INTERNALIZED STIGMA AMONG PATIENTS WITH DEPRESSION: COMPARISON BETWEEN EMPLOYED AND UNEMPLOYED GROUP

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CERTIFICATION

This is to certify that the candidate, Dr. Naemah binti Abdul Rahim, had carried out this research project, and to the best of my knowledge, this dissertation is entirely her work.

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ABSTRACT

Internalized stigma among patients with depression: comparison between employed and unemployed group.

Introduction

Experiences of depression are often accompanied by perceptions of stigma. Internalized stigma has a variety of adverse effects such as lower self- esteem, impaired social adaptation, unemployment, reduced adherence to psychiatric medication and limited social support. Identifying potential risk that can become barrier to recovery will help in managing people with depression.

Objectives

General objective of this study was to assess internalized stigma among patients with depression. The secondary objective for this study was to identify the possible factors that might be associated with internalized stigma among people diagnosed with depression.

Method

This was a cross-sectional study. The study done on patients who had been diagnosed to have depression for at least a month, who attending outpatient psychiatric clinic in Hospital Raja Permaisuri Bainun Ipoh. Ethical approval had been obtained from Ethic committee Ministry of Health. The participants were given socio-demographic questionnaire and ISMI scale to be answered. The participants then were assess for severity of depression based on Hamilton Depression Rating Scale (HAM-D). Medical records were traced to fill in the clinical history. Statistical analysis was done using

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Statistical package for Social Science (SPSS) version 22.0 software. Univariate and multivariate analysis was done for the associated factors.

Results

204 patients were recruited among depressed patients. 70% of the patients were having internalized stigma, ranging from mild to severe in severity. After univariate analysis, severity of depression ($p < 0.001$) and past history of suicide ($p=0.037$) was found to have significant positive association with high levels of internalized stigma among people with depression. Only severity of depression was found to be significant after multivariate analysis done. No association was seen between levels of internalized stigma with employment status and other demographic profile.

Conclusion

This study found significant association between levels of internalized stigma with severity of depression and past history of suicide in patients who had depression. This positive correlation could indicate that screening for internalized stigma among people with depression may help in improving management of people with depression, in term of improving severity of depression and suicide prevention.

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ABSTRAK

Stigma Dalaman di kalangan pesakit yang menghidapi kemurungan: perbandingan di antara orang-orang yang bekerja dan tidak bekerja.

Pengenalan

Kemurungan sering disertai dengan persepsi stigma. Stigma dalaman mempunyai pelbagai kesan buruk, termasuk:rasa rendah diri,penyesuaian social yang terjejas, pengangguran, mengurangkan pematuhan kepada ubat-ubatan psikiatri dan sokongan sosial yang terhad. Mengenal pasti potensi risiko yang boleh menjadi penghalang kepada pemulihan akan membantu dalam menguruskan pesakit yang mengalami kemurungan.

Objektif

Kajian ini bertujuan untuk menilai tahap stigma dalaman di kalangan pesakit yang mengalami kemurungan. Objektif tambahannya adalah untuk mengenal pasti faktor-faktor yang dikaitkan dengan stigma dalaman di kalangan pesakit yang mengalami kemurungan.

Tatacara

Ini adalah kajian keratan rentas. Kajian dilakukan ke atas pesakit yang telah disahkan mempunyai kemurungan untuk sekurang-kurangnya sebulan, yang menghadiri klinik psikiatri di Hospital Raja Permaisuri Bainun Ipoh. Kebenaran etika telah diperolehi daripada Jawatankuasa Etika Kementerian Kesihatan Malaysia. Para peserta diberikan borang soal selidik sosio-demografi dan skala ISMI untuk dijawab sendiri. Para peserta

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ketika itu adalah untuk menilai tahap kemurungan menggunakan “Hamilton Depression Rating Scale” (HAM-D). Rekod perubatan telah diperiksa untuk mengisi bahagian sejarah klinikal. Analisis statistik dilakukan dengan menggunakan pakej statistik untuk Sains Sosial (SPSS) versi 22.0. analisis univariat yang telah dilakukan kepada faktor-faktor yang berkaitan.

Keputusan

Untuk fasa kedua kajian, 204 pesakit telah diambil di kalangan pesakit yang mengalami kemurungan. 70% daripada pesakit mengalami stigma dalaman, pada tahap ringan hingga teruk. Selepas analisis univariat, tahap kemurungan ($p < 0.001$) dan sejarah masa lalu bunuh diri ($p = 0.037$) didapati mempunyai hubungan positif yang signifikan dengan tahap stigma dalama di kalangan pesakit yang menghidapi kemurungan. Tiada kaitan dilihat antara tahap stigma dalaman dengan status pekerjaan dan profil demografi yang lain.

kesimpulan

Kajian ini mendapati hubungan yang signifikan antara tahap stigma dalaman dengan tahap kemurungan dan sejarah masa lalu bunuh diri di kalangan pesakit yang menghidapi kemurungan. Daripada keputusan positif ini menunjukkan bahawa saringan stigma dalaman di kalangan penghidap kemurungan boleh membantu dalam meningkatkan pengurusan pesakit dengan kemurungan, dari segi mengurangkan tahap kemurungan dan pencegahan dalam kes bunuh diri.

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CHAPTER 1: INTRODUCTION

Depression is a major cause of disability (Paykel, Brugha, & Fryers, 2005); it is the third leading contributor to the worldwide burden of disease (Worley, 2006). Depression is not only highly prevalent (H.U. Wittchen & Jacobi, 2005; H.U. Wittchen & Pittrow, 2002); it is chronic in nature (D. Lerner & Henke, 2008; Turner, Kantaria, & Young, 2014) besides being associated with high comorbidity (Paykel et al., 2005) and mortality (Mykletun et al., 2007).

Depression among the highest contributor to the worldwide burden of disease (Murray, Lopez , Mathers, & Stein, 2001). An estimated 340 million people are affected globally (H.U. Wittchen & Jacobi, 2005). In Malaysia, the prevalence of depression in a primary care setting was found to be approximately 14.4% (ZamZam, Thambu, Midin, Omar, & Kaur, 2009).

In both specialized services and primary care, depression can be identified. However, only less than half of people with depression are getting treatment (Kohn, Saxena, Levav, & Saraceno, 2004). Depression significantly affects the person's functioning including one's capacity to work and work performance (R.C. Kessler et al., 1999). However, despite the evidence of effective treatment for depression (Millan, Goodwin, Meyer-Lindenberg, & Ove Ögren, 2015), the health-seeking behavior continues to be a challenge (P.W. Corrigan & A.C. Watson, 2002; Sartorius, 2002). Various factors prevent effective care of depression, which include mental health services, inadequate policy, human resources and scarce community, as well as the stigma that associated with having a mental disorder (Lisa J Barney, Kathleen M Griffiths, Anthony F Jorm, & Helen Christensen, 2006).

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Stigma had contributes to the unseen burden of various diseases. From a conceptual point of view, stigma is a mark or sign of disgrace, which usually eliciting negative attitudes to its bearer (Lasalvia et al., 2013). It can be seen as an overreaching term including difficulties associated with knowledge i.e. ignorance or misinformation, attitudes i.e. prejudice namely, emotional distancing, and behavior namely discrimination i.e. exclusion from normal forms of social participation (Lasalvia et al., 2013). Stigma had also challenges many people with severe mental illnesses in which it reduces their sense of self and hope.

To date, there is a lack of studies that investigate internalized stigma among patients with depression compared with schizophrenia. There is even fewer studies examining the relationship of unemployment with depression or other factors that may contribute to higher rate of unemployment among depressed people.

In the present study, our aims are to examine the extent of internalized stigma experiences reported by patients diagnosed to have depression and to assess the relationships between the levels of stigma experiences and their clinical and socio-demographic characteristics. We would also compare the levels of stigma between employed and unemployed depressed patients. This study is using Internalized Stigma of Mental Illness (ISMI) scale to measure the levels of internalized stigma experienced by people with mental illness.

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CHAPTER 2: LITERATURE REVIEW

2.1 DEPRESSION AND BURDEN OF DISEASE

Psychiatric disorders have been recognized as a leading cause of burden of disease and disability worldwide (Brenes, 2007; Forte et al., 2015; Hawthorne, Cheok, Goldney, & Fisher, 2003; Millan, Goodwin, Meyer-Lindenberg, & Ögren, 2015). Among the psychiatric disorders implicated is mood disorders particularly, depression (Brenes, 2007; Hawthorne et al., 2003). Around 150 million individuals are affected worldwide with mental illness with two-thirds moderately or severely disabled (World Health Organization, 2007, 2009).

Results from the National Comorbidity Survey Replication showed a 12-month prevalence for mood disorders was 9.5% (Brenes, 2007; R.C. Kessler, Chiu, Demler, & Walters, 2005). Major depressive disorder is associated with excessive personal suffering for patients who are having depression, great distress to their family and also friends, with major economic and societal costs. Gender differences occur particularly in the rates of the disorders. The report on Global Burden of Disease (World Health Organization, 2007) estimates the point prevalence of Major Depressive Disorders (MDD) to be 1.9% for men and 3.2% for women. The report states the one-year prevalence estimate for men to be 5.8% while for women is 9.5%. The lifetime prevalence of MDD is variable across various studies and range from 4.4% in the Epidemiological Catchment Area study (R.C. Bland, 1992) to as high as 30% in the Virginia Twin Study (Kendler, Neale, Kessler, Heath, & Eaves, 1993).

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In Malaysia, the prevalence of depression does not differ significantly from the report of the (World Health Organization, 2007). The National Health Morbidity Survey IV (The Institute for Public Health, 2011) report, the prevalence of lifetime depression was 2.4% and 1.8% for current depression. A review done by Muktar & Tian (2011) stated the prevalence of depression in Malaysia varied from 3.9% to 46%, with the pick-up rates were almost similar to Western results, which are between 3.9 to 20.7%. In a review of research on depression in Malaysia, Ng (2014) reported the prevalence to be about 8% to 12% regardless of the geographical difference of the study settings. The numbers were higher among those with comorbid medical condition and also among women of low socio-economic background (Ng, 2014).

Depression in which predominate by women and had affected nearly 1 in 3 people in the community, had create a serious public health problem (R.C. Kessler et al., 1999; R.C. Kessler et al., 2005). MDD is associated with markedly reduce in the quality of life (Adler et al., 2006; Debra Lerner, Adler, Chang, Lapitsky, et al., 2004). Wells et al (1991) in the report on Data from the Medical Outcome showed patients with depression reported poorer quality of life and role functioning than did those with eight major chronic medical conditions, i.e. diabetes, coronary heart disease, and arthritis.

The poor functioning showed significant association with depressive symptoms. A study done by Wells et al (1989) showed unique association of days in bed with depressive symptoms, and it was significantly higher than the comparable association with diabetes, hypertension and arthritis.

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Research in primary care and community-based populations revealed that depression has an adverse effect on employment, resulting in absenteeism, job loss, and "presenteeism" (reduced at productivity and work job performance). Another survey done in community also confirmed that major depression had highest impact on productive work, with the person with depression losing four times as many working days over 6 months compared to workers without depression. The results of the DEPRES (Depression research in European Society) survey established that the high prevalence of depression in the community and the burden that place on the individual with depression in terms of reduced quality of life and on society in terms of lost productivity and healthcare consumption (Lépine, Gastpar, Mendlewicz, & Tylee, 1997). The results also showed that the extent of absenteeism was related to severity of depression. In this study also, individuals with major depression were also less likely to be in paid employment (Lépine et al., 1997).

As well as time lost from work (absenteeism), individuals with depression also appear to function less well at the work place (Adler et al., 2006). This reduced performance had been labelled "presenteeism". Suboptimal performance may reflect an underlying neurocognitive deficit in major depression which manifests itself as an inability to focus on tasks (Katon, 2009). A survey of tertiary sector workers in the USA indicated that such effects could be equivalent to around 2.3 days' work time actually lost per month. Productivity losses that related to depression have showed to surpass the costs of effective treatment (Wang et al., 2014).

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2.2 PUBLIC OPINION ON DEPRESSION AND MENTAL ILLNESS

As discussed above, depression can lead to significant distress and disability destabilizing quality of life. Despite this knowledge, and the availability of effective evidence-based treatment many people with depression do not seek out treatment when in need or participate in interventions. The discrimination and prejudice that consist of stigma of mental illness is one significant cause for the disconnection between care seeking and effective treatments (P.W. Corrigan, Druss, & Perlick, 2014).

Although the understanding among public about the nature of mental illness has improved since the 1950s, there is still a strong susceptibility towards avoidance (P. Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). According to one survey, 85% of American believes patients with mental disorder are not to blame for their conditions; with only 26% have faith in that people are considerate and understanding, and in a quarter of young adults believe that mental illness can eventually improve (Council, 2006).

Despite the general feeling that negative attitudes have improved with better public understanding of mental illness (Wood, Birtel, Alsawy, Pyle, & Morrison, 2014), research suggests otherwise (P.W. Corrigan & A.C. Watson, 2002; Crowe, Averett, & Scott, 2015). Stigmatizing attitudes have worsened through the years (P.W. Corrigan et al., 2002). Many authors note the common fear that is present is people with mental illness are "dangerous" (Stephen P Hinshaw, 2005; Bruce G Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999). This pattern of rejection with hostile attitudes and discriminatory behavior have profound damaging effects on people who receive psychiatric diagnoses (Gateshill, Kucharska-Pietura, & Wattis, 2011; Kvaale & Haslam, 2016). These reasons, keep people from seeking treatment (Dietrich, Mergl, Freudenberg, Althaus, & Hegerl, 2009; G. E. Simon, Fleck, Lucas, Bushnell,

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& LIDO Group, 2004).

Though compared with schizophrenia there is less negative attitudes towards major depression (Björkman, Angelman, & Jönsson, 2008; Hsiao, Lu, & Tsai, 2015; Wolkenstein & Meyer, 2009; Wood et al., 2014). In a study by Wolkenstein & Meyer (2009) with regards to attitudes towards people with current depression and current mania, found subjects were more concerned rather than frightened about an individual experiencing a depressive episode.

A study by Wood et al (2014) showed stigma associated with a lower degree of prejudicial beliefs and fearful feelings and a lesser tendency to discriminate against individuals suffering from a mental illness. Depression was related with more negative labels (stereotypes) than anxiety which supports earlier literature outlining that people who suffered from depression are observed and marked as lazy and not easy to talk to (Thornicroft et al., 2007).

To date, attitudes toward people with depression have been studied less frequently than attitudes toward mental illness in general. In Switzerland, Lauber and colleagues (2003) found that members of the general public contacted in telephone surveys identified the following as the most likely causes of depression: difficulties within the family or the relationship (56.6%), occupational stress (32.7%), unspecified further stress (19.9%), traumatic events (17.9%), depressive disorder (14.1%) and further unspecified illnesses (11.6%)(Lauber, Nordt, Falcato, & Rössler, 2003)

S.P. Hinshaw (2005) describes 4 dimensions of stigmatization that can increase its strength or its effects. These include: concealability; often a factor when symptoms of depression are

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not apparent on the surface, leading to anxiety about whether or not to reveal the condition. Second is the chronicity of the condition, leading to a far greater likelihood that it will be stigmatized. Next is perceived dangerousness, associated with depression paucity through the risk of suicide. Controllability is the belief that people can control their symptoms, a belief that often diminishes, compassion and leads to blame and anger.

In a survey of attitudes toward people with mental illness in general, findings from the MacArthur Mental Health Module, 1996 General Social Survey (Phelan, Link, Stueve, & Pescosolido, 2000) showed that Americans are hesitant to interact with people who have mental illnesses: 38% are reluctant to be friends with a person having mental health difficulties, 64% are reluctant to have a person with Schizophrenia as a close co-worker and more than 68% are reluctant to have a person with depression marry into their families.

2.3 MENTAL ILLNESS AND STIGMA

Throughout the world, experiences of depression are often accompanied by perceptions of stigma (Kulesza, Raguram, & Rao, 2014). One of the most commonly cited definition of stigma comes from Erving Goffman (1963), who defined stigma as the dehumanization of individuals based on their social identity or participation in a negative or an undesirable social category.

Stigma can be defined as the 'social-status loss and discrimination triggered by negative labels that have become connected in a certain society'(Ritsher & Phelan, 2004). Stigma is therefore a socially constructed idea, which addresses three interrelating stages: institutional (structural stigma), interpersonal (social stigma) and individual (self-stigma) (James D

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Livingston & Jennifer E Boyd, 2010). Structural stigma occurs at a macro-level and can appear in rules, policies and practices of both public and private entities, since inherent authority allows them to control and limit the rights and chances of minority groups (Patrick W Corrigan, Markowitz, & Watson, 2004). In contrary, interpersonal stigma happens at a meso-level. Public or social stigma is the phenomena of both discrimination and endorsement of the social groups or general population against stigmatized people (Patrick W Corrigan & Amy C Watson, 2002).

It is vital to ponder that the harm caused by stigma is not purely a direct result of the discrimination by others, although obvious social exclusion and discrimination is often expressed by people with a mental illness, (Lauber, 2008). Comparatively, stigma functions through the internalization of the public attitudes and beliefs by the stigmatized person. In view of that, internalized stigma, also known as self-stigma, can be generally defined as the subjective and internal experience of stigma. A concise definition is provided by Ritsher et al (2003): 'Internalized stigma is the devaluation, shame, secrecy and withdrawal triggered by applying negative stereotypes to oneself'.

It is predicted that about a third of people with serious mental illness experience high levels of internalized stigma that create an important obstacle to recovery (Philip T Yanos, Roe, & Lysaker, 2011). Mental illness-related stigma has been associated with delay in treatment seeking and no-adherence to treatment (Rüsch, Angermeyer, & Corrigan, 2005), poor social functioning (Lasalvia et al., 2013) and difficulty obtaining housing and employment (Patrick Corrigan, 2004). In other international studies, it was reported that mental illness stigma was significantly associated with worse physical quality of life, employment limitations and worse social functioning among individuals with mental illness (Alonso et al., 2009).

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Stigma often reduces life opportunities, limits social contacts, reduces self-esteem, and make people more reluctant to seek help, leading to postponed treatment and more rapid progression of the disease (Gaebel, Zäske, & Baumann, 2006). Taken together, these factors may lead to increase need for rehabilitation measures (Gaebel et al., 2006).

2.4 IMPACT OF STIGMA TO DEPRESSIVE PATIENT

Depression is not stigmatized as heavily as many other serious mental illnesses such as schizophrenia (Gaebel et al., 2006), perhaps because so many of its symptoms are easier to hide than those of other disorders. However, its burden of stigma, stereotypes, and discrimination is still sufficient to deprive people of hope, opportunities, well-being and help that might save their lives.

Depression related stigma has been associated with greater depression severity (Rusch, Kanter, Manos, & Weeks, 2008). Furthermore, perceived stigma has been associated with a more somatic than psychological presentation of symptoms (Rao, Young, & Raguram, 2007). A result from one study done in South India showed that stigma scores were significantly associated to depressive symptoms, as showed by Hamilton scale scores and prominence ratings for depressive symptoms (Raguram, Weiss, Channabasavanna, & Devins, 1996). International data also suggests that people with depression reported being stigmatized by family members and within places of employment (Lasalvia et al., 2013), and the number of depressive episodes was significantly and positively associated with depression-related stigma (Lasalvia et al., 2013).

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People with depression are often reluctant to seek professional help, with estimations demonstrating more than half of people with depression in the community do not consult a health professional (Roger C Bland, Newman, & Orn, 1997). According to latest research, this reluctance is most obvious with respect to help-seeking from mental health professionals (Burns et al., 2003; Jorm et al., 2000a). This maybe because of the impact of stigma which can involve their perceptions of others' negative reactions (perceived stigma) and people's own reactions to depression and help-seeking (internalized stigma) (Lisa J Barney et al., 2006; Cooper-Patrick et al., 1997; Endicott, 1996).

Mashiach- Eizenberg et al (2013) found that self-stigma may lead to negative outcomes such as diminished sense of meaning in life, feelings of embarrassment, and decreased sense of empowerment, quality of life and social support. The results from the study are also similar with earlier research that revealed stigma-related stress to be associated with increased hopelessness and lower self-esteem among people with serious mental illness (Mashiach-Eizenberg, Hasson-Ohayon, Yanos, Lysaker, & Roe, 2013).

Apart from that, internalized stigma would also compromise social functioning by leading to social isolation and worse vocational outcome (Philip T Yanos, Roe, & Lysaker, 2010). Similarly, Corrigan et al (2009) hypothesized that self-stigma results in a "why try" effect which negatively influences the pursuit of life goals. One randomized controlled trial examined association between internalized stigma and social functioning had showed positive correlation between changes in internalized stigma and with amount of change in functioning over time (Philip Theodore Yanos et al., 2012). This findings suggest interventions aiming internalized stigma might influence functioning.

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CHAPTER 3: RATIONALE AND OBJECTIVES

3.1 Rationale of the study

Internalized stigma is not something regularly mentioned among people with mental illness. It is seldom mentioned because it promotes low self-esteem and some people experience discrimination from the public that worsened their condition. Up till today, most of the study that examine internalized stigma were done among patients with schizophrenia or substance use disorder, but only a few study done among patients with depression.

1. There is no similar study done locally.
2. This study will discover the association of stigma with the severity of depression that will help clinician to identify and improve patient care and management.
3. The findings from this study can be the building blocks for future research to improve in the management of patients who experience higher level of stigma.

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3.2 General objectives

To assess internalized stigma among depressed patients.

3.3 Specific Objectives

1. To determine the association between levels of internalized stigma with the severity of depression.
2. To determine the association of internalized stigma with employment status among depressed patients.
3. To determine the factors associated with internalized stigma among patients with depression.

3.4 Null hypotheses

1. There are no differences in the level of internalized stigma between employed and unemployed patients with depression.
2. Higher levels of internalized stigma is not associated with increased severity of depression

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CHAPTER 4: METHODOLOGY

4.1 Study Setting

Hospital Raja Permaisuri Bainun (HRPB) is tertiary government hospital under the Ministry of Health, Malaysia. It is located in Ipoh, Perak. It was built initially as a district hospital in 1981 with 50-beds facilities. Since then it has undergone multiple phases of development and upgrades until presently. In 12th June 2008, the hospital name was change from Hospital Ipoh to HRPB.

The department of psychiatry is situated in the Kompleks Klinik Pakar building. The department offers outpatient clinic, inpatient services and community psychiatry services. The follow-up clinic is held weekly from Tuesday to Thursday, meanwhile new cases clinic is held weekly from Monday to Friday.

4.2 Study Design

This is a cross-sectional study, using the convenient stratified sampling method to recruit depressed subjects attending the outpatient clinic in HRPB.

4.3 Study Duration

The study was conducted from August 2015 to December 2015.

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4.4 Study Population

Universal sampling method was used. All patients with the diagnosis of major depressive disorder (MDD), attending the outpatient psychiatric clinic of HRPB during the study periods were recruited.

Inclusion criterias:

-Subjects meeting the DSM 5 criteria for MDD

- Subjects aged 18 years and above

- Subjects who are able to read and understand either English, Malay or Chinese language.

- Subjects who are consented for the study.

Exclusion criterias:

- Subjects who refused to give consent or unable to co-operate with the interview.

- Subjects with underlying organic brain syndrome and had impaired cognitive function such as dementia and/ or mental retardation.

- Subjects who are younger than 18 years old.

- Subjects who are acutely psychotic.

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4.5 Sample Size Determination

The sample size needed for this study was calculated using the sample size calculator (Naing, Winn, & Rusli, 2010) based on the formula;

$$n = Z^2 P (1- P) / d^2$$

Z= Z statistic for a level of confidence

P= the expected prevalence

d= precision

There was one study that calculated prevalence of internalized stigma among people with mood disorder. The study was by (Brohan, Gauci, Sautorius, & Thornicroft, 2011) which reported that 3.6% of the participants have high levels of self-stigma. The level of confidence selected was 95% and precision was set at 0.05. The Z statistic corresponding to this level of confidence was 1.96.

The sample size calculation is as follows;

$$n = \frac{(1.96)^2 (0.036) (1- 0.036)}{(0.05)^2}$$

n= 53

A sample size consisting of 53 individuals in the employed depressed group and 53 individuals in the unemployed depressed group is taken to adjust for confounding variables and to allow for expected non-response rate.

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4.6 Study Procedure

Approval for the study was obtained from the ethics committee Ministry of Health. This study was conducted through the following steps:

- Patients who fulfilled both the inclusion and exclusion criterias were identified and included in this study.
- Patients were then provided with information and explanation with regards to the aims of the study.
- Consent was obtained from patients who agreed to participate.
- The demographic data was collected by the investigator and from the patient's medical records, following a prepared pro-forma.
- The subjects filled in the internalized stigma of mental illness (ISMI) scale in either English, Malay or Chinese version that subjects understand better.
- The investigator then interviewed subjects and clinically assessed for depression using Hamilton Depression Rating Scale (HAM-D).
- The investigator collected patient's relevant data into a socio-demographic data sheet, including employment data and clinical information such as duration of depression and type of treatment.

The data was kept confidential in a file by the investigator and subsequently data will be entered into SPSS version 22.0 software and analyzed accordingly.

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4.7 Assessment tools

Socio-demographic and clinical profile questionnaire

The basic socio-demographic data of the subjects was collected using the questionnaire developed by the research team.

The first part of the questionnaire consisted of questions on social-demographic data which included the subject's age, gender, marital status, level of education and employment status.

The second part of the questionnaire consisted of questions on employment. This questionnaire is only answered by subjects from the employed group. The questions include type of jobs, total income, duration of employment and any previous unemployment.

The third part of the questionnaire consisted of questions on the clinical profile that gathered data on the duration of illness, history of suicide, previous admission to psychiatric ward, history of electroconvulsive therapy and types of medications.

The Internalized Stigma of Mental Illness Scale (ISMI)

I.S.M.I is a self-rated questionnaire designed to measure internalized stigma among people with mental illness. It has 29 items rated on Likert scale (0 to 4), which was divided into five categories; alienation, discrimination experience, social withdrawal, stereotype endorsement and stigma resistance. Each of the items has a set of four response categories: Strongly Agree, Agree, Disagree and Strongly Disagree; with strongly disagree response receiving a score of 1 whereas strongly agree response receiving a score of 4. The total score is divided by the total number of answered items. The scores range from 1.00 to 4.00, and higher score indicates higher level of internalized stigma. For this study, investigator decided to use 2-category method for interpretation of scores.

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Interpretation of scores:

- 4-category method (following the method used by (Lysaker, Roe, & Yanos, 2007):

1.00-2.00: minimal to no internalized stigma

2.01-2.50: mild internalized stigma

2.51-3.00: moderate internalized stigma

3.01-4.00: severe internalized stigma

- 2-category method (following the method used by(Ritsher & Phelan, 2004).

1.00-2.50: does not report high internalized stigma

2.51-4.00 reports high internalized stigma

For this study, investigator used three language versions of ISMI; which are English (original), Malay language and Chinese language. The original (English) version and Chinese version of ISMI has a good reliability and validity and had undergone a considerable amount of psychometric studies (Boyd, Adler, Otilingam, & Peters, 2014). However, both of this scale has not yet been validated in local settings. Prior to this study, there was no validated Malay version of ISMI available for use in research and clinical settings. Therefore the English version of ISMI was translated into Malay version for the use of this study. The Malay version of ISMI showed an impressive internal consistency (Cronbach's alpha = 0.91) and concurrent validity (Rahim, Ng & Hashim, 2016). The Malay version demonstrated good psychometric properties in the evaluation of internalized stigma among a group of patients diagnosed with mental illness in an out-patient setting. It

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was easy to administer and suitable as a valid and reliable questionnaire in assessing internalized stigma among people with mental illness in Malaysia.

Hamilton Depression Rating Scale (HAM-D)

HAM-D It's a 17-item clinical research instrument, used as a clinician-rated rating scale to measure the severity and level of depression. The scale was developed by Professor Max Hamilton in 1960 (Hamilton, 1960).The scale has undergone a considerable amount of psychometric study and is now accepted as a valid standards of symptom outcome assessment in studies of major depression. The scale is designed for adults and is used to rate the severity of their depression by probing mood, feeling of guilt, suicide ideation, insomnia, agitation or retardation, anxiety, weight loss, somatic symptoms and insight.

HAM-D has been translated into a number of languages and been used in many clinical trials. All interviews and assessments using HAMD-D were conducted by the investigator. Each items on the questionnaire is scored on 3 or 5 point scale, depending on the item. Assessment time estimated at 20 to 30 minutes. The total score shows the severity of depression.

- 0 - 7 = Normal
- 8 - 13 = Mild Depression
- 14-18 = Moderate Depression
- 19 - 22 = Severe Depression
- > 23 = Very Severe Depression

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4.8 Statistical analysis

All data collected were analyzed using Statistical package for Social Science (SPSS) version 22.0 software.

The descriptive statistics were used to examine baseline characteristic data which includes socio-demographic, employment and clinical variables. The total mean scores for the ISMI were calculated as well for each single item. Chi-square test was conducted to study the association of the ISMI scores with socio-demographic variables. The comparison of ISMI scores between subjects who are employed and unemployed was analyzed using independent T-test. This comparison was further analyzed with linear regression analysis adjusted for the HAM-D scores. Pearson correlation (r) was used to examine the relation between ISMI and Ham-D.

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4.9 Flow Chart

Depressed patients undergoing follow up in Hospital Raja Permaisuri Bainun Ipoh

Those who fulfilled the inclusion criteria will be invited to join the study and they will be given explanation regarding the study.

Consent will be obtained from the patients.

- Questionnaires on demographic data
- Questionnaires on employment status
- Clinical Questionnaire on depression
- Internalized Stigma of Mental Illness (ISMI)
- Hamilton Depression Rating Scale (HAM-D)

Data entry and statistical analysis were performed

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4.10 Ethical consideration

The study was registered with the National Medical Research Register (NMRR) of Ministry of Health, Malaysia in July 2015 (Reference number: NMRR-15-1123-26088). Ethical approval was obtained from Ministry of Health Research and Ethics Committee (MREC). Approval was also obtained from the Director of HRPB.

The informed consent was obtained from each patient before they entered the study. A detailed explanation and information about the study was given to the patient prior to taking their written consent. All patients were reassured of the confidentiality of the information given during the study.

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CHAPTER5: RESULTS

5.1 Overview of Participants

252 potential patients have been approached to be participated in the study. 28 of the patients refused to participate (23 patients from employed group, 5 patients are unemployed) after explanation given. 20 patients are not eligible for this study. Based on the inclusion and exclusion criteria, a total of 204 depressed patients from the psychiatric outpatient clinic at HRPB were recruited for the study. From 204 participants, 100 patients were employed and 104 patients were unemployed.

5.2 Socio-demographic characteristic of the participants

The mean age (Table 1) of the patients 51.24 years (SD = 14.41). The gender distribution was 42% were males (n=42) and 58% were females (n = 58) in employed group, meanwhile in unemployed group there were 27.9% of males (n=29) and 72.1% of females (n=75). For ethnicity in employed group, the Malay made up 28% (n =28), Chinese 47% (n = 47), Indian 21% (n = 21) and the others 4% (n = 4). For unemployed group, the Malay made up 20.2% (n =21), Chinese 44.2% (n = 46), Indian 26.9% (n = 28) and the others 8.7% (n = 9). The ethnic distribution in both groups did not reflect the true national population.

For religion, the subjects in employed group consist of the Muslim 29% (n = 29), Buddhist 30% (n = 30), Hindu 17% (n = 17), Christian 16% (n = 16), and others 8% (n = 8). For the unemployed group, subjects consist of the Muslim 25% (n=26), Buddhist 33.7% (n = 35), Hindu 19.2% (n = 20), Christian 14.4% (n = 15), and others 7.7% (n = 8).

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More than half of subjects were married 61% (n = 61) for the employed group and 66.3% (n=69) for the unemployed group. The rest for the employed group were single 25%, divorced was 9% and widow/widower was 5%. For the unemployed group, single was 15.4%, divorced was 5.8% and widow/widower was 12.5%.

Almost all of the subjects had formal education (Table 1) for both group with the majority of them achieving at least secondary education level or higher.

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Table 1: Socio-demographic characteristics of the study subjects

	Employed subjects (n = 100)	**Unemployed Subjects (n = 104)**	**Total (n = 204)**	**P Value**
Age, mean (sd)	45.27 (12.68)	56.98 (13.68)	51.24 (14.41)	0.060
Gender, n (%)				**0.034**
Male	42 (42.0)	29 (27.9)	71 (34.8)	
Female	58 (58.0)	75 (72.1)	133 (65.2)	
Ethnic, n (%)				0.277
Malay	28 (28.0)	21 (20.2)	49 (24.0)	
Chinese	47 (47.0)	46 (44.2)	93 (45.6)	
Indian	21 (21.0)	28 (26.9)	49 (24.0)	
Others	4 (4.0)	9 (8.7)	13 (6.4)	
Religion, n (%)				0.946
Islam	29 (29.0)	26 (25.0)	55 (27.0)	
Buddhist	30 (30.0)	35 (33.7)	65 (31.9)	
Hindu	17 (17.0)	20 (19.2)	37 (18.1)	
Christian	16 (16.0)	15 (14.4)	31 (15.2)	
Others	8 (8.0)	8 (7.7)	16 (7.8)	
Marital Status, n (%)				0.088
Single	25 (25.0)	16 (15.4)	41 (20.1)	
Married	61 (61.0)	69 (66.3)	130 (63.7)	
Divorced	9 (9.0)	6 (5.8)	15 (7.4)	
Widow/widower	5 (5.0)	13 (12.5)	18 (8.8)	
Education Level, n (%)				**0.000**
None	0	7 (6.7)	7 (3.4)	
Primary	13 (13.0)	21 (20.2)	34 (16.7)	
Secondary	44 (44.0)	63 (60.6)	107 (52.4)	
Tertiary	43 (43.0)	13 (12.5)	56 (27.5)	

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5.3 Employment characteristics among participants from employed group

For the employed group, mean duration of employment was 200.79 month that equal to 16.73 years duration (sd 156.39). 19% of them were professional group, 13 % did business, 23% did administrative or clerical work, 4 % of them were students and 41% did other type of job. 48% of the subjects get salary less than RM2000 per month while 52% get salary more than RM2000 per month. Examples on the type of job that fall into category of "others" include farmer, factory operator, grass-cutter, waitress and sale assistant.

Table 2: Employment characteristics of the employed group

	n (%)
Types of Job	
Professional	19 (19.0)
Business	13 (13.0)
Administrative/ Clerical	23 (23.0)
Others	41 (41.0)
Student	4 (4.0)
Income	
Below RM1000.00	26 (26.0)
RM1001 – RM2000	22 (22.0)
RM2001 - RM4000	31 (31.0)
RM4001 – RM6000	11 (11.0)
RM6001 – RM8000	8 (8.0)
Above RM8001	2 (2.0)
Duration of employment (month), mean (sd)	200.79 (156.39)

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5.4 Clinical characteristics among study subjects

Table 3: Clinical Characteristic of the study subjects

	Employed subjects (n = 100) n (%)	**Unemployed Subjects (n = 104) n (%)**	**Total (n= 204) n (%)**	**P Value**
Duration of illness				**0.008**
≤ 5 years	60 (60.0)	43 (41.3)	103 (50.5)	
> 5 Years	40 (40.0)	61 (58.7)	101 (49.5)	
Admission to Psychiatric ward				**0.020**
Yes	8 (8.0)	20 (19.2)	28 (13.7)	
No	92 (92.0)	84 (80.8)	176 (86.3)	
History of ECT				0.435
Yes	2 (2.0)	4 (3.8)	6 (2.9)	
No	98 (98.0)	100 (96.2)	198 (97.1)	
Previous Suicidal attempt				0.954
Yes	17 (17.0)	18 (17.3)	35 (17.2)	
No	83 (83.0)	86 (82.7)	169 (82.8)	
Medications				
Antidepressant	99 (99.0)	101 (97.1)	200 (98.0)	0.332
Antipsychotic	22 (22.0)	33 (31.7)	55 (27.0)	0.169
Anxiolytic	28 (28.0)	42 (40.4)	70 (34.3)	0.099

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There was a very wide range in the duration of illness experience by the study participants, in which the mean duration was 82.75 months. The minimum duration of illness was 2 months, while the maximum was 400 months that equal to 33.33 years. All of them receive at least one type of medications either antidepressant, antipsychotic or anxiolytic.

The mean duration of depression (Table 3) in the employed subjects 73 months (SD=76.24), 60% of the subjects were diagnosed with Depression for less and at five years, while 40% have more than five years duration of illness. For the unemployed group, mean duration of illness was 93 months (SD=70.09), 41.3% subjects were diagnosed with depression for less and at five years, while 58.7% (n=61) have more than five years duration of depression.

8% of the subjects from employed group had history of admission to psychiatric ward, with 2% of them had received ECT in the past. 17 % of them had previous suicidal attempt. All 100 subjects were on medications, majority of the patients are taking antidepressant. 22% of subjects were on antipsychotics and 28% of subjects are taking anxiolytic medications.

For the unemployed group, 19.2% of the subjects had history of admission to the psychiatric ward and 3.8 % of them had receive ECT in the past. 17.3% of them had previous suicidal attempt and all 104 patients were on medications.

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5.5 Prevalence of internalized stigma among study subjects

Table 4: Categories of Internalized stigma among participants

ISMI categories	Employed subjects n %	Unemployed subjects n %	Total
Minimal to None	29 (29)	32 (30.8)	61 (29.9)
Mild	46 (46)	49 (47.1)	95 (46.6)
Moderate	21 (21)	18 (17.3)	39 (19.1)
Severe	4 (4)	5 (4.8)	9 (4.4)

From the table above, 70% of the patients were having internalized stigma. Majority of patients from both groups fall into mild internalized stigma; 46% from employed group and 47.1 % from employed group. 29 % of unemployed patients only have minimal to none internalized stigma, while 32 % from unemployed patients reported minimal to none internalized stigma. Only 4.4% of patients from both group reported severe internalized stigma.

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5.6 Comparison of internalized stigma between employed and unemployed group

From Table 4, the total ISMI scores for the employed group was 2.21 (SD=0.47) and 2.20 (SD=0.49) for the unemployed group. The total score was not significantly different for both group. For each single item of the ISMI, only item 13 (saya tidak boleh menyumbang apa-apa kepada masyarakat kerana saya mempunyai penyakit mental) showed significant different between employed and unemployed group's scores (p= 0.01).

Table 5: Comparison of ISMI and each item scores between the employed and unemployed group

ISMI	**Employed Group Mean (SD)**	**Unemployed Group Mean (SD)**	**T test P Value**
Item 1	2.16 (0.81)	1.97 (0.84)	0.11
Item 2	2.17 (0.77)	2.24 (0.90)	0.55
Item 3	2.64 (0.88)	2.62 (0.87)	0.90
Item 4	2.30 (0.86)	2.22 (0.92)	0.53
Item 5	2.38 (0.84)	2.37 (0.89)	0.90
Item 6	2.31 (0.81)	2.26 (0.84)	0.69
Alienation	2.33 (0.65)	2.28 (0.71)	0.59
Item 7	2.26 (0.76)	2.12 (0.77)	0.21
Item 8	2.07 (0.76)	2.10 (0.81)	0.81
Item 9	2.19 (0.71)	2.21 (0.82)	0.84
Item 10	2.12 (0.81)	2.16 (0.86)	0.71
Item 11	2.20 (0.79)	2.15 (0.81)	0.67
Item 12	2.04 (0.83)	2.25 (0.80)	0.07
Item 13	**1.81 (0.71)**	**2.07 (0.77)**	**0.01***
Stereotype Endorsement	2.09 (0.52)	2.15 (0.57)	0.41
Item 14	2.09 (0.74)	1.99 (0.81)	0.36
Item 15	2.17 (0.77)	2.13 (0.85)	0.76
Item 16	2.25 (0.77)	2.09 (0.80)	0.14
Item 17	2.07 (0.78)	1.97 (0.72)	0.35
Item 18	1.97(0.76)	1.91 (0.77)	0.60
Discrimination Experience	2.11 (0.65)	2.02 (0.67)	0.33

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Item 19	2.49 (0.80)	2.50 (0.85)	0.93
Item 20	2.31 (0.84)	2.28 (0.86)	0.79
Item 21	2.20 (0.88)	2.20 (0.90)	0.99
Item 22	2.17 (0.81)	2.07 (0.82)	0.37
Item 23	2.19 (0.84)	2.13 (0.88)	0.65
Item 24	2.08 (0.81)	2.07 (0.87)	0.92
Social Withdrawal	2.23 (0.70)	2.20 (0.73)	0.78
Item 25	2.81 (0.75)	2.75 (0.80)	0.58
Item 26	2.24 (0.74)	2.15 (0.73)	0.41
Item 27	2.25 (0.76)	2.17 (0.74)	0.47
Item 28	2.40 (0.83)	2.33 (0.85)	0.54
Item 29	2.31 (0.87)	2.30 (0.80)	0.92
Stigma Resistance	2.31 (0.50)	2.35 (0.56)	0.60
Total score	2.21 (0.47)	2.20 (0.49)	0.89

5.7 Comparison of severity of depression between patients from employed and unemployed group

Table 6: Comparison of HAM-D scores between the employed and unemployed group

HAM-D	Employed Group Mean (SD)	Unemployed group Mean (SD)	P Value
Item 1	0.69 (1.02)	1.06 (1.27)	0.04*
Item 2	0.12 (0.38)	0.18 (0.55)	0.44
Item 3	0.16 (0.44)	0.09 (0.37)	0.09
Item 4	0.68 (0.89)	0.63 (0.89)	0.64
Item 5	0.39 (0.74)	0.34 (0.69)	0.61
Item 6	0.41 (0.77)	0.32 (0.67)	0.45
Item 7	1.01 (1.11)	1.52 (1.58)	0.05*
Item 8	0.09 (0.29)	0.24 (0.49)	0.01*
Item 9	0.07 (0.33)	0.12 (0.43)	0.31
Item 10	0.62 (0.91)	0.66 (1.05)	0.99
Item 11	0.41 (0.81)	0.29 (0.63)	0.41
Item 12	0.19 (0.39)	0.26 (0.48)	0.35
Item 13	0.36 (0.48)	0.37 (0.50)	0.99
Item 14	0.25 (0.50)	0.14 (0.40)	0.08
Item 15	0.32 (0.57)	0.37 (0.61)	0.67
Item 16	0.12 (0.46)	0.12 (0.43)	0.71
Item 17	0.19 (0.49)	0.17 (0.51)	0.52
Total Score	6.05 (5.40)	6.86 (5.28)	0.17

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The total mean score for Hamilton Depression Rating Scale (HAM-D) was 6.05 (SD=5.40) for the employed group and 6.85 (SD=5.28) for the unemployed group. For each single item of HAM-D, only item 1 (depressed mood), item 7 (work and activities) and 8 (retardation) showed statistically difference between employed and unemployed group with p value of < 0.05.

5.8 Association between internalized stigma with severity of depression]

In the analysis of correlation of ISMI with HAMD total score (table 6), there were significant findings for all the sub-scales and total ISMI score. For the individual items of ISMI scale, there were significant findings for almost all the items except for item 1, 9, 12, 25, 26 and 29.

The correlation showed that the higher the ISMI score, the more severe the depression level would be.

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Table 7: Correlation (Spearman) between ISMI and total HAM-D score

ISMI	Spearman, r	P Value
Item 1	0.104	0.141
Item 2	0.182**	0.009
Item 3	0.247**	<0.001
Item 4	0.155*	0.027
Item 5	0.210**	0.003
Item 6	0.153*	0.029
Alienation	0.242**	<0.001
Item 7	0.200**	0.004
Item 8	0.160*	0.022
Item 9	0.040	0.566
Item 10	0.197**	0.005
Item 11	0.201**	0.004
Item 12	0.052	0.461
Item 13	0.160*	0.022
Stereotype Endorsement	0.238**	0.001
Item 14	0.191**	0.006
Item 15	0.203**	0.004
Item 16	0.264**	<0.001
Item 17	0.210**	0.003
Item 18	0.216**	0.002
Discrimination Experience	0.286**	<0.001
Item 19	0.277**	<0.001
Item 20	0.297**	<0.001
Item 21	0.254**	<0.001
Item 22	0.238**	0.001
Item 23	0.284**	<0.001
Item 24	0.224**	0.001
Social Withdrawal	0.327**	<0.001
Item 25	0.117	0.096
Item 26	0.085	0.229
Item 27	0.917**	0.005
Item 28	0.228**	0.001
Item 29	0.126	0.073
Stigma Resistance	0.226**	0.001
Total	0.323**	<0.001

** Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

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5.9 association between subjects' characteristic with severity of internalized stigma

From 204 subjects, 23.5% (n=48) reported to have high internalized stigma and 76.5% (n=156) does not report high internalized stigma. Table 6 showed analysis of socio-demographic and clinical characteristic with the ISMI categories revealed there were no statistically significant associations with any of the variables except for history of suicide (p= 0.037) and severity of depression (P<0.001).

Table 8: Univariance Analysis of ISMI categories with subject's demographic characteristic and personal factor

	ISMI Categories n		**X^2**	**95% CI**	**P Value**
	Low Stigma n=156 (76.5%)	**High Stigma n=48 (23.5%)**			
Gender					
Male	53	18	0.201	0.438-	0.654
Female	103	30		1.679	
Age					
<45 years	46	18	1.095	0.354-	0.295
≥ 45 years	110	30		1.373	
Ethnic					
Malay	37	12	0.330	0.440-	0.856
Non Malay	119	36		1.975	
Religion					
Muslim	40	15	0.586	0.374-	0.440
Non Muslim	116	33		1.540	
Marital Status					
Single	27	14	3.215	0.241-	0.073
Married/Divorced/Widow	129	34		1.074	
Education level					
≤ Secondary	114	34	0.093	0.546-	0.761
> Secondary	42	14		2.287	
Employment Status					
Employed	75	25	0.236	0.446-	0.627
Unemployed	81	23		1.628	
Duration of Depression					
≤ 5 years	78	25	0.064	0.482-	0.801
> 5 years	78	23		1.758	

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Previous admission Yes No	 136 20	 40 8	 0.459	 0.557-3.320	 0.498
History of ECT Yes No	 4 152	 2 46	 *0.330	 0.107-3.411	 0.566
History of Suicide Yes No	 22 134	 13 35	 4.352	 0.203-0.964	 **0.037**
Severity of Depression Normal Mild Moderate Severe	 113 30 10 3	 22 14 5 7	 *16.613	 	 **<0.001**

*Fisher exact

Table 9: Multivariate regression analysis of the associated factors with ISMI categories

Variables		**Adjusted Mean Difference (B)**	**95% CI**	**P Value**
History of suicide		0.592	0.796 4.018	0.157
Severity of depression		**-1.157**	**0.129** **0.768**	**0.011**

P < 0.05

A multivariate linear regression analysis was performed using ISMI score against the significant associated factors. Only severity of depression remained significant after the analysis with p value 0.011.

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CHAPTER 6: DISCUSSION

This was a cross-sectional study and the primary objective of the study, is to measure the level of internalized stigma among depressed patients attending the outpatient psychiatry in Hospital Raja Permaisuri Bainun. Data collection was in the period from August 2015 to December 2015. The other aim of this study was to examine factors associated with internalized stigma such as socio-demographic and clinical factors of the patients.

The study among 204 participants from the outpatient psychiatry clinic diagnosed and receiving treatment for depression, 70% of the patients were having internalized stigma that ranging from mild to severe in intensity. This study found 23.5% participants reported having moderate to high-internalized stigma.

The study revealed the history of suicide attempt and severity of depression related significantly to the presence of internalized stigma. While other factors such as socio-demographic characteristics, social status, previous hospitalization, duration of illness and previous treatment with electroconvulsive therapy did not significantly associate with high levels of internalized stigma.

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6.1 Socio-demographic and Clinical Characteristic of Participants

In this study, we manage to analyze data from 204 participants. These patients were depressed patients who presented to psychiatric outpatient and has been diagnosed to have Major Depressive Disorder for at least one month duration before they had been recruited for the study.

6.1.1 Age and Gender

The mean age of the participants was 51.42 years. Those with age of 45 years and above made up 68.6% and those below the age of 45 was 31.4%. The distribution was not similar compare to other study that showed the frequency of depression is lower in the elderly compared to younger adults (Ronald C Kessler & Bromet, 2013). This may be due to the fact that this is the age group that is socially and economically productive, and thus more willing to look for treatments in order to maintain their functioning. They may also view psychiatry and mental illness favorably and thus more willing to come and continue treatment (Andersson et al., 2013).

Females form the majority of respondent, 65.2% were female while 34.8% were male. More females have been found to be depressed than males(Calvó-Perxas, Vilalta-Franch, Turró-Garriga, López-Pousa, & Garre-Olmo, 2015; Ronald C Kessler & Bromet, 2013). Similarly, the higher risk of women being depressed than men has also been noted in the older age group (Luppa et al., 2012). This differences may due to influence of social parameter such as disrupted marriage, number of children, education and employment status (Ronald C Kessler & Bromet, 2013; Lucht et al., 2003; Luppa et al., 2012). Another possibility that has been put

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forth with regards to gender differences is that there is a gender difference itself in the help-seeking behavior and symptom reporting (Hausner, Hajak, & Spießl, 2008; Luppa et al., 2012).

6.1.2 Ethnicity

The ethnic distribution of the participants had a majority ethnic group of Chinese patients with 45.6% of the study participants, followed by 24% Malay patients, 24 % Indian patients and 6.4% of other races. The ethnic distribution were almost similar for both employed and unemployed group. This deviates from the ethnic distribution of the Malaysian population, whereby, the latest population distribution reported by the Department of Statistics Malaysia found that 67.4% of the Malaysian population was Bumiputera (Malay and other Bumiputera races), followed by 24.6% Chinese, 7.3% Indians, and 0.7% of other races (Malaysia, 2010). This could be due to logistic reasons as more Chinese are urban settler, where the centre of study was located. Urban residency itself is associative to depression as there are certain characteristics of urban environment which influence the mental health of the population particularly in socially and economically deprived neighborhood (Hidaka, 2012; McKenzie, Murray, & Booth, 2013). In comparison with a prevalence study done among adults in the community of Selangor, the prevalence of depression was highest among the other ethnic groups (17.6%), followed by Chinese (13.8%), Malays (10.8%) and Indians (6.1%) (Maideen, Sidik, Rampal, & Mukhtar, 2014). This could be explained by Chinese patients are economically better and tend to seek treatment earlier to maintain their well-being.

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6.1.3 Marital Status

The majority of the patients were married, with 63.7% of the participants, followed by 20.1% who were single, and 16.2% who were either divorced or widowed. This distribution was slightly difference from the Malaysia population distribution where 59.6% were married, 35.1 % were single and 5.3% were either divorced or widowed (Malaysia, 2010). Numerous empirical studies have provided evidence for the protective effects of marriage on health; that is, married individuals are more likely to be healthier than are widowed, divorced, separated, or never-married individuals (Manzoli, Villari, Pirone, & Boccia, 2007; Williams, 2004). The bulk of this evidence about the associations among marital status, health, and gender is based on Western populations.

Fewer studies have been conducted in Asian cultures, where the patterns of associations have differed from the results obtained from Western societies. A study done in Japan had examined the association between marital status and mortality in a 10-year prospective cohort of 94,062 middle-aged Japanese men and women and found that widowhood and divorce increased the risk of all-cause and cause-specific mortality by 1.5 to 2.0 fold in Japanese men, but no survival advantage was observed for married women (Ikeda et al., 2007). Another study done in Korea showed that at younger ages, married Korean women exhibited lower depressive symptom scores compared to their unmarried counterparts. However, this gap narrowed and eventually disappeared due to an age-related increase in depressive symptoms among married Korean women (Jang et al., 2009).

This findings can be explained that many Asian families remain traditional and function within clearly defined roles and position in the family hierarchy (Kramer, Kwong, Lee, &

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Chung, 2002). Changes in gender roles may induce marital stress among older generations, in particular, due to their lack of familiarity with more flexible gender roles because of their earlier immersion in the traditional patriarchal culture (Jeon, Jang, Rhee, Kawachi, & Cho, 2007). Patriarchal and Confucian cultures strictly define circumscribed gender roles in which wives are responsible for caretaking and household chores (Jeon et al., 2007).

Other studies have shown being married lowers the levels of psychological distress than not being married (Bierman, 2012; Thomeer, Umberson, & Pudrovska, 2013). Married individuals live longer than do unmarried individuals, and this protective effect cannot be entirely explained by the selection of healthy individuals into marriage (Lillard & Panis, 1996). The benefits of marriage also extend to factors other than survival; married individuals reportedly experience lower rates of depression (Afifi, Cox, & Enns, 2006; Williams, 2004).

6.1.4 Education level

Majority of the participants receive at least secondary education with 79.9% of the participants, 16.7% receive at least primary level of education and only 3.4% did not receive any formal education. This distribution was similar for both employed and unemployed group.

Ansseau et al (2008) had found that lower level of education is associated with depression. Meanwhile, a study done in Indonesia that investigate socioeconomic risk factors among depressed women showed different results (Christiani, Byles, Tavener, & Dugdale, 2015). The analysis shows higher education provided opposite contributions to inequality of depression in the young-adult and middle-adult groups of women. While higher education

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negatively contributed to inequality among the young-adult, it had a positive contribution among the elder group. This result may be related to the different distribution of higher education among the two groups. Young-adult women are more exposed to higher education compared to middle-adult women. In addition, middle-adult women with a higher education would probably achieve better living standard – which negatively associated with depression. Overall, education provided a minimal contribution to depression inequality, particularly among middle-adult group.(Christiani et al., 2015).

For this study, in view that one of the inclusion criteria is that the participants need to be able to read either in English, Malay or Chinese language, more of the patients from lower education level might not be included in this study. Thus, the distribution of the participants were not representative of the general population.

6.1.5 Clinical Characteristics

There was a very wide range in the duration of illness experience by the study participants, in which the mean duration was 82.75 months. The minimum duration of illness was 2 months, while the maximum was 400 months that equal to 33.33 years. All of them receive at least one type of medications either antidepressant, antipsychotic or anxiolytic.

Severity of depression was assessed using Hamilton Depression Rating Scale in this study. Based on this scale, we calculate the difference between employed and unemployed group. We found significant difference for the Item 1 (depressed mood), item 7 (work and

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activities) and item 8 (retardation) with p value of < 0.05. However the was no significant difference for total score for both groups.

Based on this findings, we can see patients from unemployed group reported more on depressed mood, reduced in work and activities, and also retardation; slowness of thought and speech, impaired ability to concentrate and decreased motor activities. Retardation that leads to productivity loss and also reduced in activities are the common symptoms reported by a depressed patients that made them unable to perform during their work that lead to unemployment (Debra Lerner, Adler, Chang, Berndt, et al., 2004; Debra Lerner, Adler, Chang, Lapitsky, et al., 2004). However, in this study we did not assess reasons for unemployment that might influence the results of the study. We had include patients whom already retired and housewife into the unemployed group, that might played different roles compared to those who are unemployed due to depression. They may also presented with different illness severity that influence the results of this study that showed no significant difference between illness severity and internalized stigma in comparison with patients from employed group.

6.2 Internalized stigma among depressed people

The Internalized Stigma of Mental Illness (ISMI) is a scale measuring internalized stigma among persons with mental illnesses (Boyd et al., 2014). The ISMI has been widely used with the various versions showing reliability and validity across a wide range of languages, cultures, and writing systems. Using the ISMI, the most frequently reported results are internalized stigma associates with higher depression, lower self-esteem, and higher symptom severity (Boyd et al., 2014).

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The labeling theory focuses on by what it means to people with mental health problems (L.J. Barney, K.M. Griffiths, A.F. Jorm, & H. Christensen, 2006; Gateshill et al., 2011). They are labeled as displaying and highly likely to have deviant behaviors 'dangerous/unpredictable' or perceived as 'weak, not sick'(Jorm et al., 2000a; Jorm et al., 2000b). This process relies on the negative conceptions of what it means to have a mental health problem (B.G. Link & Phelan, 2001, 2010). People internalized these labels in addition to modifying their behaviors to cope with the presence of stereotypical behaviors associated with the particular tag (Goffman, 1963; B.G. Link & Phelan, 2010).

This perception of being a failure and weakness is a cause of concern as studies show worried about what others think is a leading cause for delaying treatment (L.J. Barney et al., 2006; P.W. Corrigan et al., 2014). Being worried about what people may say or might think hinders individuals from seeking help. In our part of the world, it often causes individuals with mental health difficulties to seek other possible means of getting them well, e.g. traditional ways. People are afraid to disclose they are unwell, and it is easier and acceptable to say they have been charmed. Swami, Loo & Furnham (2010) studied 342 Malay participants from both the urban and rural areas on the west coast of Peninsular Malaysia. The study revealed the urban folks felt depression was due to stress and environment (biological cause) while the rural folks tend to think depression was one's destiny and the act of God or due to supernatural forces. Both rural and urban participants strongly endorsed religiosity as a useful source of treatment.

It is relevant that Deegan (1993) speaks about "it is important to understand recovery is not just from mental illness, but also from the effects of categorized as mentally ill." E.

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Goffman (1963) describes the problem as an "attribute that is deeply discrediting" to the extent it reduces the holder "from a whole and usual person to a tainted and discounted person."

Previous researchers have shown in circumstances when others have psychosis and/or depression with alcohol misuse, people feel these situations are dangerous and unpredictable, resulting in a greater social distance (S.P. Hinshaw, 2005; Jorm et al., 2000a; B.G. Link & Phelan, 2010). It is worrying as knowing that people think of them as such, the stigmatized individuals avoid treatment or discontinue treatment prematurely (P.W. Corrigan, Kerr, & Knudsen, 2005; Sirey et al., 2001).

In the current study, of 204 participants, 70% of them reported to have internalized stigma. 23.5% reported having moderate to high-internalized stigma, while in 76.5% only reported no to mild internalized stigma. The finding is comparable with a study done in 13 European countries examining internalized stigma among patients with mood disorders. The study found 21.7% of the patients surveyed reported moderate to high levels internalized stigma (Brohan et al., 2011). A World Mental Health Survey carried out in 16 countries by J. Alonso et al (2008) to assess disorders and treatment and its association with stigma, found a two-fold increase in the likelihood of perceived stigma in people distress with a depressive or an anxiety disorder. In regards to country variation in the prevalence of stigma, J. Alonso et al (2008) reported perceived stigma was present 22.1% in developing compared to 11.7% in the developed countries.

A study done to assess internalized stigma among outpatients with depressive disorders in Taiwan reported 25% of the patients had high levels of internalized stigma (Yen et al., 2005). Pyne et al (2004) examining outpatient depressed and non-depressed patients found being in

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treatment relates to having higher levels of perceived stigma. In a study in adolescents, A.L. Calear, Griffiths & Christensen (2011) found higher perceived stigma were present among adolescents treated for depression (20%) compared to non-depressed adolescents. Schwenk, Davis & Wimsatt (2010) reported depressed medical students were worried their peers and faculty staffs will view them negatively if they knew the individual was depressed. Schwenk et al (2010) identified stigma as a clear barrier to the use of mental health services in this much-needed group.

The formations of concepts regarding mental illness occur as part of routine socialization; once in place, these conceptions become a "template" about what it means to have a mental illness (B.G. Link & Phelan, 2001; J.D. Livingston & J.E. Boyd, 2010). In people with depression, stigma is a cause for concern. In many instances, the help-seeking behavior is influenced by these stigmatizing beliefs (L.J. Barney et al., 2006; Griffiths, Christensen, & Jorm, 2008; Roeloffs et al., 2003; Sirey et al., 2001). People feel embarrassed seeking help from professionals believing other people would react negatively to them. Estimates indicate over half of persons with major depression in the community do not or are reluctant to consult a health professional (L.J. Barney et al., 2006). Inadequate and not seeking treatment of major depression is a public health concern (G.E. Simon et al., 2001; G.E. Simon, Chisholm, Treglia, Bushnell, & The LIDO Study Group, 2002).

Other than **the history of suicide and severity of depression**, there were no other factors demographic, clinical, or treatment characteristic, which predicted stigma in this study group.

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6.3 Internalized stigma and severity of depression

Severity of depression is an important factor that affect many aspects in individual with depression. Severity of depression was proved to reduce functionality and causes of unemployment in people with depression (Debra Lerner, Adler, Chang, Lapitsky, et al., 2004), higher risk of suicide (Maes, Meltzer, Suy, & Meyer, 1993), lower self-esteem (Kernis et al., 1998; Orth & Robins, 2013) and reduced help-seeking behavior (Demyttenaere et al., 2006; Hinson & Swanson, 1993; Sussman, Robins, & Earls, 1987) that leads to barrier to recovery and poorer outcome in people with depression (Schomerus, Matschinger, & Angermeyer, 2009). Stigma, either internalized stigma or perceived stigma were mentioned to be a mediator of the relationship between depression severity and avoidance behavior in depressed people (Manos, Rusch, Kanter, & Clifford, 2009).

In this study, we had found significant association between severities of depression with level of internalized stigma in our subjects. Few studies done showed that high internalized stigma was positively associated with severity of depression (Brohan et al., 2011; Kanter, Rusch, & Brondino, 2008; Rusch et al., 2008; Yen et al., 2005). The correlation showed that the higher the ISMI score, the more severe the depression level would be. The correlation were significant for all the subscales in ISMI; alienation, stereotype endorsement, discrimination experience, social withdrawal and stigma resistance.

Based from the result, clinicians should take internalized stigma into consideration when communicating with depressed patients, especially those with characteristics associated with high levels of internalized stigma.

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6.4 Suicide and internalized stigma

Suicide is the 10th leading cause of death in the United States, accounting for over 41,149 deaths in 2013 (Control, Prevention, Control, & Prevention, 2010). Research shows nine out of 10 suicide victims suffered from at least one severe psychological problem (M.K. Nock et al., 2008; M.K. Nock et al., 2009). As a consequence, receiving psychological help is a protective factor to prevent suicide. Not receiving adequate support increases the risk of deterioration of psychological problems thus increasing the likelihood of suicide (Suominen et al., 2004).

Persons with suicidal thoughts are less likely to seek psychological help compared to those who have psychological problems but are not suicidal (Calear, Batterham, & Christensen, 2014; Rancāns, Lapiņš, Renberg, & Jacobsson, 2003; Rickwood, Deane, Wilson, & Ciarrochi, 2005). The presence of negative attitudes and stigma delays and hinders them seeking psychological help (Dovidio, Fishbane, & Sibicky, 1985; Vogel, Wade, & Hackler, 2007). Furthermore, the research found a majority of people experience stigma and shame if they receive psychological help (Reynders, Kerkhof, Molenberghs, & Van Audenhove, 2014). The labeling results in negative stereotyping, separating 'them' from 'us' with consequences of losing status thus discriminated and led to multiple inequalities (B.G. Link & Phelan, 2001, 2010).

From this study, we found the significant association between histories of suicide with internalized stigma (p value=0.037). This finding is comparable to the by Reynders et al (2014). From the study, suicide rates were low in areas with presence of more positive attitudes toward help seeking (Reynders et al., 2014). In these parts, people experience less self-stigma and

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shame compared to the people living in areas where suicide rates are relatively high. The study revealed people with a history of suicide were more likely to cope passively with their psychological problems. Females experience more shame while males experience more self-stigma when seeking psychological help. The study showed concerning self-stigma and shame, lower self-esteem and self-efficacy inhibits help-seeking intentions (Reynders et al., 2014). These are all risk factors for suicide.

Patients who have attempted suicide (Wolk-Wasserman, 1985) and those who are experiencing suicide ideation (Lester & Walker, 2006) often report feeling ashamed following their attempts or disclosure. Samuelsson et al (2000) and Wiklander et al (2003) found among patients who attempted suicide reported feelings ashamed while hospitalized following their suicide attempt. Both researchers reported the patients felt they were a failure having attempted suicide and survived, and were sensitive towards people wanting to help them while in the hospital.

The anticipated experience of stigmatization results in feeling ashamed and embarrassed, Reynders et al (2014) implied shame occurs as an emotional reaction to stigma. Scocco et al (2012) found suicidal behavior to be attributable to mental disorders and related to higher stigmatization. Feeling exposed to others or experiencing negative attitudes from others contribute to an exacerbation of shame in the patients with suicidal ideation or history of suicide (Wiklander, Samuelsson, & Åsberg, 2003). Many patients who attempted suicide feel isolated and perceived them as ignored by the hospital staffs (McAllister, 2003; Wiklander et al., 2003), they seemed easy and perceived the staff as acting negative towards them (Taylor, Hawton, Fortune, & Kapur, 2009).

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It is important to identify the internalized stigma of suicide attempters since stigma may have serious consequences for them. There are few studies done on shame and suicide attempters. As mentioned by Reynders et al (2014) shame occurs as an emotional reaction to stigma. Shame is characterized by damaging self-evaluation (Lynch, Hill, Nagoshi, & Nagoshi, 2012) When feeling ashamed, these individuals feel certainly inferior and inadequate along with incapable of being rectified (Dorahy, 2010; Lynch et al., 2012). Beside experiencing oneself as inferior, they feel powerless, which leaves vulnerable (Tangney & Fischer, 1995) and defenseless to criticism from others (Dorahy, 2010; Lynch et al., 2012).

The feeling of shamefulness after suicide attempts has been reported in several qualitative studies (Samuelsson, Wiklander, Åsberg, & Saveman, 2000; Wiklander et al., 2003; Wolk-Wasserman, 1985). Wiklander et al (2003) emphasized feeling ashamed occur in conjunction with the suicide attempt with the desire to hide or flee. The individual feel frightful of seeking help or embarrassed and wants to leave the hospital. Samuelsson et al (2000) discovered feeling ashamed was particularly strong among individuals who have had made previous suicide attempts and received in-patient care in the similar ward; sensing the staff might be disappointed in them.

Quantification of stigma may be helpful at the individual level to provide targeted, supportive interventions, and at the population level to make changes in beliefs and attitudes of the general population (Angermeyer, Holzinger, Carta, & Schomerus, 2011). The effort is relevant as despite the works of many parties, the public labeling of individuals with mental illness and individuals who self-harm is still considerably felt.

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The association between socio-demographic features of the subjects and internalized stigma did not show any observable significant. Sirey et al (2001) studying new patients attending an outpatient setting, found older patients diagnosed with major depression, reported less perceive stigma than younger patients. However, perceived stigma toward individuals with mental illness predicts early treatment discontinuation in the elderly patients. Sirey et al (2001) suggested it is difficult for older patients seeking treatment at any mental health services, as it requires them facing the idea that depressive symptoms are a normal part of aging while challenging the stigma of mental health treatment.

The study by Roeloffs et al (2003) among 1182 depressed patients in the primary care setting found stigma was widespread among depressed primary care patients. In older and female patients faced higher levels of employment, friendship and service-use related stigma. Similar to the study done by Dockery et al (2015), among a mixed group of service users, females reported having higher stigma-related treatment barriers than males. The same survey revealed over three-quarters of the service users reported delaying treatment seeking due to concerns seeking mental healthcare would harm their chances for employment.

Griffiths et al (2008) found in a sample of 1,001 Australian adults, aged 18-50 years, males, those with less education and associated with greater current psychological distress had higher levels of personal stigma. Perceived stigma was greater in subjects facing psychological distress.

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Our study found social status, measured via employment and educational levels, did not significantly predict self-stigma. The study done in Taiwan found the frequency of receiving knowledge about depression was not associated with self-stigma (Yen et al., 2005). This finding rejected our hypothesis social functioning such, as unemployment and education level predicted intensity of internalized stigma.

Another conclusion from our study is that previous hospitalization, duration of illness and previous treatment with electroconvulsive therapy were not associated with high levels of internalized stigma, which was also found by a study done by Yen et al (2005). The current study did not find previous hospitalization for depression and duration of illness related to internalized stigma. The study did not examine whether mental health professionals or care-givers might be one source of stigmatizing experiences for the patients with depression, which was beyond the scope of this study.

For the individual items of ISMI scale, the investigation did not find any significant difference between employed and unemployed group, except for item 13 (p-value of <0.05). Item 13 stated, "I cannot contribute anything to society because I have a mental illness." The meta-analysis found that unemployment related to poorer mental health, low socioeconomic status and low self- esteem compared to those who were employed (Paul & Moser, 2009). This might explained the finding that more patients from unemployed group felt they cannot contribute significantly to society due to their mental illness.

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CHAPTER 7: CONCLUSION

Internalized stigma, that is self-stigma, can be generally described as the subjective and internal experience of stigma. A concise definition is provided by Ritsher et al (2003): 'Internalized stigma is the devaluation, shame, secrecy and withdrawal triggered by applying negative stereotypes to oneself. Internalized stigma is said to exist when people have negative attitudes about themselves as a result of internalizing stigmatizing ideas held by society (Patrick W Corrigan & Amy C Watson, 2002). For example, people may perceive depression as being due to a weak personality. Such stigmatizing views may impact on help-seeking because sufferers do not wish to show their 'weaknesses' to others. Similarly, it is known that people who believe depression to be under personal control are less likely to endorse help-seeking for themselves (Halter, 2004).

This study found 70% of participants reported to have internalized stigma that ranging from mild to severe in severity. 23.5% reported having moderate to high-internalized stigma, while in 76.5% only reported no to mild internalized stigma. The results showed significant association between levels of internalized stigma among people with depression with history of suicide and severity of depression. Patients with history of suicide showed higher level of internalized stigma compared to those who never attempted suicide. However there were no demographic characteristics that predicted level of internalized stigma among depressed people.

Findings from this study do not support the hypothesis that internalized stigma is higher among depressed patients who are unemployed. There was no significant association between

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levels of internalized stigma with unemployment in this study. Levels of self-esteem had significantly showed association with functioning in another studies. However, in this study we did not check levels of self-esteem among depressed patients, which might give better explanation in understanding about internalized stigma.

This findings could highlight the role of screening people with depression for internalized stigma to identify those who need more attention because it can become a barrier to recovery. With evidence that severity of depression was significantly associated with higher levels of internalized stigma, further intervention can be proposed and new study can develop on how to improve in management of people with depression.

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CHAPTER 8: LIMITATION AND STRENGTH

7.1 limitation of this study

The author has identified several limitations of the study.

1. The sampling method in this study was based on convenient stratified sampling instead of random sampling due to limited time and resources; this may affect the generalizability of the results. We were only able to measure the association between factors but were unable to establish cause and effect or the direction of the relationship. This study was not able to capture a subgroup of patients who refused treatment or those who refused to attend to the outpatient clinics. It also excluded those patients who are warded.

2. Samples for each phase of this study were taken at a single center, which was Hospital Raja Permaisuri Bainun Ipoh. Therefore, the findings of this study may not be generalizable to the whole Malaysian population.

3. This study did not recruit the patients who did not understand and unable to read Malay, English and/or Chinese, therefore the results could not be representative of those from the lower socio-economic level or lower educational background.

3. The majority of the patients were from Chinese ethnicity, which does not reflect true distribution of ethnic groups in Malaysia. The disproportionate ethnic distribution in this study maybe partly due to location where the study was carried out. It can affect the result of this study and we may not be able to generalize the findings to other populations.

4. The English and Chinese version of ISMI scale were not validated in our local settings. For the Malay version, the author only manage to examine internal reliability and concurrent validity of the scale in another study.

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5. The diagnosis is only based on the medical records. The author had gone through the medical record of patients and only took those patients that had fulfilled criteria of MDD based on DSM-5.

5. About 23 depressed patients who are employed refused to participate in this study. Majority of them are from professional group. Most of them afraid by participating in this study, it may affect their confidentiality despite reassurance given by the investigator. This may affect the actual results of this study that mean to examine internalized stigma experience by the patients.

7.2 strength of this study

Despite the limitations of the study which were mentioned above, the strength of the study include:

1. This study is the study that we know of that look into internalized stigma among depressed patients in our local setting. Therefore, it could give a baseline data for further research in the same field. More advance and meticulous study design could be developed.
2. The ISMI scale is self-rated questionnaire and patients were given adequate time to complete them. Therefore, the results of the questionnaire were not influenced by the interviewer.
3. All the study samples had completed all the questionnaires and the instruments and there were no missing data. All the data analysis were complete as well which is also the strength of this study.
4. Multivariate analysis was done which give stronger association to be observed in some of our variables as compared with only univariate analysis.

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CHAPTER 9: RECOMMENDATIONS AND CLINICAL IMPLICATIONS

9.1 recommendations

In view of the limitations and strengths of the study, there are few recommendations for any researchers who wish to embark on similar studies.

1. For a better study design, random sampling is preferred compared to convenience sampling. It would be able to reduce sampling bias and the study sample would be more representative of the studied population. Hence, inference can be made confidently.
2. To include other centers, especially the rural areas and other population would be a better representation of the general Malaysian population.
3. Additional version of questionnaire such as Tamil version would include more samples from Indian groups.
4. Having a matched control group for comparison to reduce confounding factors that may result in bias.

9.2 Clinical Implications

The findings of this study highlights the association between internalized stigma and severity of depression and history of suicide among depressed people. Internalized stigma can be easily screened using ISMI self-rated questionnaires, which can be provided to patients in the waiting room. By identifying these patients early, we can improve our management, by focusing more attention on these patients and helps them to reduce the stigma. The impact of internalized stigma, especially in patients with depression is potentially avoidable if we are able to detect this high risk group of patients.

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