Role of family support in older adults defaulting treatment for depression: a case-control study

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ABSTRACT

Background. Only 10% of older adults who need mental health care receive it, and most default the treatment. We therefore evaluated the role of family support in compliance of depression treatment among older adults.

Methods. A case-control study was conducted. 148 depressed older adults (aged ≥60 years) who had defaulted treatment were the cases. Two control groups were used: one consisted of 148 depressed older adults who were followed up regularly and another consisted of 148 non-depressed older adults who were followed up for other psychiatric illness.

Results. Factors associated with defaulting treatment for depression were being unemployed (odds ratio [OR], 2.64), low education level (OR, 2.64), low income (OR, 1.61) and lack of family support (OR, 12.85). Multivariate logistic regression showed lack of family support (OR, 12.72; 95% confidence interval [CI], 7.00-23.12), being unemployed (OR, 3.83; 95% CI, 1.74-8.40), and being illiterate (OR, 2.49; 95% CI, 1.06-5.87) as significant predictors.

Implications. Family members should be aware that family support plays an important part in patient adherence to treatment.

Key words: Aged; Depression; Family; Malaysia

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INTRODUCTION

The population of older adults in the world will increase by 21% in the next 50 years. In developing countries, such population will quadruple to almost 2 billion by 2050.[1] In Malaysia, almost 10% of population will be ≥60 years by 2020, owing to improved health, longer life expectancy, lower mortality and fertility.[2]

In the United States, the burden of mental health is the same as that of cardiovascular diseases. In Australia, only a fraction of older adults who need mental health care receive it.[3] Depression is a silent illness and not a consequence of ageing. Depression can cause physical, cognitive, and social problems, and delay the recovery from other illnesses. It increases the risk of suicides, cognitive impairment, and dependency.[4] According to the World Health Organization, depression will be a major burden in developing countries.[5] In Malaysia, the prevalence of depression has been estimated to be 8 to 67%.[6-8]

Older adults are not at higher risk of depression than younger age-groups.[9] It is estimated that only 10% of older adults who need psychiatric help receive it,[10] and 40 to 75% among those who receive treatment are non-compliant.[11] The National Institute of Health has identified several factors causing non-compliance, including the lack of knowledge of the illness, cost of treatment, and medication side-effects.[12] Other factors involved are living alone, low

level of education, death of a spouse,[13] and caregivers who are unaware of the patient's illnesses.[14]

Geriatrics and psycho-geriatrics are emerging specialties in Malaysia, but research on the older adult population is limited. The main objective of this study was to determine the effect of family support on older adults defaulting depression treatment.

METHODS

This case-control study was conducted from July 2008 to July 2009 in psychiatric clinics of 4 major government hospitals in Kedah and Penang states of Malaysia. Informed consent was obtained from each participant before the interview. The ethics committee of the National University of Malaysia approved the study. Older adults were defined as those aged ≥60 years. Cases were defined as those who had defaulted follow-up for >1 month. Owing to the small sample size, 2 control groups were added to enhance the credibility. Control group A comprised depressed older adults who were followed up regularly, whereas control group B comprised non-depressed older adults who were followed up for other psychiatric illnesses.

The sample size was calculated using data variables from another study.[15] It was estimated that 144 cases and 288 controls (144 in each group) were required. All cases and controls were identified from the hospital records. Cases and controls were matched for gender, age, and race. Those who refused to participate, could not communicate effectively, or untraceable were excluded.

Subjects were interviewed using a yet-to-be-validated questionnaire. The questionnaire included a scale to determine the perceived family support, which comprised financial, time, and emotional support. There were 4 questions each on time and financial support and 5 questions on emotional support. Support was considered positive when half of the questions in each domain were responded positively. The respondents were considered to have family support when they had positive support in ≥2 domains. The Cronbach's Alpha reliability score was 0.953. Odds ratios to estimate risk of defaulting treatment were calculated using univariate and multivariate logistic regression analyses.

RESULTS

Of 172 eligible defaulters, 148 agreed to participate giving a response rate of 86%. The main reason for non-participation was death, inability to locate the participants, and refusal. The group consisted of 86 women and 62 men; 89 were Chinese, 42 were Malays, and 17 were Indians.

Most respondents were aged 60 to 79 years, had received up to primary level education, married, unemployed, and resided within 50 km of the hospital (**Table 1**). The 2 control groups were combined to form a single control group to analyse the risk of defaulting treatment. Illiterate and unemployed respondents were 3 fold more likely to have defaulted treatment. Respondents earning ≤RM600 were twice as likely to have defaulted (**Table 2**).

Most respondents from the case group did not have time and emotional support, and the difference in financial support was not significant. Most respondents from the control groups had support in all 3 domains (**Table 3**). The odds of defaulting treatment were almost 13 fold when there was no family support for treatment (**Table 4**).

In the multivariate logistic regression analysis, lack of family support (OR, 12.72; 95% CI, 7.00-23.12), being unemployed (OR, 3.83; 95% CI, 1.74-8.40) and being illiterate (OR, 2.49; 95% CI, 1.06-5.87) were significant predictors. The model had -2 likelihood ratio of 294.489, a Cox and Snell R squared of 0.324, and Nagelkerke R square of 0.432 (**Table 5**).

DISCUSSION

The ability to think, feel, to interact with others, to share a sense of purpose, to work, to love, to experience gratification, to care for others and to maintain self responsibility are precious human attributes that older adults strive to maintain.[10] The most important attribute that older adults respond well to is the sense of being needed and being able to do something worthwhile (e.g. an occupation). In this study, respondents who were unemployed were more likely to default treatment, similar to those with chronic illnesses such as tuberculosis.[16] However, this is not always the case. In studies in Nigeria[17] and India,[18] psychiatric patients defaulted treatment because of job commitments.

TABLE 1
Sociodemographics of the participants

Variable	No. (%) of persons		
	Cases (n=148)	Control A (n=148)	Control B (n=148)
Age (years)			
60-70	106 (71.6)	120 (81.1)	97 (65.5)
71-80	36 (24.3)	25 (16.9)	42 (28.4)
≥81	6 (4.1)	3 (2.0)	9 (6.1)
Level of education			
Illiterate	29 (19.6)	13 (8.8)	12 (8.1)
Primary	76 (51.4)	73 (49.3)	84 (56.8)
Secondary	40 (27)	50 (33.8)	32 (21.6)
Tertiary	3 (2)	12 (8.1)	20 (13.5)
Marital status			
Married	111 (75)	106 (71.6)	97 (65.5)
Divorced	32 (21.6)	32 (22.3)	35 (23.6)
Never married	5 (3.4)	9 (6.1)	16 (10.8)
Occupation			
Self-employed	11 (7.4)	36 (24.3)	16 (10.8)
Private	3 (2.0)	9 (6.1)	3 (2.0)
Unemployed	134 (90.5)	103 (69.6)	129 (87.2)
Distance to treatment place (km)			
≤10	76 (51.4)	77 (52)	70 (47.3)
11-50	62 (41.9)	64 (43.2)	76 (51.4)
≥51	10 (6.8)	7 (4.7)	2 (1.4)

TABLE 2
Risk analysis of sociodemographics in older adults defaulting treatment for depression

Variable	No. (%) of persons		p Value	OR (95% CI)
	Cases (n=148)	Controls A + B (n=296)		
Level of education			<0.001	2.64 (1.48-4.70)
Illiterate	29 (19.6)	25 (8.4)		
Literate	119 (80.4)	271 (91.6)		
Marital status				
Unmarried	37 (25)	93 (31.4)		
Married	111 (75)	203 (68.6)		
Income (RM)			0.03	1.61 (1.03-2.52)
≤600	112 (75.7)	195 (65.9)		
>600	36 (24.3)	101 (34.1)		
Occupation			<0.001	2.64 (1.43-4.89)
Unemployed	134 (90.5)	232 (78.4)		
Employed	14 (9.5)	64 (21.6)		
Residing with whom during treatment				
Family	118 (79.7)	249 (84.1)		
Others	30 (90.5)	47 (15.9)		
Carer during treatment				
Family	124 (83.8)	254 (85.8)		
Others	24 (16.2)	42 (14.2)		

TABLE 3
Family support to treatment

Variable	No. (%) of persons	
	Cases (n=148)	Controls A + B (n=296)
Financial support		
Money for transport		
No	66 (44.6)	75 (25.3)
Yes	82 (55.4)	221 (74.7)
Money for medicine		
No	70 (47.3)	87 (29.5)
Yes	78 (52.7)	209 (70.6)
Money for hospital fee		
No	69 (46.6)	89 (30.1)
Yes	79 (53.4)	207 (69.9)
Money for food		
No	69 (46.6)	74 (25)
Yes	79 (53.4)	222 (75)
Overall		
No	**68 (45.9)**	**75 (25.3)**
Yes	**89 (54.1)**	**221 (74.7)**
Time support		
Send to hospital		
No	89 (60.1)	60 (20.3)
Yes	59 (39.9)	236 (79.7)
Wait with respondent in hospital		
No	96 (64.9)	70 (23.6)
Yes	52 (35.1)	226 (76.4)
Meet the doctor		
No	97 (65.5)	74 (25)
Yes	51 (34.5)	222 (75)
Send respondent home		
No	93 (62.8)	60 (20.3)
Yes	55 (37.2)	236 (79.7)
Overall		
No	**93 (62.8)**	**60 (20.3)**
Yes	**55 (37.2)**	**236 (79.7)**
Emotional support		
Takes interest in illness		
No	77 (52)	43 (14.5)
Yes	71 (48)	253 (85.50
Takes interest in respondent taking medications		
No	86 (58.1)	52 (17.6)
Yes	62 (41.9)	244 (82.4)
Takes interest in appointments		
No	91 (61.5)	44 (14.9)
Yes	57 (38.5)	252 (85.1)
Discusses with doctor		
No	88 (59.5)	86 (29.1)
Yes	60 (40.5)	210 (70.9)
Ask type of treatment preferred by respondent		
No	93 (62.8)	97 (32.8)
Yes	55 (37.2)	199 (67.2)
Overall		
No	**91 (61.5)**	**53 (17.9)**
Yes	**57 (38.5)**	**243 (82.1)**

TABLE 4
Risk of defaulting treatment with versus without family support

Variable	No. (%) of persons		p Value	OR (95% CI)
	Cases	Controls A + B		
Family support			<0.001	12.85 (8.01-20.60)
No	104 (70.3)	46 (15.5)		
Yes	44 (29.7)	250 (84.5)		

TABLE 5
Multivariate logistic regression for the risk of defaulting treatment

Risk factors	Regression coefficient	Standard error	Wald	p Value	Adjusted OR	95% CI
Family support (no vs yes)	2.54	0.31	69.71	0.001	12.72	7.00-23.12
Occupation (unemployed vs employed)	1.34	0.40	11.19	0.001	3.83	1.74-8.40
Income (≤RM600 vs >RM600)	0.30	0.32	0.89	0.345	1.35	0.72-2.53
Education (illiterate vs literate)	0.91	0.44	4.39	0.036	2.49	1.06-5.87

Not having family support can be a reason for non-compliance and defaulting psychiatric treatment.[19] Family support can increase patient compliance to treatment for many illnesses[20] as well as depression.[21] Thus, it is important to involve family members in the treatment plan. Most caregivers do not know the type of treatment the patients were receiving.[14] In 213 schizophrenic patients, those who did not comply with treatment had family members who did not participate in the treatment.[22] Family support is positively associated with compliance to anti-psychotic treatment,[23] and appears essential in compliance to all types of psychiatric treatment.[24,25]

The lack of family support may be due to discharged patients not undergoing the rehabilitation process and caregivers not properly instructed to care for their family members.[26] Weakness in the family structure brought about by the death of a spouse or not having children or migration of the children may be another reason,[27] as is 'denial' by family members,[28] and the stress felt by the family members who feel trapped with no consideration of their own needs.[29]

CONCLUSION

Good family support can be obtained if caregivers are informed about the illness of their relative. The treatment plan should be discussed with family members and they should be told about the importance of support, especially emotional support for the patient.

ACKOWLEDGEMENT

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