PSYCHIATRIC MORBIDITY AND EXPLANATORY MODELS IN PATIENTS ATTENDING THE ANDROLOGY CLINIC IN A TERTIARY CARE HOSPITAL

DR. AMITKUMAR ASHOK CHOUGULE

DISSERTATION SUBMITTED TO THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY IN PART FULFILMENT OF THE REQUIREMENT FOR M.D. BRANCH XVIII - PSYCHIATRY FINAL EXAMINATION APRIL 2017

CERTIFICATE

This is to certify that the dissertation titled "Psychiatric morbidity and explanatory models in patients attending the andrology clinic in a tertiary care hospital" is the bonafide work of Dr. Amitkumar Ashok Chougule towards the MD Psychiatry Degree Examination of The Tamil Nadu Dr. M.G.R Medical University to be conducted in April 2017. This work has not been submitted to any university in part or full.

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DECLARATION

I hereby declare that this dissertation titled “Psychiatric morbidity and explanatory models in patients attending the andrology clinic in a tertiary care hospital” is a bonafide work done by me under the guidance of Dr. Rajesh Gopalakrishnan, Professor of Psychiatry, Christian Medical College, Vellore. This work has not been submitted to any university in part or full.

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Sub: **Fluid Research grant project NEW PROPOSAL:**
Psychiatric morbidity and explanatory models in patients attending the andrology clinic in a tertiary care hospital.
Dr. Amitkumar Chougule, Emp. No: 21218, PG Registrar, Psychiatry Unit-I Dr. Rajesh Gopalakrishnan, Emp. No: 20239, Department of Psychiatry Unit-I, Dr. Santhosh Kumar, Emp. No: 30545, Department of Urology Unit-II.

Ref: IRB Min No: 9723 [OBSERVE] dated 10.11.2015

Dear Dr. Amitkumar Chougule

The Institutional Review Board (Blue, Research and Ethics Committee) of the Christian Medical College, Vellore, reviewed and discussed your project titled "Psychiatric morbidity and explanatory models in patients attending the andrology clinic in a tertiary care hospital" on November 10th 2015.

I enclose the following documents:-

1. Institutional Review Board approval 2. Agreement

Could you please sign the agreement and send it to Dr. Nihal Thomas, Addl. Vice Principal (Research), so that the grant money can be released.

With best wishes,

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The Committee reviewed the following documents:

1. IRB Application format
2. Patient Information Sheet and Informed Consent Form (English and Hindi)
3. Case Record Form
4. Questionnaire (English and Hindi)
5. Cvs of Drs. Amitkumar Chougule, Santhosh Kumar, Rajesh Gopalakrishnan
6. No. of documents 1 - 4

The following Institutional Review Board (Blue, Research & Ethics Committee) members were present at the meeting held on November 10th 2015 in the CREST/SACN Conference Room, Christian Medical College, Bagayam, Vellore 632002.

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Dr. Anuradha Rose	MBBS, MD, MHSC (Bioethics)	Associate Professor, Community Health, CMC, Vellore	Internal, Clinician

We approve the project to be conducted as presented.

Kindly provide the total number of patients enrolled in your study and the total number of withdrawals for the study entitled: "Psychiatric morbidity and explanatory models in patients attending the andrology clinic in a tertiary care hospital" on a monthly basis. Please send copies of this to the Research Office (research@cmcvellore.ac.in)

Fluid Grant Allocation:

A sum of 10,400/- INR (Rupees ten thousand four hundred only) will be granted for 1 year

Yours sincerely

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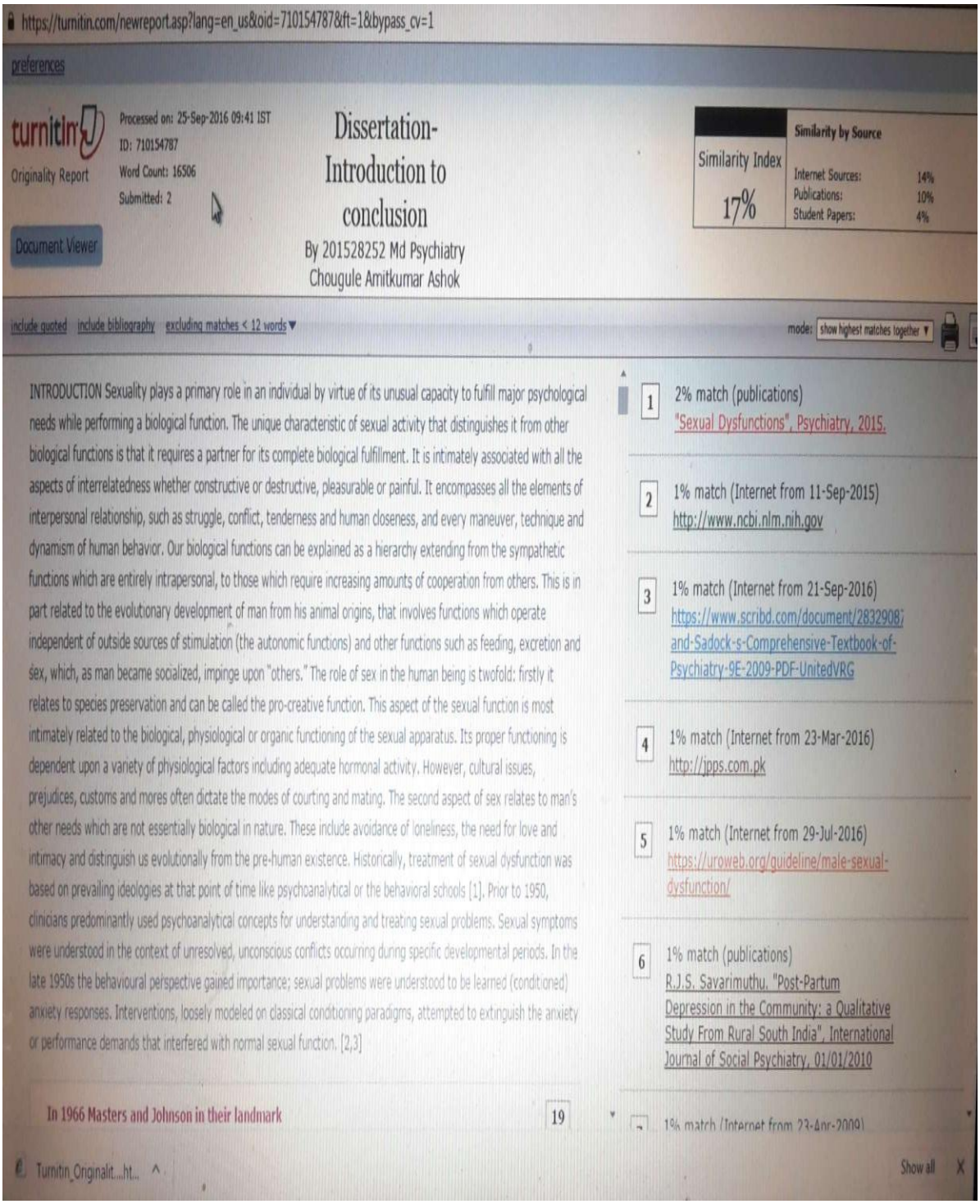

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INTRODUCTION

Sexuality plays a primary role in an individual by virtue of its unusual capacity to fulfill major psychological needs while performing a biological function. The unique characteristic of sexual activity that distinguishes it from other biological functions is that it requires a partner for its complete biological fulfillment. It is intimately associated with all the aspects of interrelatedness whether constructive or destructive, pleasurable or painful. It encompasses all the elements of interpersonal relationship, such as struggle, conflict, tenderness and human closeness, and every maneuver, technique and dynamism of human behavior.

Our biological functions can be explained as a hierarchy extending from the sympathetic functions which are entirely intrapersonal, to those which require increasing amounts of cooperation from others. This is in part related to the evolutionary development of man from his animal origins, that involves functions which operate independent of outside sources of stimulation (the autonomic functions) and other functions such as feeding, excretion and sex, which, as man became socialized, impinge upon "others."

The role of sex in the human being is twofold: firstly it relates to species preservation and can be called the pro-creative function. This aspect of the sexual function is most intimately related to the biological, physiological or organic functioning of the sexual apparatus. Its proper functioning is dependent upon a variety of physiological factors including adequate hormonal activity. However,

cultural issues, prejudices, customs and mores often dictate the modes of courting and mating. The second aspect of sex relates to man's other needs which are not essentially biological in nature. These include avoidance of loneliness, the need for love and intimacy and distinguish us evolutionally from the pre-human existence.

Historically, treatment of sexual dysfunction was based on prevailing ideologies at that point of time like psychoanalytical or the behavioral schools [1]. Prior to 1950, clinicians predominantly used psychoanalytical concepts for understanding and treating sexual problems. Sexual symptoms were understood in the context of unresolved, unconscious conflicts occurring during specific developmental periods. In the late 1950s the behavioural perspective gained importance; sexual problems were understood to be learned (conditioned) anxiety responses. Interventions, loosely modeled on classical conditioning paradigms, attempted to extinguish the anxiety or performance demands that interfered with normal sexual function. [2,3]

In 1966 Masters and Johnson in their landmark work observed and studied male and female sexual arousal and orgasm in a laboratory. [4] Initially they described the anatomical and physiological aspects of sexual functioning in the sexual cycle. Later on, they highlighted the deleterious influence of performance anxiety, the impact of relationship factors, and the significance of biological factors on the

development of sexual dysfunction. Their work attempted to integrate medical and psychological interventions for treatment of sexual disorders.[5]

After the seminal work of Masters and Johnson the next era was influenced by the work of Helen Singer Kaplan's with her book, “The New Sex Therapy”. [6] She integrated psychoanalytical theory with Masters and Johnson's cognitive-behavioural understanding of sexual dysfunction. She recommended behavioural approaches for the sexual dysfunction caused by recent causes and reserved traditional psychodynamic methods for the remote aetiology.

The mid-1980s ushered in the current psychobiological era. This period is distinguished by the medicalization of treatment approaches, primarily for male sexual dysfunction. [12] Pathophysiology of male sexual arousal has been explored in great detail and this has led to the introduction of new oral treatments, such as phosphodiesterase inhibitors. Treatment of male sexual dysfunction has been traditionally been the forte of psychiatrists and urologists based on the etiology. The current era has led to formation of Andrology, a sub-specialization of urology, who focuses on treating male sexual dysfunctions and problems related to male infertility.

Male sexual health depends on multiple factors like personality traits, the biological makeup, life circumstances, relationship with others and the culture in which one lives. Thus male sexual dysfunction can arise as a result of biological

disorders, relationship problems, intra-psychic conflicts, poor sexual knowledge or a combination of any or all of these. [8]

Male sexual dysfunction has a two way relationship with psychiatric disorders. Male sexual dysfunction and unsatisfied sexual life can lead to multiple psychiatric problems and most psychiatric disorders can lead to sexual dysfunction and overall unsatisfactory sexual life. Psychiatric morbidity is frequently undetected in patients with sexual dysfunction presenting to general out-patient clinics or specialist andrology or urology clinics. (9)

An explanatory model elicited during patient interaction provides the sum total of the patient's understanding and perspectives on disease, in terms of aetiology, onset of symptoms, pathophysiology, course of the illness and treatment. Thus assessing explanatory model allows clinicians to take balanced decisions regarding patient care.

Sexual dissatisfaction, sexual dysfunction and common mental disorders like depression anxiety and somatoform disorders are highly prevalent in society to an extent that health services will be overwhelmed if all patients decide to visit health services for help.[10] Unfortunately, this area is not well studied and has received limited attention from Indian researchers. Sexual problems and common mental disorders despite being common is a low priority area for Indian physicians. They either show no interest or tend to ignore or are themselves embarrassed while dealing with patients with sexual dysfunction and psychiatric disorders. [11] There

are no reliable data about prevalence and incidence of sexual disorders and psychiatric comorbidity associated with sexual dysfunction from India. Thus the area of sexual dysfunction and sexual medicine research in India suffers from a general avoidance on the part of the patients to seek medical help and ignorance on the part of researchers to take interest in this area. [12]

1. REVIEW OF LITERATURE

1.1.1 NORMAL SEXUALITY AND SEXUAL BEHAVIOUR

Before embarking on the journey of sexual dysfunction it is crucial to know what can be considered as normal sexuality and normal sexual behaviour.

Normal sexual function means different things to different people. It is studied by a variety of disciplines: biology, physiology, psychology, medicine (in the domains of endocrinology, gynecology, psychiatry, urology, and venereology), sociology, ethology, culture, philosophy, psychoanalysis, and history. There is often little liaison or cross-fertilization between these disciplines and each has its own literature and terminology. Some are regarded as ‘hard science', suggesting hypotheses that can be supported or rejected by experiment, observation, or quantitative factual evidence. Others are looked on as ‘soft science', where individual and anecdotal evidence are the norm and are encouraged.

Normal sexual behaviour is not a simple psychological or physiological construct. It has evolved from the history, religious orientation and sophistication of a culture both in aesthetic and scientific matters; and is influenced by the prevailing theological and scientific attitudes toward sexuality. Legal formulations of normality and deviance often change with advances in theological doctrine or scientific evidence regarding human physiology. Hence it is difficult to define normal sexual behavior in absolute terms.

A workable formulation asserts that normal sexual behavior consists of sexual activity which is consensual, which produces satisfaction and pleasure without causing any harm, either psychologically or physiologically, to either partner or the community and the broader culture in which they live. This formulation, however, requires the additional dimension that such behavior should not be contrary to public interest, either because of the immaturity or incapacity of one of the partners to decide or resist the invitation, or because public displays of such behavior tend to be offensive to others.

Normal sexual behavior can be defined as sexual practices that bring pleasure to oneself and one's partner; involves stimulation of the primary sex organs; is devoid of guilt or anxiety and is not forced. Casual sex, that is sex outside a committed relationship, masturbation, and sex involving stimulation of organs other than the primary sex organs, constitutes normal behavior in some cultural contexts. Thus normal sexual behaviour can be summarized as one that fulfills the biological function of procreation, gives satisfaction and pleasure, is culturally acceptable and legally sanctioned.

1.1.2 SEXUAL DYSFUNCTION

INTRODUCTION:

Diagnostic and Statistical Manual (DSM-5) defines Sexual dysfunction as a “heterogeneous group of disorders that are typically characterized by a clinically

significant disturbance in a person's ability to respond sexually or to experience sexual pleasure."

According to the tenth revision of International Statistical Classification of Diseases and Related Health Problems (ICD-10), sexual dysfunction refers to a "person's inability to participate in a sexual relationship as he or she would wish." The dysfunction is expressed as a lack of desire or of pleasure or as a physiological inability to begin, maintain, or complete sexual interaction. Because sexual response is psychosomatic, it may be difficult to determine "the relative importance of psychological and/or organic factors."

1.1.3 SEXUAL DYSFUNCTION AND PSYCHIATRIC DISORDERS

Sexual difficulties offer the psychiatrist a perspective on the person's capacity to give and receive pleasure, to love and be loved, to be psychologically intimate, and to retain the capacity to enjoy sexual relations through the different stages of life. Sexual disorders due to varying etiologies often lead to a fear of failure and self-consciousness about sexual performance. Sexual dysfunctions are frequently associated with other mental disorders, such as depressive disorders, anxiety disorders, personality disorders, and psychotic disorders. A sexual disorder can be symptomatic of biological problems, intrapsychic conflicts, interpersonal difficulties, cultural influences, or a combination of these factors. Sexual function can be affected by stress of any kind, by emotional disorders, and by a lack of sexual knowledge.

1.2 MALE SEXUAL DISORDERS

1.2.1 DEFINITION AND CLASSIFICATION

DELAYED EJACULATION

Delayed Ejaculation (DE) is the new DSM-5 diagnostic category that redefines and replaces DSM-IV Male Orgasmic Disorder.

A diagnosis of DE requires an unwanted and marked delay, infrequency, or absence of ejaculation on almost all or all occasions (75–100%) of partnered sexual activity in contexts identified as problematic or, if the problem is generalized, in all contexts. [13]

ERECTILE DISORDER (ED)

A diagnosis of ED requires that the individual experience difficulty obtaining and/or maintaining an erection during sexual activity and/or have noticed a marked decrease in erectile rigidity in all or almost all (75–100%) sexual encounters in contexts identified as problematic or, if the problem is generalized, in all contexts (American Psychiatric Association, 2013).

The 1992 National Institutes of Health (NIH) Consensus Development Conference recommended the use of *erectile dysfunction* as the preferred term to *impotence,* the former being more precise. There is no universal consensus or agreed criteria as to how consistent the problem (i.e., inability to achieve or

maintain a penile erection sufficient for satisfactory sexual performance) has to be and for what duration it should last to fulfill this definition. A period of 3 months has been suggested as an acceptable clinical guideline.

ED is the sexual dysfunction that men are most likely to report to healthcare providers, although it often hides desire and ejaculation problems, in addition to partner dysfunction. Men with ED generally present with a significant level of distress, performance anxiety, and a variety of negative feelings about themselves (13).

MALE HYPOACTIVE SEXUAL DESIRE DISORDER (MHSDD)

The symptom criterion for MHSDD requires persistently or recurrently deficient or completely absent sexual/erotic thoughts or fantasies and desire for sexual activity lasting for at least 6 months. The clinician judges whether the lack of desire is anomalous, taking into account a number or factors that can affect sexual functioning, such as age, life/relational circumstances, and sociocultural context.

PREMATURE (EARLY) EJACULATION (PE)

According to DSM-5 PE is defined as a persistent pattern of ejaculation within approximately 1 minute of vaginal penetration and before the individual wishes it to occur. The early ejaculation has to occur on all or almost all (75–100%) occasions of sexual activity in contexts identified as problematic or, if the problem is generalized, in all contexts. The severity is judged as *mild* if intravaginal

ejaculation latency time (IELT) is within 30 seconds and 1 minute of vaginal penetration, *moderate* if within 15–30 seconds, or severe if ejaculation occurs prior to the sexual activity or within approximately 15 seconds of vaginal penetration.

According to ICD-10 PE is defined as "the inability to control ejaculation sufficiently for both partners to enjoy sexual interaction." In severe cases, ejaculation may occur before vaginal entry or in the absence of an erection. Premature ejaculation is unlikely to be of organic origin but can occur as a psychological reaction to organic impairment, e.g. erectile failure or pain.

SUBSTANCE/MEDICATION INDUCED SEXUAL DYSFUNCTION (SMISD)

The diagnosis of SMISD requires that four criteria be met: a clinically significant disturbance in sexual function; evidence that the symptoms developed in conjunction with substance intoxication/withdrawal or medication use *and* that the substance/medication in question is capable of producing such symptoms; timing or other evidence suggests that the disturbance is not better explained by a sexual dysfunction that is not substance/medication induced; the symptoms do not just occur during the course of a delirium; the sexual difficulty causes clinically significant distress.

DHAT SYNDROME:

Professor N. N. Wig coined the term “Dhat syndrome” in 1960. He used this term to describe the psycho-somatic symptoms which are attributed to semen loss. [14] Malhotra and Wig have also described Dhat syndrome to be due to semen loss either through nocturnal emissions or through passage in the urine. [15] But studies have shown that patients with Dhat syndrome attribute their somatic symptoms to semen loss through multiple means like masturbation, defecation, and sexual intercourse.

In the international classificatory systems, Dhat syndrome was accepted as a diagnostic entity, in the ICD-10 and DSM-IV TR. [16] Currently Dhat syndrome is classified in ICD-10 under the category of other specified neurotic disorders.

1.2.2 EPIDEMIOLOGY OF MALE SEXUAL DYSFUNCTION

International scenario:

Epidemiological data have shown a high prevalence and incidence of ED worldwide. The Massachusetts Male Aging Study (MMAS) [18] carried out in Boston area reported prevalence of 52% ED in men in the age group of 40-70 years. In the Cologne study of men in the age group of 30 to 80 years, the prevalence of ED that was reported was 19.2%. This study also highlighted a steep age-related increase in ED from 2.3% in 30 years old to 53.4% in 80 years old [19]. Few studies looked into the incidence of ED and found an incidence rate of 26 in the MMAS study [20] and 19.2 (mean follow-up of 4.2 years) in a Dutch

study [21]. In a cross-sectional real-life study among men seeking first medical help for new-onset ED, 25% of the patients were younger than 40 years [22].

The major problem in assessing the prevalence of PE is the lack of an accurate (validated) definition. [23]. A prevalence rate of 31% (men aged 18-59 years) was reported by the National Health and Social Life Survey (NHSLS) study in USA [24]. Age wise prevalence rates were 30% (18-29 years), 32% (30-39 years), 28% (40-49 years) and 55% (50-59 years). This finding contrasts with the actual scenario in clinical setting where relatively low numbers of men present with PE.

The high prevalence rates in the (NHSLS) study can be a result of the dichotomous scale (yes/no) which was used. The findings of this study differ as compared to European studies. The prevalence rates in European studies have been significantly low [25]. Waldinger et al [26], proposed four PE subtypes. The prevalence rates reported by them were 2.3% for lifelong PE, 3.9% for acquired PE, 8.5% for natural variable PE and 5.1% for the premature-like ejaculatory dysfunction [27].

Mallis et al conducted a study in an andrology outpatient clinic. They included 103 patients between the ages of 20 to 76 years with ED. They found that most patients had moderate and severe ED (26.2% and 44.7%, respectively). [17]

INDIAN SCENARIO:

Earliest Indian literatures in the area of male sexual dysfunction can be traced back to 1959 when Bagadia *et al*. published their study findings. [29] They reported superstitions, performance anxiety and guilt feelings related to sexual behaviour as major concerns faced by Indian men.

In 1972 Bagadia et.al [30] studied 258 male in the outpatient clinic of a tertiary care hospital. They found that most common sexual problem faced by patients who were single were anxiety secondary to nocturnal emission (65%) and passage of semen in urine (47%), while common problems faced by married patients were ED (48%) followed by PME (34%) and passage of semen in the urine (47%).

In 1977 Nakra et.al [31] studied sexual disorders in 150 men attending the psychiatric OPD in a teaching hospital setting. They reported that 9.2% of the patients had ED. The commonest sexual problems reported were ED, premature ejaculation (PE) and Dhat syndrome followed by performance anxiety. They also reported that 75% of the patients had practiced masturbation while 43% patients had masturbatory guilt. They also found nocturnal emission as a concern in 95% of the patients and in these patients nearly 69% had a guilt associated with it. 64% of their subjects considered loss of semen as harmful to health.[32]

In a case control study by Kar and Verma in 1978 [33] they compared the sexual behaviour of 72 patients who were married and suffering from some form of

psychiatric disorder which formed cases and 80 married relatives or friends from the same socio-cultural background formed the controls. They reported premature ejaculation in 48% of the cases and 40% in controls. Erectile dysfunction was reported in 27% and 13% in cases and control group respectively. 63.4% of the cases described their sexual relationship as unsatisfactory as compared to 2.5% from control group.

Another case-control study was done by Kumar et.al in a tertiary care setting in 1983 [34] where 40 married male patients with neurotic disorders formed the cases while 22 healthy people formed controls. They found that there was significant decrease in the frequency of coitus, sexual satisfaction, and perceived satisfaction of the spouse in cases as compared to controls.

Verma et.al in 1998 [37] studied 1000 patients consulting a special psychosexual clinic at a tertiary care hospital. The most common problems reported by them were PME (77.6%) and nocturnal emission (71.3%). They also reported masturbatory guilt in 33.4%, concern related to size of the penis in 30%. The prevalence of ED was 23.6%. Other problems reported by them were anxiety about nocturnal emission in 19.5%, abnormal sensations in the genitals in 13.6% and venereophobia in 13% of their patients.

Gupta et.al in 2004 [39] studied 150 patients who consulted dermatology OPD with sexual problems. They reported that ED (34%) was the commonest problem.

Other common problems were premature ejaculation (16.6%) followed by Dhat syndrome (15.3%), and nocturnal emission (14%).

Kendurkar et.al in 2008 [40] assessed the medical records of 1242 patients attending a marriage and sex clinic and studied their sexual behaviour and problems. They found that premature ejaculation was the most common complaint and the most common diagnosis followed by erectile problems and Dhat syndrome.

An epidemiological study of sexual disorders in South Indian rural population by Rao, Darshan and Tandon (2015) [41] reported that about 21.15% of the male subjects were diagnosed with sexual disorder. Also 26.75% suffered from multiple sexual disorders. They reported erectile dysfunction to be most common with prevalence of 15.77% followed by premature ejaculation 8.76% and hypoactive sexual desire disorder was present in 2.56%. According to this study highest prevalence of sexual disorder was in the age group of 41-60 years. They reported that ED was lowest among men between 26 and 30 years of age which was 8.6% and highest among 51 to 60 years of age which was 27.6%. Participants in the age group of 18-25 years and those above 60 years did not have premature ejaculation. ED and PME were common in single men while Hypoactive sexual desire disorder was common in the married men. Prevalence of sexual disorders was 2 to 3 times more among illiterates than literates. Occupation wise highest sexual disorders were found in daily wage laborers (32.3%), followed by farmers (18.6%). Men

belonging to nuclear family had higher prevalence of sexual disorders (24.4%) as than those coming from a joint family (16.4%). Sexual disorders were more common in subjects with comorbid medical disorder.

Thangadurai et.al (2014) [43] conducted a study in secondary care setting in south Indian population looking at the nature, prevalence clinical features and explanatory models in patient with sexual dysfunction. The mean age of the subjects in their study was 43.4. The majority of patients who participated in this study were married (80%), literate (85.2%), employed (89.3%) and belonged to rural habitat (57.8%). majority did not use alcohol (75.6%) or tobacco (77.4%). The majority of the subjects practiced masturbation (84.4%). Few participants believed that their physical problems secondary to the loss of semen through masturbation or nocturnal emission (27.4%). The majority participants had sexual concerns (54.4%), but they were satisfied with their sexual life (56.7%). Also majority had a single sexual partner (57.0%) and never had contact with commercial sex workers (90.4%). They reported that (47.8%) men had erectile dysfunction while (43.0%) had premature ejaculation. The mean duration of sexual dysfunction reported by participants was 7.45 years (range 2 months – 35 years).

Kalra et.al (2015) [44] studied the psychosocial profiles of male patients presenting with sexual dysfunction in the psychiatric outpatient department of a teaching hospital. They found that 72% of the respondent's approached for help by

themselves and 28% were advised by their partners to seek help for their sexual problems. 52% of respondents had not taken any treatment in the past. 31% had taken alternative medical treatments like Ayurvedic, homeopathy or other herbal treatments while only 17% had taken allopathic treatment in the past. Majority of the respondents did not report present (63%) or past (87%) substance use. Majority of the respondents revealed that the main source of their knowledge of sex was from peers (69%), followed by books (27%) and least being media (4%). Nearly half of the participants reported that they started masturbating by the age of 11–13 years. Only 17% of the respondents continued to masturbate even after marriage. The most common sexual dysfunction was premature ejaculation (PE). Respondents of the age group 18–30 years reported premature ejaculation (58.5%) more commonly as compared to other age groups. Respondents belonging to upper socio-economic strata reported PME more commonly (71.4%) as compared to respondents from other socio-economic strata. Respondents having PE were more likely to be asked by their spouse (64.3%) to seek help as compared to respondents who had ED (21.4%). Older respondents (41–50 years) suffered more with both ED and PME (42.9%). 52% of the respondents attributed masturbation as the cause of their current sexual dysfunction. 14% of the participants attributed it to stress in their life. Minority of the respondents reported marital discord (32.35%).

A study was conducted by Verma and colleagues (2016) [44] where they studied patients attending psychosexual clinic at a tertiary care hospital. They found that

mean age of study subjects was 30.3±8.6 years. More than two-thirds were married and most of the subjects were educated (88%), employed (82.7%) and were from an urban habitat (91.7%). Psychiatric illness apart from the sexual problems was observed in 21.6%. They reported that depression (15.1%), anxiety disorder (4.4%) and psychosis (1.3%) were most common psychiatric disorders in these patients. ED was most common sexual disorder reported (29.5%), followed by PE in 24.6% subjects while Dhat syndrome was reported in 18.1% of the subjects. Among the subjects having multiple sexual disorders ED with PE was most common (17.5%). They reported history of current use of substance in 26.5% of subjects.

Thus the epidemiology factors associated with ED and PME vary in different studies. Also the prevalence of ED and PME differ depending on the setting in which the study was done, methodology and the sample studied.

1.2.3 Risk factors for male sexual dysfunction

Erectile dysfunction (ED) shares both unmodifiable and modifiable common risk factors with cardiovascular diseases (CVD) like obesity, diabetes mellitus, dyslipidemia, metabolic syndrome, lack of exercise, and smoking [45].

ED along with sexual disorder has also emerged as an important indicator of risk for underlying diseases especially CVDs [46]. A number of studies have shown that lifestyle modification [47] and pharmacotherapy [47, 49] help in improving

sexual function in men with ED. Epidemiological studies have demonstrated that lower urinary tract symptoms (LUTS), benign prostatic hyperplasia (BPH) are associated with sexual dysfunction regardless of age and other comorbidities [50,51].

The aetiology of PE is largely unknown. In current literature there is little evidence to support biological or psychological hypotheses for P.E. Few suggested hypothesis include performance anxiety, penile hypersensitivity, and 5-HT receptor dysfunction [52]. Studies have shown that high levels of performance anxiety which is mainly related to ED may lead to worsening of PE. According to the NHLS, age has no effect on the prevalence of PE [54, 55] while ED increases with age. Marital or income status has shown no effect on PE [54]. But few studies have shown that PE is more common in black men, Hispanic men and men from Islamic backgrounds [56, 57] and may be higher in men with a lower educational level [54]. Other risk factors may include a genetic predisposition [58], thyroid problems, and obesity, prostatitis [59, 60], psychiatric disorders, stress and traumatic sexual experiences [53, 54]. Only one study done in the area of risk modification for PE showed that successful treatment of chronic prostatitis produced marked improvements in intra-ejaculatory latency time (IELT) and ejaculatory control in patients with PME as compared to untreated patients [61].

One Indian study done in secondary care setting [42] found that the factors associated with erectile dysfunction included being currently married, financial

problems, diabetes mellitus as comorbidity, psychiatric treatment in the past and having a common mental disorders like anxiety and depression. This study also reported that older age and common mental disorders like anxiety and depression were risk factors for premature ejaculation.

Another study done in rural population of south India [41] found that age is a significant risk factor for male sexual disorders as more men age group of 41-60 years had sexual disorders. The age group of 51-60 showed highest prevalence of ED. Unmarried males had higher prevalence of erectile dysfunction and premature ejaculation. Male sexual disorders were 2 to 3 times more prevalent among illiterates, more common among daily wage laborers (32.3%), and from a nuclear family (24.4%).

Thus the common sexual disorders like ED and PME have risk factors which cover an entire range of biological, psychological and social factors like age, obesity, diabetes mellitus, anxiety, depression, financial problems and marital status.

Most of the previous studies were performed either as a part of epidemiological study in general population or in psychiatry outpatient/specialty clinics of teaching or tertiary care hospitals. One of the reasons for this could be that, the presumed etiology of sexual dysfunctions have oscillated between biological (organic) and psychological models. Based on the etiology patients were treated by either urologists or psychiatrist. But with recent advances in pathophysiology and PDE-I

medications like Sildenafil entering the market, biological treatments have gained more acceptance. Andrology as a sub-specialty of urology has been recognized, who provide comprehensive treatment of sexual dysfunctions in men.

1.3 CONCEPT OF ANDROLOGY CLINIC:

Andrology is the medical specialty that deals with problems of the male reproductive system and urological problems that are unique to men. It is also known as "The science of Men". Andrology clinic provides treatment for male patients having problems in the areas of genitourinary tract, infertility and sexual dysfunction. Andrologists are urologists who are specially trained or have special interest in the treatment of conditions affecting male fertility and sexuality. This specialty includes the treatment of physical conditions affecting the genitalia, such as undescended testes, as well as injuries and diseases that can affect fertility or sexual function. Health conditions such as heart disease, hypertension, diabetes mellitus and renal failure can all affect sexual functioning, so andrologists often have to collaborate with other specialists when managing men with sexual dysfunction and comorbid physical illnesses. Almost all andrology clinics are managed by urologist, a few by internal medicine specialist trained in andrology or reproductive health and a very few clinics specially in the west have a team approach consisting of a urologist, internal medicine specialist, nurse trained in andrology and a counselor or a clinical psychologist or a psychiatrist trained in sexual medicine.

1.4 DHAT SYNDROME:

1.4.1 Concept and definition of Dhat syndrome:

The term “Dhat” was derived from the Vedas which signifies precious body fluids called “Dhatus” [62]. According to Ayurveda semen is formed after several steps of processing of blood [62]. Though predominantly Hinduism follows the belief of semen being a precious fluid and its loss may have a harmful effect on the body, other religions such as Islam, Buddhism and Christianity also sanctions that belief [62].

Majority of the male sexual problems have attributed due to loss of semen by alternative medicine practitioners and traditional healers [62]. In other Asian countries the effects of semen loss are described under the names of “Prameha” in Sri Lanka and “Shen K'uei,” in China [63].

In modern Psychiatry practice Professor N. N. Wig coined the term “Dhat syndrome” in 1960. He conceptualized it to be the psycho-somatic attribution related to semen loss [64]. Wig described that the term “Dhat syndrome” should be used to describe loss of semen through nocturnal emissions or passage in urine [65]. However in later years new studies showed that many patients with Dhat syndrome also attribute their symptoms to semen loss through other means such as masturbation, defecation, and even sexual intercourse. Dhat syndrome was mentioned as a diagnostic entity, in the International Classification of Diseases and Health Related Conditions, 10^{th} Edition (ICD-10) and 4^{th} edition of the

Diagnostic and Statistical Manual of Mental Disorders-Text Revision (DSM-IV).[66]

1.4.2 EPIDEMIOLOGICAL ASPECTS

Dhat syndrome is widely prevalent in the Indian subcontinent [67-71] including Nepal, Bangladesh and Pakistan. [67-72,73,74,75]. The patient with Dhat syndrome is more likely to be recently married, comes from a lower middle or low socio-economic status, is a student, labourer or farmer by occupation, from a rural area and belongs to a family with conservative attitudes towards sex. [76, 77]

1.4.3 CLINICAL FEATURES

The patients with Dhat syndrome usually present with multiple vague somatic and psychological complaints such as fatigue, loss of appetite, decreased strength, poor concentration and forgetfulness which is associated with an anxious and dysphoric mood. Along with these symptoms they may also present with or without sexual dysfunction [78, 79, 80, 81].

The patient attributes his somatic, mood and sexual symptoms to the passage of ‘Dhat’ (semen or some whitish substance presumed to be semen by individual) in urine or through defecation or through nocturnal emission or masturbation [82].

1.4.4 PATIENT'S KNOWLEDGE, ATTITUDE AND EXPECTATIONS TOWARDS DHAT SYNDROME

Majority of patients believe that Dhat is semen while few believe that it is pus, sugar, concentrated urine, or infection. [77] Patients attribute their symptoms to loss of semen secondary to multiple factors like Masturbation, excessive indulgence in sexual activity, sexually transmitted diseases along with other factors like overeating, constipation or worm infestation, disturbed sleep or genetic factors [76, 77]. Majority of these patients get the information about Dhat syndrome from friends, colleagues or relatives whereas some get information from posters, advertisements in mass media, magazines or quacks. Therefore, these patients prefer to visit STD clinics, urologists and physicians rather than approaching psychiatrists.

1.5 PSYCHIATRIC MORBIDITY AND SEXUAL DYSFUNCTION

Psychiatric comorbidities are very commonly seen in patients with sexual dysfunction, infertility and several urological problems. Male sexual dysfunction has a bio-psycho-social basis which can be due to biological problems, relationship problems, intra-psychic conflicts, lack of proper sexual knowledge or a mixture of any or all of these. They may also be seen with other psychiatric and/or medical disorders, personality types as well [83]. Male sexual dysfunction is commonly seen in the community as well as in patients presenting to hospital for several medical and urological problems.

Mallis et.al showed in their study that Psychiatric morbidity is frequently detected in patients with erectile dysfunction (ED) [84]. They studied all the patients who visited an andrology outpatient clinic at the Center for Sexual and Reproductive Health, Aristotle University of Thessaloniki, Greece. Psychiatric morbidity was present in 63.1% of the patients, including depressive disorders in 25.2%, anxiety disorders in 11.7%, depression-anxiety comorbidity in 6.8% and personality disorders in 5.8% [84]. Another study conducted in non-psychiatric general hospital revealed that depressive and phobic-anxiety symptoms were seen with ED secondary to relationship problems, somatization was seen with ED of organic origin, whereas free-floating anxiety, obsessive-compulsive, and phobic symptoms were significantly associated to ED secondary to intrapsychic conflicts. Depressive symptoms were associated with hypogonadism, low frequency of intercourse and conflictual relationships among couples and the family [85, 86]. Subjects which presented with somatization symptoms showed the worst erectile function [85, 86]. One study from Netherlands showed an increased prevalence of anxiety disorders in men who had sexual dysfunction. An increased rate of lifetime diagnoses of affective and a near significant increased rate of lifetime anxiety disorder was noted in men with sexual dysfunction [85,86].

Gurvinder Kalra et.al [44] studied profile of male patients with sexual dysfunction and noted that 24% of the patients had comorbid depressive disorders. Patients with premature ejaculation (PE) (58.3%) had higher percentage of depressive

disorders as compared to those with ED (41.7%). Also the participants who reported masturbatory guilt had higher chances of being depressed.

Bagadia et.al [30] found Anxiety state (57%), schizophrenia (16%) and reactive depression (16%) were the common psychiatric conditions diagnosed in patients with sexual dysfunction. One study showed a clear relationship between social phobia and premature ejaculation. Panic disorder patients report a major proportion of sexual disorders as noted to those who have social phobia. Sexual aversion disorder is by far the commonest sexual dysfunction in panic disorder patients whereas premature ejaculation is the most common sexual dysfunction in male males who have social phobia. Thus sexual dysfunction is a common and often neglected complication of social phobia and panic disorder. One study which compared infertile couples with fertile couples noted that the occurrence of many psychiatric disorders was significantly raised among infertile subjects than when compared to fertile controls, mainly for adjustment disorder with mixed anxiety and depressed mood (16% vs. 2%) and for binge eating disorder (8% vs. 0) [87].

Another study done in sterile males coming to an andrology clinic found that 26.2% of them had at least one psychiatric disorder in accordance with the DSM IV with a significant over-representation of generalized anxiety disorder and somatization disorder. The study of defense mechanisms used by sterile men to cope with their problems concluded that sterile men used mature defense

mechanisms like anticipation, humor, and repression. Psychiatric comorbidity was significantly related to the preferential use of defence mechanisms like withdrawal, reaction formation and absence of humor use. This study also showed the fact that the subjects using especially neurotic defense styles were more likely to develop a psychiatric disorder than others who didn't. Allen Seftel et.al studied a national database with a sample of 2, 72, 325 patients with ED and found the rate of depression as 11.8%. [89]. Rohit Verma et.al reported psychiatric morbidity in 21.6% of the patients with sexual disorders attending sex clinic. Most of the subjects were suffering from depression (15.1%), thereafter by anxiety disorder (4.4%) and psychosis (1.3%). A study was conducted by Thangadurai et.al to assess the prevalence of sexual dysfunction among men in a secondary care hospital from South India reported common mental disorders in 8.51% of subjects who had sexual dysfunction. They also concluded that current common mental disorder is a major risk factor for erectile dysfunction and pre-mature ejaculation.

Previous studies have noted that psychiatric morbidity is commonly present in patients with sexual dysfunction and also some have concluded that psychiatric morbidity is either missed or neglected in patients with sexual dysfunction. Different studies have concluded different prevalence of psychiatric morbidities in patients with sexual dysfunction. Again the prevalence of Psychiatric morbidity may vary depending on the setting, diagnostic criteria used and the sample studied. Details are summarized in following table.

Author	Study setting	Prevalence of Psychiatric co-morbidity	Prevalence of common psychiatric disorders
Mallis. D et.al	Andrology Clinic	63.1%	Depressive disorders – 25.2% Anxiety disorders- 11.7% Personality disorders- 5.8%
Gurvinder Kalra et.al	Psychiatry OPD in a tertiary care center		Depressive Disorders- 24%
Bagadia and his colleagues	Psychiatry OPD in a Teaching hospital		Anxiety state-57% Schizophrenia-16% Reactive depression-16%
Bellone M et.al	Sterile male patients in Andrology Clinic	26.2%	Social anxiety is a risk factor for pre mature ejaculation
Rohit Verma and colleagues	Psychosexual clinic at a tertiary care center in Delhi	21.6%	Depression - 15.1% Anxiety disorder - 4.4% Psychosis - 1.3%
Allen d. Seftel et.al	National sample of patients with ED		Depression- 11.8%
Thangadurai et.al	Secondary care setting	8.51%	

PSYCHIATRIC COMORBIDITY IN DHAT SYNDROME:

High rate of psychiatric comorbidity is reported in patients with Dhat syndrome. Previous studies have reported that 32 to 40 percent of patients having Dhat syndrome suffered from psychiatric comorbidity. Most common were anxiety-depression in 40-42% while 21-38% had somatoform disorder [90].

Bhatia & Malik assessed patients with Dhat syndrome with Hamilton Rating Scale and found that significant number had one or more somatic symptoms and one third reported sexual problems, and half of the patients had Depression [91]. Chadha did a case–control study where patients with Dhat syndrome formed cases while patients with neurosis were controls. They found that nearly 50% had depressive disorder, 18% had anxiety disorder and 32% had somatoform disorders [92]. De Silva & Dissanayake conducted a study in Srilanka where they followed a cohort of 38 men with Dhat syndrome and observed that majority reported continuing loss of semen over a period ranging from 6 months to 20 years, 50% had somatic symptoms, 53% had anxiety, and 40% were diagnosed with hypochondriasis and 5% with stress reaction [93]. Dhikav.et.al studied patients with dhat syndrome and reported that 66% had depression while 33.3% had comorbid premature ejaculation and 6.6% patients had erectile dysfunction [94]. Gurmeet singh reported 48% co morbid depression and 16% neurosis in patients with Dhat syndrome in a tertiary care center [95].

Thus it is crucial to acknowledge the fact that psychiatric morbidity is very common in male sexual dysfunction. Thus systematic testing of patients with ED, through psychiatric questionnaires, is crucial to detect even slight or moderate psychopathological distress, which specifically associate and exacerbate sexual disturbances. The prevalence of psychiatric morbidity in patients with sexual dysfunction changes with the criteria used for diagnosing sexual dysfunction and psychiatric disorders. Also the setting in which the study is carried out has a great impact on prevalence rates of psychiatric morbidity seen in patients with sexual dysfunction. The most important conclusion that can be drawn from the above studies is that psychiatrists and andrologists should work in liaison in order to understand and manage the psychological distress of men with sexual dysfunction.

1.6 EXPLANATORY MODELS IN MALE SEXUAL DYSFUNCTION

"Explanatory Models are the notions about an episode of sickness and its treatment that is employed by all those engaged in the clinical process" (Kleinman 1980). Explanatory models try to explore the beliefs associated with an episode of sickness and its treatment. They consider beliefs of all those who are engaged in the clinical process [96, 97]. They emphasize the differentiation of etic and emic perspectives of illness. Etic models suggest physician perspectives towards illness and are mostly evidence based or proven scientific explanations, whereas emic models explores patients' beliefs and concepts related to the illness episode. These models include beliefs and behaviours concerning aetiology, course, timing of

symptoms, meaning of sickness, roles and expectations. Eliciting explanatory models are crucial as they influence diverse aspects of the illness like help seeking behaviour, compliance with treatment and patient satisfaction. Differences between physician and patient models tend to generate difficulties in the treatment [97]. Kleinman [97] proposed a few questions which enquire about the nature of the problem, its cause, its consequences and the expectation of the individual. Elicitation of explanatory models becomes more important when the patient and physician come from different cultural backgrounds. This is particularly true in relation to psychiatric disorders where many of the concepts and categories have a western basis. Not eliciting explanatory models may lead the clinicians to make decisions without understanding and involving patients and their families in the decision making process. This may lead to poor cooperation from the patients and their families which usually have consequences like non-compliance with therapy and relapse or worsening of illness episode [98]. Assessing explanatory models of the patients and their caregivers will definitely help clinicians in taking balanced decisions related to patient care. Knowing explanatory models also helps us to propose alternate models of disease, which helps in psycho-education of the patients and families.

Many studies have explored the explanatory models of different psychiatric illnesses like schizophrenia and mood disorders. Mccabe and Priebeon studied the explanatory models of schizophrenia in four ethnic groups, found that when

biological and social causes were compared, Whites cited biological causes more frequently than African, Caribbean's and Bangladeshis, who cited social causes more frequently. A biological explanatory model was related to enhanced treatment satisfaction and therapeutic relationships but not treatment compliance[99]. Another study on explanatory models of schizophrenia by Johnson et.al from Vellore found that many subjects simultaneously accepted multiple and contradictory explanatory models of illness. They also reported that explanatory models changed over the course of illness. Disease or biological or Medical explanatory models were associated with remission while non-medical explanatory models were associated with poorer outcome. But a significant interaction between medical and non-medical models was reported. The presence of a combination of a medical model and at least one indigenous non-medical model predicted better prognosis [100].

Buus et al. conducted a study in Denmark exploring the explanatory models for depression and antidepressant use. They found that majority of depressed patients believed in non-medical psychosocial models and did not believe in biological explanations for their illness. [111]

SK Nambi et.al studied explanatory models in patients with unexplained somatic symptoms attending a primary care facility. They found that 42% patients believed in black magic as the cause of their illness. This study concluded that there is a need to elicit specific explanatory models regarding the nature of illness in patients

who present with somatic symptoms without organic causes. They also highlighted that understanding the patient's perspectives is a crucial for providing optimal treatment [102].

Viswanathan et al studied sexual function and explanatory models for sexual dysfunction in women in rural Tamil Nadu. They found that women attributed their loss of libido and sexual problems to stress and unsatisfactory marital life [103]. Thangadurai et.al explored the explanatory models for sexual dysfunction amongst male patients presenting to a secondary care hospital. The men reported multiple different explanatory models for their sexual problems like masturbation (26.7%), nocturnal emission (20.0%), lack of privacy (2.2%), punishment by God (9.6%), karma (8.5%) and disease (22.6%). They also believed in diverse treatment modalities for their sexual dysfunction like special diet (52.6%) and medical treatment (40.4%), herbal remedies (69.3%) and traditional healers (61.9%), [42]. A study exploring explanatory models for Dhat syndrome concluded that majority of patients believed that Dhat consists of semen, followed by pus, sugar, and concentrated urine. Also majority considered the causative factor for Dhat syndrome as masturbation and excessive indulgence in sexual activity, followed by venereal diseases, urinary tract infections, overeating, constipation, worm infestation, disturbed sleep or genetic factors. [104].

Men without sexual dysfunction have been found to possess a “resistance to a dysfunctional mentality”. This “dysfunctional mentality” seen in men with sexual

dysfunction is characterized by the maintenance of negative expectations regarding sexual performance situations and presumably, a pessimistic explanatory model regarding sexual events. Few available studies indicate that individuals with sexual difficulties have a tendency towards self-blame, or an internal attributional style for sexual problems. It was observed that these men tend to blame themselves rather than circumstances or their partners for erectile failures, even when there were alternative explanations.

In clinical encounters the patient's Explanatory model is usually facetious. Patients generally are embarrassed about revealing their beliefs in a formal health care setting. They may foresee ridicule or criticism because their beliefs appear mistaken or non-scientific from a professional point of view. As a result, when they reveal their beliefs they may report them as a short single phrase explanation. Physicians should be non-judgmental in eliciting their patient's beliefs, since they do prove to be important in treatment planning and thus could make the elicitation of explanatory models in clinical settings meaningful.

2. AIMS AND OBJECTIVE

This study aims to determine the socio-demographic profile, clinical features, explanatory models of sexual dysfunction and prevalence of psychiatric morbidity in patients attending andrology clinic in a tertiary care hospital.

Primary objective:

1. To study the prevalence of psychiatric morbidity among patients attending the Andrology clinic in a tertiary hospital
2. To study the explanatory models of sexual dysfunction in patients attending the Andrology clinic in a tertiary hospital

Secondary objective:

To study the socio-demographic characteristics of these patients and assess their associations with psychiatric morbidity and explanatory models

3. METHODOLOGY

3.1 THE STUDY

3.1.1 SETTING

The study was conducted at the andrology clinic run by the Department of Urology, Christian Medical College and Hospital, Vellore. This is a tertiary care center catering to the population of several southern Indian states of Tamilnadu, Andhra Pradesh, Kerala, along with north and north eastern states like Orissa, Bihar and West Bengal along with neighbouring countries like Bangladesh, Nepal and Bhutan.

The hospital conducts andrology clinics on every Wednesday in the morning. The average number of patients attending the clinic per OPD is about 40 to 50.

3.1.2 SUBJECTS

Consecutive male patients attending the andrology clinic at the Christian medical college and hospital were invited to participate in this study.

Inclusion criteria:

- Patients 18 years and above attending andrology clinic at CMC Hospital
- Patients who can speak Hindi or English

Exclusion criteria:

-Patients with psychosis, severe sensory or cognitive impairment

3.2 PROCEDURE

3.2.1 SAMPLING

Patients who present to the andrology clinic are registered and their charts are randomly distributed by Medical Records Officer to different cabins to be seen by andrology consultants. Charts of the patients were randomly selected and patients were invited to participate in the study. Detailed informed consent was taken from the patients in the language they best understand before starting the interview. Interview was carried out in separate cabin in order to maintain the privacy. All patients were interviewed before they were evaluated by the andrologist.

All subjects who gave consent were evaluated in details for their socio-demographic data using specially designed proforma. Sexual dysfunction was assessed using DSM-5 criteria. Beliefs about the etiology of the illness, its course, the time of onset of symptoms, the meaning of sickness, the diagnosis, the methods of treatment, the roles and expectations of the subjects were assessed using Modified short explanatory model interview (SEMI). Subjects were further assessed using Hindi version of Clinical interview schedule – revised (CIS-R) to detect common mental disorders.

3.2.2 INSTRUMENTS USED

1. Socio-demographic data in a specified proforma
2. Sexual history questionnaire

3. Short explanatory model interview

4. Clinical interview schedule- revised

3.2.2.1 INSTRUMENTS USED FOR ASSESSING EXPLANATORY MODELS AND ATTITUDES

MODIFIED SHORT EXPLANATORY MODEL INTERVIEW (SEMI)

The Short Explanatory Model Interview (SEMI):

Kleinman's original concepts," which examined health and sickness from an anthropological perspective, formed the basis of the interview. The semi-structured interview explores emic perspectives of illness." It employs open-ended questions. The language is simple and does not include any medical or technical words or phrases. The subjects are encouraged to talk openly about their attitudes and experience with the aim of eliciting concepts held, and relationship to current situation and culture. Probes are also employed to confirm the concepts mentioned and to explore areas that the patients did not volunteer. The interview is divided into five sections to cover the subject's background, nature of presenting problem, help-seeking behaviour, interaction with physician/healer, and beliefs related to mental illness. The individual's beliefs related to the nature of the presenting problem are examined in detail and include the reason for consulting, name of the problem, perceived causes, consequences, severity and its effects on body, emotion, social network, home life and on work. Emic symptoms are elicited by

open-ended probing. Help-seeking behaviour, especially contact with alternative non-medical sources (e.g. traditional healers) are also examined. The details of the interaction with the physician/healer are also evaluated in terms of expectation and satisfaction.

SEMI takes about 20-30 minutes to complete. The inter-rater reliability of the SEMI was found to be high. The non- technical nature of the instrument allows for the translation and adoption into different languages for use in different cultures. Its format also allows for qualitative and quantitative analysis. Interviewers from diverse theoretical backgrounds can be trained and high inter- rater reliability achieved. The SEMI has been used and translated into many languages including Hindi and Tamil.

3.2.2.2 INSTRUMENT USED FOR IDENTIFICATION OF PSYCHIATRIC MORBIDITY

3.2.2.2.1 THE CLINICAL INTERVIEW SCHEDULE

The clinical interview schedule (CIS) has been widely used as a standardized interview for assessing minor psychiatric disorders. It is explicitly meant to be used in community settings and the threshold determined for case definition corresponds to the point at which a general practitioner would become concerned about a patients mental health.

3.2.2.2.2 THE REVISED CLINICAL INTERVIEW SCHEDULE

The Revised Clinical Interview Schedule (CIS-R) [113] is a standardized semi-structured interview to assess the mental state of subjects with CMDs. The schedule minimizes observer bias as it does not require the interviewer's clinical judgment. Most aspects of the interviewing style are prescribed, including the exact wording of the questions and specific rules for coding each symptom. The schedule has 14 sub-sections: somatic symptoms, fatigue, concentration, sleep problems, irritability, and worry about physical health, depression, depressive ideas, worry, anxiety, phobia, panic, obsessions and compulsions The CIS-R has been shown to have high inter-rater reliability. It has been employed in many investigations of CMD. It takes 10 to 20 minutes to administer. The instrument has been validated in HINDI which will be used for the study.

3.2.2.2.3 THE SCORING OF THE REVISED CLINICAL INTERVIEW SCHEDULE

Each section is scored over past 7 days and scores for sub sections range from 0 to 4. Each section has a variable number of mandatory questions, which act as a gate to more detailed assessment of the symptoms. These ratings obtained at interview provide a score, which is taken to indicate the severity of any minor psychiatric disorders (excluding psychotic disorders). A threshold of those scoring 12 or more has been established as best cut off to determine caseness when compared with

gold standard of psychiatric interview. The CISR has been shown to be equally useful in developed as well as developing countries. [113]

3.2.3 ETHICAL CONSIDERATION:

Study was initiated only after clearance from institutional ethics committee. All the participants were interviewed in a separate cabin and keeping in mind the sensitive nature of the study the privacy of the participants was assured. Detailed information sheet was provided to participants in the language they can best understand and a written informed consent was taken from all participants in the language they best understand before the interview. The interview was conducted only by the principal investigator, the information collected was available only to the research team and the data that was collected was processed only for research purpose.

3.3 STATISTICAL METHODS

3.3.1 DETERMINATION OF SAMPLE SIZE:

The sample size was estimated using the formula $4pq/d^2$.

Previous studies have reported the prevalence of psychiatric morbidity among patients with sexual dysfunction as 13% [16]. Calculating sample size for a prevalence of 15%, with a precision of 0.07, the sample size was calculated as 104. We recruited 113 patients during the study period.

3.3.2 DATA ANALYSIS

Mean, standard deviation and range were used to describe continuous variables while frequency distribution was obtained for categorical variables. The chi-square test was used to test the association for categorical variables and Student *t*-test was used to compare continuous variables. Multiple logistic regressions were done for multivariate analysis to adjust for possible confounders. Odds ratio and confidence intervals were calculated. The statistical software SPSS for Windows Release 16 was used for the analysis of data.

4. RESULTS

4.1 STUDY SAMPLE:

One hundred and sixteen patients, fulfilled criteria for inclusion and were invited to participate in the study. Three patients refused consent and therefore were not included in the study sample. One hundred and thirteen patients completed the interview and were included in the analysis.

4.2 SOCIO-DEMOGRAPHIC PROFILE OF THE PARTICIPANTS

The mean age of the participants was 37.38 years (SD ± 9.4, range 20 to 62). Majority of the participants (73.5%) were from a middle socio-economic background. Mean number of years of education of the sample was 11.47 years (SD ± 4.4, range 0 to 18). Majority of the sample (85%) was literate and could read and write. Majority of the participants (41.6%) were professionals, and only 7.1% of the participants were unemployed.

Among those who were employed, the majority (65.7%) reported that they were satisfied with their job. Most of the participants (52.2%) were from an urban background. Majority of the participants (53.1%) were from a nuclear family and 23% of the participants had some medical comorbidity. Among the participants with medical comorbidities, diabetes mellitus was reported by 57.7%. Details of the socio-demographic profile of the participants are described in the following tables.

Table1. Socio- demographic profile of the participants (n = 113)

Characteristics	Frequency	Percent
Educational Status		
Illiterate	8	7.1
Literate	105	92.9
Occupation		
Unemployed	8	7.1
Student	3	2.7
Unskilled	30	26.5
Skilled	25	22.1
Professional	47	41.6
Job Satisfaction		
Satisfied with job	71	62.8
Not satisfied with job	37	32.7
Socioeconomic Status		
Lower socio-economic status	23	20.4
Middle socio-economic status	83	73.5
Higher socio-economic status	7	6.2
Habitat		
Urban	59	52.2
Rural	54	47.8
Family		
Joint	33	29.2
Nuclear	60	53.1
Extended	19	16.8
Living alone	1	0.9
Psychoactive substance use	22	19.5
Substance use in dependence pattern (ICD-10)	12	10.6

Table2. Socio-demographic profile of the participants

Characteristics	Range	Mean	SD
Age in years	42	37.38	9.413
Number of years of education	18	11.47	4.480
Period between onset of symptoms and treatment seeking at our center in months	297	61.74	60.952

4.3 Marital life and profile of the spouses of the participants

Majority of the participants (80.5%) were married and living with their spouse. Among the married participants, the mean age of the spouse was 31.92 years (SD ± 8.76, range – 16 - 62), the majority (89.0%) were housewives, mean number of years of education of the spouse was 9.70 years (SD ± 5.43 years), mean duration of married life was 149.35 months (SD ± 11.70 months). The mean difference between age of participant and their spouse was 7.35 years (SD ± 4.37 years).

Majority of the spouses (62.0%) did not accompany the patients during the hospital visit. Most of the participants (75.5%) reported satisfactory marital life and the majority (89.4%) reported adequate privacy at home. Details are summarized in following table.

Table.3 Marital life and profile of the spouses of the participants

Characteristics	Frequency	Percent
Marital status		
Single	19	16.8
Married	91	80.5
Separated	1	0.9
Divorced	2	1.8
Occupation Of Spouse		
Housewife	81	71.7
Unskilled	1	0.9
Skilled	4	3.5
Professional	5	4.4
Partner accompanying for the treatment		
Yes	35	38.0
No	57	62.0
Marital Life		
Satisfactory	71	75.5
Unsatisfactory	23	24.5

Table.4 Marital life and profile of the spouses of the participants

Characteristics	Range	Mean	SD
Duration of married life in months	479	149.3	112.22
Age of spouse in years	46	31.9	8.76
Difference in age of subject and partner in years	27	7.3	4.37
Number of years of education of the spouse in years	17	9.7	5.43

4.4HELP SEEKING AND TREATMENT HISTORY

Majority of the participants (66.0%) were encouraged (advised or pressurized) by their partners to seek help for sexual dysfunction. Mean duration between onset of symptoms and the first consultation at this center was 61.74 months (SD ± 60.95, range of 3 to 300). Most of the participants (63.7%) stated that they had not taken any type of the treatment for their sexual problems in the past. Among the participants who had taken treatment in the past, the majority (56.1%) had taken allopathic treatment, while 24.4% reported having tried different treatment options like allopathic, alternative medicine, over the counter medications and magico-religious treatments. Details are summarized in following table.

Table5. Help seeking and treatment history

Characteristics	**Frequency**	**Percentage**
Advised by partner to seek treatment (n= 94)		
Yes	62	66.0
No	32	34.0
Any type of treatment taken in the past (n=113)		
Yes	41	36.3
No	72	63.7
Type of treatment taken in the past (N= 41)		
Allopathic	23	56.1
Alternative Medicine like Ayurveda/ homeopathy	7	17.1
Other/non-medical/ OTC	1	2.4
All the above	10	24.4

4.5 SEXUAL HISTORY OF THE PARTICIPANTS

Participants were interviewed about their sexual history using a sexual history questionnaire, which looked at various aspects of masturbatory practices, current sexual functioning, patterns of sexual behaviour, beliefs about sexual activity and opinions about prevention of unplanned pregnancy and sexually transmitted diseases.

4.5.1 Masturbatory practices:

Majority of the participants (91.2%) were aware of the concept of masturbation. Mean age of onset of masturbation was 16 years (SD ± 2.53). Though 78.8% of the participants reported having masturbated in their lifetime, only a minority (20.4%) reported current masturbation. The most common reasons for stopping masturbation was guilt (56.6%) and marriage (44.2%). Details obtained from sexual history questionnaire are summarized in following tables.

Table.6 Details obtained regarding masturbatory practice of the participants

Characteristics	Number	Percentage
Awareness regarding the concept of masturbation	103	91.2
Currently practicing masturbation	23	20.4
Practiced masturbation in the past	89	78.8
Stopped masturbation due to guilt/ masturbatory guilt	64	56.6
Masturbation stopped after marriage	50	44.2

Table.7 Details obtained regarding masturbatory practice of the participants

Characteristics	Range	Minimum	Maximum	Mean	SD
Age of onset of Masturbation	12	10	22	16.00	2.536

4.5.2 Sexual activity

Mean age of first sexual contact was 24.78 years. 20.4% participants reported contact with commercial sex workers while 23.9% reported that they have multiple sexual partners. 69% of the participants reported that their first sexual contact was only after marriage. These details are summarized in following tables.

Table8. Details obtained from sexual history questionnaire

Characteristics	Range	Mean	SD
Age of first sexual contact in years	12-43	24.78	5.879

Table9. Details obtained from sexual history questionnaire

Characteristics	Number	Percent
Sexually active	100	88.5
History of sexual contact with commercial sex worker	23	20.4
Sexual contact with multiple partners	27	23.9
First sexual contact only after marriage	69	69.0
First sexual partner		
Girlfriend	19	19.0
Wife	71	71.0
Commercial Sex worker	6	6.0
Others/ do not want to disclose	4	4.0

4.5.3 Awareness about sexually transmitted diseases

66.4% of the participants stated that were aware of sexually transmitted diseases (STD's), but only 41.6% actually took measures to prevent these. Among the measures taken to prevent STD's, the majority (72.3%) reported having single partner as the method of choice. These details are summarized in following table.

Table.10 Awareness regarding sexually transmitted diseases (STD's)

Characteristics	**Number**	**Percent**
Aware about sexually transmitted diseases and methods to prevent STD	75	66.4
Measures taken to prevent STD	47	41.6
Specific measures taken to prevent STD		
Condom	12	27.7
Single partner	35	72.3

Only 29.2% of the participants took some form of precaution to prevent unplanned pregnancy. When asked about their preferred method to prevent unplanned pregnancy (contraceptive), majority 63.9% felt it was their partner's responsibility. The details are summarized in following table.

Table11. Contraceptive practices reported by participants

Characteristics	**Number**	**Percentage**
Some form of contraception used	33	29.2
Type of contraception used		
Condom	10	27.8
Partner responsibility (OC Pills, Copper-T, Sterilization)	23	63.9

4.5.4 CLINICAL PROFILE OF THE SEXUAL DISORDERS

Ninety four participants fulfilled criteria for a sexual disorder according to DSM-5. The prevalence of a sexual disorder was 83.2%, despite the sample being patients attending Andrology clinic. All the participants reported some sexual concern while completing the SEMI. Most common sexual disorder in our sample was pre-mature ejaculation (PME) (58.4%) followed by erectile dysfunction (ED) (51.3%) and Dhat syndrome (37.2%). 59.3% participants reported more than one sexual disorder. These details are summarized in the following tables.

Table12. Prevalence of sexual dysfunction (DSM-5) and Dhat syndrome (ICD-10)

Sexual disorders	Number	Percentage
Delayed ejaculation	1	0.9
Male hypoactive sexual desire disorder	26	23.0
Erectile dysfunction	58	51.3
Pre-mature Ejaculation	66	58.4
Orgasmic dysfunction	38	33.6
Dhat syndrome	42	37.2

Table13. Prevalence of combinations of sexual disorders

Sexual Disorders	Number	Percentage
Erectile Dysfunction + PME	16	14.2
ED + PME + Dhat syndrome	16	14.2
ED + Dhat syndrome	06	5.3
PME + Dhat syndrome	16	14.2

4.6 PSYCHIATRIC MORBIDITY

A score of 12 or more in CISR is considered as standard cut off to decide caseness for common mental disorders (CMD). [106] Accordingly 59 (52.2%) participants had common mental disorder.

Table14. Common mental disorders according to CISR

Caseness according to CISR	CMD	Frequency	Percent
CISR Positive (score > 12)	Present	59	52.2
CISR Negative (score<12)	Absent	54	47.8
Total		113	100.0

4.7 EXPLANATORY MODELS

Participants were then interviewed based on Modified SEMI and were asked to list all the possible sexual concerns they have. Most of the participants reported premature ejaculation (63.71%) as their sexual concern followed by erectile dysfunction (55.75%). These details are summarized in following tables.

Table15. Sexual concerns as reported by participants

Sexual Concerns	Frequency	Percent
ED	63	55.75
PME	72	63.71
Concern regarding consistency and loss of semen	35	30.97
Concern about fertility	7	6.19
Concern regarding pain / abnormal sensation in genital region	18	15.92
Concern about partner satisfaction	7	6.19
Concern regarding size and shape of external genitalia	31	27.43
Concern regarding performance	16	14.15
Decreased libido	26	23
Nocturnal emission	14	12.38

Patient explanatory models regarding causation:

Participants were asked questions regarding their beliefs about causation of sexual problems. They were asked questions like what was the first thought that came to their mind when they witnessed sexual problem and do they feel that they have done something which may have caused sexual problem or do they feel that there

is something which was supposed to be done but they have not done it which may have caused this sexual problem. Their responses are summarized in table16.

After noting down their responses they were asked specific closed ended (yes/no) questions regarding their belief in different causes of their sexual dysfunction and also their preferred treatment modality. These details are summarized in following tables 17 and 18.

Table16. Patient explanatory models regarding causation.

Response	**Frequency**	**Percent**
Don't know/ nothing specific	37	32.74
Masturbation	21	18.58
Indulgence with commercial sex worker	1	0.88
Extra marital affair	5	4.42
Excessive indulgence in sex before marriage	7	6.19
Stress and tension	16	14.1
Gastro intestinal symptoms	13	11.50
Inappropriate food intake/ supplement intake	3	2.65
Alcohol intake	3	2.65
Night fall	13	11.50
Physical disease	19	16.81
Obesity	5	4.42
Nerve dysfunction	5	4.42
Others (ring given by baba, mixing poison in food by partner, electric current/ laptop electromagnetic waves etc)	5	4.42

Table17. Patient's response regarding cause of their sexual problems

Characteristics	Frequency	Percentage
Black magic	7	6.2
Karma	6	5.3
Punishment from God	9	8.0
Evil spirits	2	1.8
Masturbation and loss of semen	39	34.5
Night falls and loss of semen	31	27.4
Disease	44	38.9
Lack of privacy	8	7.1

Table18. Response of the participants regarding various treatment options

Treatment options	Number	Percentage
Doctor/ nurse	103	91.2
Traditional healer	9	8.0
Mantravadi	8	7.1
Temple/ church/ mosque	11	9.7
Special diet/ diet restrictions	22	19.5
Herbal remedies	26	23.0

EXPLANATORY MODELS OF SEXUAL DYSFUNCTION

Medical model:

The participants who felt that their problems were secondary to physical problems like disease, obesity, nerve problem, gastrointestinal causes and who felt that a doctor or a nurse can treat their problem were categorized as having a medical model for their sexual dysfunction.

Non-medical model

The participants who felt that their problems were secondary to religious or spiritual causes like karma, punishment by God, evil spirits or black magic and who felt that visiting a mantravadi or traditional healer or religious center may cure their problem were considered to have a non-medical model. Participants who reported culturally accepted themes like their sexual problems are secondary to semen loss due to masturbation or night falls or secondary to psychological factors like stress, tension, inappropriate food intake, guilt due to contact with multiple partners, extra-marital affair, high risk behaviours were also categorized as having a non-medical model of illness.

Table19. Explanatory models of sexual dysfunction according to participants

Explanatory model	**Number**	**Percentage**
Medical	105	92.9
Non-medical	75	66.4
Single model	36	33.3
Multiple model	72	66.7
No model of illness	05	4.4

4.8 RISK FACTORS FOR PSYCHIATRY MORBIDITY

Socio-demographic variables

Respondents with common mental disorders were younger ($t = 2.249$, $p < 0.05$) and less educated ($t = 2.209$, $p<0.05$) as compared to participants who did not have common mental disorders. Also the spouses of the participants with common mental disorders were younger ($t = 2.745$, $p<0.05$) and less educated ($t = 3.497$, $p<0.05$). These details are summarized in the following tables.

Table20.Comparison of socio-demographic (continuous) variables between patients with and without CMD

Variables	CMD Present	CMD Absent	t-value	p-value
Age (in years)	35.51 SD=8.850	39.43 SD=9.663	-2.249	0.026*
Education (in years)	10.59 SD=4.572	12.43 SD=4.21	-2.209	0.029*
Education of the spouse	7.83 SD=4.72	11.57 SD=4.24	-3.497	0.01*
Age of the spouse	29.50 SD=34.35	34.35 SD=9.23	-2.745	0.007*
Duration of marital life in months	131.67 SD=99.65	167.02 SD=122.069	-1.521	0.132

*= $p<0.05$

Comparison of categorical socio-demographic variables showed that significantly more number of participants having common mental disorders were unemployed (X^2=7.880, $p<0.05$), were not satisfied with their current job (X^2= 9.250, $p<0.05$), were from lower socio-economic status (X^2=7.83, $p<0.05$), were married to the

spouses who were illiterate (X^2=9.20, p<0.05), had unsatisfactory marital life (X^2=6.965, p<0.05), were from an urban background (X^2= 9.546, p<0.05) and had taken treatment for sexual dysfunction in the past (X^2 = 4.799, p<0.05) as compared to participants who did not have common mental disorders.

Sexual behaviour and sexual disorders

Significantly more number of participants with common mental disorders had masturbatory guilt (X^2= 3.577, p<0.05), had their first sexual contact after marriage (X^2= 3.284, p<0.05), had sexual misconceptions (X^2=6.24, p<0.05), were diagnosed with PME (X^2=3.009, p<0.05), Dhat syndrome (X^2=9.89, p<0.05) and had more than one sexual disorder (X^2=4.17, p<0.05) as compared to participants who did not have a common mental disorder. Other variables covering socio-demographic data and information related to sexual behaviour and sexual disorders were not significantly associated with common mental disorders.

Table21. Comparison of socio-demographic variables between patients with and without CMD

Variables	**CMD Present**	**CMD Absent**	**X^2**	**p-value**
Employment				
Yes	51	54	7.880	0.006*
No	8	0		
Job satisfaction				
Yes	28	43	9.250	0.002*
No	26	11		
Lower socio-economic status				
Yes	18	5	7.835	0.005*
No	41	49		

Middle socio-economic status				
Yes	40	42	1.411	0.293
No	19	12		
Upper socio-economic status				
Yes	1	6	4.302	0.053
No	58	48		
Literacy of the Spouse				
Illiterate	16	4	9.200	0.05
Literate	30	42		
Marital life				
Satisfactory	30	41	6.965	0.008*
Unsatisfactory	17	6		
Habitat				
Urban	39	20	9.546	0.03*
Rural	20	34		
Past treatment taken for sexual dysfunction	27	14	4.799	0.03*
Yes	32	40		
No				
Medical co-morbidity				
Present	14	12	0.036	0.849
Absent	45	42		
Masturbatory guilt				
Present	38	26	3.577	0.059
Absent	12	19		
First sexual contact after marriage				
Yes	31	38	3.284	0.07
No	20	11		
Sexual partners				
Single	33	40	3.633	0.05
Multiple	18	9		
Sexual misconceptions				
Present	41	25	6.245	0.01*
Absent				
Erectile dysfunction				
Present	33	25	1.048	0.349
Absent	26	29		

Orgasmic dysfunction				
Present	22	16	0.741	0.389
Absent	37	38		
Pre-mature Ejaculation				
Present	39	27	3.009	0.08
Absent	20	27		
Dhat syndrome				
Present	30	12	9.893	0.002*
Absent	29	42		
Multiple sexual disorders				
Present	35	19	4.147	0.042*
Absent	16	21		

*= $p<0.05$

EXPLANATORY MODEL:

Participants with a common mental disorder believed that their sexual problem is due to Karma ($X^2=5.799$, $p<0.05$), masturbation ($X^2=4.987$, $p<0.05$), night falls($X^2=8.273$, $p<0.05$) and disease ($X^2=14.997$, $p<0.001$) and believed that consulting a doctor/ nurse ($X^2=4.562$, $p<0.05$) or taking herbal treatment ($X^2=3.920$, $p<0.05$) will cure their sexual problem. Also significantly more number of participants with common mental disorders believed in a medical explanatory model ($X^2=5.442$, $p<0.05$), non-medical explanatory model ($X^2=15.389$, $p<0.001$) and expressed multiple explanatory models ($X^2=12.627$, $p<0.001$). These details are summarized in the following tables.

Table22. Comparison of explanatory models between patients with and without CMD

Variables	CMD Present	CMD Absent	X^2	p-value
Cause of sexual disorder				
Karma				
Yes	6	0	5.799	0.016*
No	53	54		
Semen loss due to masturbation				
Yes	26	13	4.987	0.026*
No	33	41		
Semen loss due to night falls				
Yes	23	8	8.273	0.004*
No	36	46		
Disease				
Yes	33	11	14.997	0.000**
No	26	43		
Punishment from God				
Yes	7	2	2.562	0.166
No	52	52		
Privacy				
Yes	6	2	1.792	0.275
No	53	52		
Treatment Plan				
Doctor/ nurse				
Yes	57	46	4.562	0.046*
No	2	8		
Herbal remedies				
Yes	18	8	3.920	0.048*
No	41	46		
Traditional healer				
Yes	6	3	0.819	0.494
No	53	51		
Explanatory models				
Medical model				
Yes	58	47	5.442	0.027*
No	1	7		
Non-medical model				
Yes	49	26	15.389	0.000**
No	10	28		
Multiple models				
Yes	48	24	12.627	0.000**
No	11	25		

*=P<0.05, **=p<0.001

4.9 Comparison between explanatory models and socio-demographic and clinical profile

Medical model:

Participants with a medical explanatory model were less educated (t= -2.447, $p<0.05$). Spouses of the participants who had a medical model were also less educated but this difference was not statistically significant. Patients who reported a medical model were also likely to have been married for a longer time as compared to those who did not believe in a medical model. This finding also did not achieve statistical significance.

Table.23Comparison of variables with medical model

Variables	Believe in medical model	Do not believe in medical model	t-test	p-value
Education of the participants in years	11.19 (SD=4.50)	15.12 (SD=4.509)	-2.447	0.01*
Education of the spouse in years	9.40 (SD=5.561)	13.33 (SD=2.582)	1.715	0.09
Duration of married life in months	154.84 (SD=113.12)	70.67 (SD=61.21)	1.798	0.07

* = $p<0.05$

Participants with a medical model were likely to be sexually active ($X^2=5.715$, $p<0.05$) and had a diagnosis of Dhat syndrome ($X^2=5.093$, $p<0.05$). Other variables were not significantly associated with having a medical explanatory model for sexual dysfunction. These details are summarized in the following table.

Table24. Comparison of variables in patients with and without medical models

Variables	Medical explanatory Model		X^2	p-value
	Yes	No		
Literacy				
Illiterate	8	0	0.656	1.000
Literate	97	8		
Employment				
Employed	97	8	0.656	1.000
Unemployed	8	0		
Lower socio-economic status				
Yes	23	0	2.200	0.204
No	82	8		
Marital life				
Satisfactory	66	5	0.211	1.000
Unsatisfactory	22	1		
Past treatment taken for sexual disorders				
Yes	40	1	2.106	0.255
No	65	7		
Sexually active				
Yes	95	5	5.715	0.048*
No	10	3		
ED				
Present	55	3	0.659	0.482
Absent	50	5		
PME				
Present	64	2	3.955	0.065
Absent	41	6		
Dhat syndrome				
Present	42	0	5.093	0.025*
Absent	63	8		

*=P<0.05

Non-medical model:

Participants who held a non-medical model of illness were younger, but this finding was not statistically significant. However, patients with non-medical explanatory models were likely to have been married for a longer duration (t=-2.075, $p<0.05$).

Table 25 Comparison of variables with non-medical explanatory models

Variables	Cases	Controls	t-test	p- value
Age	36.20 (SD=8.94)	39.71 (SD=9.984)	1.894	0.061
Duration of married life	131.93 (SD=104.57)	182.00 (SD=120.295)	-2.075	0.04*

***=** $p<0.05$

Participants with a non-medical explanatory model were likely to be from a lower ($X^2=8.043$, $p<0.05$), were not satisfied with their job ($X^2=8.135$, $p<0.05$), came from an urban background ($X^2=2.98$, $p<0.05$) and were more likely to have taken treatment in the past ($X^2=10.401$, $p<0.05$). These patients also reported dissatisfaction in their marital life and lack of privacy at home, but this was not statistically significant.

More patients with non-medical explanatory models reported masturbatory guilt ($X^2=6.017$, $p<0.05$), did not have premarital sexual relations ($X^2=6.879$, $p<0.05$), reported high risk sexual behaviour ($X^2=8.043$, $p<0.05$) and reported sexual misconceptions ($X^2=12.613$, $p<0.001$).

Patients with premature ejaculation (X^2= 8.448, p<0.05) and Dhat syndrome (X^2=28.729, p<0.001) were more likely to hole a non-medical explanatory model as compared to other sexual disorders.

These details are summarized in the following table.

Table 26 Comparison of variables with non-medical explanatory models

Variables	**Non-medical explanatory models**		**X^2**	**p-value**
	Yes	**No**		
Literacy				
Illiterate	6	2	0.474	0.709
Literate	66	39		
Lower socio-economic status				
Yes	21	2	9.507	0.002*
No	51	39		
Middle socio-economic status				
Yes	48	34	3.470	0.063
No	24	7		
Higher socio-economic status				
Yes	2	5	3.987	0.097
No	70	36		
Job satisfaction				
Satisfied	40	31	8.135	0.004*
Not satisfied	31	6		
Marital life				
Satisfactory	40	31	5.130	0.027*
Unsatisfactory	19	4		
Privacy at home				
Adequate	61	40	4.537	0.053
Inadequate	11	1		
Habitat				
Urban	42	17	2.980	0.084
Rural	30	24		
Past treatment for sexual disorder				
Yes	34	7	10.271	0.001*
No	38	34		

Masturbatory guilt Present Absent	 47 15	 17 16	5.781	0.016*
First sexual contact only after marriage Yes No	 42 27	 27 4	6.891	0.010*
High risk behaviour Present Absent	 21 51	 2 39	9.507	0.002*
Sexual misconceptions Present Absent	 51 21	 15 26	12.613	0.00**
ED Present Absent	 40 32	 18 23	1.420	0.233
PME Present Absent	 48 24	 18 23	5.573	0.018*
Dhat syndrome Present Absent	 40 32	 2 39	28.729	0.000**
Any type of sexual disorder Present Absent	 64 8	 30 11	4.614	0.032*
Multiple sexual disorders Present Absent	 46 18	 8 19	14.046	0.000**

*=P<0.05, **=p<0.001

4.10 ANDROLOGY CLINIC

Most common diagnosis made by the andrologist was erectile dysfunction (52.3%) followed by premature ejaculation (50%).

Table27. Diagnosis as per andrologist

Diagnosis as per andrologist (n=86)	Frequency	Percent
ED	45	52.3%
PME	43	50%
Dhat syndrome	2	2.32
Other urological diagnosis	4	4.65
Sexual Misconception	11	12.8

Referrals to psychiatry were also studied. The andrologists were able to detect psychiatric morbidity in 19 (32.2%) participants amongst 59 who had common mental disorders according to the CISR interview. 31(27.4%) participants were referred by andrologists to psychiatry OPD (for sexual concerns and psychiatric comorbidity). Among these, only 24 (77.4%) consulted Psychiatry OPD.

Table28 Evaluation and referral by andrologist

Evaluation and referral by Andrologist	Frequency	Percent
Common mental disorders detected by andrologist (n=59)	19	32.2
Participants referred to psychiatry OPD from andrology OPD (n=113)	31	27.4
Participants when referred from andrology OPD consulted psychiatry OPD (n=31)	24	77.4

Comparison of variables among patients who consulted psychiatry

Participants whose psychiatric morbidity was identified (X^2= 57.504, p<0.001) by the andrologist and referred to psychiatry (X^2=63.154, p<0.001) were more likely to have attended psychiatry OPD. Those patients with multiple explanatory models (X^2=4.439, p<0.05) or had taken treatment earlier (X^2=9.059, p<0.05) were more likely to have consulted psychiatry following referral. These details are summarized in following table.

Table29 Comparison of variables with Psychiatry consultation

Variables	**Consulted Psychiatry OPD**		**X^2**	**p-value**
	Yes	**No**		
Past treatment				
Yes	15	26	9.059	0.003*
No	9	63		
Non-medical model of illness				
Yes	20	55	3.928	0.054
No	4	34		
Multiple models of illness				
Yes	19	53	3.342	0.083
No	4	32		
Psychological component picked up by andrologist				
Yes	22	11	57.504	0.000**
No	2	78		
Patient referred to psychiatry OPD by andrologist				
Yes	22	9	63.154	0.000**
No	2	80		

*=P<0.05, **=p<0.001. Multivariate statistics was attempted, but these did not show any statistically significant findings.

5. DISCUSSION

5.1 Introduction:

A satisfactory sexual life is an important aspect of the overall health of an individual and is an important determinant of the quality of life. Male sexual disorders are one of the common causes for a hospital visit in primary care settings. The concept of sexual disorders and its treatment has seen a revolutionary change from being a 'taboo' issue, to being a psychological or behavioural phenomenon and now it is conceptualized as a disease or dysfunction of the biological systems in the body. The focus has thus shifted from predominantly psychological interventions to pharmacological and interventional modalities. Thus the primary responsibility of treating male sexual disorders has shifted from a psychiatrist to an andrologist. Despite the current focus on biological causation and biological treatment modalities, the role of psychological, social and cultural factors in the causation of sexual disorders is well recognized and the need for holistic approach is well accepted across specialties. The bidirectional nature of the relationship between sexual disorders and psychiatric morbidity is well known.

An often neglected aspect of psychological interventions for sexual disorders is exploring the explanatory models of patients. The importance of integrating patient's explanatory models with the treatment goals is a vital aspect of any psychological intervention.

However, stigma and physician bias often results in sexual disorders being under-reported and under-treated. Associated psychiatric morbidity is often undiagnosed or neglected. Also patient explanatory models for sexual disorders are often not elicited or taken into consideration. We attempted to estimate the prevalence of psychiatric morbidity and study explanatory models of patients with sexual disorders who attended the andrology clinic at a tertiary care hospital.

5.2 Methodological considerations:

The study sample:

This study was conducted in a tertiary hospital in Tamil Nadu, which caters to the local population as well as patients from northern and north-eastern parts of India and neighboring countries like Bangladesh and Nepal. Patients who could communicate in Hindi or English were recruited as the primary investigator was familiar with these languages. Almost all the participants were from northern and northeastern parts of India and Bangladesh.

Translation:

The information sheet and informed consent document were translated into Hindi so that participants were well informed about the study and could give an informed consent.

Setting:

The study was conducted in Andrology outpatient department. Privacy of the participants was ensured in view of sensitive information that was shared.

Sample size:

The required sample size calculated was 104; 113 participants were recruited. Thus an adequate sample was studied to reach valid conclusions.

Procedure:

Patients who attended andrology clinic and fulfilled criteria of inclusion were invited to participate in the study. All assessment interviews were conducted before the participant was evaluated at the andrology clinic to avoid possible bias.

Instruments:

All instruments used for the study (CISR and SEMI) have already been translated in Hindi and a validated version was used for the interviews.

5.3 Prevalence and associations

Sociodemographic profile:

Most participants were middle aged men (mean age - 37.38 years) who were educated up to at least tenth standard (mean years of education was 11.47 years). Most of the participants were from middle socio-economic, urban, nuclear families, who were employed and reported satisfaction with their jobs. A minority reported medical comorbidities; the most commonly reported comorbidity was diabetes mellitus. The socio-demographic profile is similar to many previous reports from this area, and conducted in similar settings. [41, 42, 43]

Marital life and profile of the spouse:

Majority of the participants were married, living with their spouse, and reported satisfactory marital life with adequate privacy at home. These findings were

similar to previous studies [42]. Spouses of the patients were middle aged (mean = 31.92 years) housewives. The mean age difference between the couple was 7.35 years, which could be explained by the prevalent socio-cultural norms in the country.

Majority of the spouses did not accompany the patients to the andrology clinic. A lack of awareness about the role of partner in treatment of sexual disorder could be one reason for this. Other factors which could have contributed to this finding can be the stigma and shame associated with attending a sexual disorders clinic, anxiety, taboo and discomfort experienced by spouses while discussing the sexual problems either in person or in the presence of their male partners with the doctor. [103]

5.4 Help seeking and treatment history

The duration between onset of symptoms and consultation in this study appeared to be large (about 61 months). Several factors could explain this finding. Lack of facilities for assessment and management of sexual disorders may be a reason. In a resource starved country, the priorities for health care administrators are more likely to be communicable and non-communicable diseases which cause significant morbidity and mortality. Andrology as a specialty is only slowly gaining recognition globally. Misconceptions prevalent in society like ‘sex is meant only for procreation and any dysfunction after that function is served doesn’t require treatment’, ‘sex is anyways not possible and should not be attempted after a specific age or old age and so sexual dysfunction is not

considered as a problem' may also be reasons for the long delay in seeking treatment. This can be better understood, if we study the pathways to care of the patients attending andrology clinic.

Participants reported that their spouse/partner encouraged them to seek help for their problems. In a paternalistic society like India, partner satisfaction has not been a priority in the past. It is encouraging to see in this study that there is a change in the cultural scenario where partners encourage men to seek treatment, which was not evident a few decades ago.

Most of the participants (63.7%) had not taken any type of treatment in the past for their sexual dysfunction. This finding was earlier reported by another study. [43] This is surprising, given the current trend of much advertisement and hype regarding traditional treatments for sexual disorders in the print and visual media [117,118,119]. Amongst the participants who had taken some form of treatment in the past, majority had taken allopathic treatment while 17.1% had taken alternative forms of treatment like Ayurveda and homeopathy. This finding differs from a previous study where 31% had taken alternative medical treatments like Ayurvedic, homeopathy or other herbal treatments while only 17% had taken allopathic treatment in the past. [43] This again can be explained on the basis of difference in the setting of the study and study sample.

5.5 Sexual history and masturbatory practices

Masturbation

Most of the participants were aware of the concept of masturbation and reported that they initiated masturbation by the age of around sixteen years. However, only a minority were continuing the practice. Masturbatory guilt was cited as the most common reason for cessation. These findings are similar to previous reports from the region. [44, 62, 78] Guilt associated with masturbation is usually present secondary to religious and cultural factors or the belief that it results in physical symptoms or sexual disorder. Masturbatory guilt has consistently been reported in all previous studies and the prevalence remains the same irrespective of age, social class, education and cultural background. Similar rates were also reported from studies done in other parts of India almost 50 years back. This highlights the inadequacy of sex education programs in the country.

Sexual behaviour

The age of first sexual contact was reportedly higher (24.78 years) as compared to previous studies (13-19 years). [105] Most of the participants reported that their first sexual contact was only after marriage. This again highlights the culturally acceptable norm of “virginity till marriage” which is still largely prevalent in the society. Other reports however have suggested that the Western model regarding premarital sex has become more acceptable [120,121,122].

Most participants did not report contact with commercial sex workers and had only a single sexual partner. This is in part due to improved awareness of (66.4%)

sexually transmitted diseases (STD). However they reported that they did not use measures to protect themselves in high risk situations. Similarly only 29.2% of the participants took some form of precaution to prevent unplanned pregnancy. This highlights the lacunae in awareness of safe sex practices and contraception. Programs that target these deficits would benefit the community, if it can be provided at end user services like the andrology clinic.

5.6 Sexual disorders

All patients who participated in the study reported sexual concerns. However, only 83.2% of them had a diagnosed DSM-5 sexual disorder. This highlights the fact that not all patients who present to an andrology clinic may have a sexual disorder. Few may just have sexual concerns or sexual misconceptions. These patients can be managed by reassurance and adequate sex education without referral to a psychiatrist or labeling them with a psychiatric diagnosis. Premature ejaculation, erectile dysfunction and dhat syndrome were the most common sexual disorders in our sample. The majority had features to suggest more than one sexual disorder. This has been reported in earlier studies from this region. [29-44].

5.7 Psychiatric morbidity

More than half (52.2%) of the patients in this study had a common mental disorder according to the CISR. A report from an andrology clinic in Greece stated a higher prevalence (63.1%). The prevalence of psychiatric comorbidity as reported in other studies from India ranges from 15-25% in psychiatric OPD or an general

OPD of a tertiary care setting [30, 34, 43, 44] and 8-11% in primary or secondary care setting [42, 89]. Differences in study settings, population studied, screening instruments and diagnostic criteria used could explain this variation. It can be speculated that Andrology is a super-specialty and that severe and resistant cases of sexual dysfunction reach this facility.

5.8 Explanatory models of sexual dysfunction

The common concerns reported by patients in this study included worries regarding consistency of and loss of semen, size and shape of genitalia, pain or abnormal sensation in genital organs or genital area and performance anxiety. These findings were similar to previous reports. [30, 31, 37] Participants reported diverse beliefs about the causation of their sexual concerns. The medical model was the most commonly reported causative model. Disease, gastrointestinal factors, obesity and nerve dysfunction were thought to cause their sexual problems by the majority. Most of the respondents (91.2%) felt that a doctor or a nurse could help solve their problems. This is in contrast to a previous report where only 22.6% believed in disease as a cause and 40.4% believed that a doctor or a nurse can solve their problem. [42]

Two thirds of the participants in this study believed in non-medical model for their sexual dysfunction. Semen loss secondary to masturbation (34.5%) or `night falls' (27.4%) were the most commonly reported reasons among this group. Karma, punishment from God, and black magic as a cause of their sexual dysfunction was not frequently reported. Dietary changes (19.5%), herbal remedies (23%), visit to

traditional healer (8%), mantravadi (7.1%) or visiting a religious establishment (9.7%) was described as being curative. A previous study from a secondary care setting reported much higher rates of these explanatory models. [42] This suggests that explanatory models may change depending on the setting and population recruited.

The high rates of non-medical explanatory models among patients visiting a super-specialty clinic of a tertiary care hospital highlights the fact that even while visiting a medical facility, patients can still hold contradictory non-medical etiological beliefs. It also emphasizes the importance of eliciting explanatory models in all patients, to provide holistic care which is acceptable to the patients and is in accordance with their belief systems.

5.9 Risk factors for psychiatry morbidity

Risk factors that were identified to be associated with common mental disorders include younger age, lower education, unemployment, poor job satisfaction, patients from a lower socio-economic strata and an urban habitat. Previous reports too have suggested such associations between young age, illiteracy, unemployment, poor job satisfaction and lower socio-economic strata with depression and anxiety. [107,108,109] However, our finding of increased prevalence of common mental disorder in people from urban areas has not been reported. Possible reasons for this could be that the participants in this study were from economically and socially deprived urban areas which have several

characteristics similar to that of a rural habitat. Also improved awareness regarding sexual functioning, sexual disorders and greater expectations due to exposure to social, visual and print media of participants from urban habitat may have resulted in disillusionment. So any dysfunction or unsatisfactory sexual life may have led to increased guilt, anxiety and depressive symptoms.

Participants, whose spouse was younger, less educated or illiterate had common mental disorders. Patients who had some form of treatment in the past reported more common mental disorders. This association could be bi-directional; inadequate or inappropriate treatment in the past could have lead to depression or anxiety, it could also be that people with more severe forms of sexual dysfunction may have approached multiple doctors to alleviate their problems. It is well known that sexual difficulties can lead to decline in quality of life [110] and subsequently common mental disorders.

Participants with masturbatory guilt, those who had had premarital sexual relations, those with multiple sexual partners and those who believed in sexual misconceptions, had greater psychiatric morbidity. The strong prevalent cultural norms and sanctions of this country may in part explain this.

Masturbation is still considered a sin in many religions; loss of semen is associated with guilt, anxiety and somatic complaints - conceptualized as Dhat syndrome is seen pre-dominantly in the Indian sub-continent. Inadequate sex education programs for adolescents, traditional or alternate health practitioners who perpetuate these beliefs for personal gain and sexual health being a low priority for

health care administrators may play a part in this. [14, 29, 30] The high prevalence of sexual misconceptions is significant as it is a predictor of future sexual difficulties. People with these beliefs seek help, often from traditional healers or non-allopathic practitioners. [62] Some of them get better but a large majority may be further misled by such alternative medicine practitioners. [111] Misconceptions can become chronic, firmly established and interfere with the individual's personal and sexual functioning as well as quality of life. Practices like "virginity till marriage" and "single life partner" are strongly embedded in our culture. Any deviation from this cultural norms leads to strong feeling of guilt and anxiety. The increasing age of marriage, masturbation and pre-marital sex being considered as sin or culturally unacceptable, easy availability of explicit sexual content, and misleading sexual information on the internet creates a vicious cycle resulting in an approach avoidance conflict and possible sexual difficulties.

Participants with pre-mature ejaculation, Dhat syndrome and multiple sexual disorders reported more common mental disorders. This is in keeping with previous studies which have shown associations between PME and anxiety, social phobia, panic disorder and depression. [42-43, 112-116] Similarly Dhat syndrome has been shown to have associations with anxiety, depression, panic disorder and somatoform disorders. [90-95]

Patients who reported more than one sexual disorder were more likely to have a common mental disorder. Sexual dysfunction interferes with a man's self esteem, when he realizes that he is not able to satisfy his sexual partner. This has been

linked to development of depression and anxiety. Likewise depression and anxiety has a negative impact on one's sexual life. Longitudinal studies will be able to clearly establish the complex interrelationships between sexual dysfunction and common mental disorders.

Participants who believed in Karma or who felt their sexual dysfunction was a disease exhibited greater anxiety and depression. Likewise, participants who held medical, non-medical or multiple models of causation appeared to have higher levels of psychiatric comorbidity. Previous reports suggest that patients with depression have a psycho-social explanatory model for their illness while participants with unexplained somatic symptoms believe in religious or cultural explanatory models like black-magic. [102, 111]

These findings highlight the need to explore explanatory models in patients presenting with sexual difficulties. Understanding patient explanatory models and addressing patients issues secondary to these will help in treatment of sexual as well as common mental disorders seen in andrology clinic. Andrologists with a predominantly biological orientation may find identification of psychiatric comorbidity a difficult task; liaison with a psychiatrist or a psychologist trained in sexual medicine will be helpful. These findings also highlight the scarcity of clinicians who have expertise in handling sexual disorders.

5.10 Explanatory models and socio-demographic profile

Participants and their spouses with lower education levels appeared to have a medical explanatory model. This is atypical as traditionally we would expect a non-medical model for people with lower educational levels. Participants from lower or middle socio-economic strata, with an unsatisfactory job and marriage, with inadequate privacy at home and from an urban habitat had non-medical model of illness. Presence of masturbatory guilt, sexual misconceptions, high risk sexual behaviour and premarital sexual relations reported a non-medical model.

5.11 Identification of common mental disorders by the Andrologist and psychiatry referral:

Psychiatric co-morbidity was detected by andrologists in 32.20% of the total participants as compared to 52.2% by the research interview. Similarly sexual misconceptions were elicited in 9.73% of the participants by andrologists while 58.4% of the participants were identified as having sexual misconceptions by psychiatrist. Consequently, the referral to a psychiatrist was lower than that desired. Further training for the Andrologist, in identifying psychiatric comorbidities and basic counselling skills, is required. Those patients who were referred to the psychiatry clinic did attend the OPD; this suggests that referral to a psychiatrist via the Andrologist may be less stigmatizing and more acceptable to patients.

5.12 STENGTHS AND LIMITATIONS

Strengths of the study:

1. There are very few previous studies which have looked at psychiatric morbidity and explanatory models of patients in this setting. To the best of our knowledge, this is the first study that looked at explanatory models of patients with sexual dysfunction in an andrology clinic from India.
2. As the study setting was a tertiary care center catering to populations from several states of India and neighboring countries, we were able to study a reasonably diverse population in terms of age, residence, socio-economic status, education and cultural background.
3. The study sample comprised of consecutive men attending andrology clinic irrespective of their diagnosis, comorbidities or psycho-social background. This helped us avoid selection bias during recruitment.
4. The assessments were carried out by a single interviewer who was aware of the social and cultural background of the participants and was well versed with the language spoken by the participants. This ensured that there was minimal reporting bias.
5. The target sample size was achieved; hence it is possible to generalize the conclusions to the representative population.

Limitations of the study:

1. The study was done in a busy outpatient clinic with constraints of the time, which could have influenced the results of the study

2. As the participants were aware that interview was conducted by a doctor there could have been a bias towards reporting of biological model of illness.

3. Due its cross sectional nature data collection was carried out solely via a self-report. This could have led to reporting bias.

4. Attitude towards sexuality, norms and explanatory models can change over time depending on cultural and other in-vogue influences. These cannot be explored in a cross-sectional study like this.

5. Sexual functioning is a sensitive topic and some participants might have felt unable to freely express their views.

5.13 RECOMMENDATIONS AND FUTURE DIRECTIONS FOR RESEARCH

It is a well-established fact that psychiatric morbidity is commonly associated with sexual dysfunction, but the direction of this relationship is unclear. Psychiatric morbidity can also influence the course and prognosis of sexual disorders. Both common mental disorders and male sexual disorders are very prevalent in society but are often the most neglected ones. Elicitation of explanatory models helps the clinician to understand the patients' perspectives and in turn to provide better care.

Currently most of the treatment modalities for sexual dysfunction are biologically focused; psychiatric morbidities in sexual dysfunction are often missed or neglected and explanatory models are either not elicited, or taken into consideration.

Multiple factors are responsible for this situation. These factors include the wide gap between physician and patient, paternalistic attitude of clinicians, increasing physician work load leading to time constraints, under- recognition and lack of training in dealing with these complex problems and scarcity of mental health professionals.

Thus there is a need to sensitize clinicians working in the area of sexual medicine regarding the need to elicit explanatory models and detect common mental disorders. Male sexual disorders would be best managed by a multidisciplinary team consisting of an andrologist, psychiatrist, psychologist or a nurse trained in sexual medicine to provide the best possible care for this common but neglected problem.

Future research goals should be:

1. Future studies focusing on human sexuality and sexual disorders should take into consideration its biological, psychological and cultural diversity.
2. Longitudinal studies to assess the course of psychiatric morbidity and change of explanatory models over time in patients with sexual dysfunction.
3. More qualitative research studying the relationships between sexual disorders and common mental disorders.
4. Well-designed studies to find the risk factors for common mental disorders in patients with sexual disorders.

6. SUMMARY

1. This study attempted to study psychiatric morbidity and explanatory models for sexual disorders in patients presenting to andrology clinic by using standardized and validated instruments like Modified short explanatory model interview (SEMI) and clinical interview schedule – revised (CIS-R).
2. One hundred and thirteen patients, fulfilled criteria for inclusion and participated in the study. Prevalence of a DSM-5 sexual disorder was 83.2%. 59 (52.2%) participants had common mental disorder as per the research interview. Most common reported concerns were premature ejaculation (63.71%) and erectile dysfunction (55.75%). 'Disease'and 'semen loss' were the most commonly reported causative factor. The majority felt that consulting a doctor or a nurse would help solve their difficulties. 92.9% held a medical explanatory model and 66.4% reported a non-medical explanatory model for their sexual disorder.
3. Participants with a common mental disorder were likely to be unemployed; and if employed, not satisfied with their current job; from a lower socio-economic status; with unsatisfactory marital life; from an urban background; having taken treatment for sexual dysfunction in the past; reported masturbatory guilt and sexual misconceptions; have multiple partners and had a diagnosis of premature ejaculation or Dhat syndrome. They were also likely to have reported that their sexual problem was due to Karma, masturbation, night falls, or a disease and believed that consulting a doctor or a nurse or taking herbal

treatment will cure their sexual problem. More patients with common mental disorder also reported medical and non-medical explanatory models.

4. Participants who held a medical model were less educated, sexually active, and more likely to have been diagnosed with PME or Dhat syndrome. Presence of masturbatory guilt, and having taken treatment in the past were associated with holding a non-medical model.
5. Psychiatric morbidity was under recognized by the andrologist as compared to the research interview.

7. CONCLUSIONS

Our study confirms that psychiatric morbidity is common among patients with sexual disorders. Majority of the patients with sexual disorders presenting to tertiary care also believed in non-medical explanatory models for their sexual disorder. Detection rate of psychiatric morbidity by andrologist was low as compared to research interview. Thus any management plan for sexual disorders should take into consideration the biological, psychological and cultural factors associated with male sexual disorders. A team approach consisting of an andrologist, psychiatrist and a psychologist or a nurse in an andrology clinic will provide an ideal setting for management of male sexual disorders.

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APPENDIX

INFORMED CONSENT FORM FOR SUBJECTS

Study Title**: "**Psychiatric morbidity and explanatory models in patients attending the andrology clinic in a tertiary care hospital**"**

Study Number:

Subject's Initials: Subject's Name:

Date of Birth / Age: _____

(i) I confirm that I have read and understood the information sheet dated _____ for the above study and have had the opportunity to ask questions. ( )

(ii) I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected. ( )

(iii) I understand that the Sponsor of the clinical trial, others working on the Sponsor's behalf, the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any information released to third parties or published. ( )

(iv) I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s). ( )

(v) I agree to take part in the above study. ( )

Signature (or Thumb impression) of the Subject

Date: _____/_____/_____

Signatory's Name: _____

Signature:

Signature of the Investigator: _____

Date: _____/_____/_____

Study Investigator's Name: _____

Signature or thumb impression of the Witness: _____

Date: _____/_____/_____

Name & Address of the Witness: _____

विषयों के लिए सूचित सहमति फॉर्म

अध्ययन का शीर्षक: "एक तृतीयक देखभाल अस्पताल में Andrology क्लिनिक में भाग लेने वाले रोगियों में मनोरोग रुग्णता और व्याख्यात्मक मॉडल का अध्ययन"

अध्ययन संख्या:

विषय के पहले अक्षर: विषय का नाम:

जन्म / उम्र की तिथि: _____

(मैं) मैं इस बात की पुष्टि देता हूँ कि मैंने ऊपर के अध्ययन के लिए दिनांकित सूचना पत्र पढ़ा और समझा है और सवाल पूछने का मौका मिला है ()

(Ii) मैं समझता हूँ कि अध्ययन में मेरी भागीदारी स्वैच्छिक है और मैं अपने चिकित्सा देखभाल बिना कोई कारण बताए किसी भी समय वापस लेने के लिए स्वतंत्र हूँ , इससे मेरी चिकित्सीय देखभाल या कानूनी अधिकार प्रभावित नहीं होगा । ()

मैं समझता हूँ कि चिकित्सीय परीक्षण के प्रायोजक, प्रायोजक की ओर से काम कर रहे अन्य लोगों, आचार समिति और नियामक अधिकारियों को मेरे वर्तमान अध्ययन ओर भविष्य के अनुसंधान के दौरान मेरे स्वास्थ्य के रिकॉर्ड को देखने के लिए मेरी अनुमति की जरूरत नहीं होगी, भले ही मैं अध्ययन से पीछे हट जाउं. हालांकि, मैं समझता हूँ की मेरी पहचान तीसरे पक्ष के लिए जारी या प्रकाशित नहीं किया जाएगा । ()

(Iv) मैं सहमत हूँ कि इस अध्ययन से उठता किसी भी डेटा या परिणाम के इस्तेमाल को प्रतिबंधित मैं नहीं कर सकता बशर्ते मेरी जानकारी केवल वैज्ञानिक उद्देश्य के लिए इस्तेमाल कि जाएगी। ()

(V) मैं उपरोक्त अध्ययन में भाग लेने के लिए मैं सहमत हूँ। ()

विषय के हस्ताक्षर (या अंगूठे का निशान)

तारीख: _____/_____/_____

हस्ताक्षरकर्ता का नाम: _____

हस्ताक्षर:

अन्वेषक के हस्ताक्षर: _____

तारीख: _____/_____/_____

अध्ययन जांचकर्ता का नाम: _____

गवाह का हस्ताक्षर या अंगूठे का निशान: _____

तारीख: _____/_____/_____

नाम व गवाह का पता: _____

CASE RECORD FORM

Date: Hosp No.

Initials:

Age in years:

Literacy: 1) illiterate 2) read only 3) read and write

Number of years of Education:

Present job:

Satisfied with job: yes/no

Family income:

Socioeconomic status: 1) lower 2) middle 3) higher

Marital status: 1) single 2) married 3) separated 4) divorced 5) widower

If married,

Duration of married life in Months:
Age of spouse:
Educational qualification of spouse:
Occupation of spouse:

Partner accompanying for treatment: yes/ no

Adequate privacy at home: yes/ no

Marital life: satisfactory/ unsatisfactory

Religion: 1) Hindu 2) Muslim 3) Christian 4) others

Habitat: 1) Rural 2) Urban

Language: 1) English 2) Hindi 3) Bengali

Living arrangements: 1) Joint 2) Nuclear 3) Extended 4) Living alone

Number of children:

Period between onset of symptoms and treatment seeking:

Advised/ pressurized by partner for seeking treatment: yes/ no

Past and treatment history:

Medical comorbidity:

Family history of psychiatric illness: 1) yes 2) no

Are you aware regarding the concept of masturbation: yes/no
If yes,

- Age of starting masturbation
- Practicing masturbation currently: yes/no
- Frequency of masturbation
- Practiced masturbation in the past: yes/no

History of high risk behaviour: 1) Present 2) Absent
Sexually active: 1) yes 2) no
If yes,

- Age of first sexual intercourse:
- First sexual partner:
- Total number of sexual partners:
- Current sexual partner:

Are you awareness about sexually transmitted diseases? 1) Yes 2) No

Contraception used:

How do you protect yourself from sexually transmitted diseases or HIV?

- No specific precautions
- Single partner
- Condom
- Others
- Don't know

Do you have marked delay in ejaculation or marked infrequency or absence of ejaculation in the last 6 months?

Yes/No

Do you have persistent or deficient (or absent) sexual/erotic thoughts or fantasies and desire for sexual activity in the last 6 months?

Yes/No

Do you have marked difficulty in obtaining or maintaining an adequate erection until the completion of sexual activity in the last 6 months?

Yes/No

Do you have problems reaching orgasm during sexual activity?

Yes/No

Do you have persistent or recurrent premature ejaculation, during partnered sexual activity (within approximately 1 minute following vaginal penetration and before you wish it) since last 6 months?

Yes/No

Do these problems cause significant distress in you or your partner? Yes/No

Do you use any psychoactive substances? Yes/No

If Yes, What all

Is it in a dependence pattern?

SCALE TO ASSESS PERPESCTIVES OF MEN WITH SEXUAL DYSFUNCTION – MODIFIED SHORT EXPLANATORY MODEL INTERVIEW (SEMI)

Have you had any sexual concerns or problems?
(List all)

Have you seen a doctor or a nurse about any sexual problems? Can you tell me the reason for your visit? List all reasons
I
II
III

What do you call these problems? Probe: If you had to give names what would they be?
I
II
III

When did you first notice any problem? Specify identified problem. Probe: How long ago? When did it start?
I
II
III

Why do you think these problems started when they did?
I
II
III

Is there anything you have or haven't done that has caused this? Probe for example

Is there anything anyone else has done or not done that has caused this? Probe for example

What or who is the cause of you getting this?

Do you believe that your problem is due to black magic?
1) YES 2) NO

Do you believe that your problem is due to karma?
1) YES 2) NO

Do you believe that your problem is due to punishment from God?
1) YES 2) NO

Do you believe that your problem is due to evil spirits?
1) YES 2) NO

Do you believe that your problem is due to masturbation and loss of semen?
1) YES 2) NO

Do you believe that your problem is due to night falls and loss of semen?
1) YES 2) NO

Do you believe that your problem is due to any disease?
1) YES 2) NO

Do you believe that your problem is due to lack of privacy?
1) YES 2) NO

Will it help you, if you visit a doctor or a nurse for treatment for your problem?
1) YES 2) NO

Will it help you, if you visit a traditional healer for the treatment for your problem?
1) YES 2) NO

Will it help you, if you visit a mantravadi for treatment for your problem?
1) YES 2) NO

Will it help you, if you visit a temple or a church or a mosque for your problem?
1) YES 2) NO

Will it help you, if you observe any diet restrictions or special diet for your problem?
1) YES 2) NO

Will it help you, if you observe any herbal remedies for your problem?
1) YES 2) NO

Do you know if there is anything else which may help your problem?
Yes (list) NO

CLINICAL INTERVIEW SCHEDULE – REVISED

S.No. ____

18 Have you noticed a marked loss in your appetite in the past month?
[*] पिछले मास क्या आपकी भूख बहुत कम हुई?

Yes ..... हाँ — 1
No ..... नहीं — 2

19 Have you lost any weight in the past month?
पिछले मास, क्या आप का वज़न कम हुआ? हाँ

Yes ..... 1 → (a)
No/DK ..... नो / 2 → 20

(a) Were you trying to lose weight or on a diet?
क्या आप वज़न कम करने की प्रयत्न किया? हाँ

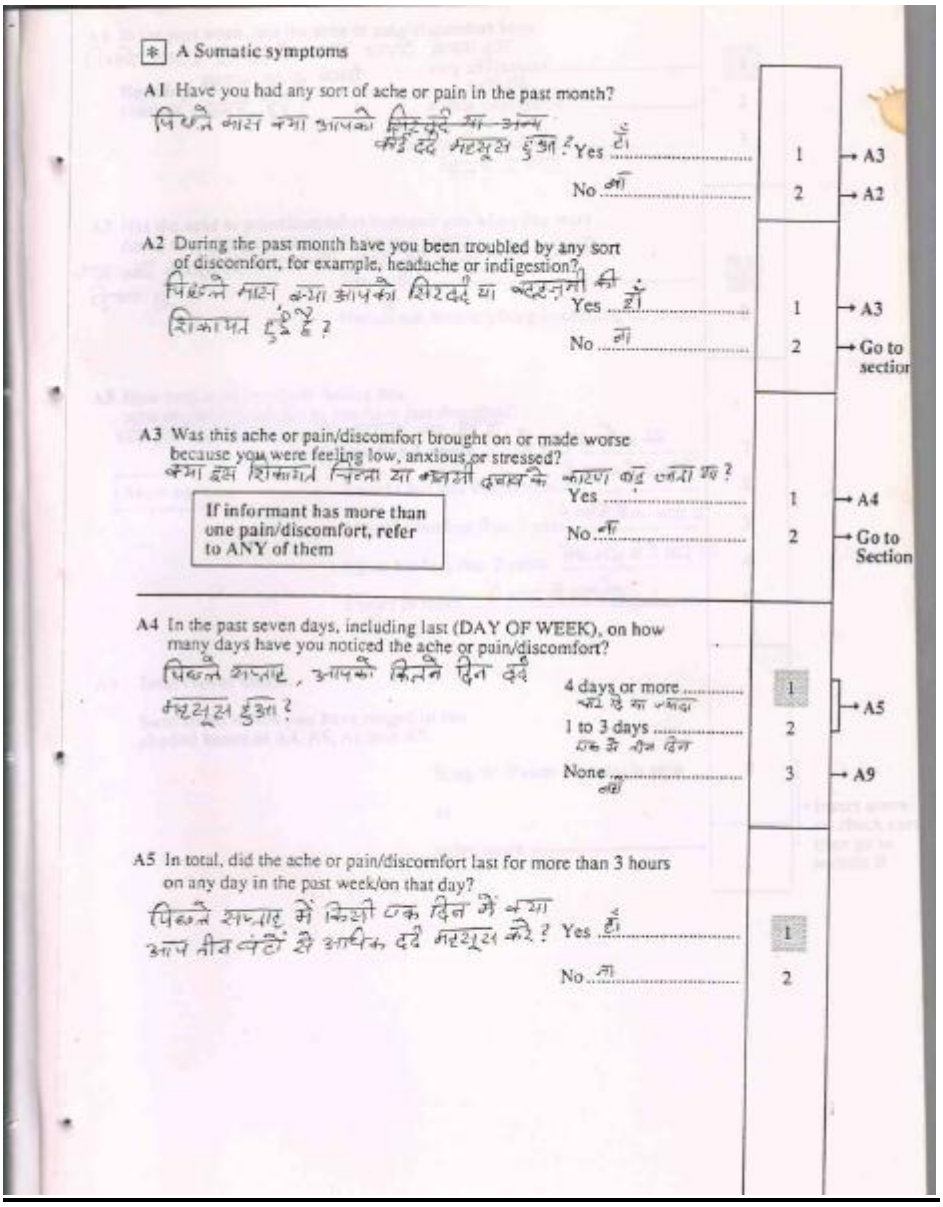
Yes ..... 1 → Go to Section A
No ..... नो 2 → (b)

(b) Did you lose half a stone or more, or did you lose less than this? आपका वज़न कितना कम हुआ?

Half a stone or 7 lbs or $3^1/_4$ kg		
	lost half a stone or more	1 → Go to Section A
	lost less than half a stone	2 → Go to Section A

20 Have you noticed a marked increase in your appetite in the past month?
[*] पिछले मास क्या आपकी भूख बहुत अधिक हुई?

Yes ..... हाँ — 1
No ..... नहीं — 2



* A Somatic symptoms

A1 Have you had any sort of ache or pain in the past month?
पिछले मास क्या आपको सिरदर्द या अन्य कोई दर्द महसूस हुआ? Yes हाँ ..... 1 → A3
No नहीं ..... 2 → A2

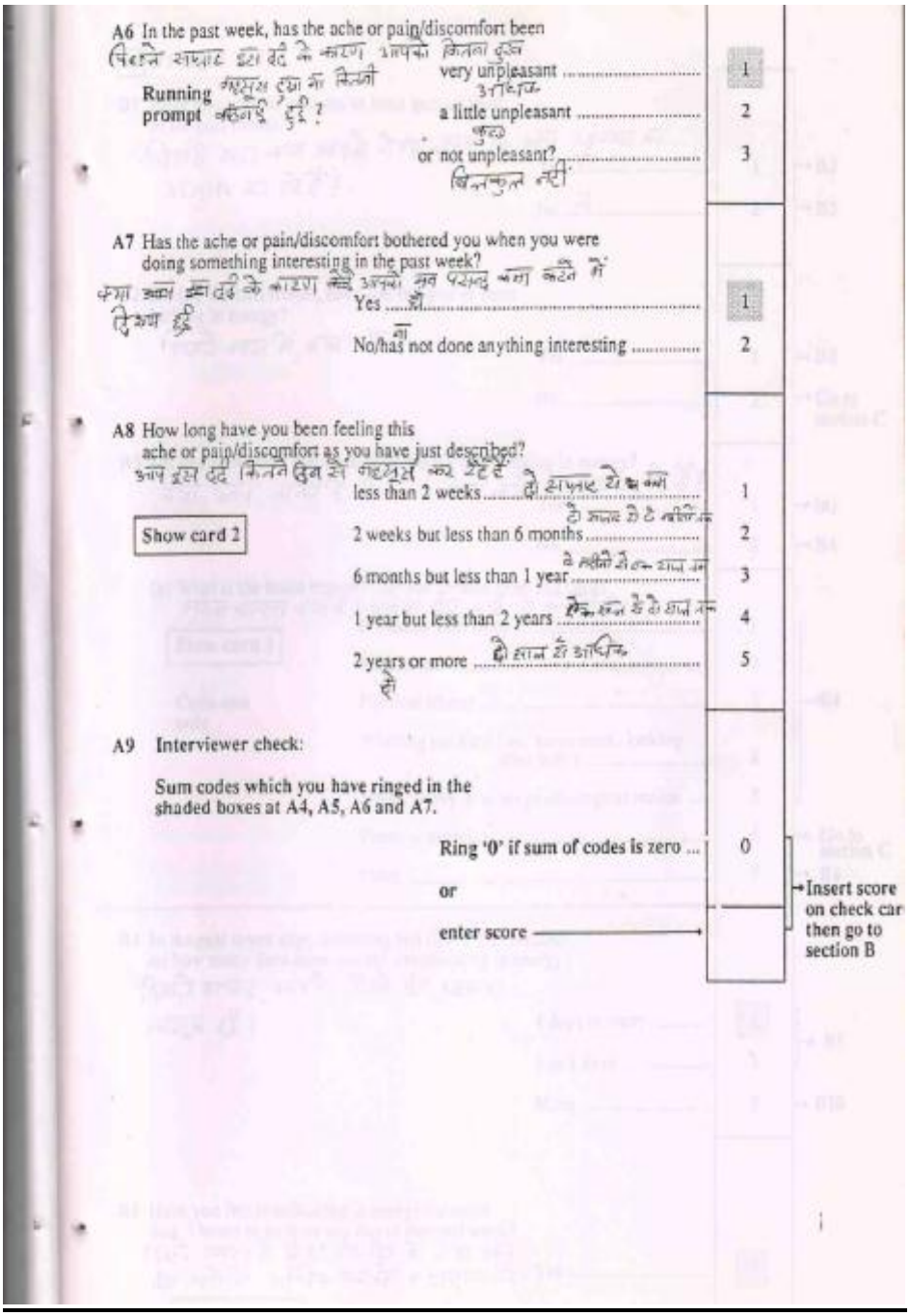
A2 During the past month have you been troubled by any sort of discomfort, for example, headache or indigestion?
पिछले मास, क्या आपको सिरदर्द या बदहजमी की शिकायत हुई है? Yes हाँ ..... 1 → A3
No नहीं ..... 2 → Go to section

A3 Was this ache or pain/discomfort brought on or made worse because you were feeling low, anxious or stressed?
क्या इस शिकायत चिन्ता या घबराहट दुखद के कारण कुछ ज्यादा थी? Yes ..... 1 → A4
No नहीं ..... 2 → Go to Section

If informant has more than one pain/discomfort, refer to ANY of them

A4 In the past seven days, including last (DAY OF WEEK), on how many days have you noticed the ache or pain/discomfort?
पिछले सप्ताह, आपको कितने दिन दर्द महसूस हुआ?
4 days or more चार दिन या ज्यादा ..... 1 → A5
1 to 3 days एक से तीन दिन ..... 2 → A5
None नहीं ..... 3 → A9

A5 In total, did the ache or pain/discomfort last for more than 3 hours on any day in the past week/on that day?
पिछले सप्ताह में किसी एक दिन में क्या आप तीन घंटों से अधिक दर्द महसूस करे? Yes हाँ 1
No नहीं 2



A6 In the past week, has the ache or pain/discomfort been
पिछले सप्ताह इस दर्द के कारण आपको कितना दुख
Running prompt महसूस हुआ या कितनी अधिक कुछ बिलकुल नहीं हुई ?

very unpleasant 1
a little unpleasant 2
or not unpleasant? 3

A7 Has the ache or pain/discomfort bothered you when you were doing something interesting in the past week?
क्या आप इस दर्द के कारण कोई अपनी पसन्द का काम नहीं कर पाए हैं

Yes ..... हाँ 1
No/has not done anything interesting ..... नहीं 2

A8 How long have you been feeling this ache or pain/discomfort as you have just described?
आपने इस दर्द कितने दिन से महसूस कर रहे हैं

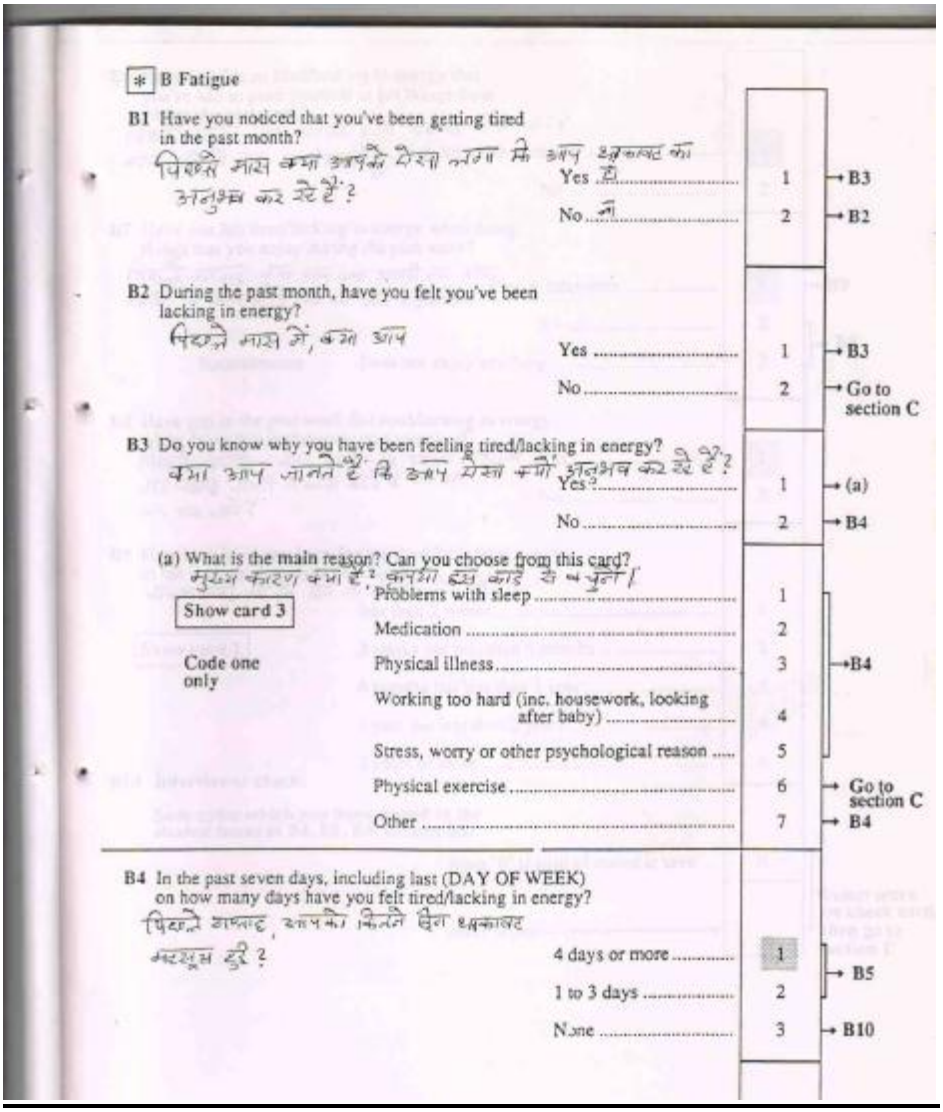
Show card 2

less than 2 weeks ..... दो सप्ताह से कम 1
2 weeks but less than 6 months ..... दो सप्ताह से छ महीने तक 2
6 months but less than 1 year ..... छ महीने से एक साल तक 3
1 year but less than 2 years ..... एक साल से दो साल तक 4
2 years or more ..... दो साल से अधिक 5

A9 Interviewer check:

Sum codes which you have ringed in the shaded boxes at A4, A5, A6 and A7.

Ring '0' if sum of codes is zero ... 0
or
enter score → Insert score on check car then go to section B



* B Fatigue

B1 Have you noticed that you've been getting tired in the past month?
पिछले माह क्या आपने देखा होगा कि आप थकावट का अनुभव कर रहे हैं?

Yes हाँ	1	→ B3
No नहीं	2	→ B2

B2 During the past month, have you felt you've been lacking in energy?
पिछले माह में, क्या आप

Yes	1	→ B3
No	2	→ Go to section C

B3 Do you know why you have been feeling tired/lacking in energy?
क्या आप जानते हैं कि आप थकान क्यों अनुभव कर रहे हैं?

Yes?	1	→ (a)
No	2	→ B4

(a) What is the main reason? Can you choose from this card?
मुख्य कारण क्या है? क्या आप इस कार्ड से चुन सकते हैं?

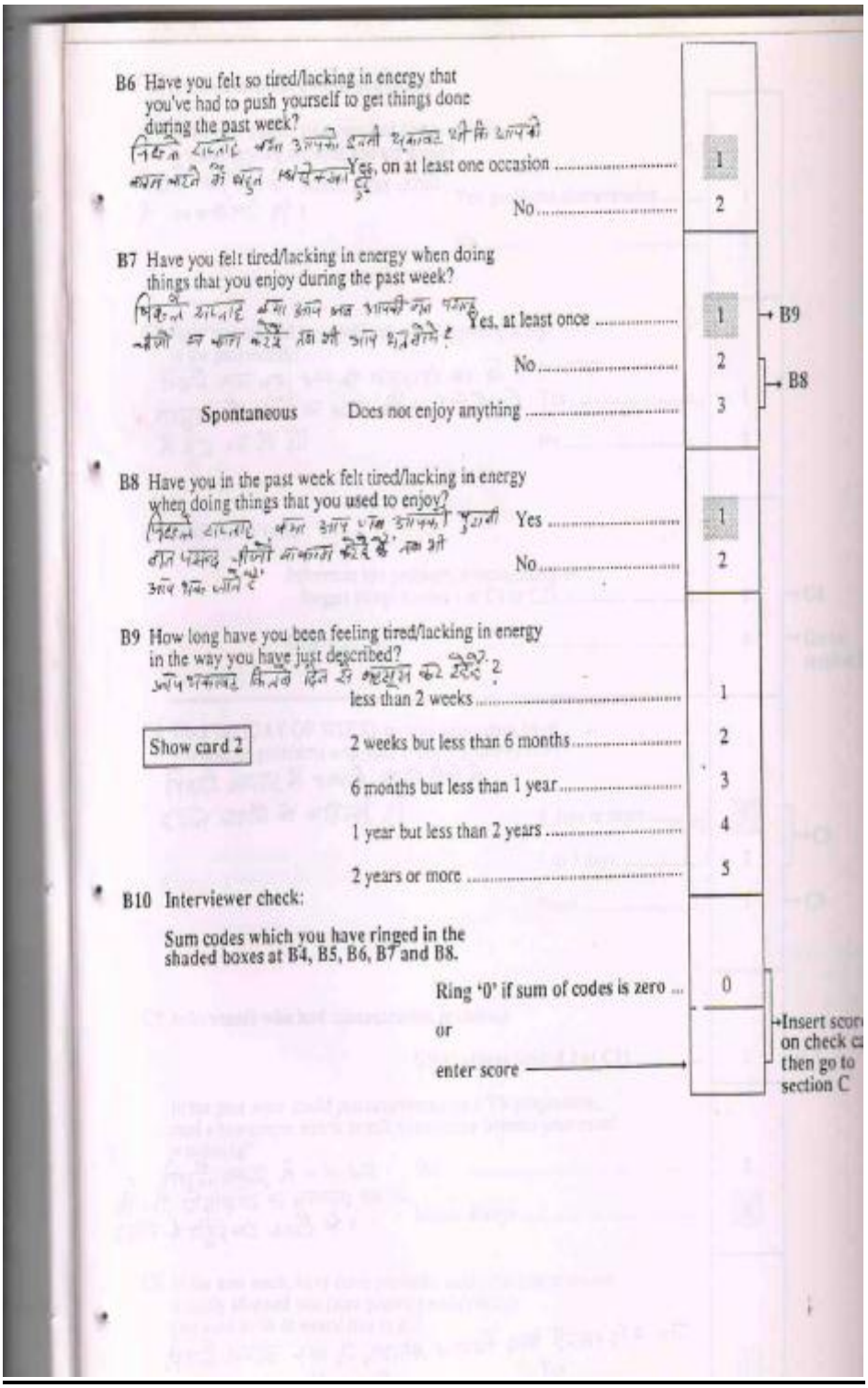
Show card 3

Code one only

Problems with sleep	1	
Medication	2	
Physical illness	3	→B4
Working too hard (inc. housework, looking after baby)	4	
Stress, worry or other psychological reason	5	
Physical exercise	6	→ Go to section C
Other	7	→ B4

B4 In the past seven days, including last (DAY OF WEEK) on how many days have you felt tired/lacking in energy?
पिछले सप्ताह, आपको कितने दिन थकावट महसूस हुई?

4 days or more	1	→ B5
1 to 3 days	2	
None	3	→ B10



B6 Have you felt so tired/lacking in energy that you've had to push yourself to get things done during the past week?

Yes, on at least one occasion 1

No 2

B7 Have you felt tired/lacking in energy when doing things that you enjoy during the past week?

Yes, at least once ..... 1 → B9

No ..... 2 → B8

Spontaneous Does not enjoy anything ..... 3 → B8

B8 Have you in the past week felt tired/lacking in energy when doing things that you used to enjoy?

Yes 1

No 2

B9 How long have you been feeling tired/lacking in energy in the way you have just described?

Show card 2

less than 2 weeks 1

2 weeks but less than 6 months 2

6 months but less than 1 year 3

1 year but less than 2 years 4

2 years or more 5

B10 Interviewer check:

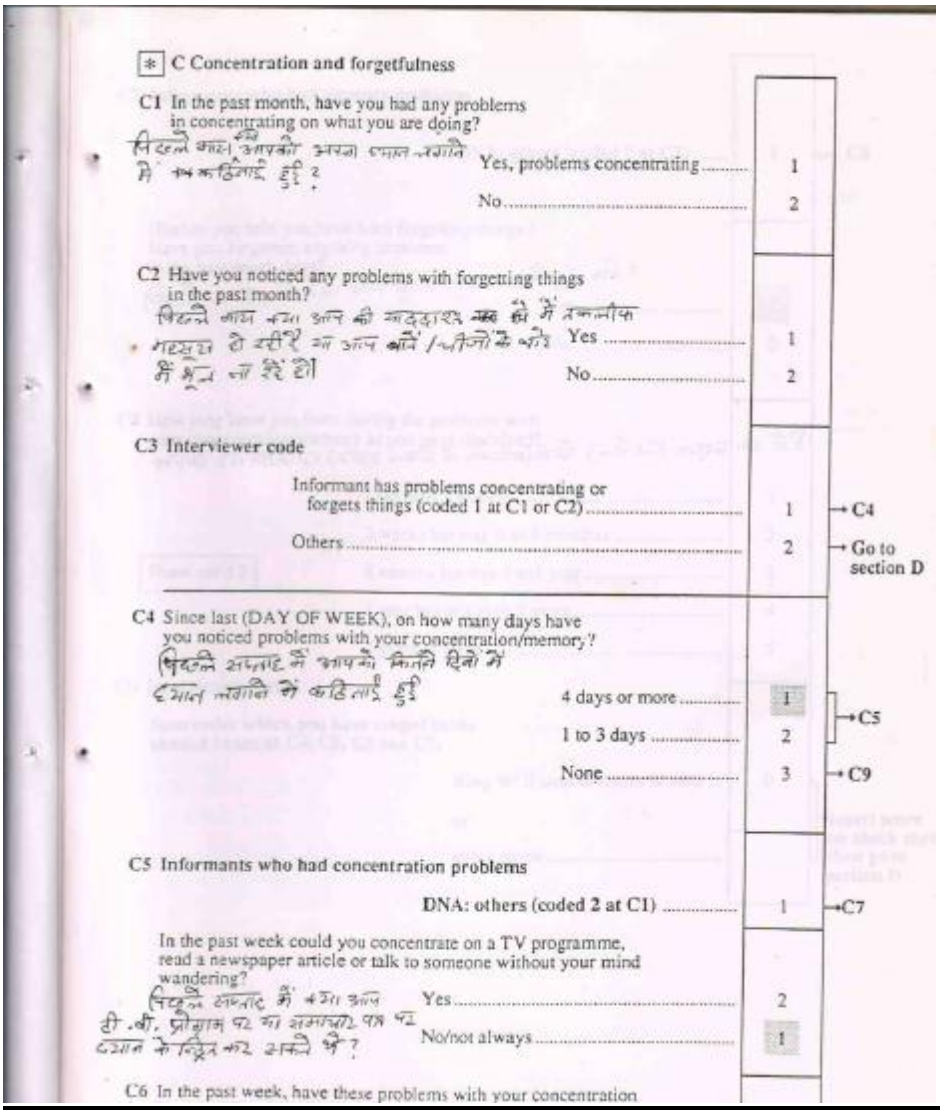
Sum codes which you have ringed in the shaded boxes at B4, B5, B6, B7 and B8.

Ring '0' if sum of codes is zero ... 0

or

enter score →

→ Insert score on check c then go to section C



* C Concentration and forgetfulness

C1 In the past month, have you had any problems in concentrating on what you are doing?
पिछले माह, क्या आपको भरसक ध्यान लगाने में कठिनाई हुई ?

Yes, problems concentrating 1
No 2

C2 Have you noticed any problems with forgetting things in the past month?
पिछले माह क्या आप की याददाश्त में कोई तकलीफ महसूस हो रही है या आप बातें / चीजों के बारे में भूल जा रहे हैं ?

Yes 1
No 2

C3 Interviewer code

Informant has problems concentrating or forgets things (coded 1 at C1 or C2) ..... 1 → C4
Others ..... 2 → Go to section D

C4 Since last (DAY OF WEEK), on how many days have you noticed problems with your concentration/memory?
पिछले सप्ताह में आपको कितने दिनों में ध्यान लगाने में कठिनाई हुई

4 days or more ..... 1 → C5
1 to 3 days ..... 2 → C5
None ..... 3 → C9

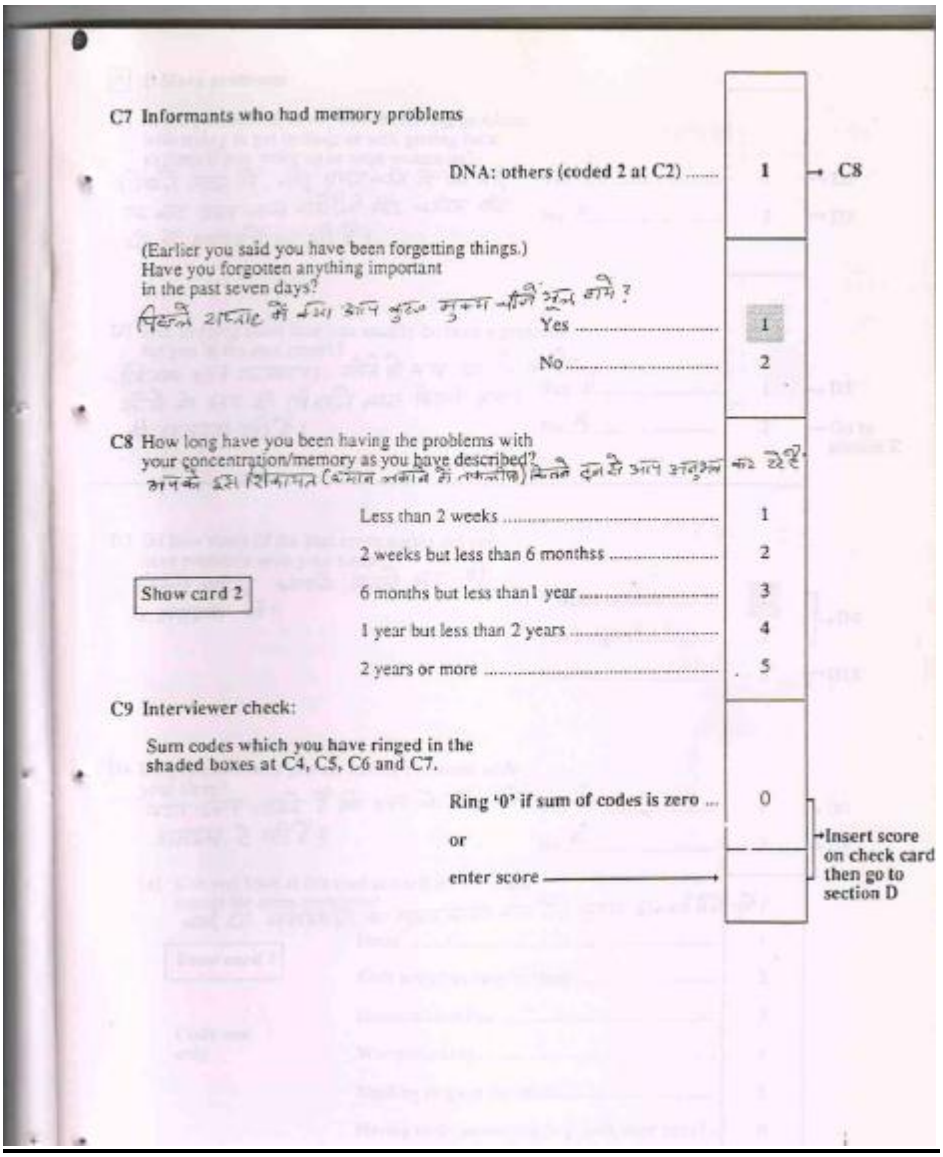
C5 Informants who had concentration problems

DNA: others (coded 2 at C1) ..... 1 → C7

In the past week could you concentrate on a TV programme, read a newspaper article or talk to someone without your mind wandering?
पिछले सप्ताह में क्या आप टी.वी. प्रोग्राम पढ़ या समाचार पत्र पढ़ ध्यान केन्द्रित कर सके थे ?

Yes 2
No/not always 1

C6 In the past week, have these problems with your concentration



C7 Informants who had memory problems

DNA: others (coded 2 at C2) ..... 1 → C8

(Earlier you said you have been forgetting things.)
Have you forgotten anything important
in the past seven days?
पिछले 2 हफ्तों में क्या आप कुछ महत्वपूर्ण चीजें भूल गये?

Yes 1

No 2

C8 How long have you been having the problems with your concentration/memory as you have described?
आपको इस शिकायत (कमजोर याददाश्त की तकलीफ) कितने दिन से आप अनुभव कर रहे हैं?

Show card 2

Less than 2 weeks 1

2 weeks but less than 6 monthss 2

6 months but less than1 year 3

1 year but less than 2 years 4

2 years or more 5

C9 Interviewer check:

Sum codes which you have ringed in the shaded boxes at C4, C5, C6 and C7.

Ring '0' if sum of codes is zero ... 0

or

enter score →

→ Insert score on check card then go to section D

D Sleep problems

D1 In the past month, have you been having problems with trying to get to sleep or with getting back to sleep if you woke up or were woken up?
पिछले महीने, नींद आने में या यदि बीच में आपकी नींद खुल गयी हो तो फिर दोबारा नींद आने में समस्या हो रही है?

Yes हाँ	1	→ D3
No नहीं	2	→ D2

D2 Has sleeping more than you usually do been a problem for you in the past month?
जितना आप सामान्यतः सोते हैं क्या उस से अधिक सोने से आप की दिनचर्या में किसी प्रकार की समस्या रही है?

Yes हाँ	1	→ D3
No नहीं	2	→ Go to section E

D3 On how many of the past seven nights did you have problems with your sleep?
पिछले सप्ताह आपको कितने रात नींद में समस्या थी?

4 nights or more	1	→ D4
1 to 3 nights	2	→ D4
None	3	→ D11

D4 Do you know why you are having problems with your sleep?
क्या आप जानते हैं कि आप को नींद में समस्या है रही है?

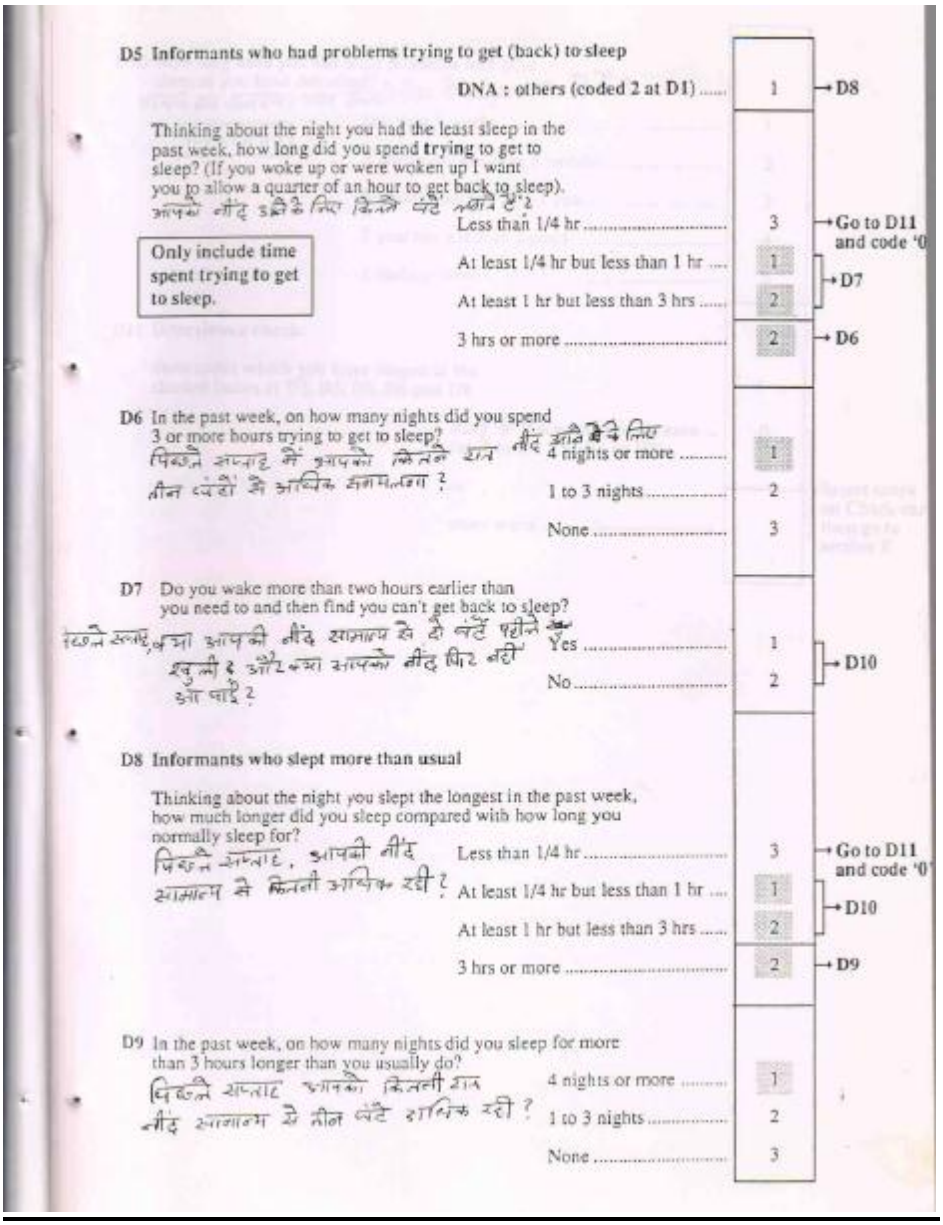
Yes हाँ	1	→ (a)
No नहीं	2	→ D5

(a) Can you look at this card and tell me the main reason for these problems?
कार्ड इन समस्याओं का मुख्य कारण क्या है? कृपया इस कार्ड में से चुनें?

Show card 4

Code one only

Noise	1
Shift work/too busy to sleep	2
Illness/discomfort	3
Worry/thinking	4
Needing to go to the toilet	5
Having to do something (e.g. look after baby)	6
Tired	7



D5 Informants who had problems trying to get (back) to sleep

DNA : others (coded 2 at D1) ..... 1 → D8

Thinking about the night you had the least sleep in the past week, how long did you spend **trying** to get to sleep? (If you woke up or were woken up I want you to allow a quarter of an hour to get back to sleep).
आपको नींद आने के लिए कितने घंटे लगाने पड़े?

Only include time spent trying to get to sleep.

Less than 1/4 hr ..... 3 → Go to D11 and code '0'
At least 1/4 hr but less than 1 hr .... 1 → D7
At least 1 hr but less than 3 hrs ..... 2 → D7
3 hrs or more ..... 2 → D6

D6 In the past week, on how many nights did you spend 3 or more hours trying to get to sleep?
पिछले सप्ताह में आपको कितने दिन नींद आने के लिए तीन घंटों से अधिक समय लगा?

4 nights or more 1
1 to 3 nights 2
None 3

D7 Do you wake more than two hours earlier than you need to and then find you can't get back to sleep?
पिछले सप्ताह, क्या आपकी नींद सामान्य से दो घंटे पहले खुल गई और क्या आपको नींद फिर नहीं आ पाई?

Yes ..... 1 → D10
No 2

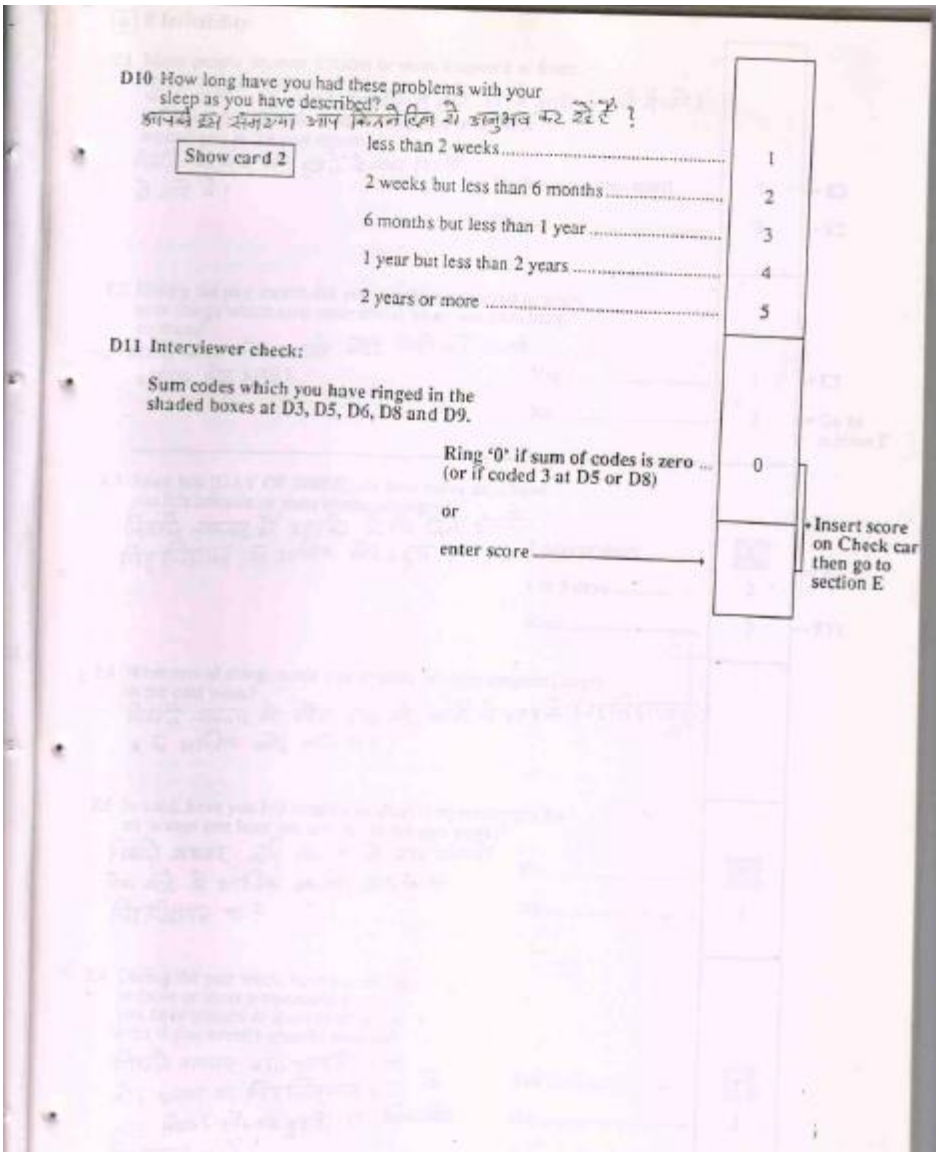
D8 Informants who slept more than usual

Thinking about the night you slept the longest in the past week, how much longer did you sleep compared with how long you normally sleep for?
पिछले सप्ताह, आपकी नींद सामान्य से कितनी अधिक रही?

Less than 1/4 hr ..... 3 → Go to D11 and code '0'
At least 1/4 hr but less than 1 hr .... 1 → D10
At least 1 hr but less than 3 hrs ..... 2 → D10
3 hrs or more ..... 2 → D9

D9 In the past week, on how many nights did you sleep for more than 3 hours longer than you usually do?
पिछले सप्ताह आपको कितनी रात नींद सामान्य से तीन घंटे अधिक रही?

4 nights or more 1
1 to 3 nights 2
None 3



D10 How long have you had these problems with your sleep as you have described? आपको इस तरह की नींद संबंधी समस्या आप कितने समय से अनुभव कर रहे हैं ?

Show card 2

less than 2 weeks	1
2 weeks but less than 6 months	2
6 months but less than 1 year	3
1 year but less than 2 years	4
2 years or more	5

D11 Interviewer check:

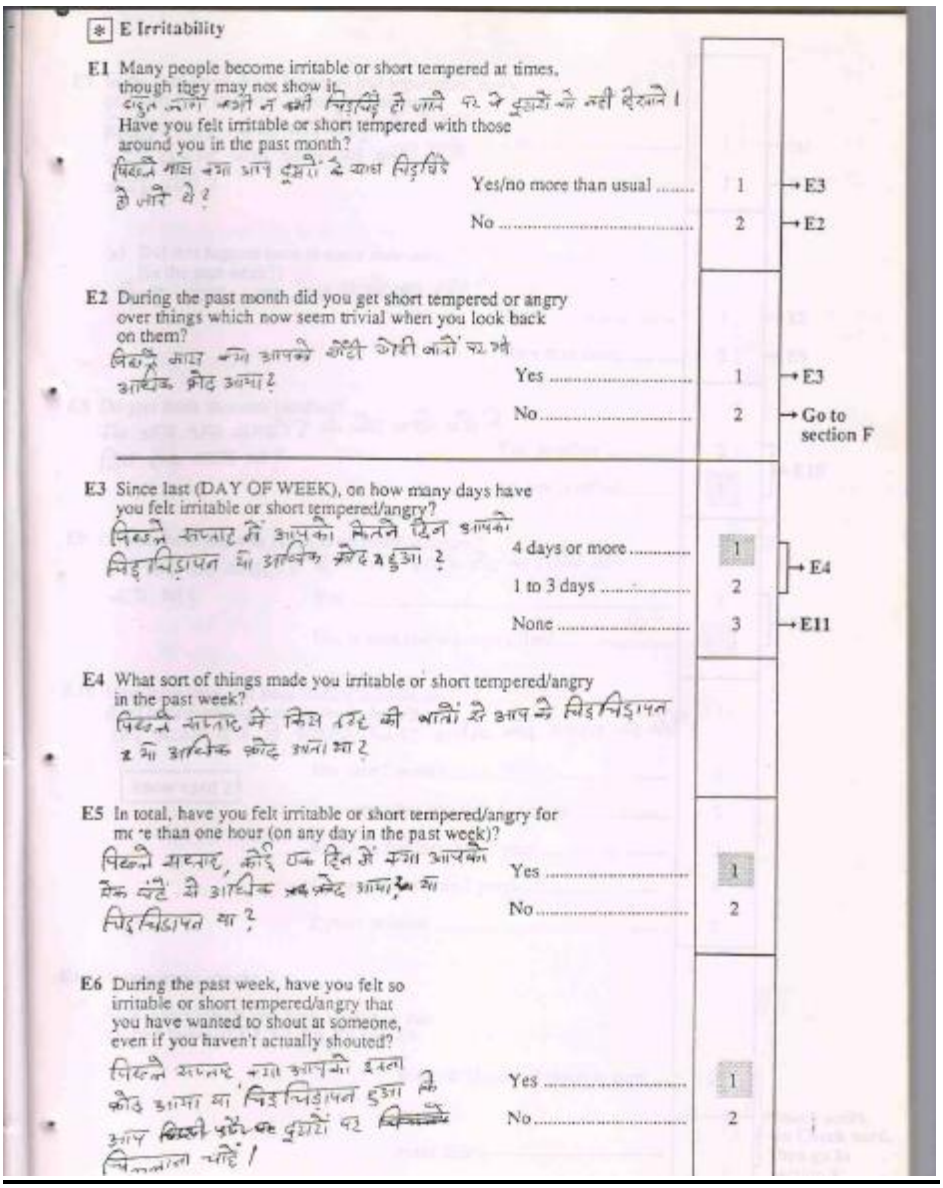
Sum codes which you have ringed in the shaded boxes at D3, D5, D6, D8 and D9.

Ring '0' if sum of codes is zero (or if coded 3 at D5 or D8) ... 0

or

enter score →

→ Insert score on Check car then go to section E



* E Irritability

E1 Many people become irritable or short tempered at times, though they may not show it.
बहुत लोग कभी न कभी चिड़चिड़े हो जाते पर वे दूसरों को नहीं दिखाते।
Have you felt irritable or short tempered with those around you in the past month?
पिछले माह क्या आप दूसरों के साथ चिड़चिड़े हो जाते थे?

Yes/no more than usual ..... 1 → E3
No ..... 2 → E2

E2 During the past month did you get short tempered or angry over things which now seem trivial when you look back on them?
पिछले माह क्या आपके छोटी छोटी बातों पर भी आवेशिक क्रोध आया?

Yes ..... 1 → E3
No ..... 2 → Go to section F

E3 Since last (DAY OF WEEK), on how many days have you felt irritable or short tempered/angry?
पिछले सप्ताह में आपको कितने दिन आपको चिड़चिड़ापन या आवेशिक क्रोध का हुआ?

4 days or more ..... 1 → E4
1 to 3 days ..... 2 → E4
None ..... 3 → E11

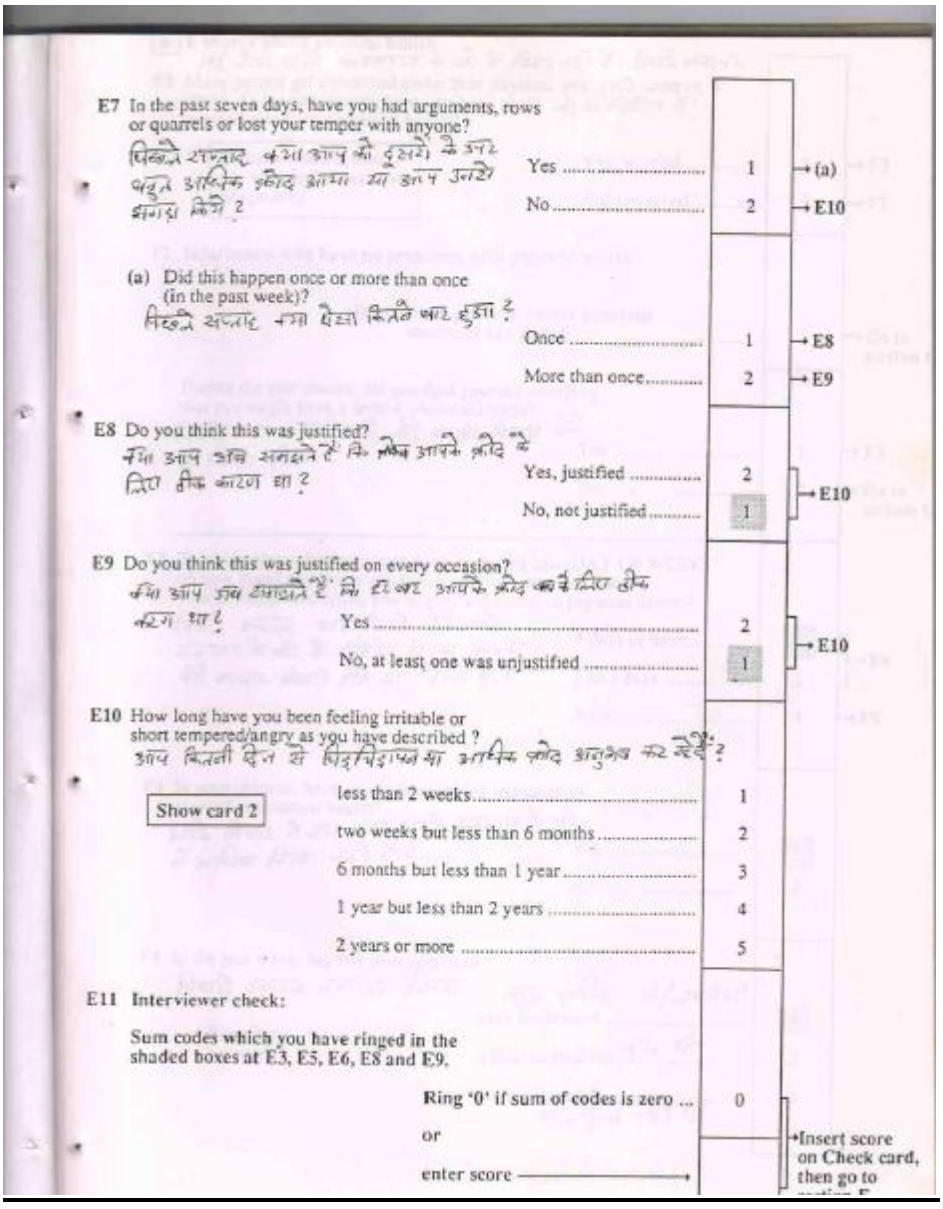
E4 What sort of things made you irritable or short tempered/angry in the past week?
पिछले सप्ताह में किस तरह की बातों से आप में चिड़चिड़ापन या आवेशिक क्रोध आया था?

E5 In total, have you felt irritable or short tempered/angry for more than one hour (on any day in the past week)?
पिछले सप्ताह, कोई एक दिन में क्या आपको एक घंटे से आवेशिक क्रोध आया या चिड़चिड़ापन था?

Yes 1
No 2

E6 During the past week, have you felt so irritable or short tempered/angry that you have wanted to shout at someone, even if you haven't actually shouted?
पिछले सप्ताह क्या आपको इतना कोध आया या चिड़चिड़ापन हुआ कि आप किसी पर दूसरों पर चिल्लाना चाहें!

Yes 1
No 2



E7 In the past seven days, have you had arguments, rows or quarrels or lost your temper with anyone?
पिछले सप्ताह क्या आप की दूसरों के साथ बहुत अधिक झौद आया या आप उनसे झगड़ा किये ?

Yes ..... 1 → (a)
No ..... 2 → E10

(a) Did this happen once or more than once (in the past week)?
पिछले सप्ताह क्या ऐसा कितने बार हुआ ?

Once ..... 1 → E8
More than once ..... 2 → E9

E8 Do you think this was justified?
क्या आप उसे समझते हैं कि किसी आपके क्रोध के लिए ठीक कारण था ?

Yes, justified 2
No, not justified ..... 1 → E10

E9 Do you think this was justified on every occasion?
क्या आप उसे समझते हैं कि हर बार आपके क्रोध का ठीक कारण था ?

Yes 2
No, at least one was unjustified ..... 1 → E10

E10 How long have you been feeling irritable or short tempered/angry as you have described ?
आप कितनी देर से चिड़चिड़ापन या आसान क्रोध अनुभव कर रहे हैं ?

Show card 2

less than 2 weeks 1
two weeks but less than 6 months 2
6 months but less than 1 year 3
1 year but less than 2 years 4
2 years or more 5

E11 Interviewer check:

Sum codes which you have ringed in the shaded boxes at E3, E5, E6, E8 and E9.

Ring '0' if sum of codes is zero ... 0

or

enter score → Insert score on Check card, then go to

F Worry about physical health

F1 Many people get concerned about their physical health. In the past month, have you been at all worried about your physical health?

Include women who are worried about their pregnancy

Yes, worried ..... 1 → F3

No/concerned ..... 2 → F2

F2 Informants who have no problems with physical health

DNA : has a physical health problem shown at 11a page 6 ..... 1 → Go to section G

During the past month, did you find yourself worrying that you might have a serious physical illness?

Yes ..... 1 → F3

No ..... 2 → Go to section G

F3 Thinking about the past seven days, including last (DAY OF WEEK), on how many days have you found yourself worrying about your physical health/that you might have a serious physical illness?

4 days or more ..... 1 → F4

1 to 3 days ..... 2 → F4

None ..... 3 → F8

F4 In your opinion, have you been worrying too much in view of your actual health?

Yes 1

No 2

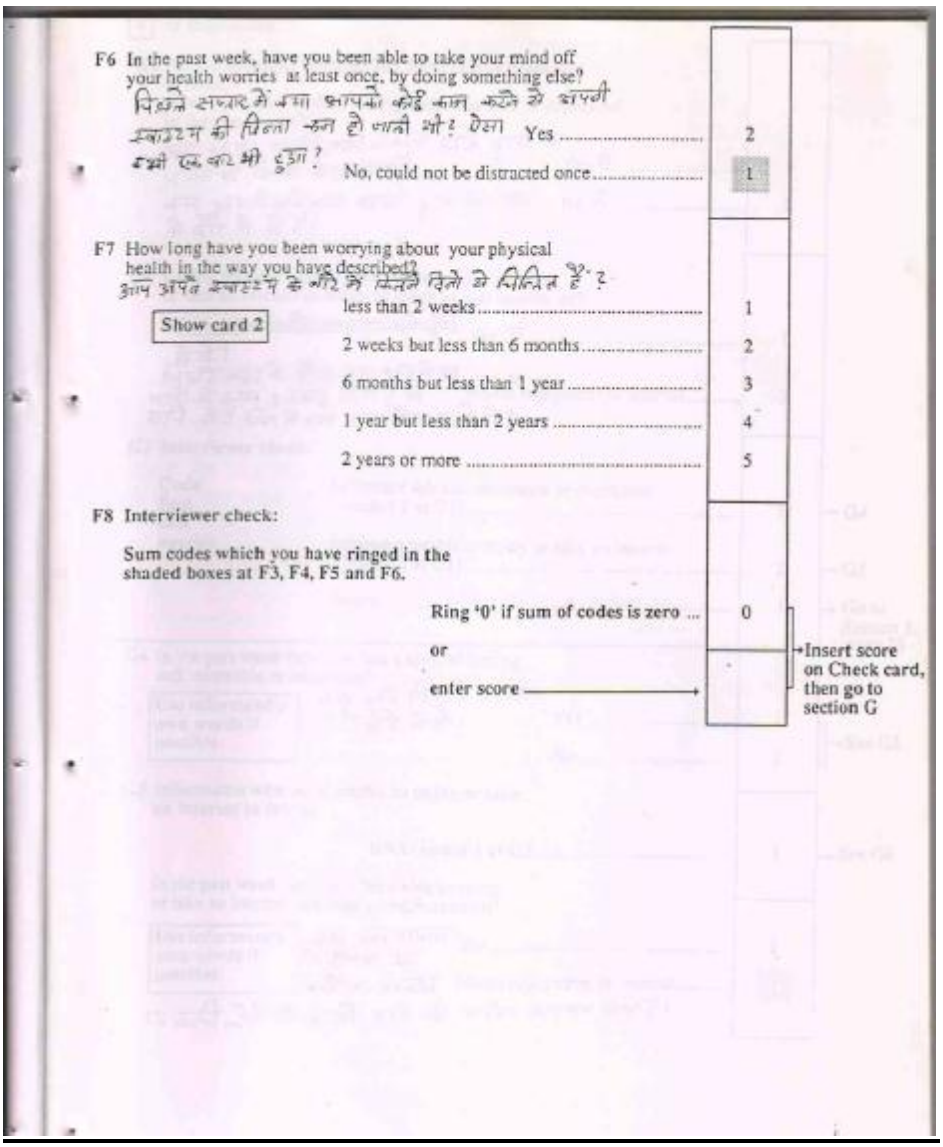
F5 In the past week, has this worrying been

very unpleasant 1

Running prompt

a little unpleasant 2

or not unpleasant? 3



F6 In the past week, have you been able to take your mind off your health worries at least once, by doing something else?
पिछले सप्ताह में क्या आपको कोई काम करने से अपनी स्वास्थ्य की चिंता कम हो जाती थी? ऐसा कभी एक बार भी हुआ?

Yes 2
No, could not be distracted once 1

F7 How long have you been worrying about your physical health in the way you have described?
आप अपने स्वास्थ्य के बारे में जिस तरह चिंता से चिंतित हैं?

Show card 2

less than 2 weeks 1
2 weeks but less than 6 months 2
6 months but less than 1 year 3
1 year but less than 2 years 4
2 years or more 5

F8 Interviewer check:

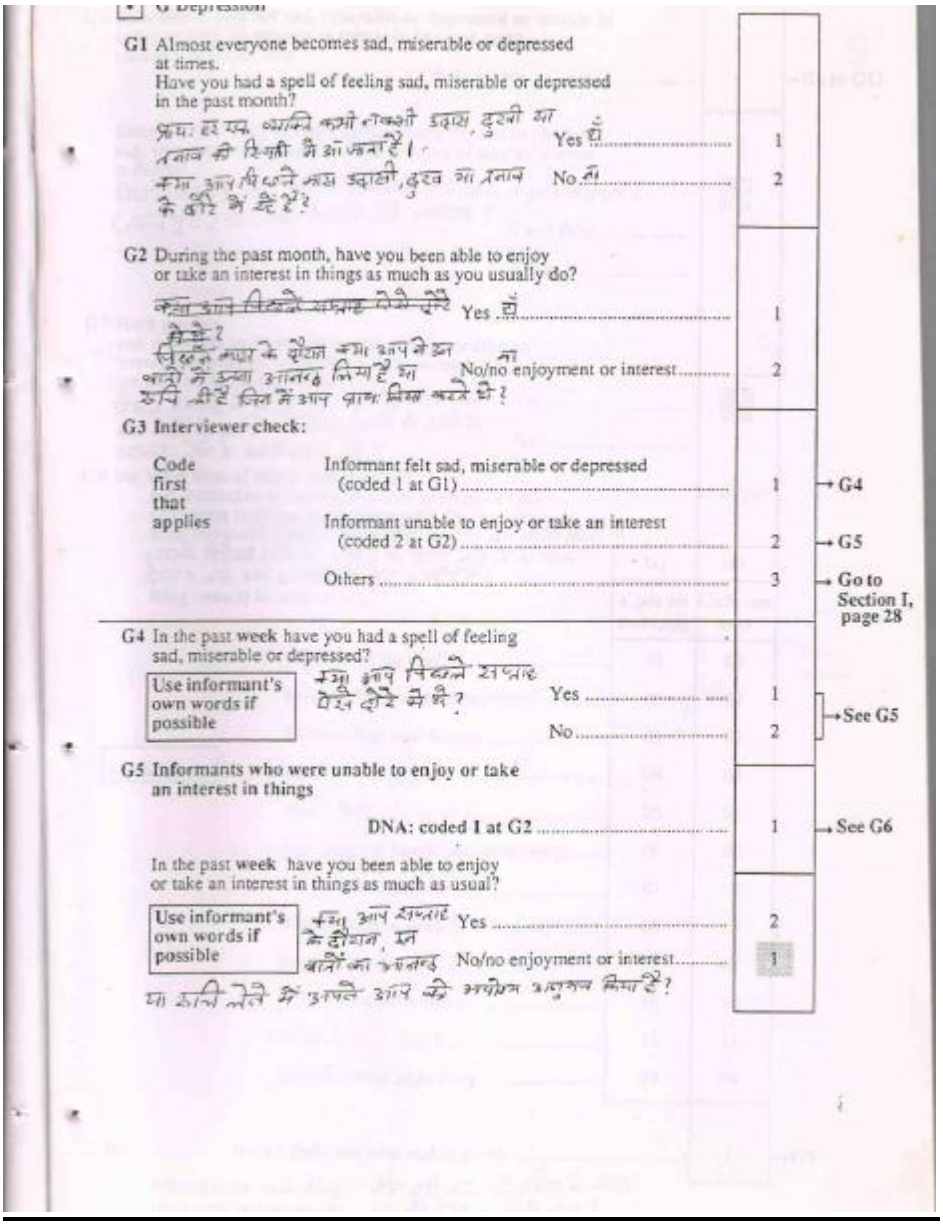
Sum codes which you have ringed in the shaded boxes at F3, F4, F5 and F6.

Ring '0' if sum of codes is zero ... 0

or

enter score ——→

→Insert score on Check card, then go to section G



G Depression

G1 Almost everyone becomes sad, miserable or depressed at times.
Have you had a spell of feeling sad, miserable or depressed in the past month?
प्रायः हर एक व्यक्ति कभी न कभी उदासी, दुःखी या तनाव की स्थिति में हो जाता है।
क्या आप पिछले माह उदासी, दुःख या तनाव के दौर से गुजरे हैं?

Yes हाँ 1
No नहीं 2

G2 During the past month, have you been able to enjoy or take an interest in things as much as you usually do?
~~क्या आप पिछले महीने पहले जैसे~~
जैसे?
पिछले माह के दौरान क्या आप ने इन चीजों में उतना आनंद लिया है या नहीं
जैसे कि दैनिक क्रिया में आप प्रायः रुचि लेते हैं?

Yes हाँ 1
No/no enjoyment or interest 2

G3 Interviewer check:

Code first that applies

Informant felt sad, miserable or depressed (coded 1 at G1) ..... 1 → G4
Informant unable to enjoy or take an interest (coded 2 at G2) ..... 2 → G5
Others ..... 3 → Go to Section I, page 28

G4 In the past week have you had a spell of feeling sad, miserable or depressed?
Use informant's own words if possible
क्या आप पिछले सप्ताह दौरान दौरे से थे?

Yes 1
No ..... 2 → See G5

G5 Informants who were unable to enjoy or take an interest in things

DNA: coded 1 at G2 ..... 1 → See G6

In the past week have you been able to enjoy or take an interest in things as much as usual?
Use informant's own words if possible
क्या आप सप्ताह के दौरान, इन चीजों का आनंद

Yes 2
No/no enjoyment or interest 1

या दैनिक जीवन में उससे आप जो अपेक्षा उसुकता लिया है?

H Depressive Ideas

H1 Informants who scored 1 or more at section G, Depression

DNA: Others (coded 0 or blank at G11) ..... 1 → Go to section I

I would now like to ask you about when you have been feeling sad, miserable or depressed/unable to enjoy or take an interest in things. In the past week, was this worse in the morning or in the evening, or did this make no difference?

Prompt as necessary

in the morning 1

in the evening 2

no difference/other 3

H2 Ask or use card 7

Many people find that feeling sad, miserable or depressed/unable to enjoy or take an interest in things can affect their interest in sex. Over the past month, do you think your interest in sex has

Running prompt

increased 1

decreased 2

or has it stayed the same? 3

Spontaneous

Not applicable 4

H3 When you have felt sad, miserable or depressed/unable to enjoy or take an interest in things in the past seven days,

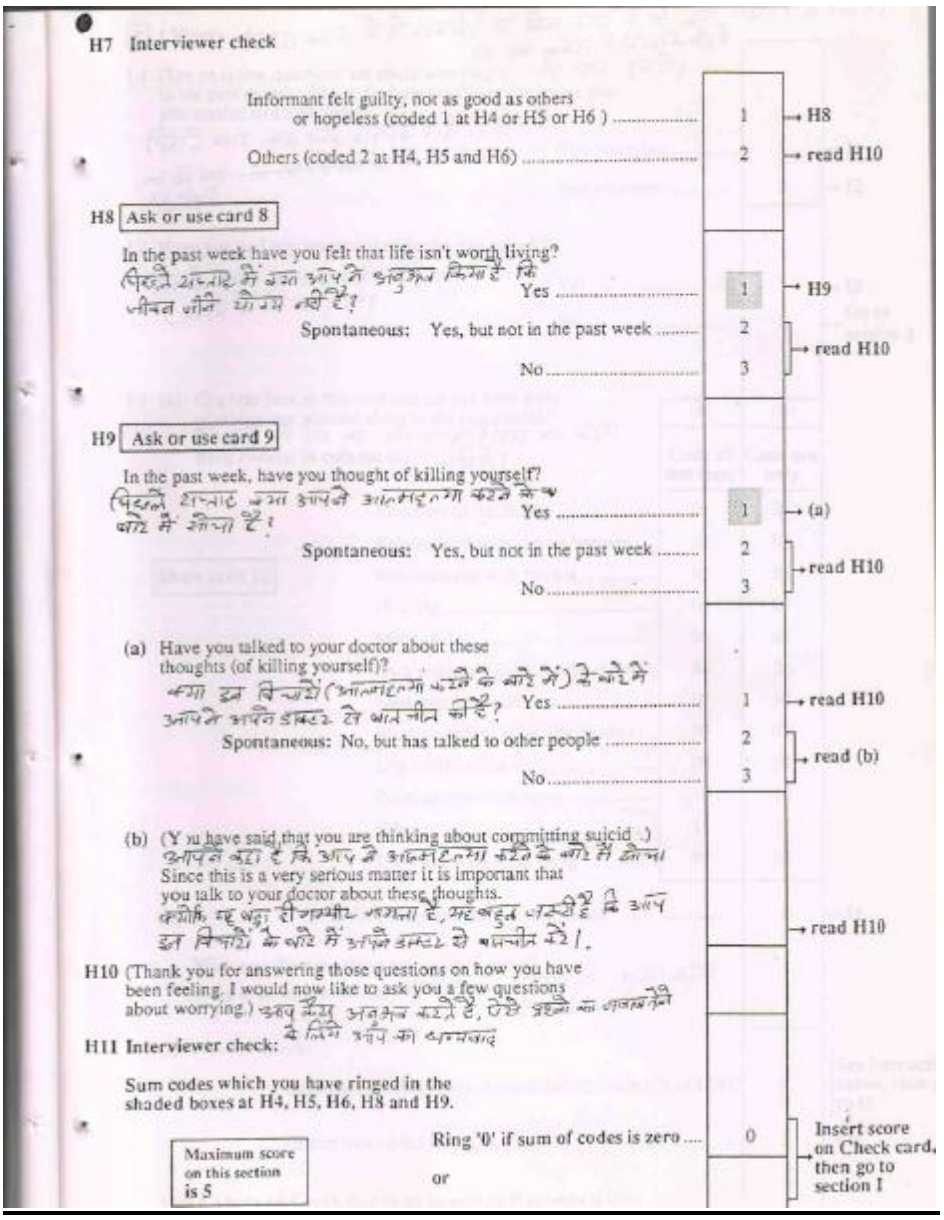
	Yes	No
have you been so restless that you couldn't sit still?	1	2
Individual prompt: have you been doing things more slowly, for example, walking more slowly?	1	2
have you been less talkative than normal?	1	2

H4 Now, thinking about the past seven days have you on at least one occasion felt guilty or blamed yourself when things went wrong when it hasn't been your fault?

Yes, at least once 1

No 2

H5 During the past week, have you been feeling you are not as good as other people?



H7 Interviewer check

Informant felt guilty, not as good as others or hopeless (coded 1 at H4 or H5 or H6) ..... 1 → H8

Others (coded 2 at H4, H5 and H6) ..... 2 → read H10

H8 Ask or use card 8

In the past week have you felt that life isn't worth living?
पिछले हफ्ते से अब आप ने महसूस किया है कि जीवन जीने योग्य नहीं है?

Yes ..... 1 → H9

Spontaneous: Yes, but not in the past week ..... 2 → read H10

No 3

H9 Ask or use card 9

In the past week, have you thought of killing yourself?
पिछले हफ्ते अब आपने आत्महत्या करने के बारे में सोचा है?

Yes ..... 1 → (a)

Spontaneous: Yes, but not in the past week ..... 2 → read H10

No 3

(a) Have you talked to your doctor about these thoughts (of killing yourself)?
क्या इन विचारों (आत्महत्या करने के बारे में) के बारे में आपने अपने डाक्टर से बात चीत की है?

Yes ..... 1 → read H10

Spontaneous: No, but has talked to other people ..... 2 → read (b)

No 3

(b) (You have said that you are thinking about committing suicid .)
आपने कहा है कि आप ने आत्महत्या करने के बारे में सोचा। Since this is a very serious matter it is important that you talk to your doctor about these thoughts.
क्योंकि यह बहुत ही गम्भीर मामला है, यह बहुत जरूरी है कि आप इन विचारों के बारे में अपने डाक्टर से बातचीत करें।

→ read H10

H10 (Thank you for answering those questions on how you have been feeling. I would now like to ask you a few questions about worrying.) अब मैं कुछ अनुभव करते हैं, उसके बारे में पूछने के लिये आप को धन्यवाद

H11 Interviewer check:

Sum codes which you have ringed in the shaded boxes at H4, H5, H6, H8 and H9.

Maximum score on this section is 5

Ring '0' if sum of codes is zero 0

or

→ Insert score on Check card, then go to section I

J Anxiety

J1 Have you been feeling anxious or nervous in the past month?
क्या आप पिछले माह अपने आप को चिंतित (बेचैन महसूस) या अधीर महसूस करते रहे हैं?

Yes, anxious or nervous ..... 1 → J3

No ..... 2 → J2

J2 In the past month, did you ever find your muscles felt tense or that you couldn't relax?
पिछले माह में, क्या आप के अपने मांसपेशियां (मांसपेशियों) को कभी कभी तनाव पाया या आप अपने आप को आराम की स्थिति में नहीं पा सके?

Yes 1

No 2

J3 Some people have phobias; they get nervous or uncomfortable about specific things or situations when there is no real danger. For instance they may get nervous when speaking or eating in front of strangers, when they are far from home or in crowded rooms, or they may have a fear of heights. Others become nervous at the sight of things like blood or spiders.

In the past month have you felt anxious, nervous or tense about any specific things or situations when there was no real danger?
कुछ लोगों को भय (फोबिया) रहता है। वे कुछ खतरों या स्थितियों के बारे में अधीर या बेआराम हो जाते हैं, जबकि वैसे खतरनाक संभव नहीं रहता है। जैसे अजनबी के सामने बोलना या खाना, घर से दूर या भीड़ वाले कमरों में होने पर ऊंचाई का डर हो सकता है। खून या मकड़ियों जैसी चीजों को देखकर अन्य अधीर हो जाते हैं।
पिछले माह में क्या आप को किसी विशेष चीजों/बातों या स्थितियों के बारे में चिंता, अधीरता या तनाव का अनुभव किया है जबकि ऐसी खतरनाक संभव नहीं थी?

Yes 1

No 2

J4 Interviewer check:
जांच के बाद दिए हुए या मौखिक जांच करने में क्या, या इन्हें अकेले ही कर जाना-इन सब स्थितियों में अधीर हो जाना / अन्य लोगों को खून या स्पाइडर्स जैसी चीजों से देखकर अधीर हो जाते हैं

Informant reports anxiety and also a phobia (coded 1 at J1 or J2, and coded 1 at J3) ..... 1 → J5

Informant reports only general anxiety (coded 1 at J1 or J2, and coded 2 at J3) ..... 2 → J7

Others ..... 3 → Go to section K

J5 In the past month, when you felt anxious/nervous/tense, was this always brought on by the phobia about some specific situation or thing or did you sometimes feel generally anxious/nervous/tense?
पिछले माह, क्या आपकी चिन्ता कोई विशेषता के कारण हुई या बिना कारण आप चिंतित हो गये?

Always brought on by phobia ..... 1 → Go to section K

Sometimes felt generally anxious ..... 2 → J6

अब
मैं आपसे बिना कारण चिन्ता के बारे में कुछ प्रश्न पूछूंगी।

J6 The next questions are concerned with general anxiety/nervousness/tension only. I will ask you about the anxiety which is brought on by the phobia about specific things or situations later.

On how many of the past seven days have you felt generally anxious/nervous/tense?
पिछले सप्ताह में आपको कितने दिन बिना कोई कारण पिछले हुई आप चिंतित हुए ?

4 days or more	1	→ J8
1 to 3 days	2	
None	3	→ J12

J7 On how many of the past seven days have you felt generally anxious/nervous/tense?
पिछले सप्ताह के दौरान, आपको कितने दिन बिना कोई कारण आप चिंतित हुए ?

4 days or more	1	→ J8
1 to 3 days	2	
None	3	→ J12

J8 In the past week, has your anxiety/nervousness/tension been:
पिछले सप्ताह में आपकी चिन्ता के कारण आपको कठिनाई हुई

Running prompt

very unpleasant अधिक परेशानी	1
a little unpleasant कुछ	2
or not unpleasant? बिलकुल नहीं हुई	3

J9 In the past week, when you've been anxious/nervous/tense, have you had any of the symptoms shown on this card?
पिछले सप्ताह, जब आप चिंतित थे, आपको कोनसी तकलीफें थी? कृपा आप इस कार्ड को देख कर बताएंगे ?

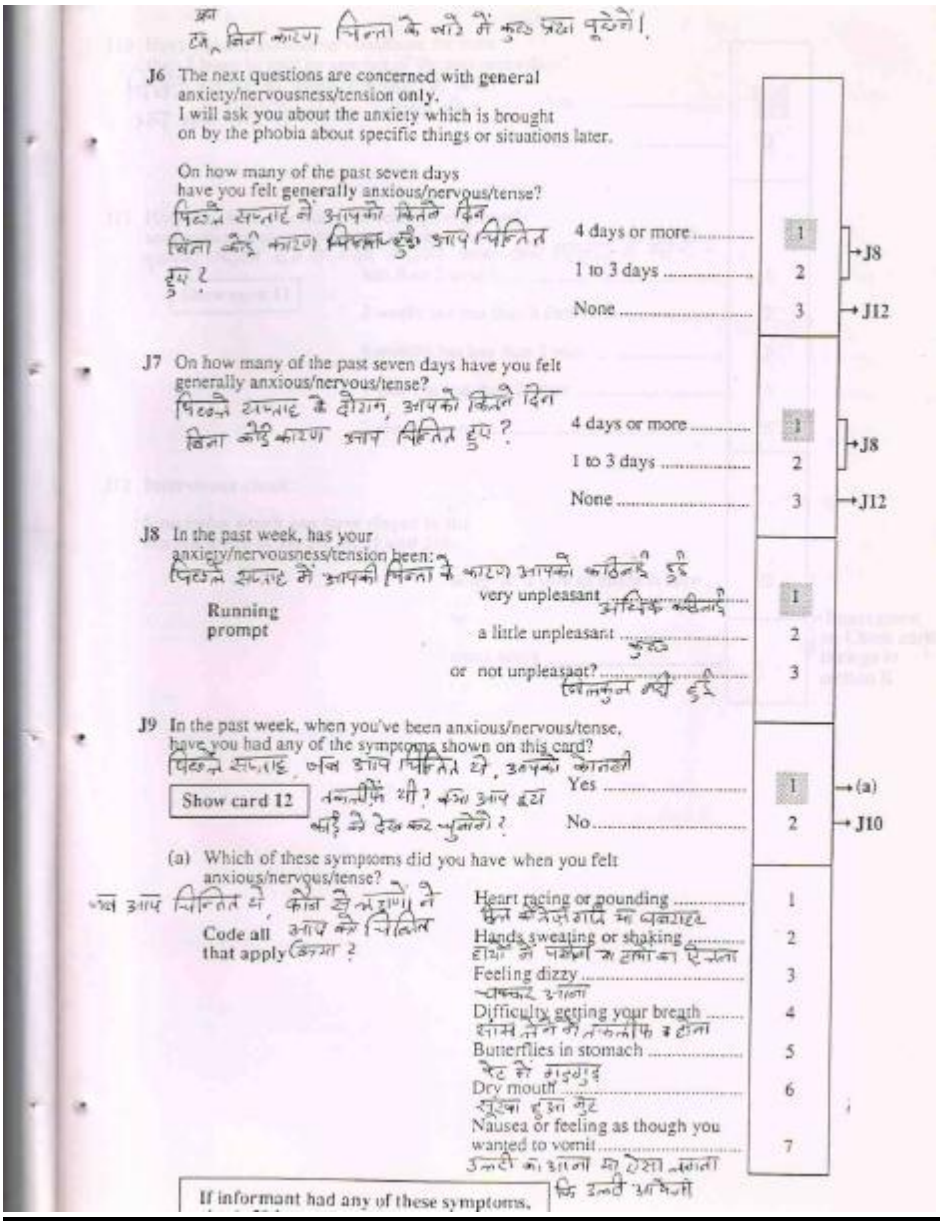
Show card 12

Yes	1	→ (a)
No	2	→ J10

(a) Which of these symptoms did you have when you felt anxious/nervous/tense?
जब आप चिन्तित थे, कौन से लक्षणों ने आपको चिंतित किया ?

Code all that apply

Heart racing or pounding दिल का तेज़ गति से धड़कना	1
Hands sweating or shaking हाथों से पसीना या हाथों का हिलना	2
Feeling dizzy चक्कर आना	3
Difficulty getting your breath साँस लेने में तकलीफ होना	4
Butterflies in stomach पेट में गड़गड़	5
Dry mouth सूखा हुआ मुंह	6
Nausea or feeling as though you wanted to vomit उल्टी आने जैसा या होना लगना	7



अब
हम बिना कारण चिन्ता के बारे में कुछ प्रश्न पूछेंगे।

J6 The next questions are concerned with general anxiety/nervousness/tension only. I will ask you about the anxiety which is brought on by the phobia about specific things or situations later.

On how many of the past seven days have you felt generally anxious/nervous/tense?
पिछले सप्ताह में आपको कितने दिन बिना कोई कारण विचलित हुए ?

4 days or more	1	→ J8
1 to 3 days	2	
None	3	→ J12

J7 On how many of the past seven days have you felt generally anxious/nervous/tense?
पिछले सप्ताह के दौरान, आपको कितने दिन बिना कोई कारण आप चिंतित हुए ?

4 days or more	1	→ J8
1 to 3 days	2	
None	3	→ J12

J8 In the past week, has your anxiety/nervousness/tension been:
पिछले सप्ताह में आपकी चिन्ता के कारण आपको कठिनाई हुई

Running prompt

very unpleasant अधिक कठिनाई	1
a little unpleasant कुछ	2
or not unpleasant? बिलकुल नहीं हुई	3

J9 In the past week, when you've been anxious/nervous/tense, have you had any of the symptoms shown on this card?
पिछले सप्ताह, जब आप चिंतित थे, आपको कोनसी तकलीफें थी ? कृपा आप इस कार्ड को देख कर बुताएंगे ?

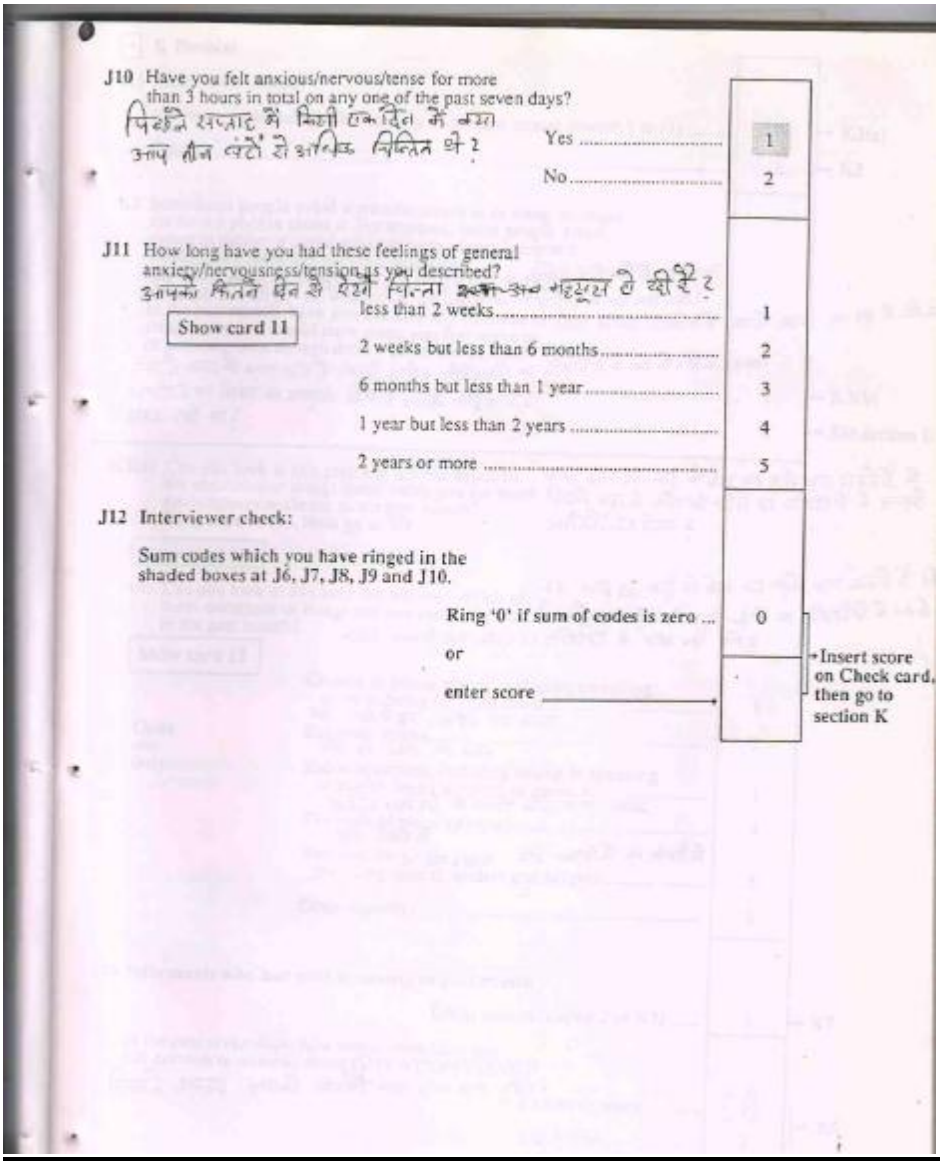
Show card 12

Yes	1	→ (a)
No	2	→ J10

(a) Which of these symptoms did you have when you felt anxious/nervous/tense?
जब आप चिन्तित थे, कौन से लक्षण आपने
Code all that apply किया ?

Heart racing or pounding छाती में तेज धड़कन या धकधकाहट	1
Hands sweating or shaking हाथों में पसीना या हाथों का ऐंठना	2
Feeling dizzy चक्कर आना	3
Difficulty getting your breath सांस लेने में तकलीफ होना	4
Butterflies in stomach पेट में गुड़गुड़	5
Dry mouth सूखा हुआ मुंह	6
Nausea or feeling as though you wanted to vomit उल्टी का आना या ऐसा लगना कि उल्टी आयेगी	7

If informant had any of these symptoms,



J10 Have you felt anxious/nervous/tense for more than 3 hours in total on any one of the past seven days?
पिछले सप्ताह में किसी एक दिन में कुल 3 घंटों से अधिक चिंतित थे ?

Yes 1
No 2

J11 How long have you had these feelings of general anxiety/nervousness/tension as you described?
आपको कितने दिन से ऐसी चिन्ता ~~अथवा~~ घबराहट है बोलें ?

Show card 11

less than 2 weeks 1
2 weeks but less than 6 months 2
6 months but less than 1 year 3
1 year but less than 2 years 4
2 years or more 5

J12 Interviewer check:

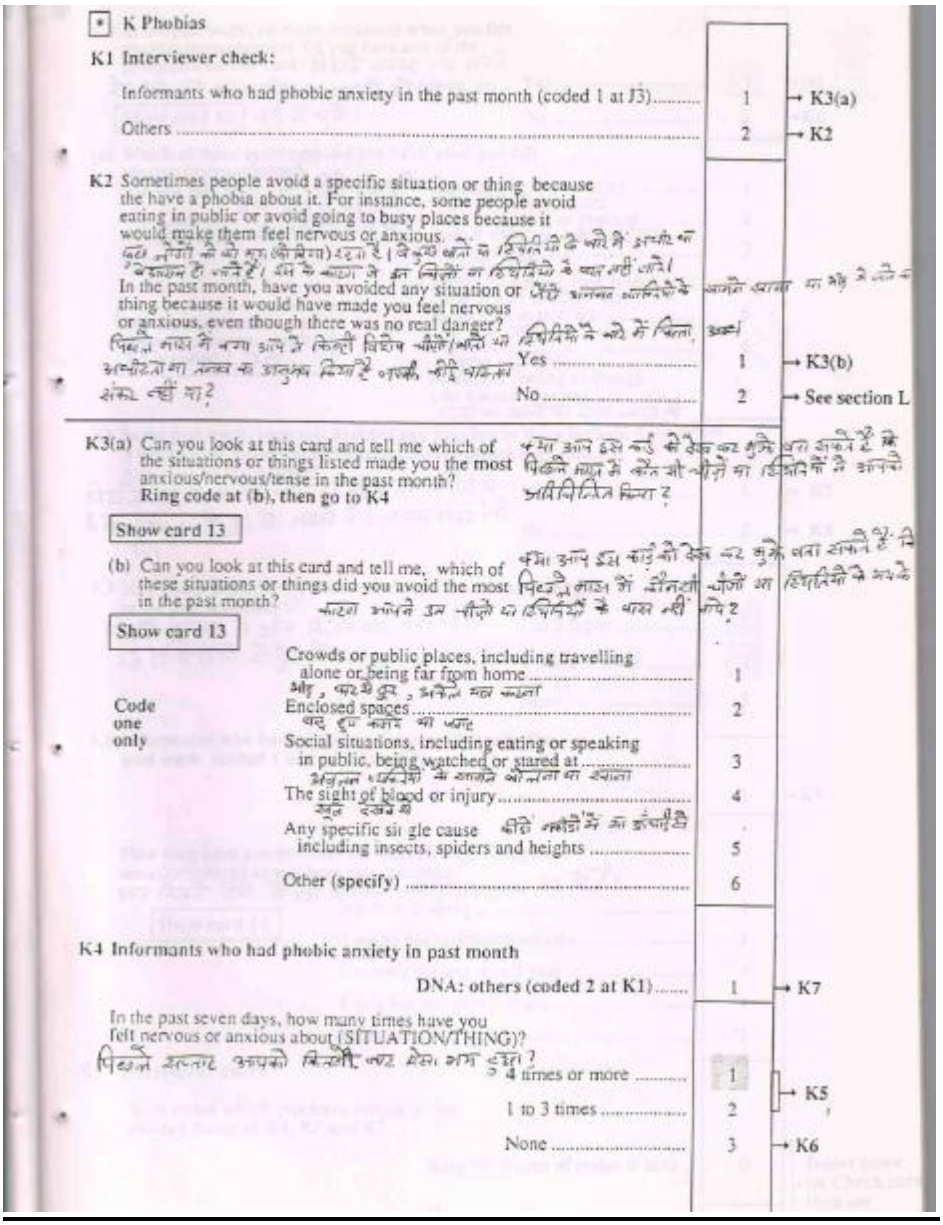
Sum codes which you have ringed in the shaded boxes at J6, J7, J8, J9 and J10.

Ring '0' if sum of codes is zero ... 0

or

enter score ____

→ Insert score on Check card, then go to section K



K Phobias

K1 Interviewer check:

Informants who had phobic anxiety in the past month (coded 1 at J3)..... 1 → K3(a)

Others ..... 2 → K2

K2 Sometimes people avoid a specific situation or thing because the have a phobia about it. For instance, some people avoid eating in public or avoid going to busy places because it would make them feel nervous or anxious.
In the past month, have you avoided any situation or thing because it would have made you feel nervous or anxious, even though there was no real danger?

Yes ..... 1 → K3(b)

No ..... 2 → See section L

K3(a) Can you look at this card and tell me which of the situations or things listed made you the most anxious/nervous/tense in the past month?
Ring code at (b), then go to K4

Show card 13

(b) Can you look at this card and tell me, which of these situations or things did you avoid the most in the past month?

Show card 13

Code one only

Crowds or public places, including travelling alone or being far from home	1
Enclosed spaces	2
Social situations, including eating or speaking in public, being watched or stared at	3
The sight of blood or injury	4
Any specific single cause including insects, spiders and heights	5
Other (specify)	6

K4 Informants who had phobic anxiety in past month

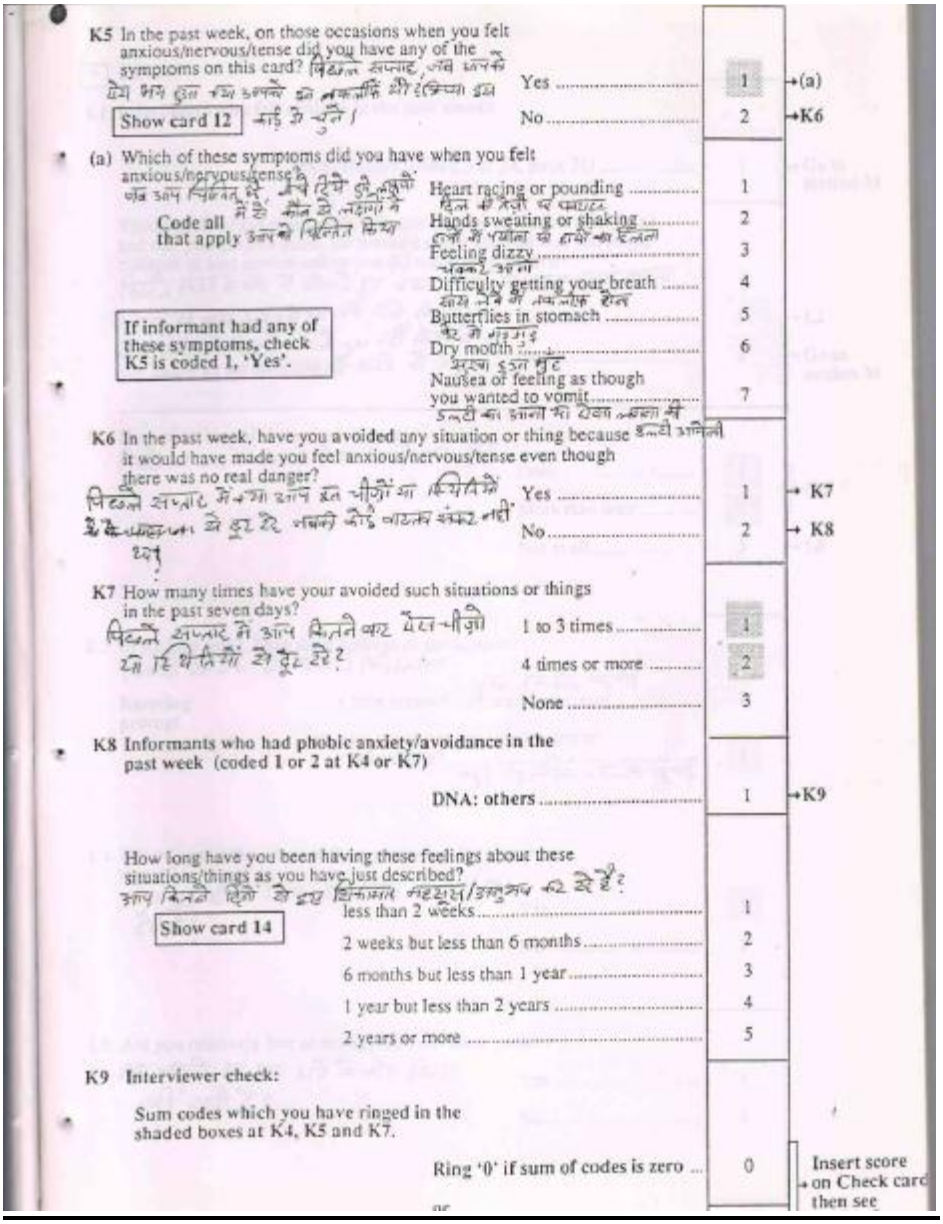
DNA: others (coded 2 at K1)..... 1 → K7

In the past seven days, how many times have you felt nervous or anxious about (SITUATION/THING)?

4 times or more ..... 1 → K5

1 to 3 times 2

None ..... 3 → K6



K5 In the past week, on those occasions when you felt anxious/nervous/tense did you have any of the symptoms on this card?

Show card 12

Yes ..... 1 → (a)

No ..... 2 → K6

(a) Which of these symptoms did you have when you felt anxious/nervous/tense?

Code all that apply

If informant had any of these symptoms, check K5 is coded 1, 'Yes'.

Heart racing or pounding 1

Hands sweating or shaking 2

Feeling dizzy 3

Difficulty getting your breath 4

Butterflies in stomach 5

Dry mouth 6

Nausea or feeling as though you wanted to vomit 7

K6 In the past week, have you avoided any situation or thing because it would have made you feel anxious/nervous/tense even though there was no real danger?

Yes ..... 1 → K7

No ..... 2 → K8

K7 How many times have your avoided such situations or things in the past seven days?

1 to 3 times 1

4 times or more 2

None 3

K8 Informants who had phobic anxiety/avoidance in the past week (coded 1 or 2 at K4 or K7)

DNA: others ..... 1 → K9

How long have you been having these feelings about these situations/things as you have just described?

Show card 14

less than 2 weeks 1

2 weeks but less than 6 months 2

6 months but less than 1 year 3

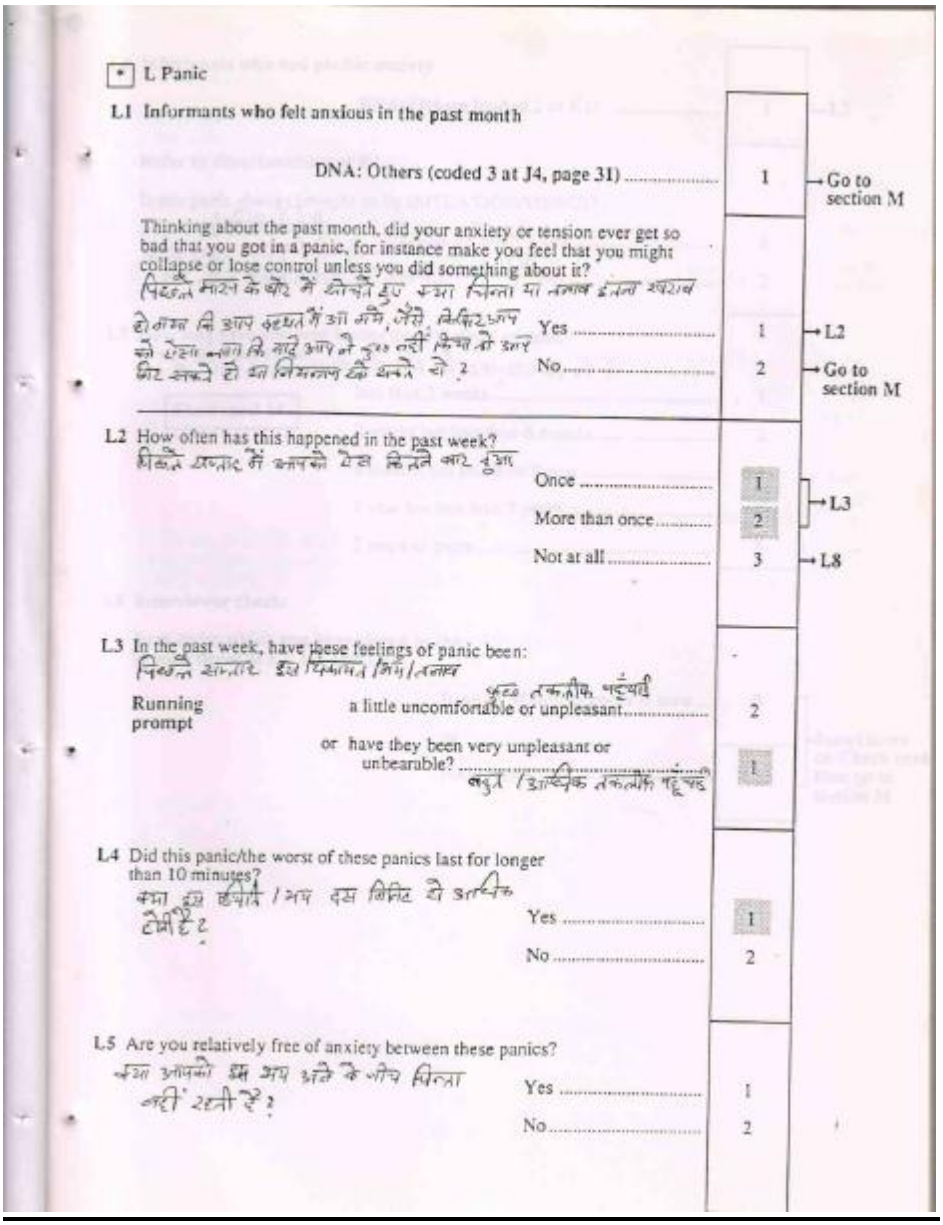
1 year but less than 2 years 4

2 years or more 5

K9 Interviewer check:

Sum codes which you have ringed in the shaded boxes at K4, K5 and K7.

Ring '0' if sum of codes is zero ... 0 → Insert score on Check card then see



L Panic

L1 Informants who felt anxious in the past month

DNA: Others (coded 3 at J4, page 31) ..... 1 → Go to section M

Thinking about the past month, did your anxiety or tension ever get so bad that you got in a panic, for instance make you feel that you might collapse or lose control unless you did something about it?
पिछले महीने के बारे में सोचते हुए क्या चिंता या तनाव इतना खराब हो गया कि आप घबराहट में आ गये, जैसे, कि आप को लगा कि गिरे आप ने कुछ नहीं किया तो आप फिर सकते हो या नियंत्रण खो सकते हो ?

Yes ..... 1 → L2
No ..... 2 → Go to section M

L2 How often has this happened in the past week?
पिछले सप्ताह में आपको ऐसा कितने बार हुआ

Once 1
More than once ..... 2 → L3
Not at all ..... 3 → L8

L3 In the past week, have these feelings of panic been:
पिछले सप्ताह इस घबराहट / तनाव / तनाव

Running prompt

a little uncomfortable or unpleasant 2
थोड़ा तकलीफ पहुंचाई

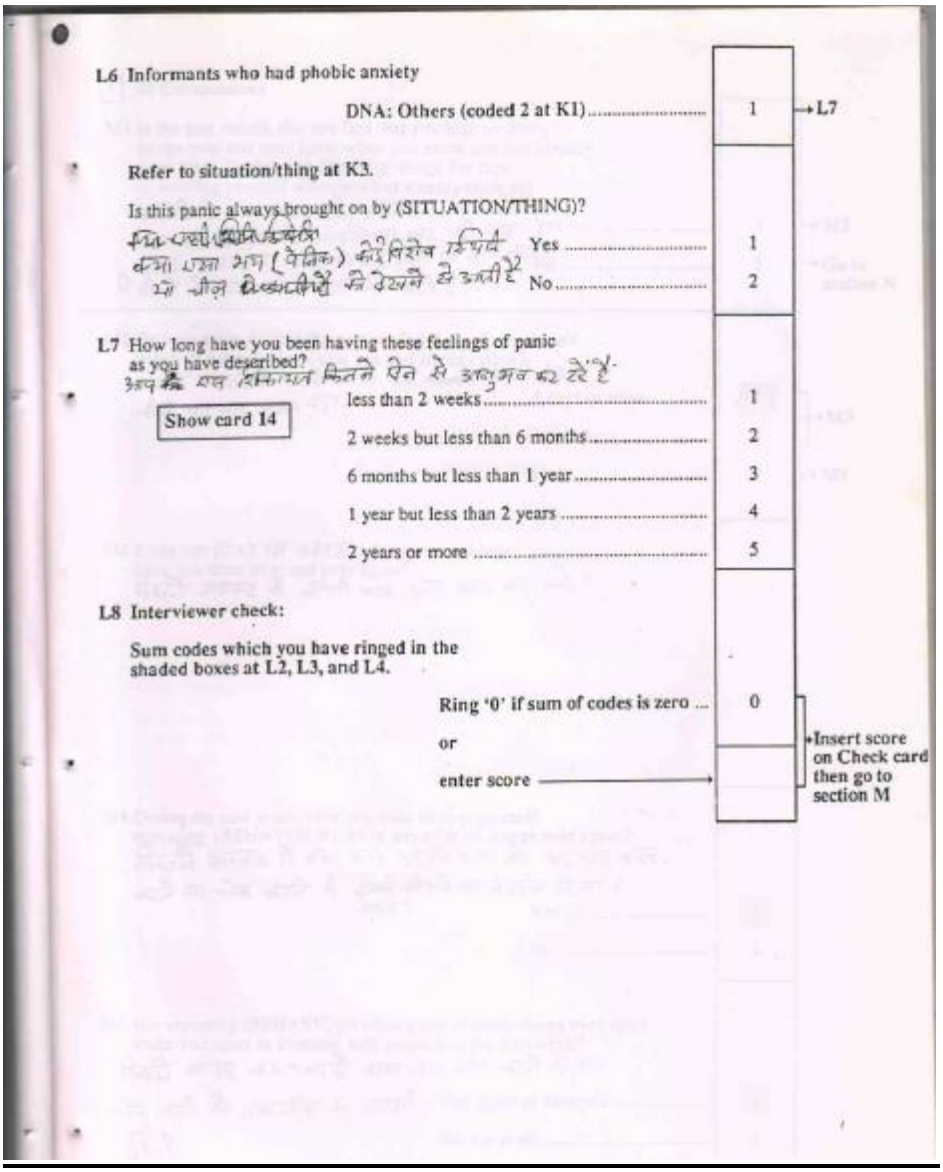
or have they been very unpleasant or unbearable? 1
बहुत / असहनीय तकलीफ पहुंचाई

L4 Did this panic/the worst of these panics last for longer than 10 minutes?
क्या इस घबराहट / सब दस मिनिट से अधिक टिकी है ?

Yes 1
No 2

L5 Are you relatively free of anxiety between these panics?
क्या आपको इस अप अटैक के बीच चिंता नहीं रहती है ?

Yes 1
No 2



L6 Informants who had phobic anxiety

DNA: Others (coded 2 at K1) ..... 1 → L7

Refer to situation/thing at K3.

Is this panic always brought on by (SITUATION/THING)?

Yes 1

No 2

L7 How long have you been having these feelings of panic as you have described?

Show card 14

less than 2 weeks 1

2 weeks but less than 6 months 2

6 months but less than 1 year 3

1 year but less than 2 years 4

2 years or more 5

L8 Interviewer check:

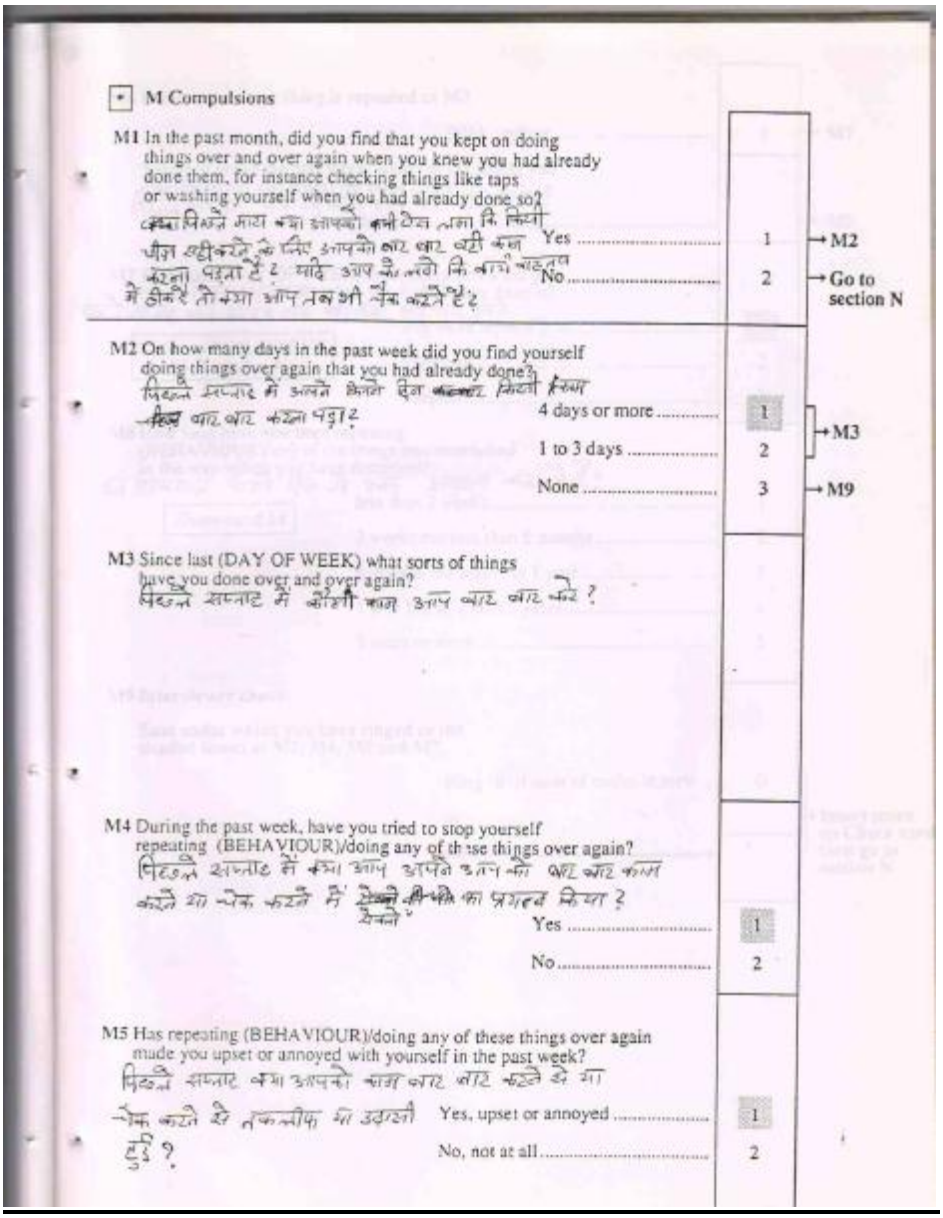
Sum codes which you have ringed in the shaded boxes at L2, L3, and L4.

Ring '0' if sum of codes is zero ... 0

or

enter score →

→ Insert score on Check card then go to section M



M Compulsions

M1 In the past month, did you find that you kept on doing things over and over again when you knew you had already done them, for instance checking things like taps or washing yourself when you had already done so?
पिछले महीने क्या आपको कभी ऐसा लगा कि किसी चीज़ सही करने के लिए आपको बार बार वही काम करना पड़ता है? यदि आप से कहा जाये कि आपने काम पूरा कर लिया है तो क्या आप तब भी चेक करते हैं?

Yes ..... 1 → M2
No ..... 2 → Go to section N

M2 On how many days in the past week did you find yourself doing things over again that you had already done?
पिछले सप्ताह में आपने कितने दिन किसी किसी चीज़ बार बार करना पड़ा?

4 days or more ..... 1 → M3
1 to 3 days ..... 2 → M3
None ..... 3 → M9

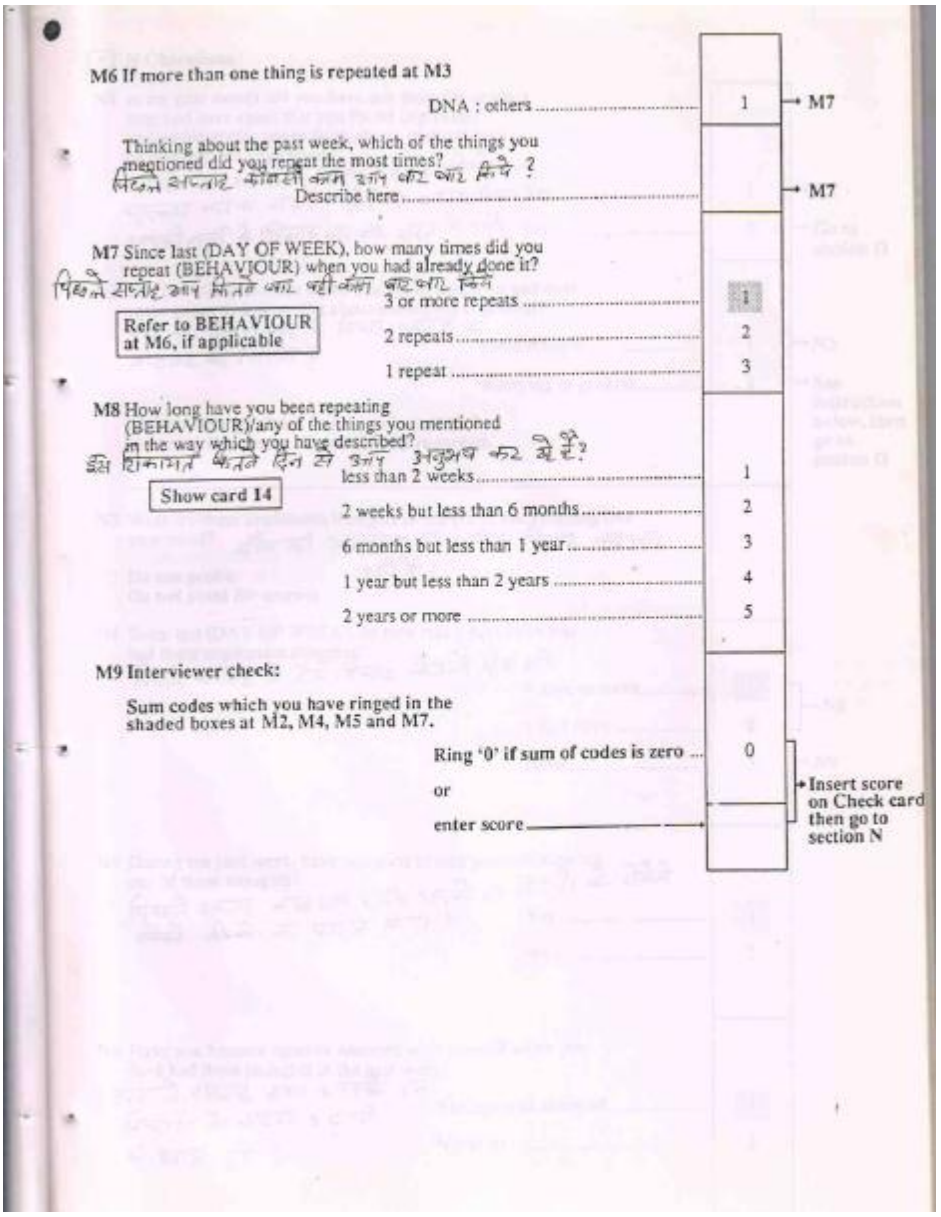
M3 Since last (DAY OF WEEK) what sorts of things have you done over and over again?
पिछले सप्ताह में कौनसी काम आप बार बार करे?

M4 During the past week, have you tried to stop yourself repeating (BEHAVIOUR)/doing any of these things over again?
पिछले सप्ताह में क्या आप अपने उन काम को बार बार करने या चेक करने में ~~देखने की कोशिश~~ का प्रयास किया?

Yes 1
No 2

M5 Has repeating (BEHAVIOUR)/doing any of these things over again made you upset or annoyed with yourself in the past week?
पिछले सप्ताह क्या आपको काम बार बार करने से या चेक करने से तकलीफ़ या उदासी हुई?

Yes, upset or annoyed 1
No, not at all 2



M6 If more than one thing is repeated at M3

DNA : others ..... 1 → M7

Thinking about the past week, which of the things you mentioned did you repeat the most times?
पिछले सप्ताह कौनसी चीज़ें आप सबसे ज़्यादा बार करते हैं ?

Describe here ..... → M7

M7 Since last (DAY OF WEEK), how many times did you repeat (BEHAVIOUR) when you had already done it?
पिछले सप्ताह आप कितने बार वही चीज़ बार-बार करते

Refer to BEHAVIOUR at M6, if applicable

3 or more repeats 1
2 repeats 2
1 repeat 3

M8 How long have you been repeating (BEHAVIOUR)/any of the things you mentioned in the way which you have described?
इस शिकायत कितने दिन से उपर अनुभव कर रहे हैं?

Show card 14

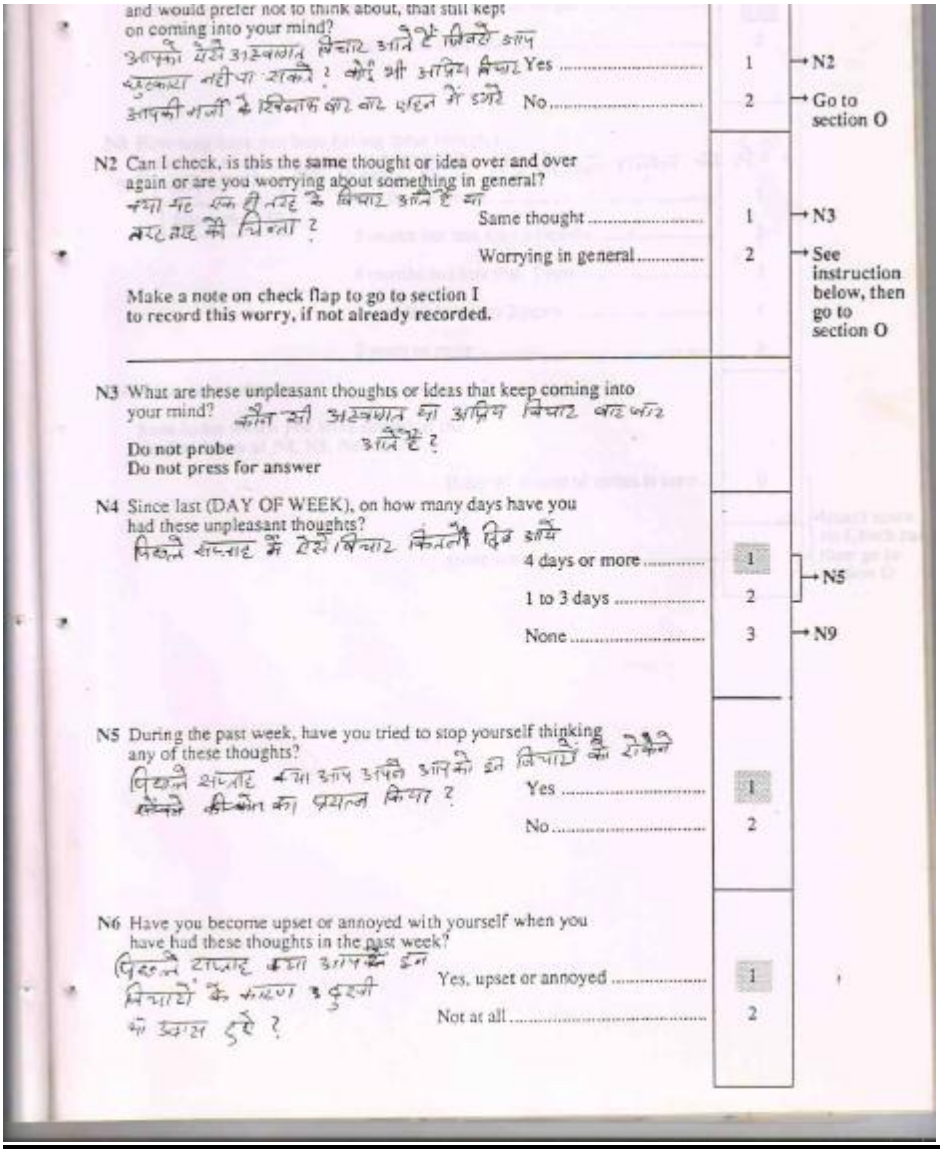
less than 2 weeks 1
2 weeks but less than 6 months 2
6 months but less than 1 year 3
1 year but less than 2 years 4
2 years or more 5

M9 Interviewer check:

Sum codes which you have ringed in the shaded boxes at M2, M4, M5 and M7.

Ring '0' if sum of codes is zero ... 0
or
enter score ——→

→ Insert score on Check card then go to section N



and would prefer not to think about, that still kept on coming into your mind?
आपको ऐसे अरुचिकर विचार आते हैं जिन्हें आप
रोकना नहीं पा सकते ? कोई भी अप्रिय विचार Yes ..... 1 → N2
आपकी मर्जी के खिलाफ बार बार दिमाग में आते No ..... 2 → Go to section O

N2 Can I check, is this the **same** thought or idea over and over again or are you worrying about something in general?
क्या यह एक ही तरह के विचार आते हैं या
तरह तरह की चिन्ता ?
Same thought ..... 1 → N3
Worrying in general ..... 2 → See instruction below, then go to section O

Make a note on check flap to go to section I to record this worry, if not already recorded.

N3 What are these unpleasant thoughts or ideas that keep coming into your mind? कौन सी अरुचिकर या अप्रिय विचार बार बार आते हैं ?

Do not probe
Do not press for answer

N4 Since last (DAY OF WEEK), on how many days have you had these unpleasant thoughts?
पिछले सप्ताह में ऐसे विचार कितनी दिन आये
4 days or more ..... 1 → N5
1 to 3 days 2
None ..... 3 → N9

N5 During the past week, have you tried to stop yourself thinking any of these thoughts?
पिछले सप्ताह क्या आप अपने आपको इन विचारों को रोकने
सोचने की कोशिश का प्रयत्न किया ?
Yes 1
No 2

N6 Have you become upset or annoyed with yourself when you have had these thoughts in the past week?
पिछले सप्ताह क्या आपको इन
विचारों के कारण झुंझली
या उदास हुये ?
Yes, upset or annoyed 1
Not at all 2

N7 In the past week, was the longest episode of having such thoughts : पिछले सप्ताह, इन विचार कितने मिनट / या कितने समय के लिये आये ?

Running prompt

a quarter of an hour or longer	1
or was it less than this?	2

N8 How long have you been having these thoughts in the way which you have just described? आप इस प्रकार से जो ये विचार कितने दिन से इस प्रकार से अनुभव कर रहे हैं?

Show card 14

less than 2 weeks	1
2 weeks but less than 6 months	2
6 months but less than 1 year	3
1 year but less than 2 years	4
2 years or more	5

N9 Interviewer check:

Sum codes which you have ringed in the shaded boxes at N4, N5, N6 and N7.

Ring '0' if sum of codes is zero	0
or	
enter score →	

→Insert score on Check ca then go to section O

O Overall effects

Informants who scored 2 or more on any section, A to N.

DNA: Others (All section scores 0 or 1 on check card) ..... 1 → Complete Check card, then go to Section P, page 43

मुझे यह जानना चाहिये कि आप पर इन सब तकलीफों का क्या असर पड़ा है?

Now I would like to ask you how all of these things that you have told me about have affected you overall.

In the past week, has the way you have been feeling ever actually **stopped** you from getting on with things you used to do or would like to do?

पिछले सप्ताह में क्या इन तकलीफों के कारण आपको काम करने में दिक्कत हुई या आपको करने में असमर्थ थे

Yes ..... 1 → (a)

No ..... 2 → (b)

(a) In the past week, has the way you have been feeling stopped you doing things once or more than once?

पिछले सप्ताह क्या इन तकलीफों के कारण आप ने काम करने में दिक्कत एक बार या दो बार से ज्यादा बार हुई?

Once 1

More than once 2

→ Complete Check card, then go to Section P, page 43

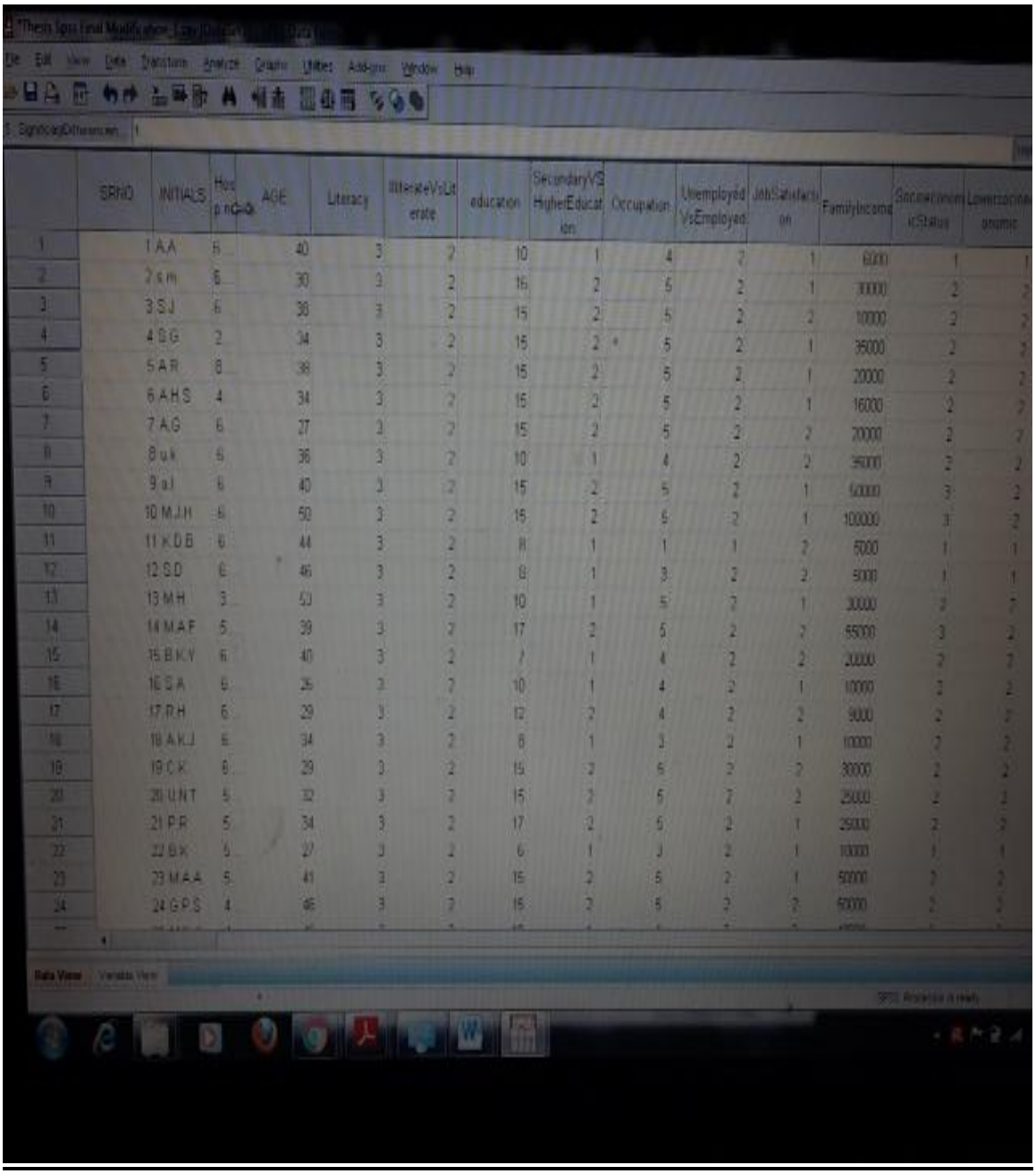
(b) Has the way you have been feeling made things more difficult even though you have got everything done?

क्या इन तकलीफों के कारण काम करने में दिक्कत हुई?

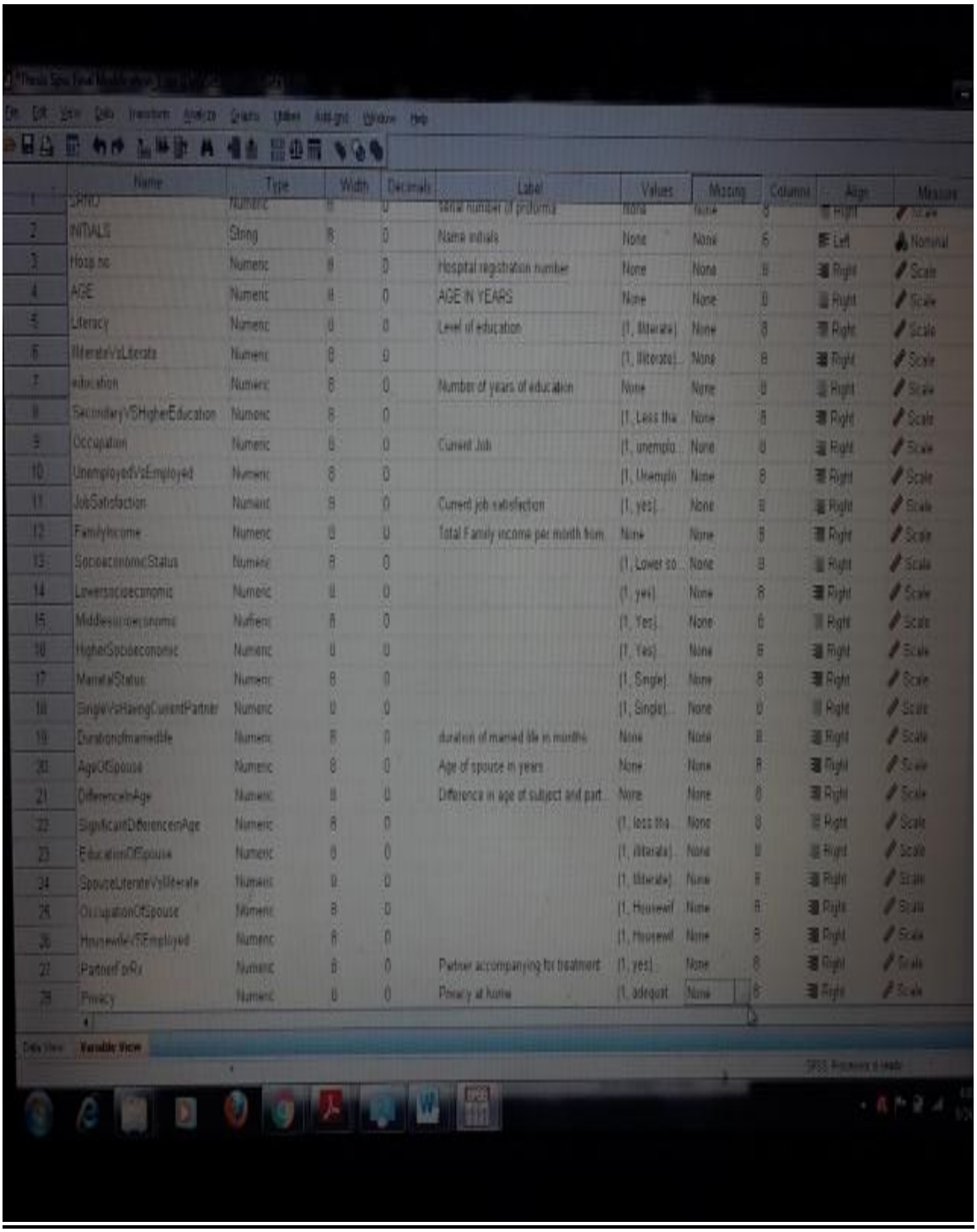
Yes 1

No 2

→ Complete Check card, then go to Section P, page 43



	SRNO	INITIALS	Hospital No	AGE	Literacy	IlliterateVsLiterate	education	SecondaryVSHigherEducation	Occupation	UnemployedVsEmployed	JobSatisfaction	FamilyIncome	SocioeconomicStatus	Lowersocioeconomic
1	1	AA	6	40	3	2	10	1	4	2	1	6000	1	1
2	2	s m	6	30	3	2	16	2	6	2	1	30000	2	2
3	3	SJ	6	38	3	2	15	2	5	2	2	10000	2	2
4	4	SG	2	34	3	2	15	2	5	2	1	35000	2	2
5	5	AR	8	38	3	2	15	2	5	2	1	20000	2	2
6	6	AHS	4	34	3	2	15	2	5	2	1	16000	2	2
7	7	AG	6	27	3	2	15	2	5	2	2	20000	2	2
8	8	uk	6	36	3	2	10	1	4	2	2	35000	2	2
9	9	aj	6	40	3	2	15	2	5	2	1	60000	3	2
10	10	MJH	6	50	3	2	15	2	5	2	1	100000	3	2
11	11	KDB	6	44	3	2	8	1	1	1	2	5000	1	1
12	12	SD	6	46	3	2	8	1	3	2	2	5000	1	1
13	13	MH	3	50	3	2	10	1	5	2	1	30000	2	2
14	14	MAF	5	39	3	2	17	2	5	2	2	55000	3	2
15	15	BKY	6	40	3	2	7	1	4	2	2	20000	2	2
16	16	SA	6	26	3	2	10	1	4	2	1	10000	2	2
17	17	RH	6	29	3	2	12	2	4	2	2	9000	2	2
18	18	AKJ	6	34	3	2	8	1	3	2	1	10000	2	2
19	19	CK	6	29	3	2	15	2	6	2	2	30000	2	2
20	20	UNT	5	32	3	2	15	2	6	2	2	25000	2	2
21	21	PR	5	34	3	2	17	2	5	2	1	25000	2	2
22	22	BK	6	27	3	2	6	1	3	2	1	10000	1	1
23	23	MAA	5	41	3	2	15	2	5	2	1	50000	2	2
24	24	GPS	4	46	3	2	16	2	5	2	2	60000	2	2



	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1	SRNO	Numeric	8	0	Serial number of proforma	None	None	6	Right	Scale
2	INITIALS	String	8	0	Name initials	None	None	6	Left	Nominal
3	Hosp no	Numeric	8	0	Hospital registration number	None	None	8	Right	Scale
4	AGE	Numeric	8	0	AGE IN YEARS	None	None	8	Right	Scale
5	Literacy	Numeric	8	0	Level of education	{1, Illiterate}	None	8	Right	Scale
6	IlliterateVsLiterate	Numeric	8	0		{1, Illiterate}...	None	8	Right	Scale
7	education	Numeric	8	0	Number of years of education	None	None	8	Right	Scale
8	SecondaryVSHigherEducation	Numeric	8	0		{1, Less tha...	None	8	Right	Scale
9	Occupation	Numeric	8	0	Current Job	{1, unemplo...	None	8	Right	Scale
10	UnemployedVsEmployed	Numeric	8	0		{1, Unemplo...	None	8	Right	Scale
11	JobSatisfaction	Numeric	8	0	Current job satisfaction	{1, yes}	None	8	Right	Scale
12	FamilyIncome	Numeric	8	0	Total Family income per month from...	None	None	8	Right	Scale
13	SpouseeconomicStatus	Numeric	8	0		{1, Lower so...	None	8	Right	Scale
14	Lowersocioeconomic	Numeric	8	0		{1, yes}	None	8	Right	Scale
15	Middlesocioeconomic	Numeric	8	0		{1, Yes}	None	8	Right	Scale
16	HigherSpouseeconomic	Numeric	8	0		{1, Yes}	None	8	Right	Scale
17	MaritalStatus	Numeric	8	0		{1, Single}	None	8	Right	Scale
18	SingleVsHavingCurrentPartner	Numeric	8	0		{1, Single}...	None	8	Right	Scale
19	Durationofmarriedlife	Numeric	8	0	duration of married life in months	None	None	8	Right	Scale
20	AgeOfSpouse	Numeric	8	0	Age of spouse in years	None	None	8	Right	Scale
21	DifferenceInAge	Numeric	8	0	Difference in age of subject and part...	None	None	8	Right	Scale
22	SignificantDifferenceInAge	Numeric	8	0		{1, less tha...	None	8	Right	Scale
23	EducationOfSpouse	Numeric	8	0		{1, illiterate}	None	8	Right	Scale
24	SpouseLiterateVsIliterate	Numeric	8	0		{1, Illiterate}	None	8	Right	Scale
25	OccupationOfSpouse	Numeric	8	0		{1, Housewif...	None	8	Right	Scale
26	HousewifeVSEmployed	Numeric	8	0		{1, Housewif...	None	8	Right	Scale
27	PartnerForRx	Numeric	8	0	Partner accompanying for treatment	{1, yes}	None	8	Right	Scale
28	Privacy	Numeric	8	0	Privacy at home	{1, adequat...	None	8	Right	Scale

Data View | Variable View