Table 3.1.

In both the regression models all the variables have the expected signs and the overall fit of the equations is significant. We have tried the same set of variables for explaining the score on depression dimension. The results are reported in Table 3.2 Though the overall fit of the regression equations remains satisfactory, the variables representing the abortion and self-morbidity are statistically significant at 10 per cent level. All the variables are of expected sign.

In all these models we find that the women in poorer neighbourhoods suffered from higher mental distress. The distress decreased with growing age. Women who were engaged in earning activities suffered less. The mental distress increased if women

Table 3.1: Regression model estimates for GSI score

Explanatory variables	Dependent variable					
	Score			Score		
	coefficient	t-value	P>|t|	coefficient	t-value	P>|t|
loc_cat	-.0416039	-3.100	0.002	-.0403242	-2.984	0.003
Age	-.0049099	-2.461	0.014	-.0053778	-2.693	0.007
Earn	-.1052863	-2.034	0.043	-.1140969	-2.196	0.029
N_abort	.0753047	2.468	0.014	.0748232	2.449	0.015
R_livbrt	-.6147277	-4.862	0.000	-.6381269	-5.082	0.000
Harass	.1650196	2.950	0.003	.1638761	2.925	0.004
Chronic	.2378137	4.387	0.000	.2465141	4.589	0.000
Av_morbid	.0037072	2.598	0.010			
Morbid				.0020499	2.576	0.010
Constant	1.308512	8.226	0.000	1.392752	9.371	0.000
No. of obs.	312			312		
F-value	12.40			12.38		
Prob > F	0.00			0.00		
Adj R-squared	0.2268			0.2265		

Denotations: score=GSI score, loc_cat=locality category, earn=earning category, n_abort= no.of abortions, r_livbrt=ratio of living children to live birth, harass= harassment in conjugal family, chronic=chronic illness, av_morbid=average morbidity burden in the family, morbid=self-morbidity burden. Details on the variables are given in the annexure.

had faced harassment in their conjugal families. Adverse reproductive experiences strongly affected mental health of women and these experiences were not necessarily of immediate past.

We find a close association of the state of physical health and mental health. Physical illness significantly contributes to adverse mental health. While some important reviews of mental health burden have pointed out that co-morbidity is associated with mental illness of increased severity, and that women have higher prevalence rates than men of both lifetime and 12 month co-morbidity involving three or more disorders, the combination they consider is that of psychiatric morbidities. Depression and anxiety are said to be the most common co-morbid disorders but as some authors have pointed out, co-morbidity in relation to non-psychotic disorders is an artefact of treating these diseases as categorical rather than dimensional

None of the studies we have seen try to correlate physical and psychiatric co-morbidity in a systematic way. We feel that this may be because systematic data on co-morbidity is lacking. For instance, Patel's much cited discussion [32] of the association between poverty, mental health and gender based on records from primary health centres in Goa (for the Indian case) does not consider the presence or absence of other diseases. The ethnographic interview in the following sections will present case material of how the presence of acute and chronic sickness impinges upon such factors as depression, anxiety, and even attempted suicide.

It may be important to emphasise that all the explanatory variables we have discussed can be considered as common or systematic risk factors but there is large residual variation. The residual variation captures what is individual or specific risk as distinct from systematic risk. In order to unveil the latter we have to turn to individual narratives, family, environment, and state institutions.

Secondly, we have a slightly different take on the reproductive experience of women and its relation to mental health. It is noted in the literature that poor women have larger number of pregnancies, and higher infant and child mortality. But by themselves these do not provide strong explanatory

Table 3.2: Effects of variable on score on depression dimension

Explanatory variables	Dependent variable					
	Depress			Depress		
	coefficient	t-value	P>|t|	coefficient	t-value	P>|t|
Loc_cat	-.0677736	-3.359	0.001	-.0675688	-3.382	0.001
Age	-.0096913	-3.250	0.001	-.0091567	-3.084	0.002
Earn	0.001	-2.399	0.017	-.1777343	-2.307	0.022
n_abort	.0785674	1.722	0.086	.0764257	1.683	0.093
r_livbrt	-.8848416	-4.720	0.000	-.8483353	-4.508	0.000
Harass	.2298333	2.747	0.006	.2257073	2.710	0.007
Chronic	.3577422	4.460	0.000	.3416458	4.234	0.000
Av_morbid				.0048632	2.290	0.023
Morbid	.0021161	1.781	0.076			
Constant	2.076168	9.355	0.000	1.941138	8.199	0.000
No. of obs.	312			312		
F-value	10.85			11.18		
Prob > F	0.00			0.00		
Adj R-squared	0.2022			0.2075		

Denotations: depress= SCL score on depression dimension, for other variables see Table2.5

power in our model. What was important was a complex of interrelated choices and outcomes in the life cycle. It was not the total *number* of pregnancies but their termination through miscarriages or by abortion, which turned out to be significant. Similarly, once the children were born, there was a great stake in the survival of each child. The stake was not simply having a large number of children or even in sons rather than daughters, but rather in protecting them from disease and death.

Finally we would like to draw attention to our treatment of the morbidity burden and the interrelation between physical health and mental health. In the existing literature there has been a compartmentalisation of physical and mental health. Our analysis shows that we need to drop this dichotomy in order to understand the sources of mental stress.[7] It has another deeper implication. Many researchers have noted the great stake of pharmaceutical companies to push for larger markets for medications for mental diseases. We have argued on the basis of our longitudinal study that the poor urban neighbourhoods are saturated with pharmaceutical products in a context of a market of physicians with poor diagnostic skills. [8,9,10]. We fear that without a strong regime of public health and regulation, the market for health will be swamped with psychotropic drugs as it happened with antibiotics, and it will be the poor who will bear the greatest brunt.

[7] Physical morbidity is mentioned only if the disease is stigmatising. Yet, stigma does not operate in the simple manner that individualistic models derived from Irwing Goffman's views would suggest. For a discussion of the way in which notions of stigma are evoked to cover up failures in health delivery systems and to fix blame on patients see the position paper by Veena Das. [33].

Chapter 4
Narratives of women's lives
Looking at experience

4.1 Forms of everyday violence in women's construction of the domestic

In chapter three we saw the association between poverty and mental health and the adverse impact of gender on this association. The significance of such variables as the reproductive history of a woman rather than a discrete condition such as pregnancy or post natal status, points to the significance of the way that a woman's sexual and reproductive life takes place in the context of family. We also saw that locality turns out to be an important variable though mediated by other household-level factors such as the experience of physical morbidity of the self as well as others in the household. In general the data points to the importance of cumulative experiences rather than discrete events in the understanding of mental health at the community level. The use of survey instruments was very important to show the relative importance of different variables but these instruments cannot tell us how ideas of the domestic circulate at the level of the community. For this we have to turn to the ethnographic interviews.

In this section we broaden the range of our inquiry to ask some more general questions about women's experience of the domestic. Specifically we ask how women's reflections on the nature of the domestic, within different urban neighbourhoods, might illuminate connections between domestic as a site of both reproduction and everyday violence. Epidemiological studies of both incidence and prevalence of psychiatric disorders in different parts of the world have established that certain conditions such as debilitating depression are more common among women than men. Studies focusing on psychological distress rather than psychiatric morbidity reveal a similar pattern. Epidemiological surveys of common mental disorders have shown a strong association between poverty and such disorders and shown women to be more adversely affected than men.

An epidemiological analysis, however, does not explain the residual factors that would explain variation *within* a given social formation. In other words, our question is whether we can begin to address the following issue: within an environment of shared cultural presuppositions about gender roles and structural conditions such as poverty and resource constraint that negatively influence health outcomes, what make some women more vulnerable than others to physical abuse? Do people living in same neighbourhoods and subject to similar conditions of relative poverty, nevertheless offer forms of protection that are available to some women and not to others? While several studies have pointed to the connection between family organisation and mental health, it is assumed that categories such as the domestic are simply given, pre-constituted rather than constructed through everyday labours of men and women. A recent review of gender disparities in mental health states that research is needed to understand better the sources of resilience and capacity for good mental health that the majority of women maintain, despite the experience of violence in their lives. [34]. As we shall see what is at stake is the understanding of how violence is constituted within the domestic.

Recent work by anthropologists and feminist scholars has shown how the figure of the woman as either representing the property of the "other" or representing the reproductive future of the community becomes subjected to violence. Thus in the case of women who were abducted during the Hindu-Muslim violence during the Partition in India, the notion of women's rights under the new nation was driven by the idea of the state's obligation to "recover" these women from the enemy. [35,36,37]. Subsequently in many contexts of collective violence, such as Hindu- Muslim riots, women have been subjected to sexual violence primarily as a sign through which the men of the other community could be humiliated.

The imaginary of the nation gets inscribed within these acts of violence through various kinds of discursive forms in which abuses and insults play a major role. Thus, for instance in their stunning analysis of the way in which language was deployed within the Hindu-Muslim riots in Mumbai (Bombay) during

the 1993 riots, Mehta and Chatterjee report that crowds of Hindu men, while carrying away Muslim women shouted, "We are taking away your Pakistan." [38]. The ambiguous position that the State has occupied with regard to registration of cases against those engaged in sexual violence during riots reflects the ambiguous position of women as full citizens. One of us has argued elsewhere that the deep structure within which one might understand how the law operates in these matters relates to the implicit division between the social contract and the sexual contract in the making of the nation state. [39]. Briefly, the idea is that while the social contract is a means to keep the violence of men against each other at bay – the sexual contract is seen as that through which women are placed within the realm of the domestic and consent to be represented (or concluded in Hegel's terminology) as a means to keep the violence of men as husbands and fathers in abeyance. Thus the State is hesitant to intervene directly in the case of domestic violence since the social contract itself recognises men as "fathers" (rather than simply sprung from earth like mushrooms in the famous analogy of Hobbes), and as husbands and fathers they are seen as the heads of households who can ensure order in the realm of the domestic without intervention of the State.

It is not our argument in this report that there are no contradictions in this division of spheres between the realm of the domestic and that of the State. For one thing, families are evolving institutions. While liberal theories of society and common law paradigms have evolved within a paradigm of family as unified, apolitical and non-hierarchical entity – actual conditions of family have repeatedly shown how violence and subordination exist within the domestic sphere. Thus on the one hand there is concern within liberal theory that individual rights should be protected against abuse within the family but there is also a concern that there is value in protecting family as a private sphere within which emotions of intimacy and love can flourish.

Thus there are many legal and administrative provisions instituted over a period of time in India that try to protect women from violence within the family, especially in the context of pathologies that are seen as peculiar to Indian society such as dowry harassment. Yet, it is not only in the liberal imagination but also in the way that families themselves construe the sphere of the domestic that attempts at state intervention are treated as highly suspect. So how do women themselves understand family and domesticity, and would it help to pay attention to these conceptions? Why is state intervention seen as worse than the everyday violence to which women are routinely subjected?

4.2 The empirical context

In the course of this study we conducted detailed interviews with 100 married women in the age group of 18 to 45 in the four low-income areas. Matching this with data that we had already collected though repeated interactions with other households in these neighbourhoods, we try to present a picture of the domestic and how women construct sexual and reproductive relations within this sphere. While we have taken only a few citations from the interviews, our picture of the domestic and especially of variation within localities is constructed through these conversations

While feminist critiques of family are extremely important and have opened up the processes of family to public scrutiny, the realm of the domestic also poses a challenge to existing ways of imagining state intervention to protect individual rights within the family. Conceding that the feminist critiques of family are important, Ruth Gavison nevertheless asks, "Does it follow … that women have no interest in the values of privacy, and intimacy, or there are no contexts in which women would want to keep the state out of their lives?" [40]. At the first instance it might seem that these questions derive from a highly individualistic society since privacy simply does not have the same kind of value in Indian society that it has in the West. Yet, we would argue that women in low income neighbourhoods that we interviewed for this project showed a great sensitivity toward questions of how family might become a place for care and a fear that intervention by the State to stop violence might be more harmful to their lives than one might think at first sight. We now turn to a description of these concerns.

The relation between neighbourhood trust and security and mental health has been discussed extensively in the literature with some studies finding that the history and culture of a place have an impact

on the way that people respond to their community, and that areas with similar socio-economic status differ in levels of social capital. [41]. Although many scholars argue that the size and density of social networks is a good indicator of social capital, which in turn has a positive effect of physical and mental health, the evidence is, in fact, mixed. While some have argued that the social networks are a source of support others such as Campbell and Gilles found that neighbourhood and other ties might be characterised by conflict so that these cease to be sources of support. [42].

Our interviews with women help us to see an important factor of neighbourhoods – viz. that in some neighbourhoods narratives about marriage are much more stable and homogenous than in others. Interestingly, there is no direct correlation between mental health and adherence to more traditional views of marriage at the neighbourhood level. Thus Noida, in which descriptions of marriage were much more traditional than in Patel Nagar, was closer in terms of mean GSI scores to Patel Nagar, in which new norms for marriage seemed to be evolving. For the sake of simplicity we will contrast the kind of discursive statements we found within the interviews in Nodia as compared to Patel Nagar, bracketing for the moment the description of similar issues in the other localities.

Noida is a *jhuggi jhopdi* colony composed entirely of migrants belonging to scheduled castes. Although some people have been able to build *pucca* houses, most inhabitants live in hutments though they might have built one wall with bricks or put a door that can be locked. Women spent a major part of the day in the streets where typically cooking, bathing, washing clothes, or tending to babies was done. Noida also has the highest number of women working in such jobs as housemaids. There is density of social relationships – everyone knows everyone else and it is hard to keep anything private.

4.3 Insights from the interviews

In the stories about marriage, all except one woman, said that the marriage was arranged when the girl was extremely young. The community seemed to have a stable narrative about marriage – neither the girl nor the boy was said to have any previous knowledge about sex. Marriages were typically arranged by relatives such as affines — e.g. the father's sister or a relative from a household in which an elder sister had been married. All but one household said that there was no demand for dowry. In the last two years, we have noticed that costly items have begun to be given as dowry items – for example in the last year two households have received refrigerators and air coolers. The fact that there is no regular electricity in the colony means that electric wires have been drawn clandestinely from the poles for street lighting, which makes running these gadgets hazardous. We can mark this for now when the slow shift towards dowry begins to happen. In all the narratives of the already married women, however, the point was emphasised that the women had never faced any harassment about dowry.

Just as the narratives of marriage were stable so were narratives of reproductive desires. We often heard the statement, "It is the custom in our community that a family should have two boys and two girls – *hamare yahan do ldke or do ladkiyon ka rivaz hai*." The desire for boys and girls was expressed differently. Thus, to the question – why do you desire two boys- the answers were framed in terms of survival anxieties, anxieties about ensuring the survival of the lineage (*vansha*) name, making sure that the male head of the household had enough male members to support him in disputes in the neighbourhood, and to have an earning member in case the father died young. The emphasis surprisingly was on male connections. Women, for instance, did not report that their status would go up with the birth of a son.

In the case of girls, the desire was expressed in terms of both longings of the mother and the father. The girl would help the mother in household chores, would take care of siblings, and most importantly would provide for the fulfilment of ritual requirements such as tying *rakhi* to her brother and providing a way of building alliances through marriage. In fact when asked whether at the time of the pregnancy, the family wanted a boy or a girl, there was no marked preference expressed for a boy – that depended very much on whether the previous children were boys or girls.

Although as the tables on abortions and miscarriages show, women did take recourse to abortion for spacing families, there was not a single

case of sex selection. This is also related to the fact that births took place in the house and only in case of a life-threatening event would a woman be taken to a hospital. Thus sonograms, prenatal care or the idea of medicalised birth was not a factor in their lives – women were much more likely to use hospital or small nursing home facilities for getting an abortion rather than for prenatal care. The assemblage of intuitional factors and the absence of a strong son preference accounts for this social formation around reproductive choices, compared to the situation in which many in India fear that use of sonograms for sex-selected abortions is becoming routine.

These stable narratives about arrangement of marriages and what seem like implicit agreements in the community regarding family size and composition raise two important questions. First, if intimacy has some relation to the creativity in constructing one's relationships within the family, and if sexuality is not simply a means towards reproductive ends, then what are the techniques of self-creation? Second, are there shared understandings of threats to women, and can the community intervene in any way to protect women?

Some of the literature had led us to expect that languages for sexuality and desire were in the nature of standing languages for poor communities. For instance, Sudhir Kakar's description of intimate relations [43] in low income slum inhabitants of Delhi described women who spoke of sex as simply something one submitted to—women he spoke to did not express sexual relations in terms of pleasure. We found, instead, that women (and men) had varied vocabularies within which the specificity of the couple relationship could be portrayed, but these languages were encompassed within a larger imagination of masculine sexuality as somehow slightly tainted with a defect from nature that needed to be contained through domesticity[8].

Most women said that they were too young when they were married to have known anything about sex and that the husband, who was also often young, had been patient in letting this knowledge dawn upon the woman rather than force it upon her. The lines between freedom and constraint are of course difficult to draw here because there was a clear understanding that a man could get sex "elsewhere". Older women advised younger women that they had to keep the husband from going astray. The term for sexual relationships (and not only intercourse) is the quotidian term, *bat karna* or to converse – the special pitch at which this word is uttered makes it clear that a woman is talking about sex and not ordinary conversations. Usually the husband's elder brother's wife or an affine in that category could play the role of intermediary between husband and wife because the joking relationship ordained between a woman and her husband's younger brother could give a man's sister-in-law (brother's wife) license to speak of sexual matters that was not available to the husband's mother. In the course of our interviews women in Noida made statements like the following:

"A man and a women are a couple (*joda*) – consent is very important for this relationship – it is like the wheels of a chariot – both wheels have to be in synchrony in order for the chariot of life to move."

"Initially I was scared of my husband but then slowly or relationship became imbued with sweetness – *aaste aaste hamare rishte main mithas aati gayi*."

The picture of love here is not premised upon the idea that one "falls" in love made familiar to us from the popular ideology of love that can be historically traced to the rise of the bourgeois idea of companionate marriage, but that of dawning of love in a relationship that has already been made. Just as romantic love can fail, so this dawning may fail to occur and we shall see how that failure is both represented and lived. But let me first stay with the picture of how domesticity is seen to be the place in which such love and intimacy can flourish.

When asked if they were ever coerced into having sex, women mostly replied with an emphatic no. This saying no to sex was, however, not necessarily a case of saying no to power (to reverse Michel Foucault's famous formulation that to say yes to sex is not to say no to power). This is because of a subtle formulation of how domesticity is constructed in their world. In general sexual desire was said to emanate from the male and not from the female. Women represented this in such terms as the follows: "This is how nature has made men"; " The species of man -

[8] There is an impressive lieterature on domestic violence in India (44,45) which addresses the question of violence but does not tell us how domesticity is conceptualized.

they need and need";" I can say no once or no twice but after all he is my man – if I keep saying no, he will go elsewhere."

In turn men were often willing to wait because of their confidence that an occasional refusal was due to contingent factors such as a woman being tired with housework or because women needed less to be sexually satisfied whereas men had been made by nature to be more demanding. This construction of "nature" led to the idea among women that domesticity was the ability to contain this taint of villainy with which nature had endowed men and thus submission to masculine desire was seen not as passive submission but an act of agency. While it is often taken for granted that women stand on the side of nature in the nature/culture divide and are hence patriarchal ideologies represent them as beings whose nature needs to be controlled – in this case both men and women seemed in agreement, that it is the women who are able to convert this taint of excessive sexuality in men into the continued realm of the domestic.

We come now to the second question we posed – *viz.,* is the community able to offer protection to women within this overall construction of the domestic? Just as nature is seen to have bestowed men with excessive sexuality that they cannot contain, so there is an assumption that emotions such as anger are part of male nature that has to be contained. The imagination of domesticity includes an imagination of violence by men as husbands and fathers against women.

Most women reported that a man might become angry and slap her or as the idiomatic expression goes – raise his hand against her. Two women, however, reported in Noida that their husbands regularly beat them when they were inebriated. Women definitely linked wife-beating with drinking but they distinguished between the occasional slap and the forceful beating to which the two women, reported to be the most vulnerable by all accounts, were submitted. What made the violence acceptable to women was not that it was seen as the "right" of a man but that it was encompassed within a larger understanding of context in which the husband often expressed regret or that he also showed that he cared for the hurt he had caused. We reproduce one such conversation in the course of one interview.

Q: Does your husband ever hit you?

A: Yes, it happens sometimes.

Q: When?

A: Well it is like this. Sometimes he comes home and there has been no work and whatever little money he got he has spent it on drinking. The woman will say, won't she, I have to put food in the children's mouth and you have spent the money on drinking?

Q: Then?

A: Then *he* wants to be left alone but the woman is also entitled to her frustration. So, for instance, I will go on about there not being enough in the houses, and he will hit out at me.

Q: Do you feel that is okay?

A: No, it is not okay and sometimes I will refuse to talk with him for hours. Then he will say, why you are so angry? After all you are my woman, aren't you? Are you someone else's woman? It is not an outsider who has hit you, has he? Or the next day, he will beg me and say how angry he is with himself. Then I forgive him – a woman swallows that kind of behaviour from a man, because the domestic, the household (*ghar-grihasti*), is a place for these small hurts and reconciliation.

We would like to draw attention to the fact that such behaviour from men is explained as normal but not normative, and women would dearly like to find a way to stop this kind of violence – they do not see it as a sign of love. But they also reject the idea that the State should intervene in these matters.

Once when we were discussing the possibility of police intervention to stop violence against women in the course of describing the work of some women's organisations in Delhi, I was rebuked by a woman, who said, "I don't like my husband to beat me but we know what happens in police stations. Do I want him to become crippled by a police officer's beating?" For the poor then, the question of state intervention is not framed in terms of liberal arguments about privacy in the domain of family as from their experience of the State as far more violent than the family. But this is not the full story either, for it is the specificity of the figure of the policeman – hence state as punitive law that they wish to keep in abeyance. This is entirely within their experience of living on the edges between legality and illegality. Living in a colony that is not recognised as a legitimate colony and hence has no access to

drinking water or electricity or security of tenure – they have nevertheless secured a stay order from a high court that they cannot be displaced till alternative housing is provided to them. Thus they see that as scheduled castes they have some entitlements but that the policeman is not a figure to be trusted to actualise any of these entitlements. Is the threat of violence from the husband kept at bay completely by consent and agreement?

We offer the idea that it is not citizenship within the State but domestic citizenship that helps to keep any extreme violence in control and that when this domestic citizenship fails, women become extremely venerable to violence. Das and Addlakha have developed the concept of domestic citizenship in the context of critical disability. [46]. One of the ideas behind the notion of domestic citizenship was to see how the wider kinship network acts as the "public" for monitoring what happens in the sphere of the domestic. This network is not homogenous – wife-givers and wife-takers are aligned in different ways with regard to the interests of a woman. It is here that the natal family of a woman becomes a major resource for helping her steer the turbulent waters of the politics of her conjugal family and kinship.

Although the members of the scheduled castes who inhabit this neighbourhood shared in upper caste ideas that a girl belonged to her husband's family, the natal family did not usually give up claims to speak for the rights of the daughter. In this context, the most vulnerable women were those who felt that their families had simply "gotten rid of them" through marriage. They did not feel that they could lay any claims on the natal family and sometimes the natal family was simply not there for them to garner as resource. For obvious reasons this factor was much more grievous for younger women than older women, but even older women carried with them a sense of grief if they felt parents had simply abandoned them after marriage.

We offer two examples, both from Noida, about the ways a woman might find her agency to be augmented by support from the natal family and conversely, how the sense of abandonment by the natal family could leave women bereft and open to violence that the local community itself sees as abuse.

When we started our study in this area in 2000, Rani reported problems with infertility. It was not uncommon for women to begin to worry about infertility even within six months of marriage if they did not become pregnant. Rani was visiting several practitioners including an expensive one in a private hospital. She stopped taking any medicines after one year. Though she had been diagnosed as suffering from cysts in the womb by one of the practitioners and advised to get surgery, she did not heed this advice. Surprisingly though she stopped taking any medicines for her supposed infertility, she became pregnant in the second year and had a baby daughter. The present project gave us an opportunity to interview her at length on her experiences of marriage, pregnancy and childbirth.

As Rani told her story, her marriage was arranged through the intermediary of a distant relative. After their marriage her husband insisted on leaving her with her parents in the village from which they came and he returned to the city to work. The idea that a new bride should spend some time in her husband's natal home in order to show her respect for his parents and provide help in household chores is not uncommon. Rani, however, had been bought up in city and found the village to be extremely cumbersome. She complained that her husband's parents, especially his mother, mistreated her and constantly taunted her for her village ways. Her husband rarely came to visit. When her brothers came to know of this, they came as a group to the place where her husband worked and threatened to beat him up if he did not bring her from the village to the city to live with him. Rani's husband did not have much support in the city as most of his kin lived in the village. Frightened, he agreed to their demands and brought her to live with him much to his parent's annoyance. He was, however, so annoyed with her that initially he refused to consummate the marriage. Rani said that she went crying to her parent's house that the boy they had chosen for her was "not adequate." There was a period of reprimands, threats, and gestures of reconciliation, and she felt that her relationship with her husband had improved considerably. Her husband has not been successful in resolving the tensions between his parents, and Rani felt that she had been able to assert her rights because of the support from her natal family.

Let us contrast Rani's case with that of

Chanchal, who was in her early 20s and had already lost three babies in the last four years (one was a pair of twins). Chanchal had two elder sisters and the three were married to a set of three brothers. According to Chanchal when her older sister Munni's marriage was arranged, she (Chanchal) was only 14 years old. Munni's husband's elder brother saw Chanchal during the wedding and then decided that she was the girl he wanted to marry. "My father was getting old – now both my parents are dead – I did not have a brother, and since my older two sisters were married in this family, my father thought that is an easy way to get rid of me – they threw me away like garbage." It really bothered Chanchal that she was married to the *elder* brother of her sister's husband while she was the younger sister. For Chanchal this violated the natural order in which generations should not be mixed and was evidence that she was no value to her parents.

Chanchal's husband drank, did not go regularly for work – he spent his time drinking and gambling. Many women in the area acknowledged that Chanchal's husband was not a good man. Whereas other men might slap a woman he hit her with great force. Even during her pregnancies, he would beat her and kick her on the stomach. Chanchal remained extremely angry with her elder sister for she felt that it was her marriage which created all these problems for Chanchal. The three brothers were not on speaking terms and although the three families lived in the same hutment complex, there was no social interaction between them. This is the kind of violence that the local community considered unacceptable, but without any kinship resources, Chanchal was not able to find the kind of support that could make kinship operative here.

We want to emphasise that women do not passively submit to the kind of brutal beating that Chanchal's husband inflicted upon her. But this case is clearly seen as a departure from both normality and normativity. There were other cases in which the community Pradhan (head) had intervened – for instance in the case of Chanchal's elder sister who had tuberculosis, and whose husband was known to be having an affair. In that case the Pradhan brought pressure on the other woman's husband to send his wife back to the village. In contrast no one seemed to be able to deal with Chanchal's husband's violent rages for everyone feared that it would lead to a feud. This case shows the limit of domestic containment of violence and is closer to the battered woman syndrome requiring police intervention. But so great was the fear of the police and such was the uncertainty about any promise of justice from the police that the Pradhan did not feel confident that he could intervene.

It is interesting to observe that while the figure of the Policeman is completely suspect and the local community judges the success of its own Pradhan as his capacity to keep the police out of the affairs of the local community, there are other ways in which the State becomes part of the living projects of the community. These are projects regarding reproductive futures in which the presence of the State discourse is not given explicit recognition, yet the signature of the State is evident in many discursive and non-discursive practices of the community. Let us recall that talking about reproductive futures, most women in Noida said, "It is the custom of our community that a family should have four children – two boys and two girls." It is obvious that this discursive form echoes the slogan publicised by family planning programs in India – "*hum do hamare do* – we are two, we have two." Even while the community reworks the script to make the desired family composition as two boys and two girls, it is not imaginable except as a response and an adaptation to the government efforts at public health education. Although represented as customary for the community, the idea of regulating family size and composition as customary already shows that reproductive futures are imagined as part of the futures of the State.

The second way in which the presence of the State could be discerned in women's lives is in their frequent talk of "getting themselves operated." In this locality, getting an abortion and getting your tubes tied were two of the most frequently resorted methods for spacing the family and for limiting it. What is the significance of the frequent talk of the "operation," for even if a woman had not yet had an operation this was a possibility that she would frequently discuss. One might be tempted to think that in the era when state power is demonstrated in such powerful operations as the Blue Star Operation and globally in Operation Infinite Justice and Operation Shock and Awe, why try to read the

presence of the State in such quotidian sites as the sterilisation operation? But then recall that the period of the Emergency was known as "*nasbandi ka vakt*" – the time of sterilisation. [47]. Surely the shadow of that time falls on the everyday in that the operation has now become not a sign of state coercion but as the sign of women's agency – yet an agency expressed as much in the absence of any serious medical resources for prenatal care as in the availability of both government centres and private facilities for getting an operation.

One of the more subtle analyses of the way in which the idea of the operation circulates among the marginal populations is in Lawrence Cohen's analysis of the state in sites of "as-if-modernity." [48]. Cohen argues that the bureaucratic elites and their clients who comprise state planning and welfare agencies produce the masses as their target who have to be transformed from those governed by passion into those who can fit the state project of ascetic modernizers. In his words, " The development project as a critical form instantiating the State is faced with a fundamental contradiction: it is organised around a transformation of reason and will in the production of the ascetic modern, but it takes its material for transformation a population it constitutes as radically disjunct from reason itself…the operation, in the instance of tubal ligations and vasectomies, becomes a means by which the development state can re-imagine its conditions of possibility given this contradiction. Sterilisation produces a body that performs *as if* it has undergone a transformation of reason, as if it had been inhabited by an ascetic will."

Cohen is surely right in insisting that this is how the State might imagine the sterilised body performing and indeed, in the cases of people from poor localities living the fantasy of giving up their kidneys for powerful political functionaries, or in the *hijra* claim that the castrated body is better able to represent politics, this might be true. But it is notable that while tubal ligations and vasectomies occupy the same space in the imaginary of the State, in the community the politics of Emergency has already been transformed – not a single man in Noida got a vasectomy, nor did men talk about it in the way in which women talked about getting the operation. So while it is true that women have internalised the rhetoric of family planning, they did not see themselves as performing for the State but rather as engaged in family politics in which who opposed the operation and who supported it became a way of negotiating this modernity. I hesitate to call it an *as–if* modernity because our data goes beyond what are reasons of State in the lives of these people into making the operation into a way of achieving the women's own desires for escape from repeated pregnancies. Thus when women said, "I think I should just go for an operation – I want to put and end to this *jhanjhat* (irritation)" – it was the voice of the woman but it was underwritten by the discourse of the State. They were not simply making their bodies available for the project of the State but also inserting their own desires by manoeuvring the spaces available to them. The irony was that if the state project was that of ensuring health rather than managing mass bodies, these desires could have been differently realised.

We hope the above analysis shows that even within the stable narratives about marriage and domesticity, new norms are being established with respect to reproductive futures. These new norms reflect the subtle ways in which the projects of the State get internalised either as community customs or as individual desires. Cohen is right to point out that in some ways we can render this as claiming citizenship with the body – simultaneously making the individual, to use his term, "bio-available." While this is an important insight into state processes, it is not the whole story. In taking recourse to abortions or in contemplating tubectomy women framed these actions in terms of the necessity to protect the well-being of their own families or getting relief from frequent childbearing. While it would be obvious that the claim was being actualised in the most constrained circumstances as far as the larger picture of health is concerned, women's own formulations were not simple mirrors of the bureaucratic discourse of managing mass bodies.

In what way does the picture of the domestic differ when we move to the neighbourhoods of Patel Nagar? As we saw earlier, Patel Nagar presented with the highest mean GSI scores. It also had the highest number of men and women who belonged to the top decile of the Global Severity Index following into the category of "caseness." The ethnographic interviews were very important because they provided an insight into the familial conflicts and the gaps that

had appeared between aspirations and achievement of middle class status to which families aspired in this neighbourhood. When residents in Noida wanted to convey their own position in the hierarchy that was beyond the immediate neighbourhood, they made references to "*padha likha samaj*" – or the society of the educated. Alternately they referred to *bade log* – people of high status. For instance in the course of the interviews, a man or a woman might explain that they did not want to send daughters to high school because "in the society of the educated people are much more tolerant of girls getting education – in our kind of society people will say a hundred things." This is not to say that there was no contest over these positions but that there was a sense that while most neighbours were of the same social status, there was a world outside in comparison to which they occupied a lower position. I should add that there was also a pride in their own lives, so that though they would frequently refer to themselves as "poor," many would also added that they were not inferior in character to anyone else.

In contrast it was noticeable that many households in Patel Nagar told their narrative in terms of decline. How did this affect the notions of the domestic? First, it was noticeable that although many women gave an account of the arrangement of their marriages that was similar to the account given by women in Noida – marriages arranged by affinal or other kin when the girl was very young, there were also new kinds of narratives that came into the account of marriage. For one thing, the age at marriage had gone up especially in the case of families that had relocated here after the Partition. While most women in Noida spent their childhood in the village, the cluster of households in Patel Nagar was more varied in terms of urban experience. I think this factor accounts for the fact that some women spoke of "love" marriage – e.g. *hamari love marriage hui thi* (we had a love marriage)." We reproduce two brief accounts of this process.

Q. Can you tell me about who arranged your marriage?

A. We had a love marriage.

Q. So you had met the boy earlier?

A. Yes, he had seen me in the tuition centre where I used to go. A friend of mine here was his cousin. He told her that he wanted to meet with me.

Q. So then how was that arranged?

A. We were going to the wedding of another friend. My friend, his cousin, told me that he wanted to meet with me because he had taken a liking to me. Those days I really used to fancy my elder sister's *devar* (husband's brother) and there was some talk that he would be a suitable boy. But then it was my bad fate that he (her present husband) saw me. I thought he was quite educated because he could talk so well. So his mother and another relative came to our house and proposed marriage. My father asked me what I wanted. I said have you found out about his family? And they said yes; they but we were given false information. It was only after I got married and came here that I realised that he was an auto driver. I cried so much because really I had wanted to marry an educated man. One of my cousins told me that my sister's *devar* loves me and had wanted to marry me. I wish he had been bold enough to bring this up with his relatives. My husband is so full of anger and even his family is not of the same status as ours. I feel we were deceived.

This particular theme of "falling in love," yet never having the opportunity to get to know the person you had fallen in love with was repeated in other stories in which women talked of having a say in their choice of groom In some cases the fact that the girls had expressed her own preference seems to have been used by her natal family to absolve themselves of any serious responsibility towards her.

The second important difference that emerges in the accounts in Patel Nagar is how much the language of care is now embedded in the language of commodities. The impact of advertisements, television images, and the proximity of this neighbourhood to the affluent markets of Patel Nagar and Karol Bagh have provided both, an opportunity to diversify means of earning livelihoods and a new premium on consumption. The following story shows the combination of these factors created an unhappy outcome though not a grievous one.

Sheela liked a married a man who worked in the same shop as one of her uncles and who too had taken a liking to her. They lived in a joint family for the first five years after their marriage and have recently split to set up a separate household. Her husband managed to get a job in the Middle East as a mechanic soon after their marriage but it was not feasible for

him to take her with him. She stayed with her conjugal family, which included her husband's mother, his father and his unmarried sister. According to her she received no care from them – in addition they would not let her write to her husband and if his letters came for her they would not give them to her. She complained that she was made to work extremely hard, having to take the responsibility of the entire family — cooking, cleaning, and washing clothes. She was not allowed to visit her parents' house. Her father had died earlier and she complained that her mother was unable to exercise any decision in the house after that. Her brothers did not care to find out how she was getting along. Sheela felt that her husband's mother and sister were never interested in the prospect of his settling down into a happy married life – "*voh chahte hi nahin the ke inka ghar base."* Her example of the extreme violation of domestic norms is the following (the words in italic were spoken in English in the interview):

"After two years when he (her husband) came for a vacation he brought many gifts for them. He also brought a trunk full of gifts for me – everything was in it from *A to Z*. There were clothes*, bindi, lipstick*, *nail polish, nighties, bras, panties* – there was nothing he left. And my *mother-in-law* took it all and gave it to her daughter. Now you think, how shameful this is. Can you imagine a brother being made to give such gifts as *bras* and *panties* to a sister?"

This codification of desire in the language of commodities provides us with one clue of how the spaces of a promised modern are inhabited by the low-income families in urban neighbourhoods. There is a hint of darker passions here for there is gesture toward the possibility of incestuous desire as if the whole idea of domesticity is to transform sexuality from something vaguely incestuous into something erotic. In fact the rituals of marriage also encode this transformation as sisters have to be placated by the brother, as he brings his new bride home, by gifts of silver or gold. The transformation of what is ritual symbol into the language of commodities shows the complex ways in which traditional symbols are reworked in these spaces.

It is not our intention to suggest that all families in Patel Nagar use such languages of commodities. However the emergence of new forms of discursive statements should alert us to the way in which the heterogeneity of urban life is transforming life projects of women. Nor do we want to suggest that there is something inherently suspect about the desire for commodities. Rather our purpose is to show that such urban spaces are also places in which experimentation with new life projects are being shaped, and as with any attempt to expand the horizon of possibility, to find new normativities, these spaces are also fraught with danger.

So we want to conclude this section with two observations about the differences between Noida and Patel Nagar without overdetermining these differences. First, there is a far greater possibility that it is in localities like Patel Nagar in which we will find new aspirations in terms of marrying someone of one's choice but the lack of opportunities of developing any serious interaction between men and women before marriage points to this as more a phantasmal space rather than one in which women are being able to realise their agency.

Second, in both areas there is a penetration of state projects of managing the population but these are differentially realised. In Patel Nagar there is a wider use of contraceptives and though abortions and tubectomies remain strategies for planning the family, they do not seem to be the only alternatives. In contrast, the operation had salience in Noida that showed how state projects for managing populations are being realised even in the absence of, or perhaps *because* of the absence of, any serious reproductive health care available to poor women.

Finally we were witnessing the first appearance of commodities within family relationships as in the case of dowry in Noida whereas these had acquired a stable presence in the lives of families in Patel Nagar.

4.4 Conclusion

Given the heterogeneity in women's experiences of domesticity, one might ask the following two questions. First, what are legitimate and culturally sensitive ways of providing criticism? Second, what are the possibilities of public action about domestic violence?

On the first question, we will formulate our response with reference to powerful reservations of feminist critiques expressed by Richard Shweder. [49]. Shweder critiques those who approach the subject

matter of women's lives in South Asia from a feminist point of view and faults them for smuggling in assumptions about patriarchy, individualism, and pictures of the moral good that are not shared by women, especially Hindu women. He argues that whereas the ethnography that is inspired by feminist ideas portrays women as either passive victims or rebels, in fact Hindu women are inspired by ideals of service (*seva*) in a future-oriented view of life in which they hope to earn merit by participating in a form of domesticity with which feminists have no sympathy.

We hope to have shown through both the quantitative and the qualitative data that women's lives and their life projects are much more hemmed in by constraints of economic survival, absence of proper health care, and child mortality, and that domesticity itself is defined by one's place in the State and the market, none of which seem to be present in the interviews conducted by Shweder and his collaborator Usha Menon. Thus these authors manage to convey the picture of a completely self-regulating community. Further they have no sympathy with any women who find such a life project unsatisfactory. Let us listen to Shweder's words as he reflects on why women in the position of daughter-in-law even in his small sample of upper caste women experienced distress:

"Unlike an unmarried daughter of the house, a new daughter-in-law is in the *jouvana* phase and has explicitly understood duties. She is put through something like the domestic Oriya version of military boot camp. The most important of these duties lies in doing *sewa* – service to members of the husband's family… This is not to say that every Oriya newlywed is temperamentally inclined to life in a boot camp or tolerates harsh treatment without suffering and physical distress. However, within the framework of indigenous South Asian understandings, such rituals of deference continue the process of reconstruction of the bride's bodily substance begun explicitly during the marriage ceremony and symbolised by the new name given the bride at marriage…(page 245)."

What Shweder describes as indigenous understandings of domesticity are in fact what are highly contested norms as we saw in the examples given above. This does not mean that the ideals he describes have no place – in fact, these are the ideals with which senior members sometimes try to discipline younger members of the family. But the family and the domestic are not by definition spaces defined only by those who have achieved power within the domestic through these means – which the young express new norms and desires fall love and intimacy that coexist with violence. Why should the anthropologist become complicit with one view rather than another? We have taken it as our task to describe the areas of both agreement and contest.

To the second question about public action, we think that the domestic presents a range of challenges. First, it becomes clear that the figure of the policeman is a feared figure – hence to use state intervention to resolve domestic violence does not solve the problem. Second, many women have a stake in continuing the relationship as also a stake in reforming it rather than ending it. Third, women emphasised that the wife beating did not end the relationship. Because the man and the woman had a relationship of some duration, police intervention in one episode did not end the violence. Finally, women emphasised the overall context of economic deprivation and collapse of institutions in which health and well-being could be sought so that instead of a police-based approach, one that integrates questions of physical health with mental health and economic well-being is far better suited to address these questions. It seems clear that community-based approaches that can take local leadership as an essential component on the reform of domestic life is likely to be far more suitable than state intervention.

In the last chapter we try to integrate the findings from the quantitative surveys and the ethnographic interviews by looking at a few examples of caseness – those families in which individuals in the top decile of Global Severity Index were found. The idea of providing an ethnography of these cases is to show how the associations we found to be relevant at the quantitative level are to be understood within the life worlds of the urban poor.

Chapter 5
Vulnerability and psychopathology

5.1 Caseness, family, and institutions

It would be recalled that in the chapter on the explanatory model of the community mental health picture, we found that three factors were of great significance. The first was that there was a close association between physical health and mental health, and that there was a higher burden of disease among the poor localities. The second was that the attempt to ensure survival of children placed an enormous burden on women and was reflected in the fact that we found a strong impact of child mortality on women. Finally, women who reported harassment from the conjugal family also reported high scores on the Global Severity Index. In the last chapter we saw what the stakes women had in domesticity were and how they defined domesticity in terms of sexuality, reproductive futures, and the place for intimacy and care.

The three factors we have isolated, it seems to us, show the difficulties of maintaining the domestic. We are not claiming that such failures occur only among the poor but that there is a greater constellation of factors that make it more difficult to secure well-being among the low-income households especially those located in low income neighbourhoods. In this chapter we provide some examples of the constitution of the domestic among families in which people coming under the category of caseness were found.

5.2 Poverty and coping with physical illness

• Lakshmi lived in nuclear household with her husband, two unmarried daughters and one unmarried son in Patel Nagar. Six years ago her husband started to have frequent fevers and cough. Her husband worked as a tailor and earned enough for the needs of this small family. But with frequent episode of fever, cough and loss of weight, he found that he was not able to work for long hours and began to lose the commissions he was getting. They went to several private practitioners who gave medicines but the fever did not improve. Finally it was diagnosed as pulmonary tuberculosis. This phase lasted for three months. Lakshmi's brother helped during this time, but her husband felt that they could not continue to rely on them for economic support. One morning her husband declared that he was going to the village where his parents lived because he was sure to die if he did not get treatment. Lakshmi was illiterate and being a family of relatively upper caste status, she had never worked. "How am I going to provide for the children?" she asked. Her husband replied " I am leaving you at god's mercy. He will provide."

Lakshmi's husband was treated in government hospital in Jaipur where he stayed for one year, supported by his parents but with little contact with her or the children. In this period Lakshmi was left alone to fend for herself and her children. With the help of a neighbour she managed to get a job in a factory nearby that fabricated sanitary towels. Her children were left in the care of the oldest daughter who was then twelve years old. Laskhmi had to withdraw this daughter from school because though schooling is free, she could not afford to spend even the money on books and school supplies. Besides, the girl was needed to do the household chores. In this difficult period Lakshmi repeatedly contemplated suicide. She even bought pesticide from the market and one day prepared *khichdi* laced with pesticide, and was ready to feed it to the children and to consume it herself. She stopped at the last moment because she heard a voice emanating from the picture of the god Shiva mounted on the wall of her house, accusing her that a mother gives life but she was taking away life from her children.

Things got better after her husband returned, having been cured after one and a half years. But soon after her eldest daughter contracted TB. This time they were able to get correct information and hence medicines from the Ramakrishna Mission Hospital. However, the middle daughter was diagnosed as having severe calcium deficiency partly due to malnutrition. The factory in which Lakshmi had worked closed, throwing them again on a single income. Recently the family was able to get money

from a charitable institution in order to get a required operation for the younger daughter. The family is in debt now and extremely worried as to how they are going to get enough resources for the marriage of the elder daughter.

Lakshmi reported frequent headaches and a deep sense of insecurity about how her children were going to be "settled." It was clear that to be without any resources in Patel Nagar where Lakshmi felt that their family had been going on a downward spiral because of chronic illnesses, was what constituted a major burden for her. She summed her interview by saying – "M*ain to bimariyon se hi ghiri rahin hooh sari zindagi* -I have been overwhelmed with illnesses all my life."

• The second example we give is from Bhagwanpur Kheda, in which a Muslim woman Channo whose husband also suffered from TB and recently died. She came under the category of caseness. Chano's husband Shahbuddin suffered from TB that was already diagnosed when we started our work in the area three years ago. Her husband's grandfather had moved from a village in UP to what was then Loni village, and the small 25 square yard house they occupied was part of a huge open space then. Over the years the plot had been divided between every successive generation so that each family in the cluster of kin who lived in that street occupied a small space.

Shahbuddin was not receiving any regular treatment for TB because, according to Channo, he had fought with the doctor at the DOT centre who then transferred him to another unit on the grounds that a zone reorganisation did not entitle him to receive treatment in that particular zone. It is also possible that he had repeated treatment failures and had developed MDR TB and was thus refused treatment. We have evidence of other cases where this happened. The result was that though he accessed private practitioners often and they gave him analgesics or antibiotics, they also told the family that they should take him home and offer *seva* — an expression that denotes that the illness is terminal.

For Channo her husband's prolonged illness meant that she had to take the attitude of a dependant relative vis-à-vis the other members of the kin group. "I was always polite, I did everything anyone asked me to do because I knew my children were dependant upon their goodwill." Though Channo was probably in her 50s, she said that her husband had always been sickly, which is why even as a young bride she knew that she would have to depend upon others. Perhaps a lifetime of taking the stance of dependant relative had made it impossible for her to express any emotion – neither anger, nor deep distress, nor happiness. She told us that when she was young her best friend was a Baniya girl who had told her that the husband was a woman's god "When my natal relatives came to know right after my marriage that my husband was suffering from many illnesses, they told my parents that they should marry me to someone else. But my friend cautioned me. She said, how do you know that the next person will not have something worse? He might be a drunkard, then you will get divorced from him and then the next person will turn out to be a man who goes to prostitutes. You should accept your fate." Channo now suffered from frequent aches and pains and felts so debilitated that she hardly ever moved out from her room. Yet in summarising her life she said she was in debt of her husband and therefore had to show piety towards him for the rest of her life.

The bundling together of chronic illness, poverty, dependency, and lack of other resources points to the environment within which severe mental distress is experienced. The high level of correlation between overall disease burden and mental health needs to be integrated into mental health programs so that mental distress is not treated as a discrete system. The authors of *World Mental Health* [1] had rightly noted that "Medical illnesses can increase the risk of mental illness especially risk of depression." The authors of this report had noted that chronic illnesses are severe assaults against the integrity of the self. Our findings go further and argue that it is not simply the presence of chronic illness as such but severe treatment failures due to poor training of practitioners, lack of economic resources, and familial dependencies that increase the burden on families and thus result in converting treatable disorders into fatal events for the health and well-being of women.

5.3 Survival of children

We found that the ratio of living children to total number of pregnancies is strongly correlated with mental distress. Since it is women living in low-income households who experience higher level of child

mortality as compared to women in middle or upper income households, this is an important pathway through which poverty has an impact on mental health of women. We give two case studies of the way that poverty puts children at risk and adversely affects women's mental health.

• We mentioned the case of Chanchal in the last chapter. She lost three children in the course of three years. Although the infants were taken to the hospital when their condition became critical, they could not be saved. Here it is important to remember the overall context within which she had to deal with the physical illness of her children, Frequent and merciless beating, coupled with the fact that the husband was known to be a violent person had alienated him from the community and this was translated into the isolation of Chanchal. Thus, community resources in terms of advice or care were simply not available to her. We suggest that cluster deaths of children should be seen as pointing to a severe failure of relationships within the family.

• We have several other instances in which a mother is unable to give care to the children because of her own illness. We produce below the interview of woman who was successfully treated for TB but who lost two children in the process. The interview was conducted by Rajan, one of the tem members of ISERDD, and was about her experience of TB. The respondent was Sangeeta, a woman in Noida who comes under the caseness category.

R. How did you discover you had TB?

S. I had many problems, a lot of weakness, so much so that it was difficult for me to sit.

R. So you had weakness – did you have any other problem?

S. No brother, but it was that I did not feel like eating, nothing seemed to interest me, my heart did not engage.

R. And fever?

S. Yes there was constant fever, there was also coughing.

R. For how long did you have this?

S. Some days, some weeks. See, first I started to take medicines – "private" (in English) was started.[9]

R. So, which practitioner did you go to first?

S. See first medicines from here and there. The local doctor gave medicines – I was not getting better. Then my daughter was born – because I was feeling quite sick, they took me to hospital for the birth (it was my time)[10] – I would feel great *pareshani* (trouble) in my throat – so they took me to hospital for my throat – first, they roamed here and there (*idhar udhar le ke dole*). Then my daughter was born – still I could not eat anything – so then I had gone to my mummy's place. I could not still eat anything. So mummy took me to *sarkari* hospital and there they did an x-ray – so in the hospital an x-ray was done. Then it was known. So then in the Government Hospital they said I had TB. They told us to go to this TB hospital for medicines.

R. So you did not have to take any private medicines?

S. No, first mummy thought that the private medicines would be better. See there were problems with my throat –there was swelling, difficulty in swallowing – no appetite – so we also had it seen from a private doctor in Mayur Vihar (an upper middle class neighbourhood) but there the doctor said, don't worry – it is just a cold, you will get okay – so he gave some medicine but it was very expensive and anyway there was no improvement.

(As the interview progressed, Sangeeta described how some people said that it was magic or sorcery and they should have it exorcised through a diviner or a healer, and how others recommended other private doctors.)

S. Then my mummy said that I would just take her to the *sarkari* (government) hospital – the TB hospital where they had told us to go. She said that she would not listen to anyone.

R. You mean you decided to go to the TB hospital – the one where doctors from the hospital where your daughter was born asked you to go?

S. Yes, that is the one. People said go here, go there, but mummy said whatever anyone says – I will take her to that government hospital.

R. What happened there? Did you get medicines? X-ray?

[9] It may be noted here that when patients described various treatment options the major division they used was between "private" (the word circulates in English) and sarkari (government). This was the dominant classification for all kinds of services ranging from health providers, schools, liquor shops, to grocery stores. It is an interesting reflection of how the opposition between state and market pervades everyday categories.

[10] "Mera time aa gaya tha – my time had come."

S. Yes, they gave medicine – two tablets a day. The doctor there said that the medicines must be taken. He said you can forget to eat your food but you cannot forget to take your medicine. So my husband did not have time to take me there to get medicines – so I stayed with mummy.

(Towards the end of the interview Rajan asked, almost as a matter of courtesy, "So your daughter who was born at the time that your TB was discovered – is she okay?")

S. No, she died when she was two years old. Everyone said I should not feed her my milk – she became weak. She hardly spoke. See, you have to listen when people say things. I became pregnant again and had a son but he too could not survive.

R. Did the doctors in the TB hospital advice you not to feed your daughter breast milk – did the doctors tell you anything about what to do when you became pregnant?

S. No, the doctors did not tell me anything but everyone said that my milk was not good because of the disease.

In the course of this interview, Sangeeta emphasised the fact that her social relations had endured despite the illness, and the death of her two children was put into parenthesis. We often found that women sometimes took the death of a child as something to be endured, something they had no control over. It is therefore particularly important to realise that what might not be fore-grounded in narratives nevertheless comes out in the quantitative exercise where women who had experienced death of children show themselves to be particularly vulnerable to mental distress and particularly depression.

5.4 Harassment in the conjugal family

Finally, the data presented in the last section shows that conjugal harassment is much more in cases where the natal family did not provide support to the girl after her marriage. We want to point out though that this is not simply a matter of joint versus nuclear family as the following case of a woman living in Jahangirpuri, who is in the caseness category, shows.

Manjit was married when she was 29 years old, which is fairly old by the standards of the communities we studied. She explained that she had not wanted to get married because she suffered from epilepsy. When asked if there was any event that precipitated this, she replied that she was only 15 when she had the first attack and nothing in her childhood would have led to this. After that, however, she became tense that she would face tremendous hardships. "I thought what kind of disease I have got. Who knows if I will ever be cured? What will happen to me? Will I be able to live?"

Further in the interview she said one reason she did not want to get married was because she did not know if the disease was hereditary and especially if she would pass it on to any of her daughters. She had a daughter from her present marriage and was fearful that she might have passed the disease to her. Though Manjit had worked for a while in a Mahila Mandal, her parents were very tense about her marriage, so she finally agreed to marry a man that her elder married sister suggested. Manjit and her parents knew that he was a divorcee. She had felt sorry for herself about this but then because of her illness she agreed to whatever her parents suggested. The tensions in her marriage came not from the fact of her husband's fist marriage or the fact that she discovered later that he had a child by the first wife who lived with his maternal grandparents, but because of what she described as his "hard" disposition. The following extracts from her interview give a sense of her life as duty-bound but without the kind of care or "sweetness" that many women talked of in their marital relations.

M. When my marriage was being arranged I was not happy from inside. I thought if he has left his previous wife then is he okay or not – *sahi hai ya galat hai*? On top of it I have this illness will he leave me too? This is what was in my heart because I used to be ill. In the middle of those concerns I thought the first one was not even ill or anything still he left her. I am suffering from this ongoing illness – perhaps we will leave me too.

(At this point Manjit interrupted Poonam who was interviewing her and said are

you going to make a film on me? Being reassured that that was not the case, she said

she could write a book on her life).

M. When I came here, I found that his nature was very stern. He would not let me meet anyone – I would never go out – there was not way I could do that – *matlab hi nahin tha*. In the house in which I

came after my marriage there was another family who were also renting an apartment. We lived in the same house – two flats – next to each other but for six months I did not even talk to them. He did not like me to talk to anyone. His nature was like that. Because his wife was not of a good character, so I think he was always apprehensive that I should not become like her.

P. How was your mother-in-law?

M. She was very nice. She never scolded me for anything. She told me though that his wife had really troubled him that is why he had become like this. I had very good relations with my husband's younger brother. They live elsewhere but whenever the children have vacations, they say that you should send them to us for a while. They are very friendly – *milansar.* This is a long story – what should I tell you? His behaviour is very stern. How I managed to live with him, only I know that. When the neighbours hear his abuses – they say we do not know how you live with him. For the first four or five years of our marriage I did not tell my parents anything about him. But once when he went there, he had too much to drink. Then he said things that everyone came to know what kind of person he was. No, he has never hit me, but what he says is not any less than being hit. .

P. So what does he say that is so hurtful?

M. Like he abuses loudly, turns the children out of the house. Now I don't know whether his nature altered because his first wife left him or whether his first wife left him because his nature was like this.

In this case, we can see that the conjugal kin are supportive. Manjit spoke warmly of her mother-in-law and her other relatives. What she experienced as harassment were the constant abuses and the restrictions on any movement. She described the atmosphere of the house as funereal. The children, she said, longed for a smile from their father. Perhaps once in six months he might laugh or smile. Although he did not drink any more and did not beat her, her picture of domesticity was one bereft of any laughter, and as compared to the women in Noida who described how the husband might occasionally slap them but surrounded this statement with examples of regret, remorse or attempts to make up, Manjit could not recall any expression of either care or desire.

5.5 Conclusion

In the literature on psychiatric epidemiology, caseness can refer to three things. It can refer to a case that is *typical* of the symptoms for a particular diagnostic category, that is *exemplary* with regard to a set of symptoms, or that represents a cut-off point of a distribution that represents the scores on a set of symptoms. Since we are not engaged in a clinical study, we have used the last criterion. The fundamental point here is that sadness, anxiety, fluctuations in mood, are part of normal life but can be seen as symptoms of a mental disorder when they interfere with normal functioning, however defined.

The formidable analytical problems in the processes through which psychiatric diagnosis functions as local knowledge and the creation of what Allen Young (50) called collective memory thorough epidemiological psychiatry, are well recognised in critical theory. Yet they do not take away from the fact that women living in low income localities, struggling with their own and with familial illness, facing repeated pregnancies, miscarriages, abortions and death of a child, learning to contain domestic violence, are capable of both – an affirmation of life as well as succumbing to tremendous despondency.

While we understand the problems of medicalising all social problems, we think that categories such as that of caseness arrived at through an exercise of assessing mental health at the community level, help us to see the especially grievous conditions within the overall context of poverty and depravation. The examples given in this chapter, we hope, will give some idea of how biological, social, and psychological factors fold into the lives of the families we are describing here. In the next and the final chapter we give a summary of the points we consider most significant in understanding the intersection of reproductive and mental health among the urban poor in Delhi.

Chapter 6
Conslusions

We believe that the description of the kind of family environment, overall health burden, and the sense of precariousness in which mental stress is produced is useful to give texture to the statistical findings in the earlier sections. We summarise the major findings of the study. There are five dimensions of community mental health that come out from our study.

- The first and most important finding is that physical health and metal health are closely linked. While health transition studies emphasise a transition from a health scenario dominated by infectious diseases to one in which chronic diseases including psychiatric diseases predominate, we find that the poor are much more vulnerable to both. A large burden of acute diseases in the family influences the mental health of women, especially in an environment in which poor medical services lead to delays in diagnosis and inappropriate treatment. Our emphasis on co-morbidity is different from the existing studies that emphasize psychiatric co-morbidity rather than the impact of physical illness on families which are resource-strained in the overall environment of poor health care.
- The entire reproductive history of a woman rather than discrete events influence mental health so that when women have to rely on abortions or have frequent miscarriages or still births, followed by the probability of the death of a child, they become extremely vulnerable to mental stress, especially depression. Unlike many studies which suggest that mothers in poor households exercise a triage, withdrawing emotional involvement with children who are not likely to survive, we found that the life of each and every child is held to be of significance. We found that reproductive health services are the most underdeveloped in low-income neighbourhoods even in urban areas, making it necessary for women to take recourse to abortions and tubectomies to manage their family size.
- Women are most vulnerable to harassment in spaces in which there is a desire for the new – for college education, for marrying by choice, and for commodities. While images from the media have introduced new desires there are very few opportunities for bringing these to fruition. Hence first generation female college students, those living in families where the husband has temporarily migrated to earn money, families who feel they are unable to maintain the status appropriate to their caste or neighbourhood standards, make women much more vulnerable than those who are living in relatively homogenous neighbourhoods in terms of income and assets. This is not to suggest that these desires are suspect but to show the high costs of aspiring to set new norms for the domestic.
- Domestic violence is more pervasive in low-income neighbourhoods than in middle income or high income neighbourhoods but women have a stake in maintaining relations even with husbands who are beating them. This does not mean that women accept this as a sign of love – they would like community participation in resolving this problem. There is great suspicion of the State especially in the figure of the police, which is why state intervention is not welcomed as a solution. Communities themselves have notions of unacceptable violence but the men who brutally beat their wives are more likely to be the ones who have reputations of violence even against men – hence local leadership is scared to intervene in these cases.
- Locality appears to be a very important predictor of mental stress. We feel that all the above features combine to create a particular local ecology that influences health behaviour. This is why locality level factors have greater explanatory power than household level factors. One of the implications of this finding is that we need to research further how it is that localities with a predominance of middle level income and those with high proportion of people working in government jobs showed better health outcomes than the locality with the highest concentration of high income families. The absence of direct correlation between income and health opens up new kinds of questions that relate to sources of strength that we hope to explore in further studies.

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Annexure 1

Denotation and definition of variables

age	:	calendar age
age_cat	:	categorical variable: <30=1, 30-40=2, 40-50=3, 50-60=4, >60=5
loc_cat	:	categorical variable for localities: Noida=1, B Khera=2, P Nagar=3, J Puri=4, K Nagar=5, S Delhi=6, S Vihar=7.
emp	:	categorical variable for employment: employed in private/ public sector=1, employed in informal sector/self-employed=2, out of labour force=3
earn	:	categorical variable: earning=1, not earning=0
m_earn	:	employment status of the main earner in the household, category same as in variable emp
t_earn	:	total number of earning members in the household
n_house	:	household size
r_earn	:	ratio of total number of earning members to the household size
score	:	GSI score
depress	:	score on the dimension of depression
n_preg	:	number of pregnancy
n_livchd	:	number of living children
n_abort	:	number of abortion including miscarriages
n_dechd	:	number of deceased children
r_livbrt	:	ratio of living children to live birth
liv_preg	:	ratio of living children to total number of pregnancies
fam_stat	:	family status: nuclear=1, joint=2
rel_hub	:	relationship with husband, categorical variable: good=1, neutral=2, bad=3, widow=4, separated=5
harass	:	harassment in conjugal family: yes=1, no=0
hub-drk	:	drinking by husband: yes=1, no=0
chronic	:	presence of chronic illness: yes=1,no=2
morbid	:	number of weeks reported ill out of 16 weeks of survey by the self
av_morbid	:	average of morbidity burden over all the members of the household
lpcxp	:	log per capita expenditure of households

Annexure 2

Tables for selected variables

Variable: n_house

N_house	Freq.	Perc.
2	9	2.9
3	15	4.8
4	54	17.3
5	70	22.4
6	65	20.8
7	36	11.5
8	24	7.7
9	12	3.8
10	5	1.6
12	12	3.8
13	3	1.0
15	4	1.3
16	4	1.3

Variable: r_ livbrt

Frequency	Percentage	Lower class limit
4	1.3	0.000
0	0.0	0.100
1	0.3	0.200
1	0.3	0.300
13	4.2	0.400
7	2.2	0.500
21	6.7	0.600
37	11.8	0.700
10	3.2	0.800
219	70.0	0.900

Variable: liv_preg

Loc_cat	Freq.	Perc.
1	34	11.1
2	50	16.3
3	55	18.0
4	53	17.3
5	36	11.8
6	30	9.8
7	48	15.7

Variable: loc_cat

Frequency	Percentage	Lower class limit
4	1.3	0.000
0	0.0	0.100
2	0.6	0.200
21	6.7	0.300
47	15.0	0.400
30	9.6	0.500
40	12.8	0.600
62	19.8	0.700
14	4.5	0.800
93	29.7	0.900

Variable: age_cat

Age_cat	Freq.	Perc.
1	69	22.5
2	100	32.7
3	68	22.2
4	35	11.4
5	34	11.1

Variable: earn

Earn	Freq.	Perc.
0	207	67.6
1	99	32.4

Variable: chronic

Chronic	Freq.	Perc.
0	179	58.5
1	127	41.5

Variable: r_earn

Frequency	Percentage	Lower class limit
55	18.0	0.100
74	24.2	0.190
35	11.4	0.280
59	19.3	0.370
47	15.4	0.460
17	5.6	0.550
7	2.3	0.640
5	1.6	0.730
1	0.3	0.820
6	2.0	0.910

Variable: score

Frequency	Percentage	Lower class limit
60	19.6	0.011
90	29.4	0.259
59	19.3	0.507
50	16.3	0.754
12	3.9	1.002
14	4.6	1.250
10	3.3	1.498
6	2.0	1.745
3	1.0	1.993
2	0.7	2.241

Variable: morbid

Frequency	Percentage	Lower class limit
73	23.9	0.000
53	17.3	10.000
24	7.8	20.000
51	16.7	30.000
21	6.9	40.000
12	3.9	50.000
30	9.8	60.000
7	2.3	70.000
11	3.6	80.000
24	7.8	90.000

Variable: av_morbid

Frequency	Percentage	Lower class limit
19	6.2	0.000
33	10.8	9.375
78	25.5	18.750
66	21.6	28.125
47	15.4	37.500
28	9.2	46.875
22	7.2	56.250
10	3.3	65.625
1	0.3	75.000
2	0.7	84.375

Variable: lpcexp

Frequency	Percentage	Lower class limit
7	2.3	6.462
34	11.1	6.801
51	16.7	7.140
69	22.5	7.478
50	16.3	7.817
41	13.4	8.156
23	7.5	8.494
11	3.6	8.833
13	4.2	9.172
7	2.3	9.510

Annexure 3

Summary statistics of selected variables

Variable	Mean	Standard deviation
R_earn	0.356	0.180
Score	0.641	0.452
R_livbrt	0.900	0.186
Liv_preg	0.730	0.227
Morbid	35.458	29.635
av_morbid	32.838	16.586

Covariance matrix

	loc_cat	age_cat	earn	r_earn	score	r_livbrt
loc_cat	1.000					
age_cat	0.362	1.000				
earn	-0.479	-0.277	1.000			
R_earn	0.030	0.037	0.018	0.032		
score	-0.056	-0.002	-0.054	-0.005	0.204	
R_livbrt	0.025	-0.019	-0.008	-0.001	-0.025	0.035
liv_preg	0.000	-0.015	0.023	0.000	-0.031	0.025
chronic	0.404	0.600	-0.283	0.037	0.119	-0.019
morbid	-4.448	1.257	3.165	-0.045	3.005	-0.714
av_morbi	-1.394	-0.556	0.099	0.197	1.924	-0.548
lpcexp	0.460	0.197	-0.130	0.014	-0.017	0.004

Covariance matrix (continued)

	liv_preg	chronic	morbid	av_morbi	lpcexp
liv_preg	0.051				
chronic	-0.048	1.000			
morbid	-1.026	4.296	878.243		
av_morbi	-0.996	3.530	301.761	275.089	
lpcexp	-0.009	0.215	-2.126	-1.076	0.480

Correlation matrix

	score	edu	age_cat	earn	n_abort	r_livbrt	harass	chronic	av_morbi
score	1.0000								
edu	-0.1604	1.0000							
age_cat	-0.0193	-0.0657	1.0000						
earn	-0.0664	-0.2649	-0.2045	1.0000					
N_abort	0.1435	0.1156	-0.0109	-0.0918	1.0000				
r_livbrt	-0.2911	0.1633	-0.0982	-0.0456	0.0854	1.0000			
harass	0.1807	-0.0618	0.0340	-0.0567	0.0337	-0.0165	1.0000		
chronic	0.1971	0.0353	0.4569	-0.1904	0.0614	-0.0673	-0.0105	1.00	
av_morbid	0.2678	-0.1172	-0.0253	0.0408	0.1108	-0.1607	0.1322	0.1394	1.0000

No_pregnancy

loc_cat	0	1	2	3	4	5	6	7	8	9	10	11	13	14	Grand total
1		2	1	5	6	12	5	7	3						41
2	1		3	7	10	7	7	5	3	2	5		1		51
3	1	4	7	7	11	9	5	5	1	2	1	1		1	55
4		4	9	4	13	9	5	4	3		2				53
5		1	7	4	10	6	2	4	1		1				36
6		2	9	6	5	5		2	1						30
7		2	11	16	8	6	3	1	1						48
Grand total	2	15	47	49	63	54	27	28	13	4	9	1	1	1	314

No_living children

loc_cat	0	1	2	3	4	5	6	7	8	Grand total
1		3	6	7	13	10		2		41
2	1	2	15	15	8	2	4	2	2	51
3	1	8	11	12	9	8	2	4		55
4	1	7	11	14	13	4	1	2		53
5		3	12	11	4		2	4		36
6		2	13	8	4	3				30
7	1	9	24	9	4				1	48
Grand total	4	34	92	76	55	27	9	14	3	314

No_deceased Child

loc_cat	0	1	2	3	4	5	8	Grand total
1	22	10	7	2				41
2	30	8	9		3		1	51
3	40	10	1	2	1	1		55
4	38	14	1					53
5	30	3	2	1				36
6	25	2	1	2				30
7	38	8	2					48
Grand total	223	55	23	7	4	1	1	314

No_abortion

loc_cat	0	1	2	3	5	Grand total
1	36	3	2			41
2	31	11	6	3		51
3	39	12	3	1		55
4	35	12	5		1	53
5	24	8	4			36
6	25	5				30
7	27	15	5	1		48
Grand total	217	66	25	5	1	314

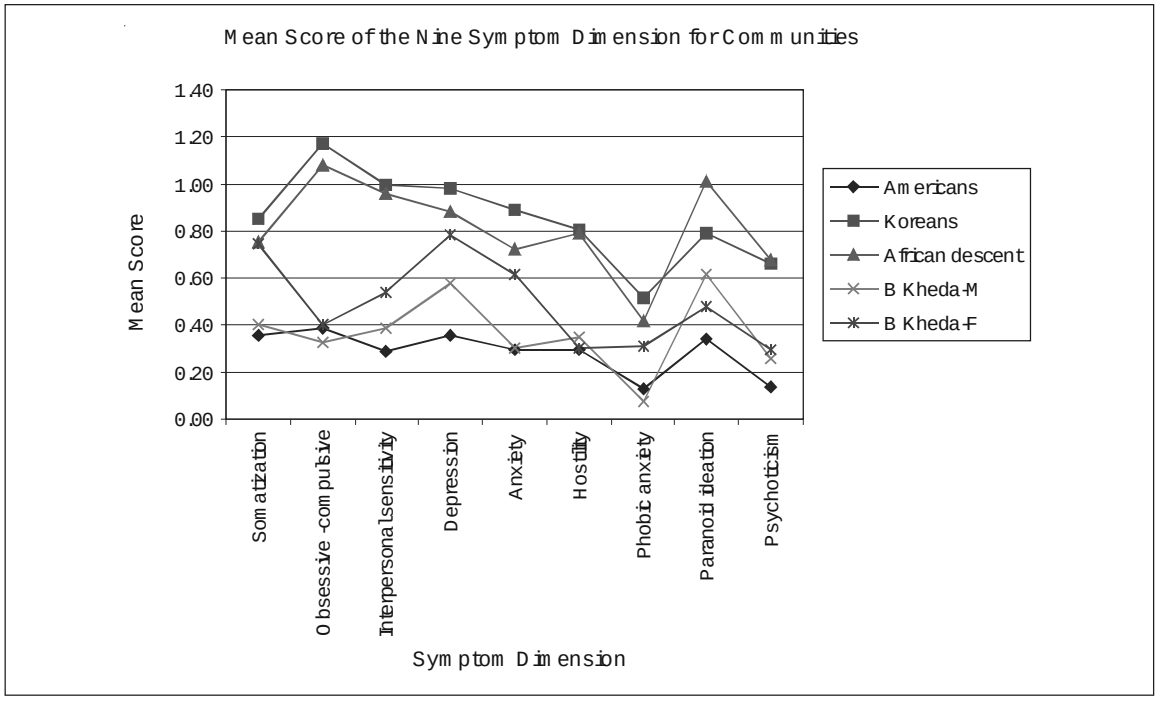
Mean symptom scores by localities and gender

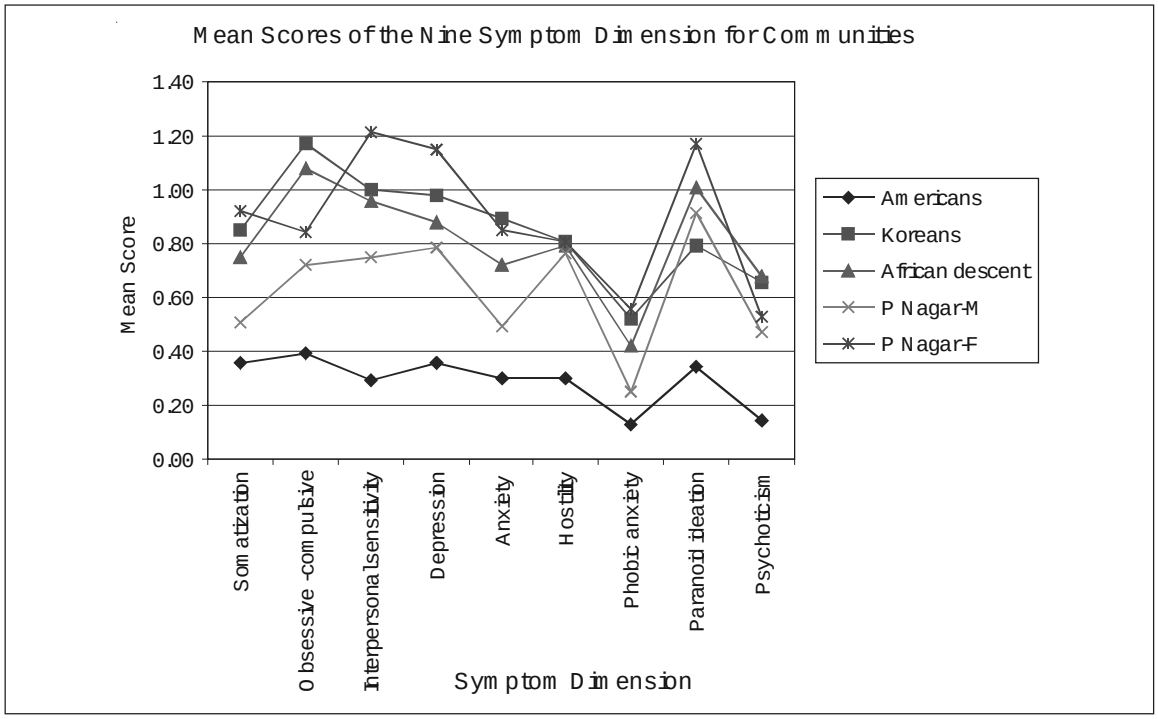
Locality	Somatization Mean value	Obsessive Compulsive Mean Value	Interpersonal Sensitivity Mean Value	Depression Mean Value	Anxiety Mean Value	Hostility Mean Value	Phobic Anxiety Mean Value	Paranoid Ideation Mean Value	Psychoticism Mean Value	GSI Mean Value
J.Puri	0.5112	0.7067	0.8055	0.7324	0.4324	0.5653	0.3610	1.1036	0.7101	0.6830
Men	0.3815	0.6096	0.7510	0.9286	0.3337	0.5301	0.1738	1.0562	0.7060	0.6012
Women	0.6769	0.8307	0.8752	1.2177	0.5584	0.6102	0.6	1.1641	0.7153	0.7875
B.Kheda	0.5803	0.5236	0.4076	0.9377	0.4781	0.3363	0.2402	0.6030	0.5954	0.5389
Men	0.4047	0.4025	0.3869	0.8804	0.3214	0.3511	0.1173	0.7172	0.5392	0.4619
Women	0.7623	0.5870	0.5514	0.9971	0.6407	0.3298	0.3677	0.4845	0.6537	0.6189
Noida	0.5908	0.615	0.7955	1.1453	0.546	0.5816	0.2928	0.9783	0.714	0.6915
Men	0.42	0.484	0.6466	1.047	0.392	0.5133	0.1228	0.87	0.582	0.5655
Women	0.7616	0.746	0.9444	1.2430	0.7	0.65	0.4628	1.0866	0.846	0.8175
S.Vihar	0.5545	0.7637	0.6695	0.9270	0.4948	0.6652	0.3226	0.9310	0.575	0.6521
Men	0.4576	0.7459	0.7030	0.9533	0.4606	0.7404	0.2927	0.9754	0.6393	0.6548
Women	0.6621	0.7836	0.6323	0.8979	0.5327	0.5818	0.5358	0.8818	0.5036	0.6490
P Nagar	0.7254	0.9	1.0318	1.1979	0.6891	0.8062	0.4374	1.0968	0.8534	0.8515
Men	0.5217	0.8046	0.8068	1.063	0.511	0.782	0.3055	0.959	0.88	0.734
Women	0.9322	0.9968	1.2604	1.335	0.8703	0.8307	0.5714	1.2369	0.8265	0.9706
K.Nagar	0.3274	0.3868	0.3333	0.7381	0.3070	0.2558	0.0937	0.6161	0.4505	0.3986
Men	0.1853	0.3224	0.2811	0.6875	0.2346	0.2210	0.0037	0.6598	0.4591	0.3487
Women	0.4666	0.45	0.3844	0.7876	0.378	0.29	0.1485	0.5733	0.442	0.4475
S.Delhi	0.3682	0.4093	0.4625	0.8622	0.2674	0.4166	0.1528	0.5678	0.6430	0.4735
Men	0.2976	0.3547	0.3597	0.7948	0.2571	0.3571	0.0544	0.5873	0.5285	0.4134
Women	0.4356	0.4613	0.5606	0.9265	0.2772	0.4734	0.2467	0.5492	0.7522	0.5308

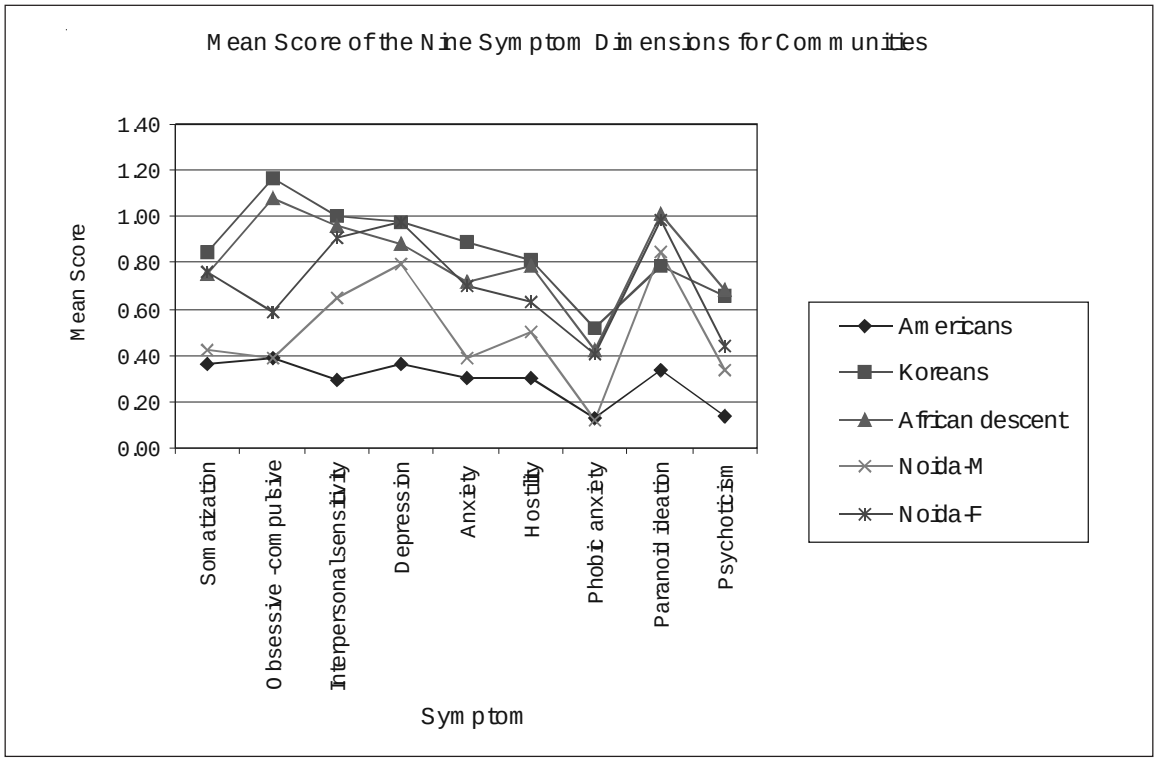
Annexure 4

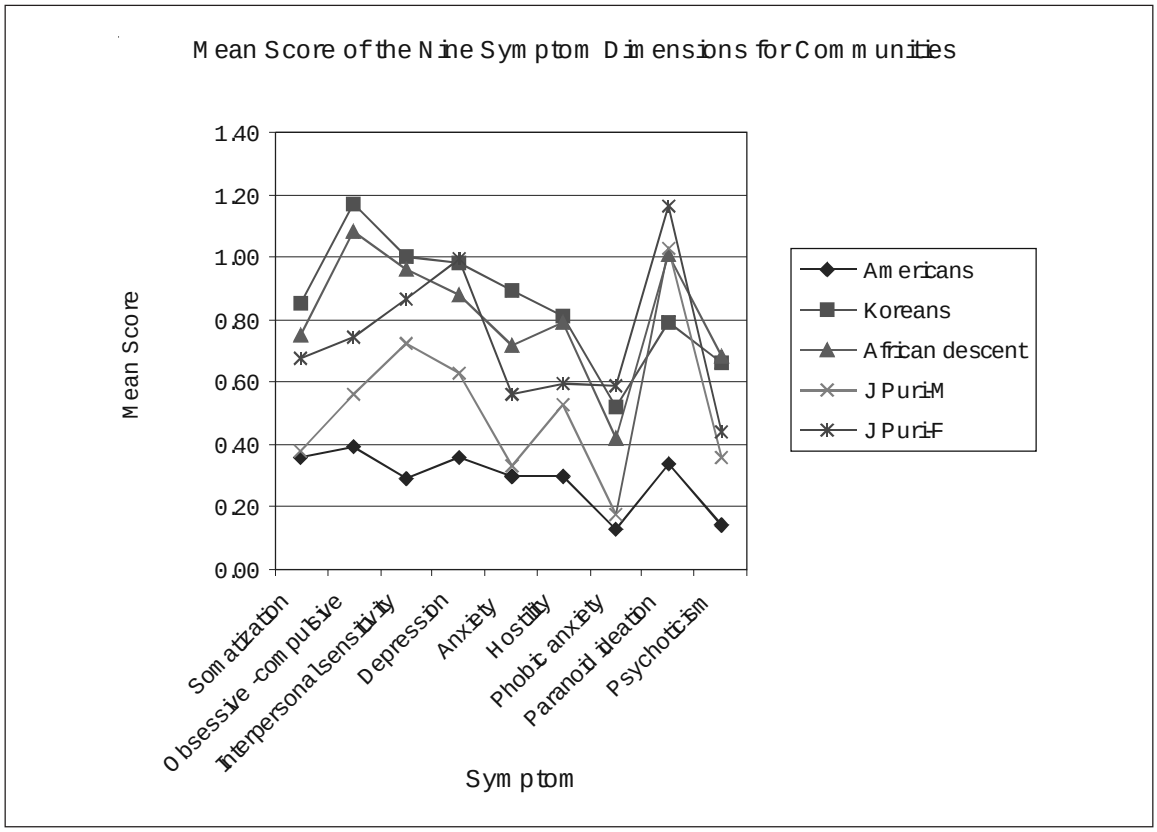
Selected charts

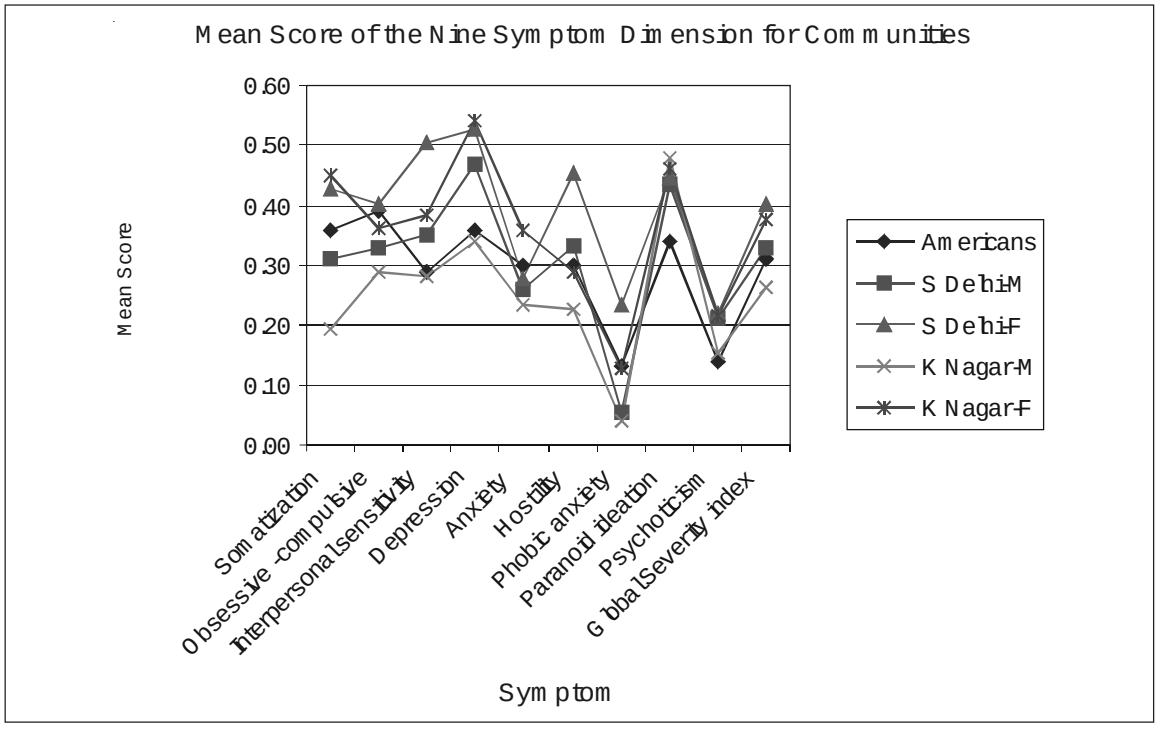
Charts of nine symptom dimensions for seven localities

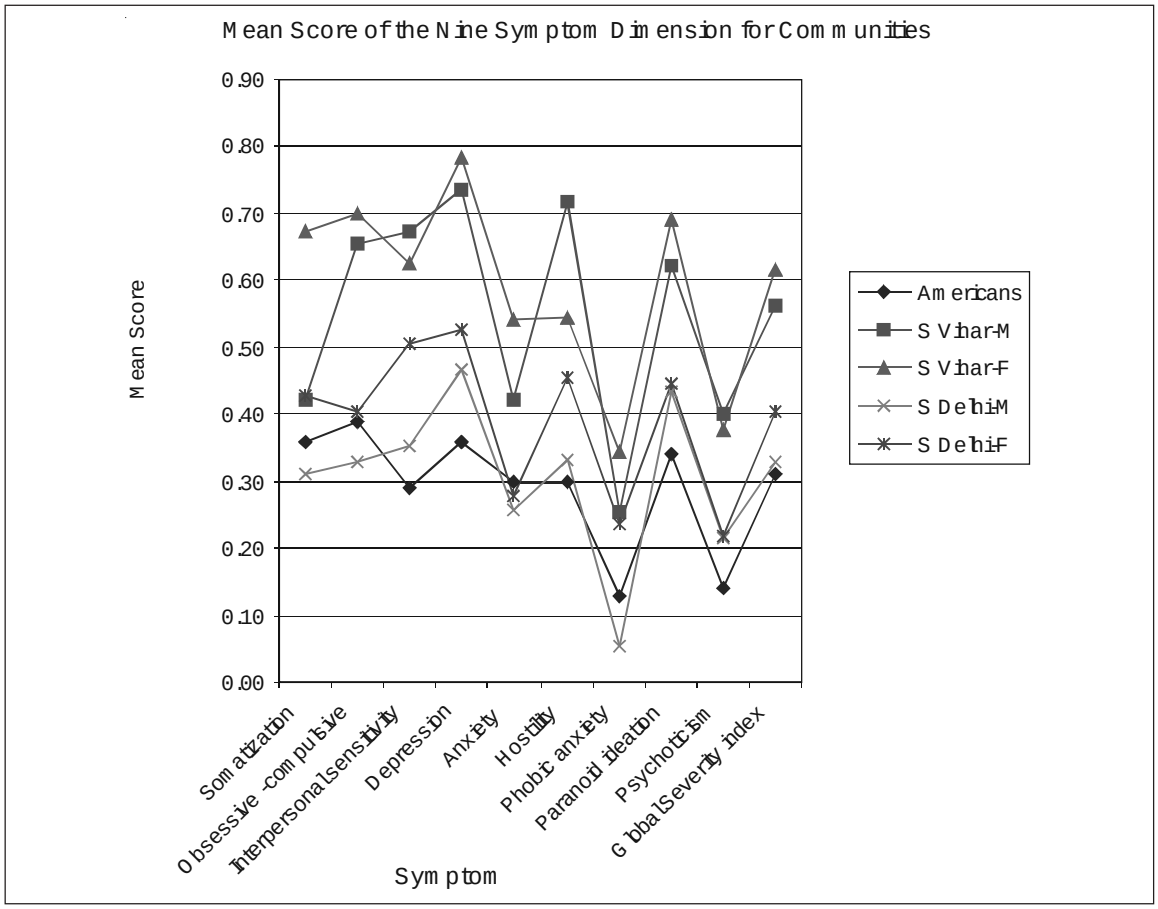


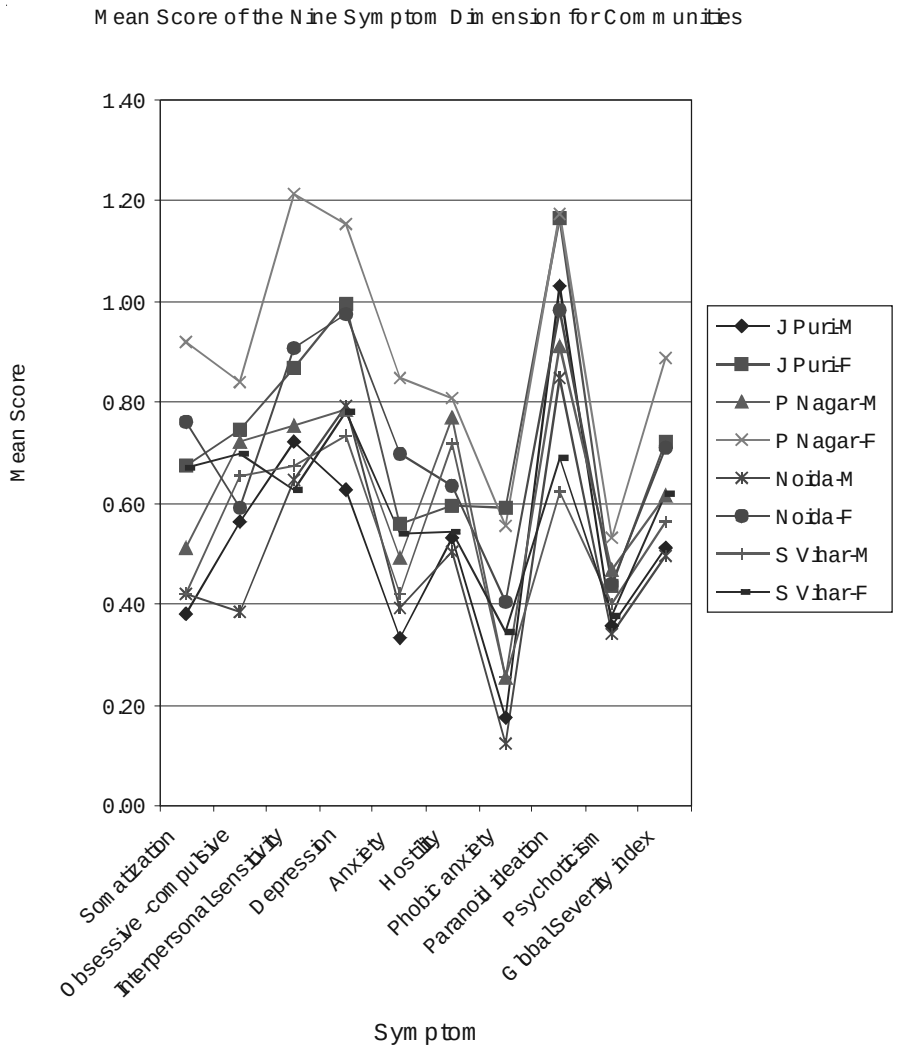


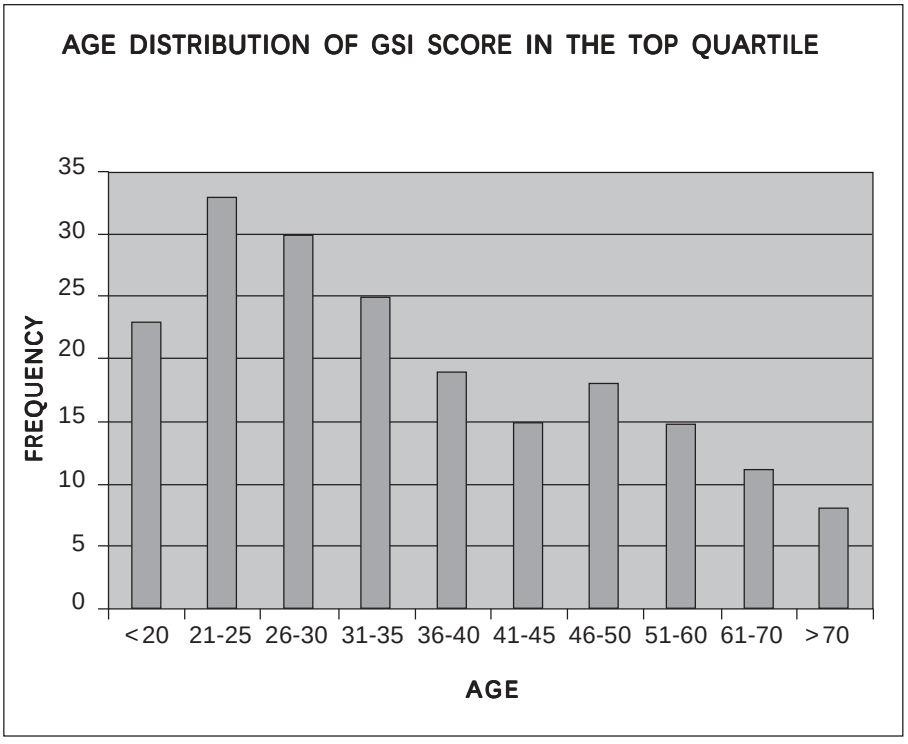

Mean Score of the Nine Symptom Dimensions for Communities
Mean Score
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Somatization
Obsessive -compulsive
Interpersonalsensitivity
Depression
Anxiety
Hostility
Phobic anxiety
Paranoid ideation
Psychoticism
Symptom
Americans
Koreans
African descent
Noida-M
Noida-F

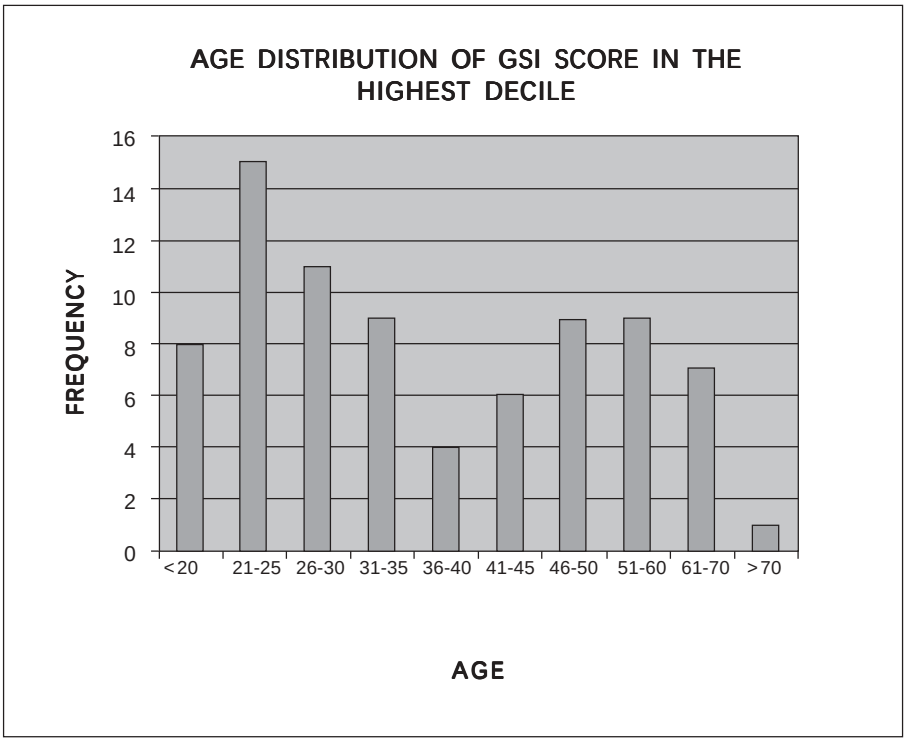

Mean Score of the Nine Symptom Dimensions for Communities
Mean Score
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Somatization
Obsessive -compulsive
Interpersonalsensitivity
Depression
Anxiety
Hostility
Phobic anxiety
Paranoid ideation
Psychoticism
Symptom
Americans
Koreans
African descent
JPuri-M
JPuri-F


Mean Score of the Nine Symptom Dimension for Communities
Mean Score
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Somatization
Obsessive -compulsive
Interpersonal sensitivity
Depression
Anxiety
Hostility
Phobic anxiety
Paranoid ideation
Psychoticism
Global Severity index
Symptom
Americans
S Delhi-M
S Delhi-F
K Nagar-M
K Nagar-F


Mean Score of the Nine Symptom Dimension for Communities
Mean Score
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Somatization
Obsessive -compulsive
Interpersonal sensitivity
Depression
Anxiety
Hostility
Phobic anxiety
Paranoid ideation
Psychoticism
Global Severity index
Symptom
Americans
S Vihar-M
S Vihar-F
S Delhi-M
S Delhi-F


Mean Score of the Nine Symptom Dimension for Communities
Mean Score
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Somatization
Obsessive -compulsive
Interpersonal sensitivity
Depression
Anxiety
Hostility
Phobic anxiety
Paranoid ideation
Psychoticism
Global Severity index
Symptom
J Puri-M
J Puri-F
P Nagar-M
P Nagar-F
Noida-M
Noida-F
S Vihar-M
S Vihar-F


AGE DISTRIBUTION OF GSI SCORE IN THE TOP QUARTILE
FREQUENCY
35
30
25
20
15
10
5
0
<20
21-25
26-30
31-35
36-40
41-45
46-50
51-60
61-70
>70
AGE


AGE DISTRIBUTION OF GSI SCORE IN THE HIGHEST DECILE
FREQUENCY
16
14
12
10
8
6
4
2
0
<20
21-25
26-30
31-35
36-40
41-45
46-50
51-60
61-70
>70
AGE

Annexure 5

SELECTION OF REGRESSION MODELS

Explanatory variables	Dependent variable = score							
	Model 1		Model 2		Model 3		Model 4	
	coefficient	t-value	coefficient	t-value	coefficient	t-value	coefficient	t-value
loc_cat	-.0308605	-1.88	-.0290501	-1.76	-.0413879	-3.06	-.0428137	-3.19
age								
age_cat	-.0509887	-2.35	-.0571964	-2.65	-.0497323	-2.38	-.0436894	-2.09
earn	-.1104323	-2.12	-.1194308	-2.28	-.1118966	-2.15	-.1031041	-1.99
edu	-.0132	-1.26	-.0135865	-1.30				
n_abort	.0804927	2.62	.0799573	2.60	.0759322	2.48	0.765163	2.50
r_livbrt	-.6076227	-4.79	-.6306887	-5.01	-.6367471	-5.05	-.6131119	-4.83
harass	.1621961	2.89	.160983	2.86	.1649357	2.94	.165899	2.96
chronic	.2245624	4.13	.2336513	4.34	.2393771	4.46	.2298987	4.23
av_morbi	.0035586	2.48			.		.0035953	2.51
morbid			0019951	2.51	.0020008	2.51		
constant	1.261186	8.34	1.338669	9.58	1.308212	9.48	1.230113	8.24
No. of obs.	312		312		312		312	
F-value	10.98		10.99		12.13		12.13	
Adj R-squared	0.2241		0.2243		0.2226		0.2226	

Explanatory variables	Dependent variable = score					
	Model 5		Model 6		Model 7	
	coefficient	t-value	coefficient	t-value	coefficient	t-value
loc_cat					-.0282033	-1.71
age			-.0068112	-3.44	-.0057218	-2.76
age_cat	-.0628511	-3.02				
earn	-.0932405	-1.81	-.0984453	-1.91	-.113638	-2.18
edu	-.0245729	-2.86	-.0251299	-2.93	-.0146884	-1.40
n_abort	0.831718	2.70	.0818447	2.67	.0795801	2.60
r_livbrt	-.6339847	-5.01	-.6315453	-5.01	-.6082241	-4.82
harass	.1619383	2.87	.1599815	2.85	.1606197	2.87
chronic	.2025304	3.79	.2128986	4.00	.2322752	4.28
av_morbi	0.038548	2.69	.0039883	2.81	.0036898	2.59
morbid						
constant	1.238352	8.18	1.347895	8.29	1.353719	8.35
No. of obs.	312		312		312	
F-value	11.81		12.24		11.28	
Adj R-squared	0.2176		0.2243		0.2293	

List of studies completed under the initiative:

1. Gender, caste, class and health care access: Experiences of rural households in Koppal district, Karnataka
   Aditi Iyer

2. Correlates of high-risk sexual behaviour among never-married male industrial workers in Tirupur
   N Audinarayana

3. Involuntary childlessness among the middle class in Vadodara city
   Bhamini Mehta, Shagufa Kapadia, Debjani Chakraborty

4. Attitudes of adolescent students in Thiruvananthapuram towards gender, sexuality, sexual and reproductive health and rights.
   Philip Mathew KM

5. Men's participation in reproductive health:A study of some villages in Andhra Pradesh
   G Rama Padma

6. The interface between mental health and reproductive health of women among the urban poor in Delhi
   Ranendra Kumar Das and Veena Das

7. The interrelationship between gender and malaria among the rural poor in Jharkhand
   Sama

8. Middle class sexuality: Construction of women's sexual desire in the 1990s and early 21st century Mumbai
   Shilpa Phadke

9. Delay in seeking care and health outcomes for young abortion seekers
   Sowmini CV

10. Interface of heart disease and reproductive health: An exploratory study of gender dimensions
    R Sukanya, S Sivasankaran

11. Negotiating reproductive health needs in a conflict situation in the Kashmir Valley
    Zamrooda Khanday