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A Study on Prevalence of Depression among Adults Attending International Islamic University Malaysia (IIUM) Family Health Clinic, Kuantan Pahang, Malaysia

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Abstract

Introduction: Depression is a common mental disorder among the general population. According to WHO, people with depression is experiencing boredom in things they usually enjoy, loss of capability in self-care and have long standing period of sadness? The impact of depression falls greatly onto the individuals, family members and the community.

Methodology: A cross-sectional study was conducted among 250adults attending IIUM FHC Kuantan. A validated self-reported questionnaire including sociodemographic, socioeconomics and Patient Health Questionnaire (PHQ-9) was distributed from 15th to 26th July 2019. Descriptive statistics were used to measure the prevalence of depression. Chi- square test was used to measure the association between risk factors and depression.

Results: The prevalence of depression among adults attending IIUM FHC Kuantan was 10.4% the statistically significant associated factors were marital status (p-value=0.045) and working status (p-value=0.014).

Conclusion: One in ten of adults attending IIUM FHC, Kuantan, Pahang had depression and the significantly associated factors were marital status and employment status.

Keywords: Depression; Cross-sectional study; Health clinic; Patient Health Questionnaire (PHQ-9)

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Background

Depression is a common mental disorder among the general population [1]. According to WHO, people with depression is experiencing boredom in things they usually enjoy, loss of capability in self-care and have long standing period of sadness? The impact of depression falls greatly onto the individuals, family members and the community [2]. Therefore this study aim to measure the prevalence of depression among patients attending IIUM Family Health Clinic (FHC) Kuantan, Pahang.

According to Malaysian national health and morbidity survey, there is an increasing trend of mental health problems among adults which the figures are from 10.7% in 1996 to 29.2% in 2015. In accordance to that, prevalence of lifetime depression is 2.4% and current depression is 1.8% based on National Health Morbidity Survey IV (NHMS IV) 2011. The major downfall of depression is it has been related with higher risk for mortality, with unnatural and cardiovascular disease related death being heavily linked with it [3]. Thus, detection of depression at primary care is important as the management at this level is patient-centered and can prevent from further complication.

This study is important to measure the prevalence of depression among patients attending IIUM FHC. The findings will help us to identify the current prevalence of depression among patients attending IIUM FHC and we can plan the appropriate action. The eventual impact of this study will be seen when the public awareness regarding recognition, management and prevention of mental illness can be improved.

Methodology

Study design

Cross sectional study.

Study location

The study was conducted at IIUM FHC Kuantan, Pahang Malaysia.

Study duration

The study was conducted from 16th July 2019 to 23rd August 2019.

Sampling method

Convenience sampling.

Inclusion criteria

18 years old and above.

Exclusion criteria

i. Illiterate.

ii. Underlying psychiatric illnesses like depression, schizophrenia etc.

iii. Has previously answered similar questionnaire in the past during the period of study.

Study subjects

The study will be conducted among patients attending IIUM FHC. Those patients who fulfill the inclusion criteria are eligible for this study.

Data collection

Once the consent is obtained, the respondents will be asked to complete the questionnaire prepared by the researcher on their own to avoid any bias. If any assistance is required during the completion of the form, the researcher will be around to aid the respondent. Once the respondent has completed the set of questionnaires, it will be returned to the researcher for further evaluation.

Research tools

Sociodemographic and socioeconomic: The respondents will be required to fill a questionnaire which will identify their age, gender, marital status, educational level, employment status and household income.

Patient Health Questionnaire (PHQ-9): The prevalence of depression was measured using the Patient Health Questionnaire Malay version as it was validated and reliable to use for this study [4]. The PHQ-9 scores range from 0 to 27. PHQ-9 scores of 5,10,15, and 20 represented mild, moderate, moderately severe and severe depression, respectively. With score of 10 and above, respondents will be categorized as having depression.

Statistical analysis

Analysis will be performed using SPSS software version 24. Categorical variables are recorded as frequencies and percentages and numerical variables are recorded as means and Standard Deviation (SD) unless otherwise stated. Bivariable analyses on categorical variables will be analyzed by using Chi-Square and Fisher's Exact Test. Meanwhile, numerical variables shall be analyzed using Independent Sample T test. A p-value of <0.05 is considered statistically significant.

After bivariate analysis, multiple logistic regressions will be conducted to identify the risk factors and control for possible confounders. The variables with p-value<0.25 are proceeded with multiple logistic regression analysis. We will report the Odds Ratio (OR) at 95% Confidence Interval (CI) to measure the likelihood of associated factors towards depression.

Table 1: Background characteristics of the study population.

Characteristics	Variables	n	%
Age	18-40	196	78.4
	41-64	50	20
	≥65	4	1.6
Sex	Male	115	46
	Female	135	54
Marital status	Unmarried	100	40
	Married	144	57.6
	Divorced	1	0.4
	Widower	5	2
Education Level	No formal education	2	0.8
	Primary school	2	0.8
	Secondary school	43	17.2
	Higher education	203	81.2
Working Status	Working	140	56
	Unemployed	92	36.8
	Pensioner	18	7.2
Household income	B40 (<3860)	90	36
	M40 (3860-8319)	93	37.2
	T20 (>8319)	49	19.6

Figure 1: Prevalence of depression among patients attending IIUM FHC.
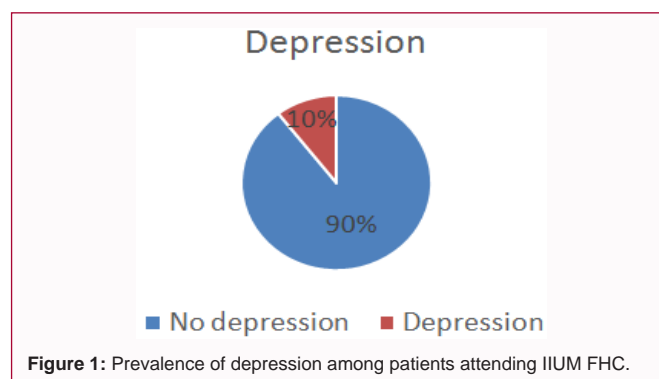
Ethical consideration

Ethical approval will be sought from the International Islamic University Malaysia Research Ethics Committee (IREC) and the relevant bodies from the Department of Family Medicine of IIUM.

Results

A total of 250 patients attending IIUM FHC were approached during the study and all of them agreed to participate in this study making the response rate 100%.

Table 1 showed the sociodemographic characteristics of the respondent. Majority of the respondent were age 18-40 which was 78.4%, female (54%), married (57.6%), received higher education (81.2%), working (56%). There was 36% of the respondents has low household income, while 37.2% and 19.6% had moderate and high household income respectively.

There were 26 respondents (10.4%) having depression while 224 (89.6%) participants were not depressed Figure 1.

Table 2 showed the sociodemographic and socioeconomic factors associated with depression among participants. In this study, there

Table 2: The relationship between sociodemographic and socioeconomic factors with depression.

Characteristic	Variables	No Depression N	No Depression (%)	Depression N	Depression (%)	X²(df)	p value
Age	18-40	173	88.3	23	11.7	1.88 (2)	0.391
	41-64	47	94	3	6		
	≥65	4	100	0	0		
Sex	Male	103	89.6	12	10.4	0.00 (1)	0.987
	Female	121	89.6	14	10.4		
Marital Status	Unmarried	83	83	17	17	8.03(3)	0.045
	Married	135	93.8	9	6.3		
	Divorced	1	100	0	0		
	Widower	5	100	0	0		
Education Level	No formal education	2	100	0	0	4.27(3)	0.234
	Primary school	2	100	0	0		
	Secondary school	42	97.7	1	2.3		
	Higher education	178	87.7	25	12.3		
Working Status	Working	130	92.9	10	7.1	8.51(2)	0.014
	Unemployed	76	82.6	16	17.4		
	Pensioner	18	100	0	0		
Household income	B40	83	92.2	7	7.8	1.30(2)	0.523
	M40	81	87.1	12	12.9		
	T20	44	89.8	5	10.2		

was a significant association between marital status and prevalence of depression (*p*-value=0.045). Apart from that, it was observed the prevalence of depression was higher among unemployed adults (17.4%). And it was statistically significant (*p*-value=0.014). However, the association were not statistically significant for age, sex, educational level and household income (*p*-value were 0.391, 0.987, 0.234, and 0.523 respectively).

Discussions

Prevalence of depression

This study found there were a total of 26 participants (10.4%) having depression while the rest were not having depression (89.6%). It was slightly lower than a previous similar study done in Health Clinic around Kuantan area which had a prevalence of 10.6% [5]. From other study conducted among adult's community in Selangor revealed prevalence of 10.3% [6]. Depression has been reported to be about 10.4% among primary care patients in studies done in 15 countries of the world [7] which was similar to this study's finding.

Relationship between depression with sociodemographic and socioeconomic factors

This study showed marital status (*p*-value=0.045) was significantly associated with depression. There was a higher prevalence of depression among unmarried compared to married, divorced and widowed participants. A previous study reported that, the prevalence of depression in unmarried (single or widow) was three times higher than those who were married due to lack of support and loneliness among the unmarried [8]. Kader Maideen, Mohd Sidik, Rampal, & Mukhtar [6] further revealed that depression was more prevalent

among the divorcees compared to those who were separated, singles, widowed, and married couples.

Our findings also revealed a significant association between employment status and depression (*p*-value=0.014). Unemployed adults (17.4%) had a higher prevalence of depression compared to the working adults (7.1%) in our study. This was in line with previous study by Rizvi et al., 2015 [9], where unemployed patients had lack of mental fortitude that nullified their desire in gaining employment. In other study, unemployment had been significantly associated with depression as it disrupted their plan in life targets and causing the negative views of community falls upon them [10].

Other factors that were studied were age, gender, educational level and household income. Adults aged less than 65 year's old showed higher prevalence of depression. This was supported by other studies which showed lower depression among older people [11-14]. Female showed higher prevalence compare to male but it was not statistically significant (*p*-value=0.987). National Health and Morbidity Survey 2015 reported that the prevalence of depression was higher among female as compared to male. Other studies showed similar results where the prevalence of depression was higher in women compare to men [15,16]. This might be due to different way of coping and experiencing the world as mentioned by [17].

In a previous study, higher educational level had been associated with lower rate of depression as the high educational level group was keener toward health seeking behavior if one experienced depressive symptoms [18]. Other studies also had shown similar consistency towards relationship of depression and educational level [19,20]. However, our study had achieved the opposite in which the tertiary level group had higher depression rate among them. This could be explained by the convenience sampling method and to be improved in future study.

In this study, there was no significant relationship between household income and depression. Even though other studies reported that poverty increase the risk of having depression [21,22], but our study was unable to present the similar output on this association. Our sampling method might be the reason for this contradiction.

Conclusion

The prevalence of depression among adults attending IIUM FHC was 10.4%. This finding was similar with a research done among the patients attending health clinic in Kuantan [5]. Marital status and working status had a statistically significant association with occurrence of depression. In accordance to this, a plan should be made in order to tackle this issue as a preventive measure. As an example, a campaign on depression should incorporate benefits of marriage to encourage such act thus minimize the rate of depression among these adults. Relationship of lifestyle factor such as smoking and alcohol with depression is recommended to be included in future research.

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