

# Cross cultural variations in psychiatrists' perception of mental illness: A tool for teaching culture in psychiatry



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## ABSTRACT

A frequent debate in psychiatry is to what extent major psychiatric diagnoses are universal versus unique across cultures. We sought to identify cultural variations between psychiatrists' diagnostic practices of mental illness in Boston Massachusetts and Bangalore, India. We surveyed psychiatrists to identify differences in how frequently symptoms appear in major mental illness in two culturally and geographically different cities. Indian psychiatrists found somatic symptoms like pain, sleep and appetite to be significantly more important in depression and violent and aggressive behavior to be significantly more common in mania than did American psychiatrists. American psychiatrists found pessimism about the future to be more significant in depression and pressured speech and marked distractibility to be more significant in mania than among Indian psychiatrists. Both groups agreed the top four symptoms of psychosis were paranoia, lack of insight, delusions and auditory hallucinations and both groups agreed that visual hallucinations and motor peculiarities to be least significant. Despite a different set of resources, both groups noted similar barriers to mental health care access. However, American psychiatrists found substance abuse to be a significant barrier to care whereas Indian psychiatrists found embarrassing the family was a significant barrier to accessing care. Because psychiatrists see a large volume of individuals across different cultures, their collective perception of most common symptoms in psychiatric illness is a tool in finding cultural patterns.

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## 1. Introduction

In the current global mental health movement to make mental health care more accessible and culturally competent, psychiatrists and other mental health workers are challenged to consider whether their expertise can cross cultures. This challenge is important to answer in the growing need to train mental health workers to work in foreign cultural settings. The World Health Organization (WHO) and other sources report that neuropsychiatric diseases like unipolar depressive disorders, addictions, bipolar disorder and schizophrenia make up 28% of the global burden of disease among non-communicable diseases. They are economically more disabling than cardiovascular disease or cancer (Bloom et al., 2011). While access to mental health is essential to improving economies of the world and quality of life among people, there is a dearth of resources and expertise. Addressing this need requires

culturally minded psychiatrists, medical anthropologists and epidemiologists to weigh-in on the complexity, presentation and course of mental illness (Becker and Kleinman, 2013).

Medical expertise is needed to build global innovations in diagnosis, therapeutics and access. But how does this expertise cross cultures? When constructing curricula for global psychiatry to train future doctors, should we also consider whether all psychiatrists see mental illness the same way despite using similar criteria? Are psychiatrists diagnosing the same disorder but considering different symptom clusters to get to their diagnosis? And if so, how can we harness this information in order to better identify and treat mental illness in different parts of the world? To address this inquiry, we sought to identify cultural variations between psychiatrists' perceptions of most common presentations of mental illness in Harvard affiliated hospitals in the Longwood area of Boston, MA and a comparable large mental health center in Bangalore, India. This sampling survey study compared psychiatrists' perceptions of the most common symptoms of major mental illness in two separate cultural environments.

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## 2. Methods

This study was approved under exempt status by the institutional review board at the Beth Israel Deaconess Medical Center in Boston, MA. In December of 2013, an anonymous survey was sent out to fourth year residents and psychiatrists practicing in various departments in the Boston area, Beth Israel Deaconess Medical Center (BIDMC), Brigham and Women's Hospital (BWH) and Massachusetts Mental Health Center (MMHC) through a web-based online Survey Monkey program. In January 2014, the same survey was circulated in document form through email to psychiatrists in Bangalore, India at the National Institute of Mental Health and Neuroscience (NIMHANS). We used this method, as this cohort was less familiar with the survey monkey program.

### 2.1. Participants

The following people met the study criteria: licensed psychiatrists that were currently training in psychiatry or practicing in psychiatry and were working in an academic institution in Boston, USA or Bangalore, India. In Boston, psychiatrists were contacted using all listservs that exclusively contained practicing psychiatrists at each of the medical centers. They were sent a link to the survey through the email. In Bangalore, email listservs were used to send out a word document version of the study that was later handed back in an envelope. Survey takers remained anonymous and the only demographic data contained within the survey was age, years of training and type of practice. Those who answered the survey questions according to the instructions that were written on the survey were included in the study. Those who did not follow instructions, which asked to number symptoms from most commonly seen to least commonly seen, were those who used the same ranking number multiple times on different symptoms. Two survey participants were excluded for ranking almost all of the symptoms equally. At final count, 101 psychiatrists took the survey. There were 99 academic psychiatrists that were included in the study, 47 in Boston and 52 in Bangalore. The survey asked each person to rank 9–10 symptoms from most commonly seen to least commonly seen in three types of acute major mental illness: major depression, mania, and psychosis. The symptoms were gathered from both ICD-10 and DSM-IV-TR and the survey included each manifestation of a symptom from both manuals of diagnostic criterion. The psychiatrists were also asked to rate barriers to mental health care access from most frequently seen to least frequently seen from a compiled list of care access issues.

### 2.2. Data collection and analysis

All of the data from the surveys were reorganized on Microsoft Excel (Redmond, Washington) and then transferred and analyzed on Statistica (Version 10). We compared measures of central tendency without assuming normality between the two groups. We had two groups of ordinal data that were not parametrically distributed, so we used the Mann-Whitney *U* test to determine results. The data below have a *U* value, *Z* value and *p* value to determine significance.

## 3. Results

### 3.1. Study sample

This study resulted in 99 responses out of 101 responses; two were excluded due to not filling out the survey correctly. Both exclusions occurred in the Indian clinician group as they had paper surveys and were able to use the same ranking number multiple times whereas the electronic survey did not allow for this issue. We

queried the psychiatrists' age and years in practice. There was no statistical significance in age or years of psychiatric practice between the US group and the India groups of clinicians. The mean age in the US was 44.425 and the mean age in India was 40.867 ( $p = 0.3583$ ). The mean years of practice in the US were 15.90 and in India were 15.50 ( $p = 0.3994$ ). Because in the United States, medical doctors do an extra 4 years of college whereas in India, students enter 6 years of medical school directly after high school, this may account partly for the slightly older age for the American psychiatrists.

### 3.2. Depression symptoms

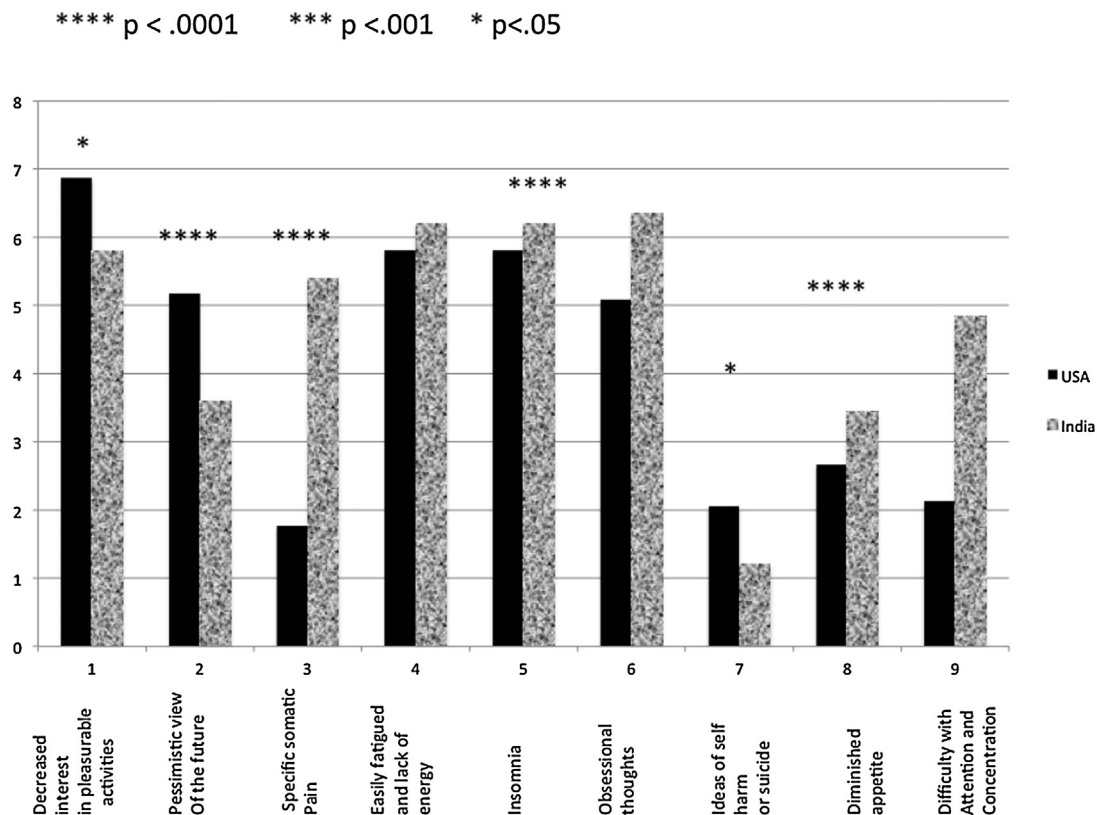
Indian psychiatrists perceived somatic symptoms like somatic pain to be significantly more common in depression ( $U = 304$ ,  $p < 0.00$ ) than American psychiatrists. Other physical neurovegetative symptoms like insomnia ( $U = 689.6$ ,  $p < 0.00001$ ) and diminished appetite ( $U = 361.500$ ,  $p < 0.00001$ ) were also more significantly frequent in the Indian psychiatrists' view whereas psychological markers like pessimism ( $U = 635.5$ ,  $p < 0.00001$ ) were significantly more frequent in the diagnosis of depression among American psychiatrists. Factors such as being easily fatigued, thoughts of self-harm, suicidal thoughts, and difficulty with attention and concentration showed no statistical difference and ranked similarly in frequency between the two clinician groups. Though both groups felt that decreased interest in pleasurable activities was the most common symptom seen in depression, American psychiatrists showed a trend to report it as being more commonly seen than did Indian psychiatrists ( $U = 972.500$ ,  $p = 0.0598$ ) [Graph 1](#).

Indian psychiatrists perceived violent aggressive behavior ( $U = 558.0$ ,  $p < 0.00001$ ) and anger ( $U = 417.000$ ,  $p < 0.00001$ ) to be significantly more common in manic patients than did American psychiatrists. American psychiatrists more frequently found pressured speech ( $U = 772.5$ ,  $p = 0.001102$ ) among patients with mania. Both groups found decreased need for sleep and pressured speech to be among their top two symptoms used to diagnose mania in patients but disagreed about symptoms of anger and agitation. Both groups agreed that they were least likely to see the symptoms of hypersexuality and tearfulness in their manic patients, which is often used to diagnose mixed state mania [Graph 2](#).

Both American and Indian psychiatrists reported the most frequent symptoms of psychosis to be paranoia, lack of insight, delusions and auditory hallucinations and both groups agreed that visual hallucinations and motor peculiarities to be least common symptoms seen in psychotic disorders. Certain symptoms were ranked significantly differently between the two groups of psychiatrists. American psychiatrists saw breaks in train of thought ( $U = 509.0$ ,  $p < 0.00001$ ) significantly more commonly and Indian psychiatrists saw lack of interest in hygiene ( $U = 565.000$ ,  $p = 0.000008$ ), lack of interest in social activities or work ( $U = 607.500$ ,  $p < 0.00001$ ) and peculiarities in voluntary movement ( $U = 477.500$ ,  $p < 0.00001$ ) significantly more commonly than American psychiatrists [Graph 3](#).

Both groups reported barriers to mental health care access similarly. Both agreed that difficulty acknowledging the problem and lack of supports (social and financial) were the biggest obstacles in getting mental health care. However, among these variables, some seemed more noticeably frequent to one group than the other. American psychiatrists found substance abuse ( $U = 780.500$ ,  $p = 0.001337$ ) and homelessness ( $U = 860.500$ ,  $p = 0.007920$ ) to be a significant barrier to care compared to Indian psychiatrists. Indian psychiatrists found embarrassing the family ( $U = 493.500$ ,  $p < 0.00001$ ) and having no mental health services in the area ( $U = 488.000$ ,  $p < 0.00001$ ) a more significant

## Depression Symptoms



**Graph 1.** Comparison of depression symptoms between USA and India psychiatrists.

obstacle to accessing care. Both groups of psychiatrists reported past trauma or abuse in patients was not a major barrier to getting mental health services [Table 1](#).

#### 4. Discussion

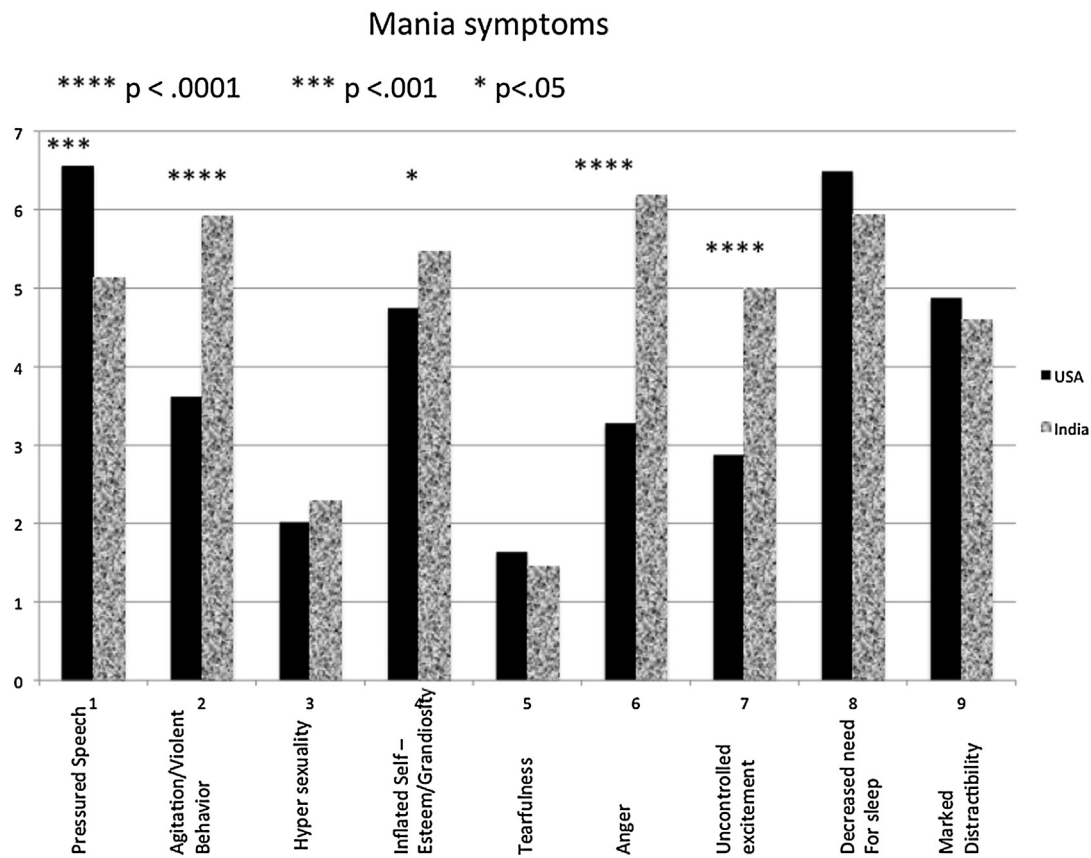
This study attempts to find similarities and variations in the perception of experts who see many patients within their communities. Studies show that the prevalence of the most common mental disorders as well as risk and protective factors varies across cultures but comorbid patterns and treatments are more universal ([Canino and Alegria, 2008](#)). This study used psychiatrists' collective knowledge as the tool to identify these cultural patterns in greater detail.

The data from the major depression section indicates that Indian doctors notice more somatic symptoms of depression and American psychiatrists notice more cognitive based symptoms of depression. This finding reflects current research that people of non-western cultures tend to see the doctor with somatic complaints of depression as compared to western European cultures ([Rastogi et al., 2014](#); [Bagayogo et al., 2013](#)). This data remains stable across Asian cultures. The data in Chinese and Indian research reveals that patients tend to prioritize somatic complaints in both their first and recurrent episodes of depression ([Zhu et al., 2012](#); [Grover et al., 2012](#)). One reason for increased somatic symptoms may be that the bio-psychosocial model of depression, a concept produced by modern medicine, is not necessarily shared by more traditional societies in India. For these populations, medicalizing reactions to chronic and intense emotional stressors and loss is more foreign ([Karasz et al., 2009](#)). Thus people will see the doctor for more concrete physical complaints.

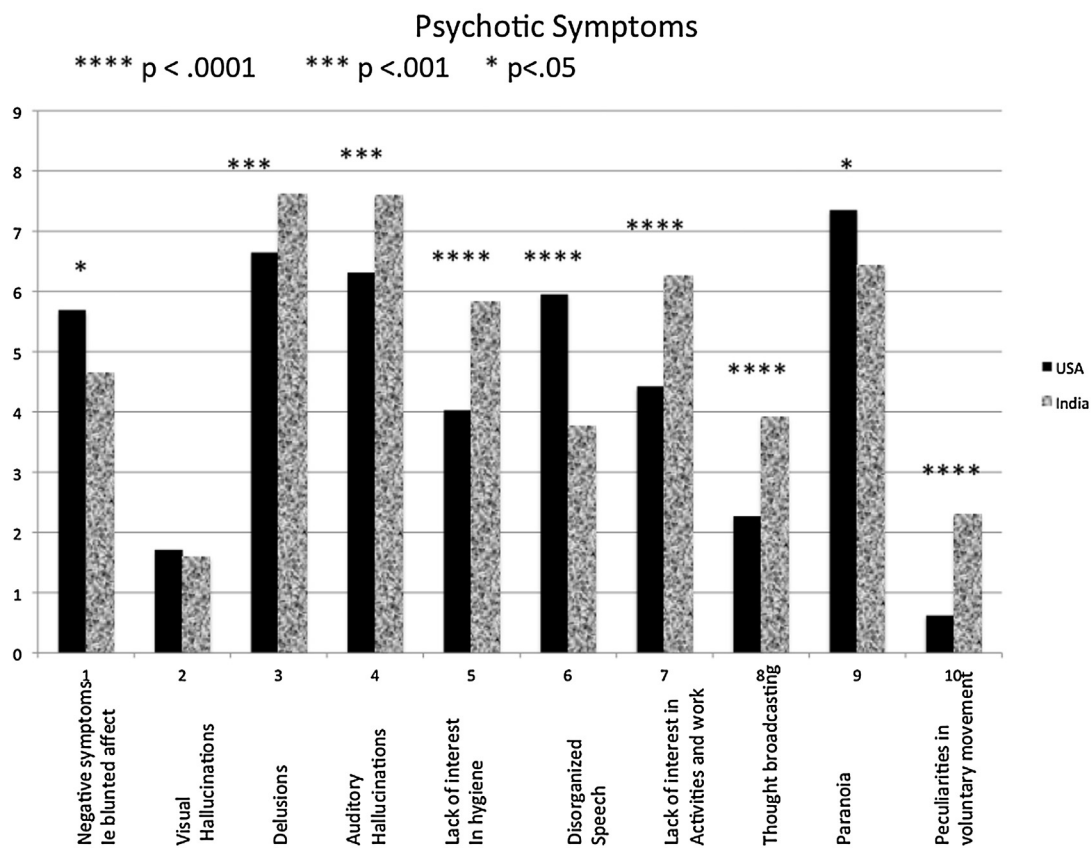
Stigma around depression and other mental illnesses may make it easier for patients to go to the doctor for physical pain than for emotional pain. Stigma is also reflected in the data on barriers to mental health care access. In the Indian cohort, "embarrassing the family" was a significant barrier to getting help. Labels on these diagnoses play an important role in somatizing depression symptoms. One study by the Chinese American Psychiatric Epidemiological Survey showed that Chinese Americans found reporting "depression and anxiety" to be more socially disruptive than reporting pain as a symptom of depression ([Kung and Lu, 2008](#)). Another study done among Indian outpatient psychiatrists showed that patients diagnosed with somatoform disorder felt significantly less stigma than those diagnosed with depression ([Raguram et al., 1996](#)). So while doctors in India are trained in Western psychiatric diagnoses, they may better recognize the concept of unexplained pain symptoms as a form of somatized depression than their American counterparts.

The mania symptoms section of the survey revealed another notable difference in observations between American and Indian psychiatrists. Indian psychiatrists more frequently detected violent behavior, anger and agitation in their diagnosis of mania than did American psychiatrists. While there is no direct literature on this finding, one hypothesis may be that Indian society is willing to tolerate a higher threshold of mental disturbances in a person before seeking medical attention. Distractibility, pressured speech and grandiosity may not produce observable problems as readily as violence and agitation, and thus may not be taken as seriously when there are a lack of medical resources in the community. The data in barriers to access points out that Indian psychiatrists did not feel they have resources to handle the volume they see.

Opinions on psychotic symptoms revealed parallel results. Both groups of psychiatrists agreed that the top four diagnostic



**Graph 2.** Comparison of mania symptoms between USA and India psychiatrists.



**Graph 3.** Comparison of psychosis symptoms between USA and India psychiatrists.

**Table 1**

Comparison of perceptions of barriers to treatment between USA and India psychiatrists.

	Mean USA	Mean India	U	Z	p-value
Embarrassing the family	6.978723	4.169811	<b>493.500*</b>	5.19006	<0.00
No supports to help get care	4.574468	3.415094	<b>860.000*</b>	2.65891	0.007840
Difficulty acknowledging the problem	2.744681	3.207547	1111.500	−0.92199	0.356537
Care is too expensive	5.361702	5.528302	1192.000	−0.36603	0.714342
Homelessness	5.957447	7.150943	<b>860.500*</b>	−2.65546	0.007920
No mental health services in the area	8.361702	5.311321	<b>488.000*</b>	5.22804	<0.00
Difficulty referring to mental health specialist	5.085106	5.584906	1151.500	−0.64574	0.518451
Substance abuse	5.042553	6.792453	<b>780.500*</b>	−3.20796	0.001337
Past trauma/abuse	7.936170	8.056604	1131.500	−0.78386	0.433122

\*Bold values indicate significant results.

symptoms of psychosis are paranoia, lack of insight, delusions and auditory hallucinations. Because these symptoms are a direct result of aberrant neurological circuitry in the brain seen in schizophrenia, they look similar across cultures. The psychiatrists also agreed that motor disturbances and visual hallucinations were least commonly seen in their patients during psychotic states. This part of the survey highlighted the ubiquitous nature of certain types of mental illness around the world. This finding is notable because it exhibits an area where psychiatry is less culturally bound and where psychiatric training can be universally helpful in the global health agenda.

This study focused more on form instead of content of psychotic symptoms. The *form* of symptoms such as disorganized thought is likely due to the way neural circuits are disrupted in the schizophrenia brain. However, the *content* of hallucinations and delusions is more likely to be culturally influenced. One study in Britain that pertains to a South Asian population showed that Pakistani immigrants living in Britain had certain delusional content more similar to British natives and other delusional content more similar to Pakistani natives. For example, British whites and British Pakistanis were more likely to have delusions of reference from the television or radio than native Pakistani individuals who may have less ubiquitous access to technology. British Pakistanis and native Pakistanis were much less likely to have delusions of being controlled by the government or spyware than were British whites but were more likely to have delusions of persecution of themselves or their families. Native Pakistanis tended to have more magical delusions of ghosts, spirits and black magic which was seen much less in the Western group. The data revealed that the immigrant population's psychosis was affected by their mixed upbringing. They had delusions more congruent to their cultural backgrounds, with a focus on family and religion. But, their current western, more technologically advanced, urban environment also impacted their delusions (Suhail and Cochrane, 2002). In a recent review Frank Larøi, Tanya Luhrmann and colleagues describe how hallucinations are likely culturally bound and that culture plays a significant role in how people experience, understand, identify and label hallucinations. (Larøi et al., 2014) Because the delusional content was not elicited in our study of psychotic symptoms, the biological universality of psychotic symptoms was easily discerned. However, culturally bound content of delusions requires further study.

The last survey section focused on barriers to accessing mental health care. This data highlights the more obvious problems of lacking medical resources like referral services and a dearth of supports in both locales. Simultaneously, it also points to the role that cultural stigma play, as discussed above, on making mental health care less accessible in more traditional societies. Both groups agree that the main problem in getting care is difficulty in the patient acknowledging the problem, but Indian psychiatrists

collectively viewed embarrassing the family as a significant factor. In many Asian cultures, one's individual successes and failures can reflect on the family, particularly in extended families where members outside of the immediate nuclear family live together in larger compounds. Depression that results from failing in life goals can be shaming for people and their families and make it difficult for caregivers to reach out for support (Rastogi et al., 2014). Today, many social scientists agree that stigma goes beyond affecting personal identity; it threatens all the things that are valued in a person's innermost being, such as being loved, loss of social standing, and disintegration of social and familial ties (Yang et al., 2007). Such a loss can have powerful implications on whether a person reaches out for help. In more traditional Asian cultures, people tend to value a collectivistic interdependent social network over European cultures that more generally value autonomy, independence, individuation and future orientation (Halbert et al., 2007; Mizelle, 2009). Therefore, in minority groups, depression symptoms like isolation, fatigue, and anhedonia may disconnect a person from engaging in the collective social norm which can be humiliating to the family and affect their social standing in the community.

Another significant difference among American and Indian psychiatrists' perceptions of obstacles for mental health access was substance use. This points to a cultural difference between the two areas surveyed. Substance use is more prevalent in the United States; for example in the United States, 24.5% of the population report binge drinking in the past month whereas, some states in India ban alcohol use such as Manipur and Gujarat, and about 5% of the Indian population report drinking some alcohol in the past (Alcohol Facts and Statistics). Additionally, hospitals in the United States can easily get toxicology lab work on patients so alcohol use is more of an identifiable entity. In India, traditional and more rural societies shame substance users and the problem is less likely revealed to clinicians if the patient is using substances. Also, in general, women and many men from this society are more likely to abstain from substances due to social and religious taboo. Therefore, this factor becomes less of a barrier to access mental health care.

#### 4.1. Implications in global mental health

Our data can be useful in global mental health teaching. Training and supervision of non-specialist health workers are needed all over the world. Highly trained clinicians in global mental health, who may not be able to stay in one country for a long time, can play a major role in meeting this need.

An important aspect of building access to care is scaling up services. Scaling up means to provide macroscopic coverage in mental health services and to mobilize and expand human and financial resources. In the field of global mental health, much of



this is done through training physician extenders, who are health workers who belong to the community (Patel et al., 2013) and understand the dialect of the local people. They can help find and manage milder cases of mental illness, support treatment adherence, and triage those who need higher levels of care. This is called task shifting as it lifts the burden of more common and ubiquitous tasks from the few highly trained individuals to the lay health workers who may be available in larger numbers. Psychiatry literature shows that collaborative care in the United States, using case managers and counselors alongside psychiatrists and primary care doctors, works well to extend mental health services in minority communities (Cooper et al., 2013; Yeung et al., 2010). The MANAS trial in Goa, India showed through multiple trials that using local lay health counselors to provide counseling and follow-up for depression care can be beneficial in low and middle countries (Patel et al., 2013). Vikram Patel and his group's studies in depressive and anxiety showed that patients who received community worker intervention in public primary care centers were more likely to recover in 6 months than those in the control groups (Patel et al., 2010).

Comparative data, such as this study, can help psychiatrists and other mental health clinicians understand, at a cultural level, differences in diagnostic practices by clinicians in another country. This makes global mental health training and supervision of mental health workers more data driven and country specific, and the techniques of care become more culturally transferrable.

#### 4.2. Implications in residency training

Residency training programs can use this type of comparative data to target differences when training residents from other cultural backgrounds. According to the 2014 Main Residency Match, 30% of psychiatry residents in the United States were graduates of international medical schools and psychiatry had the third largest number of international graduates of all residencies (National Resident Matching Program, 2014). As important as it is to consider cultural treatment differences abroad and how training in a high-income western country may affect patients of a different background, this data raises the question of whether a psychiatrist's training background plays into the treatment of patients in the United States. Comparative data assessing diagnostic practices may help to clarify this question. Residency training programs can look at the patterns that arise in this type data collection and use it to be more sensitive toward the cultural background of the residents that they train and evaluate as well as help the resident expand beyond his or her own cultural biases. Further study is required to broaden our understanding of cultural biases in treatment; however consideration of how culture affects psychiatric practices should be valued both internationally and at home.

Comparative data of psychiatric practice can also benefit building global mental health curricula, still nascent in today's residency programs. Of the 183 accredited US psychiatry residency-training programs, there are about 17 programs offering around 28 global health opportunities. Even among these programs, most are not focused solely on mental health; rather, they are part of larger hospital-based global health missions (Tsai et al., 2014). Today, there are few training avenues in global mental health and more study is required in order to create solid curriculums to help train psychiatrists to treat and teach abroad. The data in this paper identifies cultural variables in diagnostic patterns that can help American psychiatrists who are planning to work with patients in India. Targeting these types of cultural variables in different countries can help psychiatrists and other mental health professionals develop sensitivity to the way mental illness presents in that country, thus helping to develop cultural competence and enhancing global mental health training.

#### 4.3. Limitations

Several limitations exist in this study. The data reveals psychiatrist perceptions, not actual patient reports. Thus, the data cannot be used to extrapolate the presentation of actual illness in patients. Cross-cultural differences in psychiatry training in India versus the United States, and in the use of different diagnostic systems, the International Statistical Classification of Diseases and Related Health Problems (ICD) vs. The Diagnostic and Statistical Manual of Mental Disorders (DSM), may also account for the observed differences.

Another limitation exists in the way this study was designed. The study quantifies the difference in perception of mental illness via ranking symptoms, thus it does not allow for free form answers. This may have prohibited doctors from describing nuanced manifestations of the illness that would reveal cultural variations. There was no space on the survey to explain what each doctor meant when they ranked one symptom higher than the other. This study did not qualify what "violent behavior" or types of "delusions" mean to the clinicians. The possible cultural, spiritual, and social differences in these symptoms between people of a different ethnic and geographical group were not captured in the survey. This is the beginning of more nuanced studies. While eliciting cultural differences through open ended questions is worthwhile, it was beyond the scope of this paper.

#### 5. Conclusion

This study suggests that though psychiatrists in different parts of the world diagnose illnesses using similar criteria, predominant symptomatic presentations of a mental illness, from the psychiatrist's perspective, vary across cultures. This is valuable information because psychiatrists see many individuals; their perception of most common symptoms in major mental illness may act as a magnifying glass on representations of depression, mania and psychosis in different cultures. Understanding the differences in perception of illness is useful for many reasons. For example, these principles can be used to teach mental health issues to health extenders in parts of the world where there are few psychiatrists. Also, this information can help the training of overseas psychiatrists, mental health workers and physician extenders to triage, diagnose and treat mental illness in different cultures.

Though there are multiple sources of grant funding toward research and action in global mental health, there are only a few psychiatrists engaged in this field. Part of the reason for this may be that practicing outside our own cultural contexts is complex and feels foreign in our training as psychiatrists. And yet, it is a necessary part of global mental health. This study looked at possible cultural differences in psychiatrists' perceptions of disease presentation, and makes these differences easier to quantify and thereby more accessible. For example, this study raises the question of why mania might be defined by violent behavior and anger in India and not so much in the US or why the perception of barriers to mental health care access is almost identical in both a high resourced and a low resourced area.

Simultaneously, research like this can help psychiatry develop more sophisticated questions about cultural nuances to test in the future. These findings point to implicit cultural biases that international trainees may have about mental illness based upon what they have seen in populations in their country of origin. Studies like this might pinpoint these areas where biases may occur and allow the diagnostician to be more aware of their perception of disease when not in their native cultural contexts.

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