HHS Public Access

Author manuscript

Int J Ment Health. Author manuscript; available in PMC 2016 August 07.

Published in final edited form as:

Int J Ment Health. 2015 ; 44(3): 215–230. doi:10.1080/00207411.2015.1035081.

An approach to mental health in low and middle income countries: a case example from urban India

Shubhada Maitra[a], **Marie A. Brault**[b], **Stephen L. Schensul**[c], **Jean J. Schensul**[d], **Bonnie K. Nastasi**[e], **Ravi K. Verma**[f], and **Joseph A. Burleson**[g]

Marie A. Brault: marie.a.brault@gmail.com; Stephen L. Schensul: schensul@nso2.uchc.edu; Jean J. Schensul: jean.schensul@icrweb.org; Bonnie K. Nastasi: bnastasi@tulane.edu; Ravi K. Verma: rverma@icrw.org; Joseph A. Burleson: Burleson@uchc.edu

[a]Centre for Health and Mental Health, School of Social Work, Tata Institute of Social Sciences, Mumbai, India. Phone: +91-22- 25525463

[b]Department of Anthropology, University of Connecticut, 354 Mansfield Road, Unit 2176, Storrs, CT 06269

[c]Department of Community Medicine and Health Care, University of Connecticut Health Center, 263 Farmington Avenue, Farmington, CT 06030

[d]Institute for Community Research, Hartford, CT

[e]Department of Psychology, 2007 Percival Stern Hall, 6400 Freret St., Tulane University New Orleans, LA 70118

[f]International Center for Research on Women (ICRW), C-59, South Extension Part-II, New Delhi-110049

[g]Department of Community Medicine and Health Care, University of Connecticut Health Center, 263 Farmington Avenue, Farmington, CT 06030

Abstract

Women in low and middle income countries (LMICs) facing poverty, challenging living conditions and gender inequality often express their emotional difficulties through physical health concerns and seek care at primary health facilities. However, primary care providers in LMICs only treat the physical health symptoms and lack appropriate services to address women's mental health problems. This paper, presents data from the counseling component of a multilevel, research and intervention project in a low income community in Mumbai, India whose objective was to improve sexual health and reduce HIV/STI risk among married women. Qualitative data from counselor notes shows that poor mental health, associated with negative and challenging life situations, is most often expressed by women as gynecological concerns through the culturally-based syndrome of *tenshun*. A path analysis was conducted on baseline quantitative data that confirmed the relationships between sources of *tenshum*, emotional status and symptoms of common mental disorders (CMDs). Based on these findings, the authors propose a need for culturally appropriate primary care services for LMICs that would integrate mental and physical

Corresponding author: Shubhada Maitra, PhD, Professor, Centre for Health and Mental Health, School of Social Work, Tata Institute of Social Sciences, Mumbai, India. shubhada@tiss.edu, Alternate: maitra.shubhada@gmail.com, Phone: +91-22- 25525463.

health. This approach would reduce mental health morbidity among women through early intervention and prevention of the development of CMDs.

Keywords

India; mental health; counseling; tension; gynecological problems

The continuum of mental health and illness ranges from the stress and anxiety produced by life challenges to severe and chronic illnesses. Like mental health problems, mental health services also constitute a continuum from availability of a supportive person with whom to discuss situational problems to more formal psychological and psychiatric input involving therapy, psychotropic medication and institutionalization. Few, if any, countries in the world provide sufficient services to address the burden of mental illness. Low and middle income countries (LMICs) are particularly under-resourced and differential access within these countries means that subpopulations characterized by minority or low socioeconomic status face an even greater inadequacy of services than the mean indicators for countries as a whole.

"Common mental disorders" (CMDs) are commonly occurring but no less serious group of mental disorders and include depression, anxiety and somatoform disorders [1-2]. CMDs usually do not entail personality disorganization and bizarre behaviours, but do interfere with daily routine and overall functioning. Because they do not present with marked levels of disturbed behavior, they often go unnoticed and untreated. CMDs are most frequently associated with social problems, such as poverty, limited education, poor financial status, and violence [3-5]. In economically marginalized communities in LMICs individuals with life stressors most frequently express their problems in terms of physical concerns for which they seek treatment in primary care settings [6-10]. However, treating only these physical symptoms neither ameliorates the underlying life stressors, nor the CMDs that frequently contribute to many physical health symptoms.

The World Health Organization (WHO) and leading mental health professionals support the integration of mental health care into primary and community health care settings to reduce the burden of mental health problems that would allow for a more holistic approach, and reduce stigma associated with seeking mental health care in LMICs [11-13]. Integration of mental health services into primary care settings offers a number of additional advantages that include greater consistency with common cultural beliefs that do not make a clear distinction between physical and mental illness; focusing on the situational factors that are associated with mental distress; ensuring greater cost effectiveness than establishing separate outpatient mental health services; and maximizing the effectiveness of the few mental health professionals present in LMIC's [14-17].

At the same time, most primary care centers in LMICs have a heavy patient load with very short and cursory patient life stressors. In addition, primary care budgets provide little flexibility for the integration of trained counselors or counseling services [14, 18-20].

This paper describes the implementation of individual counseling in a Women's Health Clinic (WHC) in a municipal urban health center serving a low income community in Mumbai. This intervention was part of a larger project focused on the improvement of sexual health and reduction of sexual risk among married women, using the Narrative Intervention Model (NIM) [21] that recognizes the social and psychological factors that play a role in sexual and reproductive health. In the course of developing and implementing this intervention, we learned about the importance of women-focused health services, cultural concepts of health and mental health, life issues associated with gynecological symptoms, limitations of the biomedical model and effective ways of integrating counseling services within the urban health center in the context of the WHC.

The Indian Context

Reliable epidemiological data regarding psychosocial disabilities in India is limited. A rough estimate of the costs of addressing mental health issues in India places it at approximately 234 billion INR (US$3.5 billion) per year [22]. The Mental Health Atlas of the WHO reports that there are only 0.301 psychiatrists, 0.166 psychiatric nurses, 0.047 psychologists and 0.033 social workers per 100,000 population in India [23]. This shortage creates an estimated treatment gap in which an estimated 90% of those in need are not getting access to services [24].

The dominant etiological and treatment paradigm is biomedical with psychiatrists providing the primary leadership and interventions focused on psychotropic medication. This paradigm contrasts sharply with explanatory models held by a significant proportion of people in India who attribute their psychological suffering to difficult life circumstances, supernatural causes, fate, or witchcraft [25-26] and express their symptoms through somatic complaints.

Indian women from poor rural and urban areas represent a particularly vulnerable population from the perspective of mental distress. Davar [27] contends that women's over-representation in diagnostic categories such as depression, anxiety and somatoform disorders can be attributed to difficult and traumatic life experiences stemming from their struggles to cope with a patriarchal society. Gender-based discrimination and disadvantage, violence in the natal and marital families, and role expectations and role burden for women has led to high levels of distress [28-34]. In the private sphere, the natal family is the first unit to socialize women from childhood to become good wives and mothers. Many women are denied choices regarding the transition from daughter to wife to mother. This lack of control over a woman's own life frequently translates into limited or no participation in household decision-making, an inability to say no to husband's unwanted sexual demands, and lack of control over fertility decisions [35].

In recent years, Indian women have used the term *tenshun* (derived from the English, tension) [13] as an umbrella term that covers a range of stress and distress that are associated with economic, political and/or social-interpersonal difficulties and challenges. Karasz et al. describe *tenshun* as a common illness term in South Asia, including India, referring to a constellation of emotional and physical symptoms like sadness, worry, fatigue, weakness and pain [36]. *Tenshun* is often associated with a range of symptoms, which can be

categorized into aches and pains (e.g. joint and body pain); autonomic symptoms (e.g. palpitations, tremors); feelings of weakness and fatigue (associated with the cultural term, *kamjori*); behavioral symptoms (e.g. sleeplessness, irritability); gynecological symptoms (e.g. vaginal discharge known as *safed pani*, menstrual cramps) and psychological symptoms (e.g. poor concentration, forgetfulness, sadness) [34]. An ethnographic study with married adolescent women in an urban slum in Bangladesh [37] describes the popular understanding of vaginal discharge being caused by *durbalota* (weakness) and *chinta rog* (worry illness). This study also refers to *chinta rog* as a "master illness" leading to many additional mental and physical illnesses.

Safed pani is the leading symptom for which women seek medical care in South Asia. A significant body of research has shown that women express *tenshun* in the form of gynecological symptoms, with special emphasis on *safed pani* as an "idiom of distress" [19, 38-41]. Research conducted from 2004-2008 by the authors in the study area has shown a strong interrelationship between the circumstances of women's lives, *tenshun* and *safed pani*. The results of binary logistic regression with a random community sample demonstrated that women who reported higher levels of *tenshun* were two and a half times more likely to report *safed pani* [42].

These results, supported by the literature, led an NIH-funded Indo-US team, to base a component of their multilevel intervention project on sexual health in the WHC in the municipal urban health center (UHC) serving a low income community of 600,000 in northeastern Mumbai. The rationale for this component can be described as follows. Women are difficult to reach in a low income community. Earlier research with a random sample of 260 women showed that 37% of married women with *safed pani* in the last three months had sought medical care for *safed pani*, making women identified at the point-of-service an effective recruitment strategy and a marker for circumstances in a women's life that contribute to sexual risk. Since *safed pani* is an underlying cause of *tenshun* and no one seeks care for *tenshun* itself, *safed pani* serves as a marker for mental health issues. We hypothesized that introducing women to an intervention focused on counseling as a compliment to medical care could address the *tenshun* in their lives contributing to *safed pani*. Reducing *tenshun*, we further hypothesized would reduce the risk of CMDs. Thus, in addition to impacting sexual health and well-being, this intervention approach could provide a model for mental health services in a public urban health center in India.

Methods

The data and mental health interventions described in this paper were drawn from the NIMH project, "The Prevention of HIV/STI among Married Women in Urban India (2007-2013; RO1 MH075678; S. Schensul, PI)." This married women's project was part of the program, Research and Intervention in Sexual Health: Theory to Action (*RISHTA*, meaning "relationship" in Hindi and Urdu) an ongoing program of intervention research initiated in 2001, involving Indo-US collaboration among the University of Connecticut School of Medicine (US), the International Center for Research on Women (Delhi), the Tata Institute of Social Sciences (Mumbai), the Population Council (Delhi), Tulane University (US) and the Institute for Community Research (US).

The project was located in a low-income, slum community in the northeastern part of Mumbai. The population of approximately 600,000 residents consisted primarily of Muslims (80%) and Hindus (16%). Most were migrants from rural parts of Uttar Pradesh and Bihar in the North, Tamil Nadu in the South and Maharashtra in the west of India. A majority of men were engaged in daily wage work such as driving auto rickshaws and trucks, masonry and carpentry work, working in the local *zari* (golden embroidery) industries and selling items such as fruits and vegetables on community streets. A few men travelled a significant distance from home to work in other parts of Mumbai. Some owned shops selling produce or tobacco products. Less than a third of women (28%) worked for cash income both in and outside the home. The average monthly family income was INR 5900 (approximately US $100/month). Most lived in nuclear families with an average family size of 6, including children, with 90% residing in a single room.

The RISHTA married women's project was multilevel, involving community interventions focused on gender equity, the organization of the WHC at the community's municipal urban health center (UHC) and the implementation of a randomized controlled trial (RCT). The WHC was established to provide specialized gynecological examinations (including an internal pelvic exam with a female physician) and STI/RTI testing as an alternative to the standard female outpatient department (OPD), which did not provide these services.

Women coming with health problems registered at the UHC and were then triaged by a medical intern who would ask if they had one of six gynecological symptoms (vaginal discharge, genital itching, burning micturition, lower abdominal pain, genital ulcers and inguinal swelling). Those women who qualified were guided to the WHC, where they were evaluated to determine if they met inclusion criteria for the RCT: married, not pregnant, not having delivered a baby within the past three months, between the ages of 18-40, living in the community, having a husband who was not away from the house for more than six days a week for work, and presenting with at least one of the six gynecological health symptoms described above. Pregnant women and women who had delivered within the past three months were ineligible due to the need for an internal exam and RTI/STI testing. Women who were not eligible for the study or who did not consent to participation nonetheless received standard care at the WHC.

Those women who were eligible and consented to be in the study signed the consent form or provided a thumbprint impression to indicate consent. They were assigned a study ID and received medical care from the WHC. After receiving care, a member of the research team would randomly assign the women to one of four arms: individual counseling (IC), group couples' intervention (CI), both IC + CI and a control group receiving only medical treatment.

Overall, 11,715 women were served by the WHC during the project intervention period from 2009-2013. Of these women, 5,770 were assessed for eligibility of which 2,080 met the eligibility criteria for participation in the study and 1125 (54%) consented to participate in the study. Of the baseline of 1125 women, 556 were assigned to receive individual counseling or the combination of individual counseling and group couples' intervention. Of this total, 418 women (81%) received from 1-5 individual counseling sessions (depending

on need). Of the total number of women receiving counseling, 314 case notes were deemed to be sufficiently detailed to be entered into Atlas.ti [43] primary documents for coding and analysis.

Each counselor took to assess the counseling process and the problems that women described to the counselor. The codes were derived from life stressors known from previous research in the study area [44]. Coding was conducted by multiple coders and reviewed for consistency.

As a part of the initial session, the counselors conducted a detailed assessment in the areas of marital relationship, health, children, extended family and other domains. The qualitative description of the problems identified by the study participants to the counselors forms a significant component of the results in this paper.

A “Women's Structured Survey” (WSS) instrument was administered at baseline, with follow-up at 6 months (post-intervention) and one year after recruitment. This instrument consisted of demographic data and scales that provided a quantitative assessment of the qualitative constructs inventoried by the counselors. This paper presents results from the baseline WSS. The instruments in the WSS were developed through in-depth interviews conducted in the study area. The WSS was translated into Hindi and back translated. The WSS, piloted with 40 women living in the study area allowed researchers to eliminate poorly worded or understood items and those with insufficient variation. Internal validity (alpha) and construct validity (correlation with other variables) was also calculated.

The quantitative analysis focuses on the interrelationships of three constructs: sources of *tenshun*, emotional well-being and CMD-like symptoms. Sources of *tenshun* was a scale developed and implemented in an earlier survey with women. The emotional well-being scale is a component of the Subjective Well-Being Inventory (SUBI), which has been used extensively in India [44] and in our prior surveys. We selected items from a “consequences of *tenshun*” component of the WSS that were consistent with the characterization of CMD in the absence of a specific mental health scale. The three constructs are:

1. Sources of *tenshun*: This scale consisted of items related to communication with husband, household finances, violence, and health problems consistent with the sources of *tenshun* listed in Table 2 below (Cronbach's alpha = .77).
2. Emotional Well-being: This scale used the “emotional status” subscale of the Subjective Well-Being Inventory (SUBI) [45] consisting of a series of statements assessing the emotional status of individual women with a four-point Likert- scale. Items included ease of upset, degree of feeling sad, ease of irritation, degree of anxiety and tension, feeling that life is meaningless, and negative response to criticism (Cronbach's alpha = .88).
3. CMD: Questions used to measure CMD-like symptoms asked women whether they felt that their situation was hopeless, they felt like surrendering, and had considered suicide, retaliation or escape (Cronback's alpha = .76). See appendix 1 for the items in the CMD scale.

Structural Equation Modeling (SEM) was conducted using Mplus [46] for path analysis among these three constructs.

The consent form was translated and back translated into Hindi, the common language for women in the sample and was used to explain the purpose of the study, methods (randomization and assignment to one of the study arms), RTI/STI testing, and participation in the WSS at three time intervals. Implications of participation in terms of time, costs, benefits, risks and safeguards were reviewed. Most of the women in the study had basic literacy (30.6% were illiterate). Because the study involved several components, the RISHTA staff member, after explaining each component, ensured that women understood the information provided and answered any questions the women posed. The RISHTA team saw informed consent not as a one-time, single event activity, but as a process and assured women that they were free to ask questions and seek clarifications at any point during the study. Women's right to unconditional exit or withdrawal from the study without any implications on the nature and quality of services provided in the WHC was also explained to each study participant.

Women were informed that all efforts would be made to ensure confidentiality of their identity and the information they provided. The demographic sheet that contained personal data of the woman was detached from the survey instruments/records and kept under separate lock and key. Results of RTI/STI testing were communicated to women by WHC physicians at follow-up visits, and treatment was provided as needed. IRB approval was received from all participating institutions and the Indian Council for Medical Research.

The staff that consented women, collected WSS data and managed the RCT had Masters degrees in the social sciences, while the staff involved in individual counseling and couples' intervention had Masters degrees in social work and psychology. All team members received certification for human subjects training. The intervention team underwent extensive and ongoing training on gender issues, mental health and recognition of early signs of distress, counselling, use of self in counselling, seeking sensitive information, addressing difficult issues related to sex, sexuality, violence and socio-economic difficulties, referrals and networking. On and off-site supervision was conducted by the authors through weekly meetings, discussion of cases and skype calls. Mental health experts and counsellors who practiced in and around the study area provided an orientation to counseling issues and served as referrals for women who needed specialized counselling.

Results

The mean age of the women in the RCT was 28.6 years old, with a mean age at marriage of 17.7 years. The sample consisted mostly of Muslim women (91.6%), with 8.1% Hindu and 0.4% Buddhist. The mean level of education was 5 years. Nearly 57% of participants had migrated to Mumbai, and 43% were born in Mumbai. Over 80% of the women live in single room houses, and 29.8% live in joint or extended families. The average occupancy is 6.05 people, with an average number of living children of 2.63. The health problems women presented to the WHC and reported in the WSS are shown in Table 1.

As can be seen in Table 1 and as expected, the greatest percentage of women reported *safed pani*, while pains in various parts of the body, itching, and menstrual problems made up the bulk of the additional presenting problems.

Based on the qualitative data gathered from the individual counseling sessions, health problems and treatment seeking are major concerns for many women, and are the reason why they initially attend the WHC.

> *"….other than finance, I am also tensed about my health. When I fall ill, there is lots of money spent without any reason and during that period (of illness) I cannot do any work. Also frequent illness is making me weak and irritated"*. (38 year old Muslim woman married for 20 years with 4 children)

> *"Whenever I was tensed, my safed pani used to increase…"* (28 year old Muslim woman married for 13 years with 4 children)

For women who were assigned to individual counseling, the protocol called for assessing an inventory of life problems. Table 2 shows life problems that women discussed in their counseling sessions and the percentages of women who reported that they had such problems. The marital relationship, followed by health issues were the leading problems discussed by the women. Each of the problems in Table 2 is a source of *tenshun*, and may also be made worse by *tenshun*.

Women in the IC arm of the RCT also talked about their experiences with *tenshun* in terms of the duration and the way it made them feel, both physically and emotionally. For some women, the *tenshun* is acute, only lasting the same amount of time as the particular trigger, such as an argument with her spouse or family member. For other women, the *tenshun* is almost constant (chronic), and they feel that, although it may fluctuate in amount, it never really goes away.

> *Woman – (laughing) How will I know this? Because tenshun is part of [my] life; just like your own shadow, it does not leave you. If one issue is over, then the next is there*. (38-year-old Muslim woman married for 18 years with 1 child).

Some women experienced *tenshun* in terms of physical problems, such as headaches, weakness, sleeplessness, palpitations, and loss of appetite. Women also mentioned that *tenshun* creates additional psychological symptoms, including "*mayoosi*" [depression] or feelings of "helplessness". Some woman attributed their failing health to the constant *tenshun* they experienced as in this example:

> *"Because of this tenshun I used to have sleepless nights and thus my health kept getting bad"*. (27-year-old Muslim woman married for 12-13 years with 4 children)

> *"It is a prolonged tenshun, it feels as if I am carrying a heavy baggage on my shoulder since a long, long time…"* (24-year-old Muslim woman married for 7 years with no children).

Women who experienced *tenshun* also described ways in which life problems both created *tenshun* and are impacted by *tenshun*. Health problems, problems in the marital relationship, financial problems, and problems with familial relationships, were often a major source of

tenshun. In addition, *tenshun* also created or aggravated problems with marital communication, violence and sexual violence, health problems, and strained relationships with family members. Health problems are often a consequence of *tenshun* as well as a way in which women experience their *tenshun*.

From the counselors' notes, references to *tenshun*, stress, self-esteem, depression, loss of appetite and sleep were selected for counseling focus and linkages between these and other domains such as marital relationship and domestic violence, finances, support networks, health and health perceptions and sexual health were identified. These patterns illustrate the interrelationship of women's *tenshun* with multiple areas of their lives tied to their role as a wife, mother and daughter-in-law.

Tenshun and Finances

A primary source of *tenshun* for many women in the study is the financial situation of their family. The family's financial situation also has ramifications for women's work both inside and outside the house. Financial problems create *tenshun*, and through this *tenshun*, may also impact other areas of a woman's life.

> *"I have tenshun about my health and household finance. My husband is not earning well and because of his attitude, running the house becomes difficult now. Recently he got a job but they were not paying well so after a month he stopped going to work. It is really becoming hard to manage everything."* (30-year-old Muslim woman married for 15 years with 5 children)

> *"We don't have enough to manage our own household expenses. Where and how can we send any money to my in-laws? Every month we have to take loan for some emergency expenses like health, education. Every morning I wake up and my tenshun starts with worries about the day: what to cook, how to manage in the limited amount? My tension will never decrease, it is just increasing day by day"*. (28-year-old Muslim woman married for 12 years with 3 children)

Tenshun and the marital relationship

The marital relationship is often a significant source of *tenshun* for women, and is also frequently worsened by *tenshun* related to other problems, such as finance. Women's narratives indicated that *tenshun* in the marital relationship is produced by inadequate marital communication, poor sexual relationship and/or husband's extra-marital relationship/s, alcohol use, and/or abuse/harassment from the husband. Most women in the community marry below the age of 18, and become disillusioned early in the marital relationship. The quotations below reflect women's emotional vulnerability and disillusionment with marriage.

> *"The reason I don't communicate much with him is because of his rude behavior and he does not listen to me whatever I talk. So I talk limited things like if there is any need at home or there is anything important to talk with, then I discuss"*. (36-year-old Muslim woman married for 12 years with 1 child)

"My husband, he needs alcohol daily, and also sex! I will say this to you, madam that my only tenshun is because of the way he behaves. If he does not leave alcohol, I will leave him". (25-year-old Muslim woman married for 10 years with 2 children)

"We have sex with consent, my husband never forces me, if I say no, he is okay with that. Then I came to know that he is involved with someone. Maybe because of that he does not force me. He gets enough of it outside! But when I heard about this (relationship), I lost all hope, trust and interest in him. (20-year-old Muslim woman married for 6 years with 2 children)

Tenshun and Children

Children's issues were a major source of *tenshun* for women. Concerns about children can be subdivided into three key areas: how to ensure a good education, health and healthcare, and timing and money required to arrange an appropriate marriage for their daughters.

I am tensed about our financial condition. My husband does not earn enough. I worry about my daughter's marriage; we don't even have any savings for her marriage…" (30-year-old Muslim woman married for 15 years with 4 children)

"My daughter, she is 12 years old, and studying in 6th grade. She had polio since childhood, she cannot walk properly. Her (polio affected) leg does not support her completely, I often worry, what will happen to her when I am no more, who will take care of her? When all these thoughts come I don't even want to eat" (32-year-old Muslim woman married for 16 years with 4 children)

I want to give proper education to my children. I know we can't afford too much, we have no money, but I do want them to have proper education. I will see what I can do, I will explore all options…" (23-year-old Muslim woman married for 5 years with 2 children)

Tenshun and in-laws

Women experienced much distress with their relationships with their in-laws. The dynamics of the 'in-law relationship' are often played out due to the low status of the newly married woman. Further, the husband's inability to support the wife in family disputes negatively influences not only the marital relationship, but also the relationship with in-laws.

"My mother-in-law still expects me to do all household work though she has three daughters in law now. My mother in law taunts me if I take rest from work. She has the habit of using abusive words for me, which hurts me emotionally". (30-year-old Muslim woman married for 10 years with 4 children)

"Actually I got married less than three years ago. At that time I was just 18 years old. After my marriage I came to my in-laws house, but they started harassing me on each and everything. So I ran away from my in-laws house as my husband never took my side; he always abused me, siding with his mother. (22-year-old Hindu woman married for 8 months with no children)

"I am happy with my life and with my relationship with my husband and the understanding we share. My tenshun is with my mother-in-law (who doesn't stay with us and stays in the village) who bad-mouths me. I don't know how to deal with this kind of behavior, she has not left me alone even after we moved to Mumbai". (22-year-old Muslim woman married unknown amount of time with 2 children)

Tension as a Pathway to CMDs

Based on the qualitative data, there is a close association between the problems that low income women face in their lives and their feelings of *tenshun*. However, this state of *tenshun* may or may not constitute a pathway to CMD symptoms. To determine the significance of *tenshun*, we examined the relationship between *tenshun* (operationalized as a count of life problems that produced *tenshun*), emotional status (as measured by the adapted SUBI subscale) and symptoms of CMDs (as drawn from our consequences of *tenshun* component). We hypothesized that those women who had greater *tenshun* would have poorer emotional status leading to greater levels of CMD symptoms. Support for this hypothesized pathway would show the contribution of *tenshun* to CMD symptoms and provide some support for the argument that addressing *tenshun* would serve to prevent CMDs. A path analysis model was run to test for the direct effects of *tenshun* on emotional status and with CMD symptoms respectively and of emotional status on CMD symptoms, as well as the indirect effects of *tenshun* on CMD symptoms via emotional status.

The results showed that all three direct effects were significant: *tenshun* concerns with emotional status (unstandardized b = 0.877, $\beta = .541$, $r^2 = .293$); *tenshun* with CMD symptoms (unstandardized b = 1.286, $\beta = .223$, $r^2 = .050$); emotional status with CMD symptoms (unstandardized b = 1.622, $\beta = .456$, $r^2 = .208$). In addition, the indirect effect of *tenshun* on CMD symptoms via emotional status was also significant (unstandardized b = 1.422, $\beta = .247$, $r^2 = .061$). The resulting path model is represented in Figure 1.

As can be seen, the original raw correlation (r = .541) between *tenshun* and emotional status cannot change because there is no intervening variable. The raw correlation between emotional status and CMD symptoms, r = .577, however, is reduced to a direct effect of r = .456, as is the raw correlation between *tenshun* and CMD symptoms, r = .470, is reduced to r = .223. The reason that these two paths have a reduced estimate of their respective direct effects is that the two original raw correlations were, in fact, partly due to the indirect effect of *tenshun* on CMD-like indicators via emotional status, r = .247.

Discussion

Our formative research showed a clear association between women's negative life circumstances, *tenshun* and *safed pani* [41]. In the individual counseling component of the RISHTA women's intervention, when women discussed their health problems, the perceived causal factors centered for the most part on *tenshun*, derived from such life circumstances as poor marital communication, economic deprivation, domestic violence and concerns about the future of their children. The counselor's ability to focus on *tenshun* provided the basis for the counseling process and the co-construction of approaches to problem solutions [21].

The path analysis showed two significant pathways: the first, a direct relationship from *tenshun* to CMD symptoms; the second a path from *tenshun* through emotional status to CMD symptoms. This path analysis provides support for the view that addressing the *tenshun* associated with presenting reproductive health problems can prevent CMDs as well as having a positive effect on the emotional status of women. Addressing these issues in a primary care context becomes an upstream approach to women at risk.

For a significant subset of women, early marriage and childbirth, limited attention to their own health needs, difficulties in the marital relationship that includes poor communication, coercive sex, violence, and lower status, set in the context of an unstable economic situation, present the dynamics for *tenshun* and poor emotional status. In terms of mental health, women may be a first priority for addressing service needs. This relationship between difficult life circumstances and mental health has been observed elsewhere in India and South Asia [31, 37, 48-49].

The study was based in a women's oriented-clinic where services were provided by two female physicians able to provide an internal exam, STI/RTI testing and health education. Most urban and rural primary care centers in India do not have such services and *safed pani* and related gynecological problems are usually seen in general outpatient departments. In the absence of gynecological services, the key to effective treatment for *tenshun* and prevention of its consequences is the training of primary care providers to recognize that *safed pani* is a marker of *tenshun* and related negative life circumstances and needs to be addressed not just with biomedical care but also with appropriate individual counseling. Programs incorporating mental health into primary care are rare in South Asia. However, one study [50] details an intervention where counseling is integrated into women's health services and finds that women are not only receptive to the counseling, but that the counseling is effective in reducing emotional distress.

This study has a few limitations. First, the sample was drawn from a localized population attending an urban health center. Only those women seeking treatment at the urban health center were enrolled in this study, so factors impacting women who were unable to access the center may be missing. Mental health emerged as a focus after the initiation of a study focused on sexual health and sexual risk leading the researchers to adapt measures that expressed psychosocial issues from available survey items and data. The key to this study and its results however, is that it raises questions about mental and physical health that provide the basis for new approaches to treatment.

Conclusion

The integration of mental health services into primary care has received almost unanimous support but is difficult to achieve in practice. Two alternatives are available to achieve this integration; training existing primary care medical, nursing and outreach staff to take on mental health counseling or adding a new cadre of staff able to provide counseling services. Each of these approaches present significant barriers. Adding mental health counseling to an already overburdened primary care staff facing new and continuing health challenges would require extensive training and restructuring of primary care. Adding personnel trained in mental health, potentially the most effective option, requires significant costs that call for

expansion of an already limited public health budget. However, added salary costs of counseling need to be examined in light of the social and economic burden of CMDs.

A longer-term approach involves locating mental health concerns at the intersection of the biomedical model and the structural realities for primary care in LMICs. Both for women and men [51], physical symptoms brought to primary care have strong cultural, social and psychological components that are missed and remain unaddressed in traditional biomedical care. While *tenshun* is overlooked as a mental health concern, *safed pani*, clearly a manifestation of negative life situation and its expression in *tenshun*, is treated as a an STI infection, for which antibiotics are prescribed almost always unnecessary. The unwarranted and repeated use of antibiotics for a syndrome that has been shown to be almost always unassociated with infection, while not taking into account the underlying psychosocial factors that produce the problem, results in poor treatment practice [42].

The call for the integration of mental health into primary care continues the standard paradigm that these are distinct services that address uniquely different realms. Yet, this paper has demonstrated an intimate relationship that precludes the mental versus physical health paradigm characteristic of Western treatment systems. Rather than expand primary care in LMICs to include mental health services, it may now be time to consider training future health care providers in an integrated paradigm that more effectively meets patient needs and is consistent with LMIC pre-colonial healing traditions. At the same time, we must also recognize that effective services for women's distress requires intervention and change in the structural and social consequences of poverty, marginalization, gender inequity and resource limitations, within the context of highly patriarchal societies. This approach may not only be the answer to expansion of mental health service capability in LMICs but a more appropriate model of health care for LMIC citizens.

Acknowledgments

This project was funded by the National Institute for Mental Health (NIMH) project, “The Prevention of HIV/STI among Married Women in Urban India (2007-2013; RO1 MH075678; S. Schensul, PI). We would also like to acknowledge the RISHTA counsellors and field team who worked closely with the study community.

References

1. World Health Organization. ICD-10: International statistical classification of diseases and related health problems. World Health Organization; 2004.
2. Patel V, Kleinman A. Poverty and common mental disorders in developing countries. Bulletin of the World Health Organization. 2003; 81(8):609–615. [PubMed: 14576893]
3. Fryers T, Melzer D, Jenkins R. Social inequalities and the common mental disorders. Social psychiatry and psychiatric epidemiology. 2003; 38(5):229–237. [PubMed: 12719837]
4. Lund C, De Silva M, Plagerson S, Cooper S, Chisholm D, Das J, Patel V. Poverty and mental disorders: breaking the cycle in low-income and middle-income countries. The lancet. 2011; 378(9801):1502–1514.
5. Araya R, Rojas G, Fritsch R, Acuña J, Lewis G. Common mental disorders in Santiago, Chile Prevalence and socio-demographic correlates. The British Journal of Psychiatry. 2001; 178(3):228–233. [PubMed: 11230033]
6. Ormel J, VonKorff M, Ustun TB, Pini S, Korten A, Oldehinkel T. Common mental disorders and disability across cultures: results from the WHO Collaborative Study on Psychological Problems in General Health Care. Jama. 1994; 272(22):1741–1748. [PubMed: 7966922]

7. Patel V, Todd C, Winston M, Gwanzura F, Simunyu E, Acuda W, Mann A. Common mental disorders in primary care in Harare, Zimbabwe: associations and risk factors. The British Journal of Psychiatry. 1997; 171(1):60–64. [PubMed: 9328497]
8. Patel V, Pereira J, Mann AH. Somatic and psychological models of common mental disorder in primary care in India. Psychological medicine. 1998; 28(1):135–143. [PubMed: 9483689]
9. Pothen M, Kuruvilla A, Philip K, Joseph A, Jacob KS. Common mental disorders among primary care attenders in Vellore, South India: nature, prevalence and risk factors. International journal of social psychiatry. 2003; 49(2):119–125. [PubMed: 12887046]
10. Bower P, Gilbody S. Managing common mental health disorders in primary care: conceptual models and evidence base. BMJ: British Medical Journal. 2005; 330(7495):839. [PubMed: 15817554]
11. Patel V, Belkin GS, Chockalingam A, Cooper J, Saxena S, Unützer J. Grand Challenges: Integrating Mental Health Services into Priority Health Care Platforms. PloS medicine. 2013; 10(5):e1001448. [PubMed: 23737736] Patel V, Kleinman A. Poverty and common mental disorders in developing countries. Bulletin of the World Health Organization. 2003; 81(8):609–615. [PubMed: 14576893]
12. World Health Organization. Mental Health Global Action Programme. World Health Organization; 2002.
13. Chatterjee S, Chowdhary N, Pednekar S, Cohen A, Andrew G, Araya R, Patel V. Integrating evidence-based treatments for common mental disorders in routine primary care: feasibility and acceptability of the MANAS intervention in Goa, India. World Psychiatry. 2008; 7(1):39–46. [PubMed: 18458786]
14. Saxena S, Thornicroft G, Knapp M, Whiteford H. Resources for mental health: scarcity, inequity, and inefficiency. The Lancet. 2007; 370(9590):878–889.
15. Shidhaye R, Mendenhall E, Sumathipala K, Sumathipala A, Patel V. Association of somatoform disorders with anxiety and depression in women in low and middle income countries: A systematic review. International Review of Psychiatry. 2013; 25(1):65–76. [PubMed: 23383668]
16. Prince M, Patel V, Saxena S, Maj M, Maselko J, Phillips MR, Rahman A. No health without mental health. The lancet. 2007; 370(9590):859–877.
17. Beaglehole R, Epping-Jordan J, Patel V, Chopra M, Ebrahim S, Kidd M, Haines A. Improving the prevention and management of chronic disease in low-income and middle-income countries: a priority for primary health care. The Lancet. 2008; 372(9642):940–949.
18. Armstrong G, Kermode M, Raja S, Suja S, Chandra P, Jorm AF. A mental health training program for community health workers in India: impact on knowledge and attitudes. Int J Ment Health Syst. 2011; 5(1):17. [PubMed: 21819562]
19. Patel V, Araya R, Chatterjee S, Chisholm D, Cohen A, De Silva M, van Ommeren M. Treatment and prevention of mental disorders in low-income and middle-income countries. The Lancet. 2007; 370(9591):991–1005.
20. Eaton J, McCay L, Semrau M, Chatterjee S, Baingana F, Araya R, et al. Saxena S. Scale up of services for mental health in low-income and middle-income countries. The Lancet. 2011; 378(9802):1592–1603.
21. Nastasi, BKm; Scensul, JJ.; Schensul, SL.; Mekki-Berrada, A.; Pelto, B.; Maitra, S.; Verma, RK.; Saggurti, N. A model for translating ethnography and theory into culturally constructed clinical practice. Culture, Medicine and Psychiatry. in press.
22. Math SB, Chandrashekar CR, Bhugra D. Psychiatric epidemiology in India. Indian Journal of Medical Research. 2007; 126(3):183. [PubMed: 18037711]
23. World Health Organization. Dept. of Mental Health, & Substance Abuse. Mental health atlas: 2005. World Health Organization; 2011.
24. Kakuma R, Minas H, van Ginneken N, Dal Poz MR, Desiraju K, Morris JE, Saxena S, Scheffler RM. Human resources for mental health care: current situation and strategies for action. The Lancet. 2011; 378(9803):1654–1663.
25. Kate N, Grover S, Kulhara P, Nehra R. Supernatural beliefs, etiological models, and health-seeking behaviors in patients with schiziophrenia. Industrial Psychology Journal. 2012; 21(1):49–54.

26. Chakraborty K, Das G, Dan A, Bandyopadhyay G, Chatterjee M. Perceptions about the cause of psychiatric disorders and subsequent help seeking patterns among psychiatric outpatients in a tertiary care centre in Eastern India. German Journal of Psychiatry. 2013; 16(1):7–14.
27. Davar, BV. Mental Health of Indian Women: A Feminist Agenda. Sage Publications; New Delhi: 1999.
28. Basu S. Mental Health Concerns for Indian Women. Indian Journal of Gender Studies. 2012; 19(1):127–136.
29. Kulesza M, Raguram R, Rao D. Perceived mental health related stigma, gender, and depressive symptom severity in a psychiatric facility in South India. Asian Journal of Psychiatry. 2014; 9(0): 73–77. [PubMed: 24813041]
30. Ram U, Strohschein L, Gaur K. Gender Socialization: Differences between Male and Female Youth in India and Associations with Mental Health. International Journal of Population Research. 2014; 2014
31. Patel V, Kirkwood BR, Pednekar S, Pereira B, Barros P, Fernandes J, et al. Mabey D. Gender disadvantage and reproductive health risk factors for common mental disorders in women: a community survey in India. Archives of general psychiatry. 2006a; 63(4):404. [PubMed: 16585469]
32. Patel V, Kirkwood BR, Pednekar S, Weiss H, Mabey D. Risk factors for common mental disorders in women Population-based longitudinal study. The British Journal of Psychiatry. 2006b; 189(6): 547–555. [PubMed: 17139040]
33. Ludermir AB, Schraiber LB, D'Oliveira AF, França-Junior I, Jansen HA. Violence against women by their intimate partner and common mental disorders. Social science & medicine. 2008; 66(4): 1008–1018. [PubMed: 18178299]
34. Pereira B, Andrew G, Pednekar S, Pai R, Pelto P, Patel V. The explanatory models of depression in low income countries: Listening to women in India. Journal of Affective Disorders. 2007; 102(1): 209–218. [PubMed: 17074394]
35. Maitra S, Schensul SL. Reflecting diversity and complexity in marital sexual relationships in a low-income community in Mumbai. Culture, Health & Sexuality. 2002; 4(2):133–151.
36. Karasz A, Patel V, Kabita M, Shimu P. “Tension” in South Asian women: Developing a measure of common mental disorder using participatory methods. Progress in Community Health Partnerships: Research, Education, and Action. 2012; 7(4)
37. Rashid SF. *Durbolota* (Weakness), *Chinta Rog* (Worry Illness), and Poverty Explanations of White Discharge among Married Adolescent Women in an Urban Slum in Dhaka, Bangladesh. Medical Anthropology Quarterly. 2007; 21(1):108–132. [PubMed: 17405700]
38. Nichter M. Idioms of distress: Alternatives in the expression of psychosocial distress: A case study from South India. Culture, Medicine and Psychiatry. 1981; 5(4):379–408.
39. Bang, R.; Bang, A. Women's perceptions of white vaginal discharge: ethnographic data from rural Maharashtra. In: Gittelsohn, J.; Bentley, ME.; Pelto, PJ.; Nag, M.; Pachauri, S.; Harrison, AD.; Landman, LT., editors. Listening to women talk about their health: issues and evidence from India. New Delhi: Har-Anand Publications; 1994. p. 79-94.
40. Winter A, Stephenson R. Intimate partner violence and symptoms of reproductive tract infections among married Indian women. International Journal of Gynecology & Obstetrics. 2013
41. Ellsberg M, Jansen HA, Heise L, Watts CH, Garcia-Moreno C. Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study. The Lancet. 2008; 371(9619):1165–1172.
42. Kostick KM, Schensul SL, Jadhav K, Singh R, Bavadekar A, Saggurti N. Treatment seeking, vaginal discharge and psychosocial distress among women in urban Mumbai. Culture, Medicine, and Psychiatry. 2010; 34(3):529–547.
43. Muhr, T. User's Manual for ATLAS.ti 6.0. ATLAS.ti Scientific Software Development; GmbH, Berlin: 2010.
44. Schensul SL, Saggurti N, Singh R, Verma RK, Nastasi BK, Mazumder PG. Multilevel perspectives on community intervention: an example from an Indo-US HIV prevention project in Mumbai, India. American journal of community psychology. 2009; 43(3-4):277–291. [PubMed: 19357946]

45. Nagpal, R.; Sell, H. The Assessment of Subjective Well-Being: The Subjective Well-Being Inventory. World Health Organisation; Regional Office for South-East Asia, New Delhi: 1992.

46. Muthen, LK.; Muthen, BO. Mplus User's Guide. Los Angeles: 2007.

47. Black MM, Baqui AH, Zaman K, McNary SW, Le K, Arifeen SE, Hamadani JD, Parveen M, Yunus M, Black RE. Depressive symptoms among rural Bangladeshi mothers: implications for infant development. Journal of Child Psychology and Psychiatry. 2007; 48(8):764–772. [PubMed: 17683448]

48. Nasreen HE, Kabir ZN, Forsell Y, Edhborg M. Prevalence and associated factors of depressive and anxiety symptoms during pregnancy: A population based study in rural Bangladesh. BMC Women's Health. 2011; 11(1):22–30. [PubMed: 21635722]

49. Naved RT, Azim S, Bhuiya A, Persson LA. Physical violence by husbands: Magnitude, disclosure and help-seeking behavior of women in Bangladesh. Social Science & Medicine. 2006; 62(12): 2917–2929. [PubMed: 16426717]

50. Naved RT, Rimi NA, Jahan S, Lindmark G. Paramedic-conducted Mental Health Counselling for Abused Women in Rural Bangladesh: An Evaluation from the Perspective of Participants. J Health Popul Nutr. 2009; 27(4):477–491. [PubMed: 19761082]

51. Schensul SL, Verma RK, Nastasi BK. Responding to men's sexual health concerns: research and interventions in slum communities in Mumbai, India. International Journal of Men's Health. 2004; 3(3):197–220.

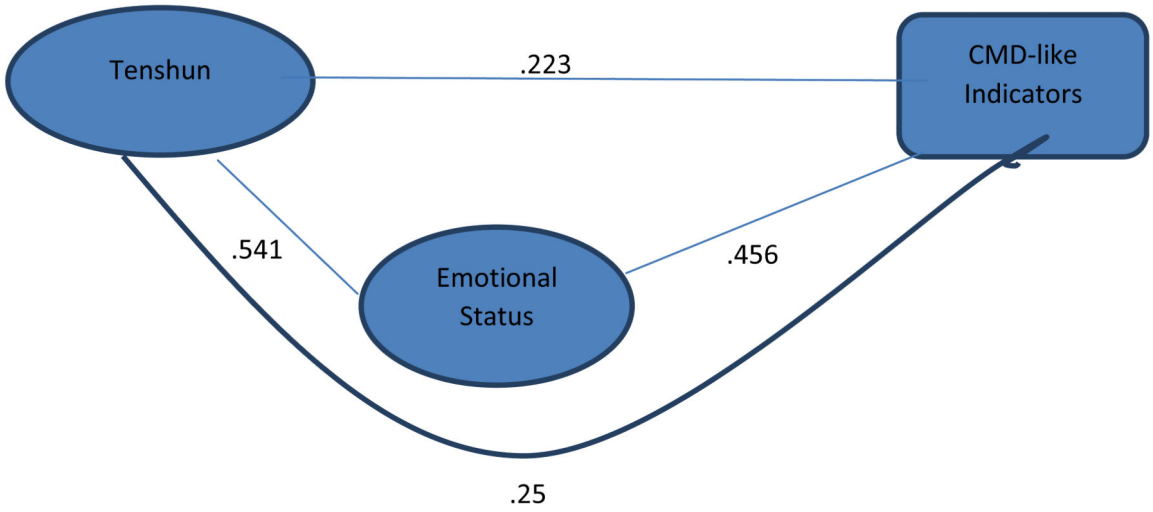

Figure 1.
Hypothesized path tested in path analysis.

Table 1

Women's Presenting Problems. Note: There were two cases missing data for these questions, so all percentages are out of N= 1123 instead of 1125.

Problem	Frequency	Percentage
White discharge	1005	89.49
Pains in body	967	86.11
Backache	947	84.33
Headache	937	83.44
Fatigue	923	82.19
Giddiness	854	76.05
Body weakness	846	75.33
Lethargy	846	75.33
Pain in lower abdomen	772	68.74
Palpitations	672	59.84
Loss of appetite	552	49.15
Constipation	551	49.07
Chest pains	475	42.30
Pain or cramps during menses	469	41.76
Pain during intercourse	436	38.82
Itching in and around vagina	435	38.74
Loss of sexual desire	435	38.74
Burning urination	398	35.44
Irregular menses	365	32.50
Sleeplessness	356	31.70
Sexual dissatisfaction	300	26.71
Swelling of glands in groin	256	22.80
Excessive bleeding from vagina	243	21.64
Swelling in ankles	222	19.77
Pain while urinating	187	16.65
Obstructed urine flow	158	14.07
Increased frequency of micturation	137	12.20
Ulcers in and around vagina	133	11.84
Infertility	85	7.57

Table 2

Frequencies of problems women presented as needing attention in individual counseling sessions

Problem	Problem Definition	Percentage (Frequency)
Marital relationship	Women's perceptions of problems in the marital relationship, including domestic violence, male sexual risk behavior, marital sexual relationship, unwanted pregnancies, abortion and contraceptive use	65.3% (205/314)
Health and Healthcare	General or gynecological health problems as well as treatment-seeking behaviors	54.5% (171/314)
Financial	Problems with economic condition of the household	26.4% (83/314)
Children	Problems with the relationships, education, health or other issues/concerns related to children	16.9% (53/314)
In-laws	Problems regarding family relationships	13.1% (41/314)