Studies on the perception of mental illness and epilepsy in Tehran, Iran
A study in stigma and discrimination

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Akademisk avhandling

som med vederbörligt tillstånd av Rektor vid Umeå universitet för avläggningsexamen framläggs till offentligt försvar i Föreläsningshall C, Psykiatriska kliniken, Byggnad 23, NUS, torsdagen den 14 november, kl. 09:00.

Avhandlingen kommer att försvaras på engelska.

Fakultetsopponent: Professor Wolfgang Rutz, Coburg University for Applied Sciences, Tyskland.
ABSTRACT
Background
Stigma and discrimination because of medical conditions is a global phenomenon. Epilepsy and mental illness belong to the most stigmatizing disorders world-wide. Culture, religion, education, life-style influences the perception of stigma. There are two aspects of stigma of special interest for this thesis; internalized stigma, which is the perception of a person suffering from a condition and the public perception of this disorder. This study investigates both aspects of stigma because of mental illness and epilepsy. Internalized stigma of mental illness and epilepsy are also studied in Umeå, Sweden, with the same instrument as in Iran in order to look at the cultural influence.

Methods
Paper 1 and 2 on internalized stigma because of mental disorders and epilepsy in Tehran:
These studies are cross-sectional with 138 persons with mental illness recruited from three different hospitals in Tehran and 130 persons with epilepsy from one neurologic clinic in Tehran and the Iran epilepsy association. Internalized stigma because of mental illness was measured using ISMI (Internalized Stigma of Mental Illness) questionnaire and because of epilepsy with the same instrument adapted for epilepsy (ISEP). ISMI/ISEP contains 29 items measured by a 4-point Likert scale. An open-ended question about the experiences of discrimination was added.

Paper 3 and 4 on public attitudes towards mental disorders and epilepsy in Tehran:
These two studies were performed with 800 individuals randomly chosen from households in four districts of Iran (north, south, east and west). In Paper 3 on attitudes and knowledge of mental illness a modified version of a questionnaire developed for the World Association program to reduce discrimination and stigma because of schizophrenia was used. In Paper 4 on awareness of and attitudes towards epilepsy a questionnaire originally developed by Caveness and Gallup in United States as early as 1949 was used and since used in many studies all over the world.

Paper 5 and 6 comparing internalized stigma because of mental disorders and epilepsy in Tehran and Umea:
These two studies included patients suffering from mental disorders (N=163) and epilepsy (N=93) recruited from the university hospital in Umeå, Sweden. The same questions as used in Paper 1 and 2 were applied.

Results
The experience of stigma because of mental disorders was high in the Iranian sample. The Swedish sample generally reported lower levels of experienced stigma than the Iranian except for items covering self-blame and feelings of alienation. As regards epilepsy the Iranian sample reported quite a high level of experienced stigma compared to the Swedish sample. Generally the patients with epilepsy reported lower levels of experienced stigma compared to patients with mental illness in the two settings. Attitudes towards mentally ill persons in Tehran were at the same levels as in western high income countries. The knowledge about and attitudes towards persons with epilepsy was also generally at the same level as found in other European studies expect for a much lower acceptance as regards accepting a person with epilepsy to marry someone in the family.

Conclusion
Stigma because of mental illness and epilepsy is a reality even in Iran, which is an Islamic setting in spite of the teachings of the Koran to show mercy with people who suffer from different ailments and rather well developed health services. The levels of experienced stigma is higher in Iran compared to Sweden, but still there is quite a lot of stigma because of mental illness even in Sweden in spite of several national efforts to reduce stigma. The lower levels of stigma because of epilepsy in both settings and especially in Sweden, is suggested to be the consequence of effective treatments available for epilepsy compared to the less successful treatments available for mental illness. The differences in internalized stigma reported and the public perceptions of stigma because of both mental illness and epilepsy between Iran and Sweden is suggested partly a consequence of the different cultural settings, Sweden being an extremely individualistic society compared to the more collectivistic Iranian society.

Key words
Stigma, mental illness, epilepsy, Iran, Tehran, Sweden
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Cover

Damavand is a special mountain in Persian mythology with its 5610 meters above sea level. It is the symbol of Iranian resistance against despotism and foreign rule in Persian literature.

In Zoroastrian texts and mythology (mid-5th century BC), the dragon Aži Dahāka was chained within Mount Damāvand, to remain there until the end of the world.

The tyrant Zahhāk was also chained in a cave somewhere in Mount Damāvand after being defeated according to the Persian epos Shahmaneh 1010 A.D.
Human beings are members of a whole,
in creation of one essence and soul.
If one member is afflicted with pain,
other members uneasy will remain.
If you have no sympathy for human pain,
the name of human you cannot retain.

Golestân “The Rose Garden” 1259 A.D, by Saadi
This poem is placed at the entrance to the Hall of Nations, UN-Building, New York, (see back cover of thesis).
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The experience of stigma because of mental disorders was high in the Iranian sample. The Swedish sample generally reported lower levels of experienced stigma than the Iranian except for items covering self-blame and feelings of alienation. As regards epilepsy the Iranian sample reported quite a high level of experienced stigma compared to the Swedish sample. Generally the patients with epilepsy reported lower levels of experienced stigma compared to patients with mental illness in the two settings. Attitudes towards mentally ill persons in Tehran were at the same levels as in western high income countries. The knowledge about and attitudes towards persons with epilepsy was also generally at the same level as found in other European studies expect for a much lower acceptance as regards accepting a person with epilepsy to marry someone in the family.

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Stigma because of mental illness and epilepsy is a reality even in Iran, which is an Islamic setting in spite of the teachings of the Koran to show mercy with people who suffer from different ailments and rather well developed health services. The levels of experienced stigma is higher in Iran compared to Sweden, but still there is quite a lot of stigma because of mental illness even in Sweden in spite of several national efforts to reduce stigma. The lower levels of stigma because of epilepsy in both settings and especially in Sweden, is suggested to be the consequence of effective treatments available for epilepsy compared to the less successful treatments available for mental illness. The differences in internalized stigma reported and the public perceptions of stigma because of both mental illness and epilepsy between Iran and Sweden is suggested partly a consequence of the different cultural settings, Sweden being an extremely individualistic society compared to the more collectivistic Iranian society.

**Key words:** Stigma, mental illness, epilepsy, Iran, Tehran, Sweden
LIST OF PUBLICATIONS

This thesis is based on the following original papers, which will be referred to by their Arabic numerals.


Paper 3 Ghanean H, Nojomi, Jacobsson L. Community study on attitudes to and knowledge of mental illness in Tehran. Accepted for Stigma Research and Action.


BACKGROUND

Stigma and discrimination because of medical conditions is a global phenomenon. Epilepsy, leprosy and mental disorders belong to the most stigmatizing disorders worldwide and HIV/AIDS has recently been added to this group (De Boer et al, 2008). Epilepsy is interesting because it is a good example of a disorder that has become much less stigmatizing in western high income countries because of modern treatment opportunities and an increased knowledge about the nature of the disorder and the same is the case with HIV/AIDS. However, in countries in transition between a more traditional and a more modern society there is still stigma associated with epilepsy (Jacoby, 2008). Mental illness is still one of the most stigmatizing disorders world-wide (Angermeyer et al, 2006). The reasons for this are obvious. Seriously mentally ill might behave in a peculiar and sometimes even frightening way and the treatment for mental disorders is not as successful as for epilepsy and HIV/AIDS. This thesis deals with the public perceptions of mental illness and epilepsy in Tehran and the experience of stigma and discrimination by persons suffering from these disorders in Tehran. A comparison is done with similar data from Sweden.

On stigma, discrimination and culture

Stigma originally means “sign”, “point”, and “branding mark”. Social stigma is an expression that implies social disapproval of personal characteristics or beliefs that are against culture. Erving Goffman (1922-1982) in his landmark work in 1963,”Notes on the Management of Spoiled Identity” examines how people manage impressions of themselves when they wane from approved standards of behaviour or appearance. This protection is mainly done through concealment. 'Stigma' refers to the shame that a person may feel when they fail to meet other people's standards, therefore causing them to not reveal their faults (Goffman, 1963).

A general model for the development of stigma is to look at stigma as a process starting with some kind of deviance in a person with a more or less appalling behaviour (Sartorius et al, 2005). The generalized epileptic fit is a good example of such a deviance. As epileptic attacks are unpredictable there is fear in persons suffering from epilepsy and family members to continue everyday life and this sentiment will result in isolation. On the other hand there is fear in society and their reactions towards persons with differences and in some medical conditions it can be fear of life or just protection. This is public stigma, which makes the circle of stigma more ferocious. Public stigma can be reduced by public education and proper explanations about treatment and social support.
Discrimination is restricting members of one group from opportunities or privileges that are available to another group, based on logical or irrational decision making.

Culture as I use the concept in this thesis is an integrated system of learned behavior in society. It has important impact on stigma and stigmatization, culture and believes make these experiences profound in both negative and positive ways. Religion, education, gender, individualized or collective life styles they all have effect on the development and experiencing of stigma.

As important as the public attitudes towards epilepsy and mental disorder and persons suffering from epilepsy and mental disorder is probably the self-perception of those suffering from these disorders. This deviance in a person results in distancing to that person and more or less isolation, marginalization and discrimination. This is the beginning of a vicious cycle. At some point in this development the person suffering from the disorder internalizes the negative views of the disorder which further increases his/her marginalization. This phenomenon has been described as “internalized” stigma.

Ritsher and co-workers have developed the concept of internalized stigma as regards persons suffering from mental disorders (Ritsher et al, 2003). However, this concept is applicable to any other medical condition that can lead to stigmatization. They describe internalized stigmatization as “the devaluation, shame, secrecy and withdrawal triggered by applying negative stereotypes to one self”. This aspect of internalized stigma contributes to an individual feeling himself being different and can counteract positive effects of undergoing treatment. Reducing the self-perception of epilepsy and mental illness as something devaluating and shameful could be an important goal of the treatment strategy.

There is thus a twofold mechanism in the stigma process; reactions from people around and the reactions from the inflicted person himself. The impact of the illness also rests on the family and indirectly on the community. Life opportunities get more limited due to the physical hazards of emotional and personal problems and the unpredictability of the disorder, but also because of the consequences of stigma. Consumers of mental health services and also their family experience discrimination and negative feeling of society towards them (Stuart et al, 2008).

**Mental disorder and stigma**

Mental disorders are conditions that in many societies have negative notions about treatment and possible cure, which may cause stronger and more hidden stigmatization. The majority of persons suffering from mental
disorders, however, do not behave in a conspicuous way. Instead people with depression, anxiety disorders and most persons suffering from psychotic disorders, are silent and withdrawn.

There is a great variety of mental distress what might be called mental disorders. The impact of the more obvious and appalling mental disorders on all persons suffering of mental distress is great. However, this also depends on the cultural context, what is perceived as mental disorders and what is known and what is believed about the background and the nature of different expressions of mental distress (Link & Phelan, 2001, Link & Phelan, 2006).

There is a stigma attached to mental disorders in general. This has many negative implications. Persons suffering from mental disorders tend to be discriminated against in several ways. They often withdraw from their family and society and they avoid asking for help. This results in a lot of suffering of the afflicted persons, but also of the families and close persons (Baker et al, 1999). One aspect is that persons with mental illness are considered violent (Botha et al, 2006, Ineland et al, 2008). The costs for society and the afflicted persons and families are enormous and at least partly a result of the stigma attached to the disorders. The allocation of resources for mental care is also much lower than according to the needs in most societies including Sweden.

There is a lot of research done on the nature of stigma because of mental disorders and its consequences (Byrne, 1997, Link, Struening et al, 2001). Most of these studies have been performed in western industrialized countries with more or less developed services for mentally ill (Corrigan et al, 2004). It is, however, obvious that mental disorders is as prevalent in traditional cultures and low and middle income countries and the level of stigma is also high in these milieus (Shibre et al, 2001). Less is however known about the attitudes towards mentally ill in other cultures, for example there are a limited number of studies of this issue from Islamic countries even though Islam is the second largest of the religious belief systems next to Christianity in the world. An interesting element in Islamic teaching is the idea that mental illness as well as other ailments might be an effect of the will of God and not necessarily because of sinful behaviour.

This could imply that persons suffering from mental disorders might be less stigmatized because their way of life and their behaviour is not necessarily the effect of personal defaults. This is part of the background to this study on attitudes towards mentally ill persons and knowledge about mental illness in Tehran and one of the reasons for comparison with Sweden.
Epilepsy and stigma

“The history of epilepsy can be summarized as 4000 years of ignorance, superstition and stigma, followed by 100 years of knowledge, superstition and stigma” (Kale et al, 1997). Epilepsy is the prototype for a stigmatizing disorder. Uncontrolled seizures can be very dramatic and also have serious consequences, not only for the afflicted person, but also for his close ones and the surrounding society.

Falling into the fire, for example, can cause serious injuries, but also result in destruction of the house where he is living. The disorder is described historically very early and has usually been connected with demons, spiritual possession and other supernatural forces. Vanzan and Paladin in their paper on epilepsy and Persian culture refer to Avesta which is a collection of Zoroastrian texts from the 6th century B.C. where it is referred to a sickness most probably being epilepsy. It is reported that a God tells Zoroaster that persons with epilepsy are prohibited from offering sacrifices in his honour (Vanzan et al, 1992).

Persons suffering from epilepsy have been discriminated against in several ways. It is reported from many countries that families try to hide the disorder in a family so that the person and other family members will be able to marry. It is difficult to get a job for a person who is suffering from epilepsy. Getting a driving license is often very problematic. Failure to get health insurance protection is also a common problem in many countries (Quiantas et al, 2012).

There are a number of studies on the attitudes towards epilepsy and towards people with epilepsy as well as the experience of stigma and discrimination against persons suffering from epilepsy also mainly performed in western countries (Baker, 1999, Canger et al, 1995). There are, however, also a number of studies from low and middle income countries mainly focusing on the attitudes towards epilepsy in the general public (Fernandez et al, 2011, Lai et al, 1990, Bener et al, 1998, Devender et al, 2012).

In high income countries with modern treatment facilities and a more educated public, the problem with stigma because of epilepsy has decreased over the years (Jacoby, 2007). In low-income countries the problem with the “treatment gap” still make that a lot of persons suffering from epilepsy do not get proper treatment so the disorder still represents a major public health problem. This made the World Health Organization to launch a global campaign against epilepsy (GCAE) “Out of the shadows” (WHO, 1997). Two main ways have been suggested to reduce the stigma of epilepsy; improved treatment and changes in the public perception of the disorder.
The cultural context

Iran is a middle in-come country with a strict adherence to Islam; “Iran – the Islamic Republic of Iran”. Islam is not just a religion but it also influences all parts of society to a much greater extent than Christianity in western countries. Iran is also still very much a collectivistic culture where the family and the extended family are very important (Ghorbani et al, 2003). Sweden on the other hand is a high in-come country in the western cultural context. It is considered one of the most individualistic societies and probably also one of the most secular countries in the world.

According to Islam followers are supposed to believe in one God (Allah) and to submit his will to the will of Allah and do all that Allah desires and refrain from all that Allah forbids. Muslims worship Allah and follow by reading and understanding the Holy Quran. The holy book gives guidance right from birth to death and life after death (Bolhari et al, 2002, Akhtar et al, 2004, Aziz et al, 1997).

Allah is the Absolute and the Sole Master of men and the universe. He is the Lord, the Sustainer and Nourisher, whose mercy enshrines all beings. Since he has given each man human dignity and honour, it follows that men are substantially the same. No distinctions can be made among them, on account of their possible differences such as nationality, colour, race or medical condition. Every human being is thereby related to all others in a common brotherhood.

The Holy Quran states "O believers, stand up firmly by the Commandments of Allah, bearing witness with justice and let not the enmity of any people incite you that you should not do justice. Do justice that is nearer to piety and fear Allah, undoubtedly, Allah is aware of your doings." (5:8).

It is not permissible to oppress women, children, old people, the sick or the wounded. Women's honour and chastity should be respected. The hungry person must be fed, the naked clothed and the wounded or diseased treated medically irrespective of whether they belong to the Islamic community or not. This is the teaching – the reality might be something different?
AIMS

The general aim of this thesis is to contribute to our understanding of the complex issue of stigma because of medical conditions focusing on mental illness and epilepsy as examples of the most stigmatizing disorders worldwide. Part of this aim is to look into the role of socio-cultural factors.

Specific aims:

1. To investigate the experience of internalized stigma in mentally ill persons in Tehran, Iran. A further aim was to examine the feasibility of using the Internalized Stigma of Mental illness scale (ISMI) by field testing it in an Iranian setting and describing its basic psychometric properties (Paper 1).

2. To investigate the experience of internalized stigma in patients suffering from Epilepsy in Tehran, Iran (Paper 2).

3. To investigate public perception and attitudes towards mentally ill persons in Tehran, Iran (Paper 3).

4. To investigate public awareness and attitudes towards epilepsy in Tehran, Iran (Paper 4).

5. To compare data from Tehran study on internalized stigma because of mental illness and epilepsy with data from Sweden (Papers 5 and 6).
STUDY SETTING AND RESEARCH DESIGN

Tehran is the capital of Iran and Tehran Province. With a population of near 13 million, it is also Iran’s largest urban area and city, the largest city in Western Asia and the 5th largest city globally.

In the 20th and 21st centuries, Tehran has been the subject to mass migration of people from all around Iran. Throughout Iran's history, the capital has been moved many times, and Tehran is the 32nd national capital of Iran. Tehran was in ancient times the capital of the Median settlements and also in Zoroastrian times. The word Tehran is made of two small words, Teh and Ran. The first part of the name, Teh, is derived from Median language and it means hackberry tree that was grown in the northern districts of today’s Tehran. The second part of the name, Ran, is also an ancient Iranian word meaning foothills, so the name Tehran means a foothill with many hackberry trees. Tehran is on the foothills of the Damavand mountain part of the Alborz mountain range.

Tehran county borders Shemiranat county to the north, Damavand county to the east, Eslamshahr, Pakdasht, and Ray counties to the south, and Karaj and Shahriar counties to the west. The city of Tehran is divided into 22 municipal districts, each with its own administrative centers and 112 sub-districts (Nahiye), these are divided into blocks (howzeh).

The city of Tehran (not to be confused with the larger, Metropolitan Tehran) had a population of approximately 7.8 million in 2006. The native language of the city is the Tehrani accent of Persian and the majority of people in Tehran identify themselves as Persian. Minority groups include Azeri, Kurds, Arabs, Baluch, Armenians, Bakhtiari, Assyrians, Talysh, and others. According to a 2010 census conducted by the Sociology Department of Tehran University, 63% of people in Tehran were born in Tehran, 98% know Persian, 67% identify themselves as ethnic Persian, and 13% have some degree of proficiency in a European language.

The majority of Tehranis are believed to be moderate followers of Twelver Shia Islam. Religious minorities include followers of various sects of Sunni Islam, Mystic Islam, Zoroastrianism, Judaism, and Christianity.

Medical services as regards mental illness and epilepsy in Tehran are well organized and cover all inhabitants. There are a number of mental hospitals and psychiatric clinics attached to general hospitals in the city. Mental health is also incorporated into the primary healthcare system (Yasamy et al, 2001). The health care system in Tehran is divided into two groups, University hospitals and clinics, governmental hospitals and private sector. Nowadays
everyone can profit from social insurance by paying a sum to the government by themselves or their employers.

In our study we recruited patients from university hospitals. There are three main medical universities in Tehran, Tehran Medical University, Shahid Beheshti Medical University, Azad Medical University and also the Military Medical University. These medical universities, covers all parts of greater Tehran. Our affiliation was with Iran Medical University, which is one of the biggest universities in terms of number of hospitals and medical students they accept each year.

Iranian Epilepsy Association was the first non-governmental charity organization in Iran established 1995. It was proposed by a group of university professors to promote community health and increase productivity of patients with epilepsy. The board intends to achieve international approval to be considered as a model in the region.

The study design was cross sectional and comparative.
SUBJECTS AND METHODS

Paper 1: Internalized stigma of mental illness in Tehran, Iran

The subjects were recruited from an out-patient clinic and in-patients at the psychiatric institute of Tehran covering the North and Northwest parts of Tehran and Navab hospital covering the suburbs and Razi mental hospital covering the south-eastern parts. The study has a cross-sectional design. The patients had mainly affective disorders and 21% schizophrenia spectrum disorders. 60% were males and the great majority had high-school diploma (12 years at school) or higher.

Instrument: The Internalized Stigma of Mental Illness Questionnaire (ISMI) developed by (Ritsher et al, 2003) was used (App 1 and 3). It contains 29 items grouped into five subscales; alienation, stereotype endorsement, perceived discrimination, social withdrawal and stigma resistance. The Alienation subscale measures the experience of “being less than a full member of society” (6 items). The Stereotype endorsement subscale measures the degree to which respondents agree with common stereotypes about people suffering from mental disorders (7 items). The Discrimination experience subscale intends to capture the respondent’s perception of how they are treated by others (5 items). The Social withdrawal subscale (6 items) deals with questions about staying away from social situations and feelings of isolation from the “normal world”. The Stigma resistance subscale intends to measure the ability to cope with the situation, the reliance capacity. All items are measured by a 4-point Likert type of scale (1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree).

ISMI was translated into Farsi and back translated by psychologists and psychiatrists fluent in English. A pilot study on 30 patients gave an internal consistency of 0.87 (Cronbach’s alpha). In the end an open-ended question was asked about personal experiences of discrimination due to their mental disorder. The interviews were conducted in separate rooms at the different clinics and the first authors or psychologists were present to guide the patients in understanding the questions when necessary.
Paper 2: Self-perception of stigma in persons with epilepsy in Tehran, Iran

In this study a convenience sample of patients suffering from epilepsy was recruited from the epilepsy out-patient clinic of the Iran Medical University at Rasoul Hospital and members of the Iran Epilepsy Association during their annual meeting in 2008. The design was cross sectional.

The internalized stigma of mental illness scale ISMI described earlier was adapted for epilepsy by changing the wordings in the questionnaire from mental illness to epilepsy (in the following referred to ISEP). A pilot study with 30 individuals had been performed with the ISMI and it was considered not necessary to make a new pilot just because of the change of wording.

Paper 3 and 4: Community study on attitudes to and knowledge of mental illness in Tehran and Public awareness and attitudes towards epilepsy

These two studies were performed with 800 individuals randomly chosen from four districts of Tehran (north, south, east, west). 200 inhabitants were questioned from each district, 3-5 blocks were randomly chosen from each district as a cluster. Four Psychologists collected the data, two males and two females. They waited whilst the questionnaire was completed and was also helpful if there were any questions. The families were approached in the morning hours and in the afternoon during weekdays and holidays to get a representative sample. One questionnaire for each house number and if there was no respondent next house number would be approached. The data collection took place between April and December 2009. In Table 1 are shown some socio-demographic background data of this population.
Table 1. Socio-demographic background of the population (in per cent).

<table>
<thead>
<tr>
<th></th>
<th>Males (N=426)</th>
<th>Females (N=374)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt;25 years</td>
<td>24.4</td>
<td>24.7</td>
<td>P &lt;0.05</td>
</tr>
<tr>
<td>Age 26-45 years</td>
<td>38.7</td>
<td>38.2</td>
<td></td>
</tr>
<tr>
<td>Age 46-60 years</td>
<td>29.1</td>
<td>34.0</td>
<td></td>
</tr>
<tr>
<td>Age &gt;60 years</td>
<td>7.7</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Education &lt;diploma</td>
<td>23.0</td>
<td>23.8</td>
<td>n.s.</td>
</tr>
<tr>
<td>Diploma (12 years at school)</td>
<td>38.5</td>
<td>35.6</td>
<td></td>
</tr>
<tr>
<td>&gt;diploma</td>
<td>38.5</td>
<td>40.6</td>
<td></td>
</tr>
<tr>
<td>Marriage single</td>
<td>40.4</td>
<td>30.7</td>
<td>P &lt;0.01</td>
</tr>
<tr>
<td>ever married</td>
<td>59.7</td>
<td>69.2</td>
<td></td>
</tr>
<tr>
<td>Occupation occupied</td>
<td>74.4</td>
<td>31.8</td>
<td>P &lt;0.001</td>
</tr>
<tr>
<td>non-occupied/housewives</td>
<td>25.6</td>
<td>68.2</td>
<td></td>
</tr>
</tbody>
</table>

The questionnaire had three parts. One part contained some socio-demographic background data as age, education, civil status and occupation (App 2).

As regards attitudes and knowledge of mental illness a modified version of a questionnaire developed for the World Psychiatric Association program to reduce stigma and discrimination because of schizophrenia was used. This modified version was originally developed by a research group in Nigeria headed by professor Gureje and we used the questionnaire with his permission. The original WPA questionnaire was modified by substituting “schizophrenia” with “mental illness” (Gureje et al, 2005). This modified version contains five questions on public views about mental illness and six questions covering attitudes towards persons with mental illness. One question about causes of mental illness was added.

The part covering awareness of and attitudes towards epilepsy consisted of a set of questions originally developed by Caveness and Gallup in United States as early as 1949. These questions have since been used in several studies all over the world over the years (Caveness et al, 1979). There were 14 questions covering knowledge about epilepsy and attitudes towards persons suffering from epilepsy and in the end one question asking about the cause of epilepsy.
Paper 5 and 6: Internalized stigma of mental illness in Sweden and Iran - a comparative study, and on the experience of stigma by persons with epilepsy in Sweden and Iran - a comparative study

The two studies including patients suffering from mental disorders and epilepsy in Umea were recruited from the departments of neurology and psychiatry at the University hospital. Some socio-demographic data are on the subjects in Paper 1, 2, 5 and 6 are presented in Table 2. The group of mentally ill persons in Umea was a convenience sample (N=163) from the out-patient department. There was a mix of diagnoses over the whole spectrum, but a majority, 53% suffer from affective disorder. 67% were female and the majority middle aged – around 35 years of age. 42% had spent more than 12 years at school.

Table 2. Socio-demographic data on subjects in Paper 1 and 2, 5 and 6.

<table>
<thead>
<tr>
<th></th>
<th>Tehran Psychiatric patients (N=138)</th>
<th>Sweden Psychiatric patients (N=163)</th>
<th>Tehran Epilepsy patients (N=130)</th>
<th>Sweden Epilepsy patients (N=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>60</td>
<td>33</td>
<td>52</td>
<td>48</td>
</tr>
<tr>
<td>Female</td>
<td>40</td>
<td>67</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever married</td>
<td>43</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>57</td>
<td>67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;12 years</td>
<td>28</td>
<td>58</td>
<td>40</td>
<td>71</td>
</tr>
<tr>
<td>&gt;12 years</td>
<td>72</td>
<td>42</td>
<td>60</td>
<td>29</td>
</tr>
</tbody>
</table>

The Internalized Stigma of Mental Illness scale (ISMI) was used. The scale was translated and back translated by a psychiatrist and a social worker fluent in English. A small pilot with five patients was performed to get comments on the comprehensiveness of the questions.

The epilepsy study was performed on 93 consecutive out-patients attending the neurology clinic at the university hospital in Umea during four months. They completed the ISEP questionnaire. In the end of the questionnaire there was an open-ended question on own experiences of living with epilepsy.
Statistical Analyses

**Paper 1 and 2**

The Reliability and Internal consistency of the questionnaire was assessed by Cronbach’s alpha coefficient and an alpha equal to or greater than 0.70 was considered satisfactory. Chi-square tests were used to compare the midpoint scale of the overall score by demographic variables (significant level was considered p <0.05). Factor analyses were also performed to study the congruence with the originally proposed factor structure.

**Paper 3 and 4**

A multi stage random sampling design was performed with randomly selected blocks as cluster data. The Jackknife method was used to estimate the number of individuals needed. The estimation was also an issue of human resources and budget for collecting data. Data analysis was performed using SPSS v13 software. Frequency distribution was calculated and Chi-square was used for subgroup analysis.

**Paper 5 and 6**

Cronbach’s alpha as reliability indicator was calculated in both papers.

In Paper 5 the numbers agreeing to the questions in Sweden and Iran was calculated as well as means and standard deviations of the subscales and the total scale.

In Paper 6 a factor analysis (principal axis factoring; Promax rotation with Kaiser normalization) limited to a five-factor solution was separately conducted on the data of both samples. To compare the structure in the data between the samples factor congruence coefficients were calculated by procrustes rotation method. A congruence coefficient ≥.80 was interpreted as indicative for factor congruence (Ten Berge et al, 1977). Factor congruence coefficients were calculated for the comparison of the factor structure of the Iranian and the Swedish data with the “ideal matrix” based on the original subscale structure (with a factor loading of 1 on the factor the items should belong to and a loading of 0 on the other factors).

Mean scores were compared between the samples on item-level by t-test for independent samples. Only significant differences with a t-score ≥5.00; p ≤.0001 were evaluated as substantial and are reported.
Ethical considerations

All studies were performed according to the principles of the Helsinki declaration on research ethics. The study on internalized stigma of mental illness in Tehran was approved by the research ethics committee of Iran University of Medical Science and Mental Health Research Institute. The study on the experience of stigma by persons with epilepsy in Tehran was approved by Iran Epilepsy Association and Iran Medical University. The public study on awareness and attitudes towards epilepsy and mental illness in Tehran was approved by the Ethics Committee of Iran University of Medical Sciences followed by approval of police with written consent to show participants. The two studies on patients suffering from epilepsy and mental illness in Umea, Sweden, were approved by the Regional Ethics Review Committee.

Participation in all the studies was voluntary and anonymous.
RESULTS

Paper 1: Internalized stigma of mental illness in Tehran, Iran

The mean age of the participants was 30 years with a range of 17-60 years. Males were in majority (60%) and 72% of the participants had high school education or higher (more than 12 years at school). Still 79% were unemployed (only 4 of the women were employed). More females were, however, married (55%) than the males (36%). As many as 56% of the participants agreed to the statement “having a mental illness has spoiled my life”. Quite a few agreed to the statement “stereotypes about the mentally ill apply to me” (38%) and “mentally ill people tend to be violent” (38%) and “mentally ill people shouldn’t get married” (33%). Quite a few also agreed to the discrimination experience items, for example 53% agreed to the statement “people discriminate against me because I have a mental illness”. Also quite a few agreed to the different items in the social withdrawal subscale like “I stay away from social situations in order to protect my family or friends from embarrassment” (46%). Still quite a few (30%) agreed that they could have “a good fulfilling life” and “being able to live my life the way I want to”. In Table 3 is shown the subscale means of ISMI for both mental illness and epilepsy in Tehran.

A confirmatory factor analysis showed that 19 of 29 items were sorted on to the expected factor. Items belonging to Social withdrawal, Resistance and Stereotype endorsement had the best fit. The Alienation subscale items had the least fit and most items had higher loadings together with items belonging to the Social withdrawal subscale.

As regards the open-ended question on experiences of discrimination almost all participants responded (N=123). The participants gave a lot of examples of being marginalized and isolated, but also examples of stigma resistance.

(Ritsher et al, 2003) suggests to use the midpoints of the items score as an indication of high stigma and 40% of respondents had an average score of 2.5 or more. (Lysaker et al, 2007) suggested instead that the score of 2 or less could be labelled “minimal” stigma, scores greater than 2, but less than 2.5 could be labelled “mild” stigma. Scores greater than 2.5, but less than 3 could be labelled “moderate” stigma and scores greater than 3 could be labelled “severe” stigma. Stigma levels according to this model are shown in Table 3.
Table 3. Comparison of subscale means and levels of stigma (in per cent) between patients suffering from epilepsy and mental disorders in Tehran.

<table>
<thead>
<tr>
<th>Subscale means (SD)</th>
<th>ISEP (N=130)</th>
<th>ISMI (N=138)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alienation</td>
<td>2.11 (0.69)</td>
<td>2.33 (0.73)</td>
</tr>
<tr>
<td>Stereotype endorsement</td>
<td>1.97 (0.53)</td>
<td>2.30 (0.60)</td>
</tr>
<tr>
<td>Discrimination</td>
<td>2.25 (0.61)</td>
<td>2.32 (0.67)</td>
</tr>
<tr>
<td>Social withdrawal</td>
<td>2.10 (0.69)</td>
<td>2.64 (0.83)</td>
</tr>
<tr>
<td>Resistance</td>
<td>2.14 (0.51)</td>
<td>2.46 (0.39)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of stigma:</th>
<th>ISEP (N=130)</th>
<th>ISMI (N=138)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal (&lt;2)</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Mild (2.2-4.9)</td>
<td>29%</td>
<td>21%</td>
</tr>
<tr>
<td>Moderate (2.5-3)</td>
<td>16%</td>
<td>27%</td>
</tr>
<tr>
<td>Severe (&gt;3)</td>
<td>7%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Paper 2: Self perception of stigma in persons with epilepsy in Tehran

The mean age of the 130 patients was 59 years, 52% were males. Females had higher educational level than the males, but the majority of the females were unemployed (44 of 52).

Scale means and levels of stigma according to (Lysaker et al, 2007) are shown in Table 3. Persons with less than high school diploma and without an occupational reported significant higher experience of stigma than more well-educated and those with an occupation. The open-ended question revealed a great eagerness to talk about the everyday life experiences. Almost all respondents gave examples of feelings of marginalization and discrimination.

Some examples of responses to the open-ended question about stigma experience: “I don’t talk about my disease, it is God will and it won’t be better by declaring it everywhere”. Stereotype endorsement: “In respect of society and job we cannot contribute”. “They don’t invite us to parties as if we have leper disease”. “I wanted to marry him but his family didn’t agree and threatened to kill me if we do”. “In job application they prefer not to choose patients with Epilepsy”. “I cannot become friend with others; I am scared to have an attack every moment. I hide my seizure attacks”. One example of stigma resistance could be “I am a nurse and my colleagues understand me and don’t discriminate against me”.

Paper 3: Community study on attitudes and knowledge of mental illness in Tehran

Generally the view expressed about persons with mental illness was rather positive. For example, 70% think that mental illness can be treated outside hospital and 74% agreed to the statement that people with mental illness can work in regular jobs. 68% agreed to the statement that it is possible to maintain the friendship and 76% disagreed that they would be ashamed if people knew someone in the family having a mental illness. Quite a few however agreed to the statement that people with mental illness are dangerous (52%). Females more often were afraid to have a conversation with mentally ill and they also more often reported being disturbed about working on the same job and less willing to share the same room. When it comes to marrying someone with a mental illness the willingness was rather low (12%). In Table 4 is shown the opinions about causes of mental illness. Several alternatives could be indicated. Nearly 80% indicated two or more alternatives as alcohol, drugs, stress and heredity. Twenty-one per cent indicated only one possible cause. For example proposed 1.3% the will of God as the single course.

Table 4. Causes of mental illness in public view. %

<table>
<thead>
<tr>
<th>Causes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol or drug</td>
<td>22.6</td>
</tr>
<tr>
<td>Traumatic physical event or shock</td>
<td>45.2</td>
</tr>
<tr>
<td>Psychological Trauma</td>
<td>39.6</td>
</tr>
<tr>
<td>Stress</td>
<td>69.8</td>
</tr>
<tr>
<td>Genetics</td>
<td>26.4</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>15.1</td>
</tr>
<tr>
<td>Evil spirits</td>
<td>5.6</td>
</tr>
<tr>
<td>Environmental factors</td>
<td>26.4</td>
</tr>
<tr>
<td>Will of God</td>
<td>5.6</td>
</tr>
<tr>
<td>Brain disease</td>
<td>33.9</td>
</tr>
</tbody>
</table>

Paper 4: Public awareness and attitudes towards epilepsy in Tehran, Iran

Generally the knowledge about epilepsy is at the same level as in high income countries like Austria. The attitudes towards epilepsy are generally rather accepting with the exception for allowing someone in the family to marry someone who has epilepsy (only 28% said Yes to this question) (Table 5). As regards significant gender differences women were more accepting to employ and to work with someone with epilepsy and allow their child to play with a child having epilepsy (87.2% vs. 78.4% for men).
regards education level those with higher education were generally more accepting as regards employing someone allow the child to play with a child with epilepsy and accepting a person with epilepsy to use public transportation. As regards the question about accepting someone in the family to marry somebody with epilepsy there were however no significant differences as regards gender or educational level.

**Table 5. Attitudes towards epilepsy (in per cent) (N=800).**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you had the opportunity would you employ someone with epilepsy?</td>
<td>67.4</td>
</tr>
<tr>
<td>Are you willing to work with a person having epilepsy?</td>
<td>80.0</td>
</tr>
<tr>
<td>Would you allow your own children to play with a child having epilepsy?</td>
<td>82.5</td>
</tr>
<tr>
<td>Would you be afraid of someone that has epilepsy?</td>
<td>11.4</td>
</tr>
<tr>
<td>May anyone in your family marry someone who has epilepsy?</td>
<td>28.0</td>
</tr>
<tr>
<td>Should your family if having a member with epilepsy hid him/her from outside?</td>
<td>10.3</td>
</tr>
<tr>
<td>Do you think a person with epilepsy should use public transportation?</td>
<td>78.1</td>
</tr>
</tbody>
</table>

The perceptions of causes of epilepsy are also rather adequate, a majority indicating brain disease as a possible cause (62%) and rather few indicated the will of God as a possible cause and none evil spirit (Table 6).

**Table 6. Causes of epilepsy in public view.**

<table>
<thead>
<tr>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection</td>
<td>3.7</td>
</tr>
<tr>
<td>Mental illness</td>
<td>16.9</td>
</tr>
<tr>
<td>Accident</td>
<td>5.6</td>
</tr>
<tr>
<td>Will of God</td>
<td>16.9</td>
</tr>
<tr>
<td>Evil spirits</td>
<td>0.0</td>
</tr>
<tr>
<td>Genetics</td>
<td>47.1</td>
</tr>
<tr>
<td>Alcohol</td>
<td>0.0</td>
</tr>
<tr>
<td>Brain disease</td>
<td>62.2</td>
</tr>
</tbody>
</table>

**Paper 5: Internalized stigma of mental illness in Sweden and Iran – A comparative study**

In this study the results from the study reported in Paper 1 was compared with a similar study in Umea in northern Sweden. The result is shown in Figure 1.
Figure 1. Item comparisons between Sweden and Iran, differences in per cent agreeing to the questions.

The Swedish sample (N=163) responded to the same questions as the Iranian. The Swedish sample generally reported a lower level of experienced stigma and discrimination. Even if the level of experienced stigma is lower in the Swedish sample it is interesting and a bit paradoxical that the Swedish sample indicates a higher level when it comes to self-blame, for example the item 5 “I am embarrassed or ashamed that I have a mental illness” and item 16 “I am disappointed in myself for having a mental illness”. More Swedish patients agree to these two statements than the Iranian patients.
Paper 6: On the experience of stigma by persons with epilepsy in Sweden and Iran - A comparative study

In this study results from the Tehran sample is compared with results from 93 patients attending the neurology clinic at the University hospital in Umea. The two samples did not differ as regard gender, but the Iranian patients were significantly younger and had more years of education than the Swedish group. On average the Swedish patients reported significantly less stigmatization compared to the Iranian with significantly lower scores on 16 of the 29 items. All items of the subscale discrimination experience and a majority of the items in the subscale stereotype endorsement and social withdrawal also show the higher level of experience to stigma. In Table 7 are shown subscales means in the two samples. The two groups did not differ on any of the items belonging to the stigma resistance subscale.

As regards the open-ended question the Iranian subjects often expressed a need to hide their disorder and problems to get a job. In the Swedish group comments were less common and they often dealt with more medical aspects. Several patients reported that they had no experience of discrimination because of their disorder.

**Table 7.** Subscale means in the two epilepsy samples.

<table>
<thead>
<tr>
<th>Subscales</th>
<th>ISEP Iran (N=130)</th>
<th>ISEP Sweden (N=93)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alienation</td>
<td>2.06 (0.64)</td>
<td>1.66 (0.68)</td>
</tr>
<tr>
<td>Stereotype endorsement</td>
<td>1.96 (0.62)</td>
<td>1.32 (0.35)</td>
</tr>
<tr>
<td>Discrimination</td>
<td>2.26 (0.71)</td>
<td>1.33 (0.05)</td>
</tr>
<tr>
<td>Social withdrawal</td>
<td>2.10 (0.69)</td>
<td>1.37 (0.50)</td>
</tr>
</tbody>
</table>
DISCUSSION

Samples

One obvious question is about the representativity of the different samples used in these studies. As regards the patients suffering from mental illness and epilepsy in both Iran and Umea they are all convenience samples. There might be differences between the two settings as regards the kind of disorders they are suffering from and possibly the severity of the disorders. The mental patients in Iran had a higher educational level than the Swedish sample, but the mix of diagnoses was more or less the same. The Swedish sample was drawn from an out-patient unit and the Iranian mainly from an in-patient unit. This might indicate that the Iranian sample had a more severe disorder. However, the number of beds at Swedish psychiatric clinics are now very limited and quite a few of the patients at the out-patient unit have also been in-patients earlier. As regards the patients with epilepsy again the level of education is higher in the Iranian sample and about half of the participants were recruited from the meeting with members of the Iranian Epilepsy Association. This might indicate that the Iranian sample could be a bit more knowledgeable about the illness and also a bit more engaged in the client organization and thus maybe more aware of the stigma issue because of epilepsy. On the other hand the Swedish sample might have a bit more serious kinds of epilepsy because they are treated at a specialist clinic. It is also interesting to see that in the Iranian sample there were more males than females, but in the Swedish sample there were more females than males. This might reflect the differences in gender roles that exist between the two countries.

However, by and large I think that the samples are reasonable comparable as regards kind of disorder and severity of the disorder. As regards comparisons between different socio-cultural contexts it will always be difficult to draw definitive conclusions – rather it would be possible to get an idea of tendencies.

As regards the public study in Tehran on attitudes and knowledge about mental illness and epilepsy it was made efforts to get as representative sample as possible of the Tehran population. Even here more males than females were responding, but the gender differences are not that big and I think that this will not seriously disturb the interpretation of the data.

The way the different samples were collected is also different. The Iranian patients were approached by me and one co-worker. The questionnaire was filled in by the patients in privacy, but the investigators were present to be able to support the patients and explain the questions – this was necessary.
for some of the items in some cases. The open-ended question in the end was also asked by the investigators. This presence of the investigator might have had some influence on the respondents. However, it was obvious for the patients that the investigators were not connected with the clinic and that the responses in no way should be transmitted to the staff of the clinic. The two Swedish patient samples were asked to fill in the questionnaire by their own and to return the questionnaire at the visit to the clinic or in some cases they got an envelope to return the questionnaire. This might explain the big differences as regards the numbers of responses to the open-ended question. In the two Swedish samples only half responded to this question. Maybe they did not have the same urge to express themselves.

**Instruments**

As regards the instruments used they were translated and back-translated as is usual practice now. There were also made pilot studies to check the feasibility of the questionnaire. This was most elaborated as regards ISMI in Tehran. The questions were well comprehended except for item 24 “living with mental illness has made me a tough survivor”, which sometimes had to be discussed with the Iranian patients. However, I don’t think this had a serious impact on the whole. ISMI has now been used in quite a number of studies world-wide indicating that it has been judged to be a relevant instrument to study internalized/perceived stigma by patients. This is also our experience. The questionnaire is not too long and time-consuming and the questions felt relevant by the patients. In Table 8 are shown Cronbach’s alpha values for some different studies as a measure of the internal consistency of ISMI.

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Turkish version *</th>
<th>Original English version **</th>
<th>European version***</th>
<th>Farsi version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alienation</td>
<td>0.84</td>
<td>0.79</td>
<td>0.84</td>
<td>0.81</td>
</tr>
<tr>
<td>Stereotype endorsement</td>
<td>0.71</td>
<td>0.72</td>
<td>0.72</td>
<td>0.77</td>
</tr>
<tr>
<td>Perceived discrimination</td>
<td>0.87</td>
<td>0.75</td>
<td>0.73</td>
<td>0.80</td>
</tr>
<tr>
<td>Social withdrawal</td>
<td>0.85</td>
<td>0.80</td>
<td>0.84</td>
<td>0.77</td>
</tr>
<tr>
<td>Stigma resistance</td>
<td>0.63</td>
<td>0.58</td>
<td>0.55</td>
<td>0.89</td>
</tr>
</tbody>
</table>


In a study on measuring perceived Stigma in Adults with Epilepsy (McGlone et al, 2009) the internal reliability and convergent validity of two scales from the mental illness literature, The Stigma Scale (TSS) and Internalized Stigma of Mental Illness scale (ISMI) were tested. The results showed that Perceived stigma scales designed recently for mental illness can be qualified reliable and validated measures also in adults with epilepsy.
As regards the public study and the questions about attitudes and knowledge about epilepsy, the questions have been used in a great number of studies all over the world for many years. This is reason enough to use the questions because it will make comparisons between different socio-cultural contexts possible and of interest.

The questions about attitudes and knowledge of mental disorders are a bit different. There are a number of questionnaires developed to cover these aspects and a number of the questions we have used have been more or less similar in a number of studies. We choose to use the revised form of the WPA Questionnaire used in studies as regards schizophrenia, but revised to cover mental disorders in general. In this case it is possible only to make a direct comparison with the sample from Nigeria (Gureje et al, 2005).

**Ethics**

All studies were performed according to the Helsinki declaration and approved by the relevant ethics review committees in Tehran and Umea. Generally the patients were very collaborative and especially in the Iranian case many expressed their appreciation that someone was interested in their situation. In Sweden it is now rather common to send out questionnaires to the general public and also to patients groups and there is a kind of fatigue developed as regards responding to questionnaires. This might have influenced the Swedish group more than the Iranian sample.

**Socio-cultural differences**

As regards the discussion about possible differences between different socio-cultural settings it can never be an exact match. There are differences in how questionnaires are translated and perceived in different cultural settings and there are differences regarding the patient’s/population’s composition. All this make it difficult to make exact comparisons. What we can do is to look at tendencies and directions of differences and make more or less reasonable assumptions about similarities and differences.

In tables 9 and 10 are shown comparable data from Nigeria showing that the Tehran subjects have a much more positive and less stigmatizing and discriminating position than the Nigerian (Gureje et al, 2005). This is reasonably an effect of the higher educational level in the Tehran sample.
Table 9. Views about people with mental illness (Yes responses).

<table>
<thead>
<tr>
<th>Public views on mental illness</th>
<th>Tehran (N=800)</th>
<th>Nigeria (N=2040)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think mental illness can be treated outside hospital?</td>
<td>70%</td>
<td>45.0%</td>
</tr>
<tr>
<td>Do you think that people with mental illness tend to be mentally</td>
<td>21%</td>
<td>91.5%</td>
</tr>
<tr>
<td>retarded?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think people with mental illness are a public nuisance?</td>
<td>45%</td>
<td>95.2%</td>
</tr>
<tr>
<td>Do you think that people with mental illness can work in regular</td>
<td>74%</td>
<td>25.5%</td>
</tr>
<tr>
<td>jobs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think that people with mental illness are dangerous because of violent behaviour?</td>
<td>52%</td>
<td>96.5%</td>
</tr>
</tbody>
</table>

Table 10. Attitudes towards persons with a mental illness (Yes responses).

<table>
<thead>
<tr>
<th>Public attitude towards mental illness</th>
<th>Tehran (N=800)</th>
<th>Nigeria (N=2040)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you be afraid to have a conversation with him/her?</td>
<td>17% (n)</td>
<td>82.5% (n)</td>
</tr>
<tr>
<td>Would you be upset or disturbed about working on the same job?</td>
<td>40%</td>
<td>78.1%</td>
</tr>
<tr>
<td>Do you think it is possible to maintain a friendship with such a</td>
<td>68%</td>
<td>16.9%</td>
</tr>
<tr>
<td>person?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you be unwilling to share a room with her/him?</td>
<td>31%</td>
<td>81.2%</td>
</tr>
<tr>
<td>Would you be ashamed if people knew someone in your family been</td>
<td>24%</td>
<td>82.9%</td>
</tr>
<tr>
<td>diagnosed with mental illness?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you marry someone with a mental illness?</td>
<td>12%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

There is an interesting study from Iran by (Masoudnia, 2009) about awareness, understanding and attitudes towards epilepsy among different ethnic groups in Iran made in 2008. Some of the questions are similar to ours. He used 100 participants from Tehran and some other places as Sanandage (Curd–settles) and Avas (Arab–settles). The figures from the Tehran sample were almost the same as ours as regards objection to marriage (72% endorse this statement compared to 75% in our sample). The possibility to employ someone with epilepsy was 67% compared to our 72% and objections to their children to associate with children with epilepsy was the same as in our group (17%). As regards possible causes of epilepsy Masoudnia also indicated quite a high number of brain/head injuries as a possible cause.

In Table 11 and 12 are shown some responses on the same questions about knowledge and attitudes about epilepsy in some different countries.
Table 11. Knowledge about epilepsy in some different countries (Yes responses in per cent).

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Hong-Kong 2002*</th>
<th>Austria 2008**</th>
<th>Ethiopia 2008***</th>
<th>Tehran 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever heard of epilepsy?</td>
<td>58</td>
<td>89</td>
<td>70</td>
<td>77</td>
</tr>
<tr>
<td>Do you know of any other word in your language?</td>
<td>19</td>
<td>40</td>
<td>52</td>
<td>58</td>
</tr>
<tr>
<td>Have you ever seen an epileptic fit?</td>
<td>55</td>
<td>36</td>
<td>52</td>
<td>74</td>
</tr>
<tr>
<td>Do you think epilepsy is a form of insanity?</td>
<td>10</td>
<td>11</td>
<td>41</td>
<td>9.4</td>
</tr>
</tbody>
</table>


Generally the Iran sample indicated quite a high level of knowledge about epilepsy and the percentage considering epilepsy as a form of insanity was quite low and comparable to the figures of Austria and Hong Kong (Fong et al, 2002, Spatt et al, 2005).

Table 12. Attitudes towards epilepsy in some different countries (Yes responses in per cent).

<table>
<thead>
<tr>
<th>Attitudes towards epilepsy</th>
<th>Taiwan 1995*</th>
<th>Austria 2008**</th>
<th>Ethiopia 2008***</th>
<th>Tehran 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you had the opportunity would you employ someone with epilepsy?</td>
<td>35</td>
<td>84</td>
<td>24</td>
<td>67</td>
</tr>
<tr>
<td>Would you allow your own child to play with a child having epilepsy?</td>
<td>57</td>
<td>82</td>
<td>60</td>
<td>83</td>
</tr>
<tr>
<td>May anyone in your family marry someone who has epilepsy?</td>
<td>13</td>
<td>48</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Are you willing to work with a person having epilepsy?</td>
<td>35</td>
<td>84</td>
<td>35</td>
<td>80</td>
</tr>
</tbody>
</table>


As regards attitudes towards epilepsy the Tehran sample is also at the same level as the Austrian sample except for the question about letting someone in the family marry someone who has epilepsy. 72% objected to this, but even in Austria 52% had objections to this.

**On differences in levels of experienced stigma**

When comparing different studies as regards levels of experienced stigma, there are no norms for what is high or low levels of stigma. The constructors of ISMI have suggested to use the mid-point of the scale as an indication of high levels of internalized stigma that means levels above 2.5 of the range on the 1-4 scale (Risher et al, 2003). When using this measure there are obvious differences between Iran and Sweden, both as regards epilepsy and mental illness. Another way of discussing this is proposed by Lysaker et al, 2008. They suggest that levels less than 2 is minimal stigma, levels between 2-2.49 is “mild” stigma, levels 2.5-3 might be “moderate” and more than 3 is
“severe” stigma. In Table 13 are levels presented from a number of studies which have used this method. There are interesting differences but these should also be looked at with caution. The studies differ as regards diagnostic categories and other socio-demographic factors that might influence the responses. Again it might be possible to at least discuss tendencies.

**Table 13.** Comparison of stigma levels (in per cent) according to ISMI in Sweden, Iran and Europe.

<table>
<thead>
<tr>
<th>Midpoint</th>
<th>Sweden (N=188)</th>
<th>Tehran (N=138)</th>
<th>Europe* (Schiz N=1211)</th>
<th>Europe** (Affect N=1182)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2.5</td>
<td>84</td>
<td>60</td>
<td>57</td>
<td>78</td>
</tr>
<tr>
<td>&gt;2.5</td>
<td>16</td>
<td>40</td>
<td>43</td>
<td>22</td>
</tr>
</tbody>
</table>

Stigma level
- Minimal (<2): 47.2, 40, 23, 45.6
- Mild (2-2.49): 36.8, 21, 34, 30.8
- Moderate (2.5-3): 11.7, 27, 29.4, 18.1
- Severe (>3): 4.3, 12, 12.5, 3.6


It is also interesting to compare the experienced stigma because of mental illness and epilepsy. In Table 14 is shown a comparison of the means of the subscales between experienced stigma of mental illness in Iran and Sweden and also between experienced stigma of epilepsy in the two settings. Generally the experienced stigma is lower because of epilepsy than because of mental illness in both settings. It is also obvious that the experienced stigma of both conditions is lower in Sweden than in Iran.

**Table 14.** Comparison between Mean (SD) of subscales (ISMI) Sweden (N=188) and Iran (N=138) and (ISEP) Sweden (N=93) and Iran (N=138).

<table>
<thead>
<tr>
<th>Midpoint</th>
<th>ISEP Iran (N=130)</th>
<th>ISEP Sweden (N=93)</th>
<th>ISMI Iran (N=138)</th>
<th>ISMI Sweden (N=188)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alienation</td>
<td>2.06 (0.64)</td>
<td>1.66 (0.68)</td>
<td>2.33 (0.71)</td>
<td>2.57 (0.71)</td>
</tr>
<tr>
<td>Stereotype endorsement</td>
<td>1.96 (0.62)</td>
<td>1.32 (0.35)</td>
<td>2.30 (0.60)</td>
<td>1.61 (0.48)</td>
</tr>
<tr>
<td>Discrimination</td>
<td>2.26 (0.71)</td>
<td>1.33 (0.05)</td>
<td>2.32 (0.67)</td>
<td>1.81 (0.68)</td>
</tr>
<tr>
<td>Social withdrawal</td>
<td>2.10 (0.69)</td>
<td>1.37 (0.50)</td>
<td>2.64 (0.64)</td>
<td>2.08 (0.68)</td>
</tr>
</tbody>
</table>
Islam

One of the ideas behind looking at the situation in Iran and Sweden was the idea that the Islamic thinking that is playing an important role in Iran might have some implications for the perception of the two disorders we are looking at. We had no direct questions other than when asking about some possible causes for epilepsy and mental illness. In both cases a rather limited number indicated the will of God as possible cause/background to falling ill. In some of the open-ended responses the will of God was mentioned, but basically this notion was not very prevalent in the study. To get closer to an idea what the Islamic teaching might mean it is probably necessary to make some qualitative studies first followed by more quantitative studies.

Collectivistic vs. Individualistic societies

One way of looking at different societies is the role of the individual member in relation to other members of society. In a collectivistic culture emphasis is on social organizations such as the family and the importance of a person's immediate group and the relations between members of this group. Individualistic cultures on the other hand places high value on individual freedom and stresses the self-directed autonomic individual. Western countries and especially Sweden is considered as one of the most individualistic cultures in the world. Iran is still seen as a more collectivistic culture even though there is a tendency towards a more individualistic culture, especially amongst the highly educated groups in Tehran and other big cities (Ghorbani et al, 2003). However, it is apparent that Iran and Sweden are good examples of an individualistic and a collectivistic culture. I think the emphasis that is put on avoiding persons with epilepsy and mental disorders to marrying into the family is a good example of a more collectivistic culture where the interests of the family prevail over the individual interests. The Swedish sample on the other hand reported a higher level of self-blame and feelings of alienation, which might be an indication of a more individualistic culture in Sweden.

Implications

Stigma because of mental disorders and epilepsy is still a big problem in many cultures. Stigma has many consequences for the individual person, for the family, but also for the society at large. So, what can be done? There are now many efforts all over the world to reduce stigma of both epilepsy and mental disorders (Corrigan 2002, Rosen et al, 2000). One way has been to run special anti-stigma campaigns addressing the general public to inform and increase the knowledge about the disorders and to reduce misconceptions such as the TIME TO CHANGE campaign in UK, The Global Fight against the Stigma of Schizophrenia worldwide (Sartorius et al, 2005).
and SEE ME national campaign in Scotland to end the stigma and discrimination of mental illness.

WHO also established a joint project with the International league against Epilepsy (ILAE) and International Bureau for Epilepsy (IBE) named Out of the Shadows, a global Campaign to improve acceptability, treatment, services and prevention of epilepsy worldwide (Who, 1997).

There are also a few projects developed to increase the resistance in patients and their ability to counteract stigma (Sibitz et al, 2009), such as Maryland university Ending Self-Stigma (ESS) method which consists of nine weekly 90-minute sessions with lectures, discussions, sharing of personal experiences, teaching and practicing, problem-solving and group support. Results shows that ESS is a helpful intervention for reducing internalized stigma (Lucksted et al, 2011).
CONCLUSION

The internalized experience of stigma in mentally ill patients in Tehran was higher than in persons with epilepsy. On the other hand those with epilepsy had higher education but were less often employed. This shows that even though they felt less stigmatized there is less opportunities for them in our society.

It is interesting to find that epilepsy is mostly considered caused by brain disorders, but quite a few also indicated the will of God (17%). This is in contrast to the much lower numbers indicating the will of God as a cause of mental illness (6%). It could be argued that Iranians accept and believe more in the will of God as regards internal diseases than as regards mental disorders, God’s will has more impact on biologic symptoms than human behaviour.

Tehranian’s had higher education than the Swedish samples but education still had negative impact on their willingness to marry someone with epilepsy. Seeking happiness in big cities with better medical access doesn’t necessary means finding it.

Other reasons for higher stigmatization in Iranian patients compared to Swedish patients is their different approaches to seek public health providers. Family and friends in Iran have a central role in supporting and offering solutions when someone has a problem. Seeking help from the external world is often the last resort. This is possibly because of our collective way of living and a lower faith in social resources. It is also interesting to keep in mind that in my knowledge we had had no campaigns to combat stigma because of mental illness or epilepsy as in many European countries. This gives me hope to think positive about future actions against stigma in Iran with intense efforts to raise public knowledge and change the prevailing negative attitudes.
ACKNOWLEDGEMENTS

I would like to take this opportunity to express my gratitude to the people who have been instrumental in the successful completion of this project. Service users of Rasoul and Navab Psychiatry Ward and members of Epilepsy association for their contribution in sharing their feelings.

I would like to show my greatest appreciation and gratefulness to Professor Lars Jacobsson. I can’t say thank you enough for your tremendous support. You motivated and encouraged me every time I was discouraged. Without your guidance and noble experiences this project would not have happened. I am really truly honoured to be your PhD student. My gratitude to Kerstin Jacobsson and her unique kindness that gave me a home away from home. I could not have asked for better role models, inspirational, supportive, and patience.

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I could not be prouder of my academic roots and hope that I can in turn pass on the research values and the dreams that they have given to me.

To all my friends and family who supported me and their faith on me.

My cousin Dr. Sarvenaz Ghanean who advised me on my presentations and her fraternity.
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To my husband, my teammate Dr. Parham Hashmezadeh. His lovely support and elite intellect has made many impossibles possible for me, thank you darling.

Finally to my precious miracle, my daughter Ariana, to my hopes and dreams for you.
REFERENCES


Masoudnia E. Awareness, understanding and attitudes towards epilepsy among Iranian ethnic groups. Seizure 2009;18:369-373.


# APPENDIX 1

## Internalized stigma of mental illness (ISMI)

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel out of place in the world because I have a mental illness.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>Mentally ill people tend to be violent.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>People discriminate against me because I have a mental illness.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>I avoid getting close to people who don’t have a mental illness to avoid rejection.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5.</td>
<td>I am embarrassed or ashamed that I have a mental illness.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6.</td>
<td>Mentally ill people shouldn’t get married.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7.</td>
<td>People with mental illness make important contributions to society.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8.</td>
<td>I feel inferior to others who don’t have a mental illness.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9.</td>
<td>I don’t socialize as much as I used to because my mental illness might make me look or behave “weird”.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10.</td>
<td>People with mental illness cannot live a good, rewarding life.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11.</td>
<td>I don’t talk about myself much because I don’t want to burden others with my mental illness.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>12.</td>
<td>Negative stereotypes about mental illness keep me isolated from the “normal” world.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13.</td>
<td>Being around people who don’t have a mental illness makes me feel out of place or inadequate.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15.</td>
<td>People often patronize me, or treat me like a child, just because I have mental illness.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16.</td>
<td>I am disappointed in myself for having a mental illness.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17.</td>
<td>Having a mental illness has spoiled my life.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>18.</td>
<td>People can tell that I have a mental illness by the way I look.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>19.</td>
<td>Because I have a mental illness, I need others to make most decisions for me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>---</td>
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<td>---</td>
<td>---</td>
</tr>
<tr>
<td>20. I stay away from social situations in order to protect my family or friends from embarrassment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. People without mental illness could not possibly understand me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. People ignore me or take me less seriously just because I have mental illness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I can’t contribute anything to society because I have mental illness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Living with mental illness has made me a tough survivor.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Nobody would be interested in getting close to me because I have a mental illness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. In general, I am able to live my life the way I want to.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. I can have a good, fulfilling life, despite my mental illness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Others think that I can’t achieve much in life because I have a mental illness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Stereotypes about the mentally ill apply to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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## APPENDIX 2

**Questionnaire on attitudes and knowledge about mental illness and epilepsy**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think mental illness can be treated outside hospital?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think that people with mental illness tend to be mentally retarded?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think people with mental illness are a public nuisance?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think that people with mental illness can work in regular jobs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think that people with mental illness are dangerous because of violent behaviour?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you be afraid to have a conversation with him/her?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you be upset or disturbed about working on the same job?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think it is possible to maintain a friendship with such a person?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you be unwilling to share a room with him/her?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you be ashamed if people knew someone in your family been diagnosed with mental illness?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you marry someone with a mental illness?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you had the opportunity would you employ someone with epilepsy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you allow your own child to play with a child having epilepsy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May anyone in your family marry someone who has epilepsy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you willing to work with a person having epilepsy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you ever heard of epilepsy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you know of any other word in your language?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you ever seen an epileptic fit?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think epilepsy is a form of insanity?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 3

Farsi version of ISMI

با تشکر از همکاری شما.

ما در این پرستش‌های روان طبیعی، عصب و روان استفاده نمودیم. خواهشمندم هرگونه که میل هستید به این وازه توجه فرمایید.

برای هر سوال علامت گذاری کنید.

کامل موافق  □  مخالف  □  مخالف

جلسه: مرد  □  زن  □  وضعیت تأمل: مجرد □  متأهل □  بیوه  یا  جدا شده

شغل: شاغل  □  پیکار □  تحصیلات: پیواد  □  خواندن و توستن □  راهنمایی □  دبیرستان □  دیپلم □  ليسانس

پایان

1. احساس می کنم چگونه در این دنباله چرا می تواندا به بیماری اعصاب و روان هستن.

کامل موافق  □  مخالف  □  مخالف

2. افراد مبتلا به بیماری اعصاب و روان اکثر خشن هستند.

کامل موافق  □  مخالف  □  مخالف

3. مردم بین من و دیگران به دلیل بیماری اعصاب و روان ام تعیین کننده می شوند.

کامل موافق  □  مخالف  □  مخالف

4. از ترس یادگیرید نشان توسط افرادی که بیماری اعصاب و روان ندارند که کسی از آنها می کنیم.

کامل موافق  □  مخالف  □  مخالف

6. افرادی که دچار بیماری اعصاب و روان می باشند نباید ازدواج کنند.

کامل موافق  □  مخالف  □  مخالف

6. افراد مبتلا به بیماری اعصاب و روان نقص مهمی در کمک به جامعه دارند.

کامل موافق  □  مخالف  □  مخالف

8. در برای کسانی که دچار بیماری اعصاب و روان نیستند، احساس کمیکی می کنیم.
به اتفاق گذشته با دیگران مشترک نمی‌کنیم؛ زیرا به خاطر بیماری اعصاب و روان ممکن است ظاهر و رفتار مختلفی داشته باشیم.

10. افراد مبتلا به بیماری اعصاب و روان نمی‌توانند زندگی خوب و نوری بخشی داشته باشند.

11. در موارد خودم و دیگران گفتنی نمی‌کنیم زیرا ممکن است بیماری اعصاب و روان ممکن است دیگران را باشد.

12. کلیشه‌های منفی در مورد بیماری اعصاب و روان می‌تواند باعث احساس بیکانگی و بی‌لایقی می‌شود.

13. حضور در میان افرادی که بیماری اعصاب و روان دارد، به من احساس بیکانگی و بی‌لایقی می‌دهد.

14. از ظاهرنشدن در اجتماع با فردی که اکثریت دچار بیماری اعصاب و روان می‌باشد احساس اسیدگی می‌کنم.

15. مردم خیلی از اوقات به دلیل اینکه بیماری اعصاب و روان دارم به من ترحیم می‌کنند یا مانند کودک با من رفتار می‌کنند.

16. به دلیل بیماری اعصاب و روان از خودم احساس نامیده می‌کنم.

17. بیماری اعصاب و روان زندگی مرا تیه‌گر کرده است.

18. مردم از ظاهر می‌ترود که بیماری اعصاب و روان می‌شوند.
۱۹. به دلیل اینکه مبتلا به بیماری اعصاب و روان هستم به دیگران نیاز ندارم تا بیشتر تصمیمات را برای من بگیرند

کاملًا موافق □ مخالف □

کاملًا موافق □ مخالف □

از موظفیت‌های اجتماعی دوری می‌کنم تا خانواده و دوستانم را از شرمندی در اجتماع محافظت کنم.

کاملًا موافق □ مخالف □

کاملًا موافق □ مخالف □

۲۱. افرادی که بیماری اعصاب و روان تندارند توافقی درک می‌کنند.

کاملًا موافق □ مخالف □

کاملًا موافق □ مخالف □

یک فقط برای اینکه بیماری اعصاب و روان دارم مرا جدی نمی‌گیرند، یا انسان‌ها از کننده.

کاملًا موافق □

کاملًا موافق □ مخالف □

۲۲. به دلیل بیماری اعصاب و روان ام هیچ چیزی برای ارتقاء به جامعه ندارم.

کاملًا موافق □ مخالف □

کاملًا موافق □

۲۴. زندگی با بیماری اعصاب و روان از میان فردی پرطرفت ساخته است.

کاملًا موافق □ مخالف □

کاملًا موافق □

۲۵. کسی ممکن نیست با من صحبت کنند یا سعی می‌کنند به بیماری اعصاب و روان می‌پیامد.

کاملًا موافق □ مخالف □

کاملًا موافق □ مخالف □

۲۶. به طور کلی می‌توانم آن‌گونه که مایل هستم زندگی کنم.

کاملًا موافق □ مخالف □

کاملًا موافق □

۲۷. علی رغم اینکه مبتلا به بیماری اعصاب و روان هستم می‌توانم زندگی خوب و رضایت‌بخش داشته باشم.

کاملًا موافق □ مخالف □

کاملًا موافق □

۲۸. دیگران براین باورند که به دلیل بیماری اعصاب و روان نمی‌توانم دستاوردهای زیادی از زندگی داشته باشم.

کاملًا موافق □ مخالف □

کاملًا موافق □

۲۹. آنچه می‌توانم درباره بیماری اعصاب و روان می‌گویدن در مورد من صدق می‌کند.

کاملًا موافق □ مخالف □

کاملًا موافق □

با تشکر از همکاری شما