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Family Experiences of Caring among Caregivers of Schizophrenia Patients

Mohamad, M. S.*, Hoesni, S. M., Subhi, N., Sheau Tsuey Chong, Sarnon, N. and Nen, S.

School of Psychology and Human Development, Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

ABSTRACT

The study aimed to investigate family caregivers' experiences of caring to a schizophrenia patient in the northern part of Malaysia. The family caregiving experiences from different ethnic groups in Malaysia were compared between urban and rural dwellers. Overall, there were 154 family caregivers who completed the questionnaires comprising standardised measures of the Experiences of Caregiving Inventory (ECI) and the Life Skills Profiles (LSP-39). Malay women were found to be the majority of the caregivers in this study who mostly came from the rural area. This study found that the majority of caregivers were Malay women who live in the rural area. Most of the caregivers identified themselves as parents aged 50 years and above. Predictors of negative appraisal for family caregivers were identified: (1) younger patient, (2) unemployed patient, (3) family with low income and (4) patient with low life skills. Meanwhile, predictors of positive appraisal include: (1) married patient, (2) patient with good like skills, (3) monthly income above RM800 and (4) dwelling in urban area. Interestingly, the life skills profile becomes a strong predictor for negative and positive appraisals. These predictors should assist community health workers when working with the family caregivers of schizophrenia patient.

Keywords: Caregivers, caring, multi-dimensional, schizophrenia

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E-mail addresses:
msuhaimi@ukm.my (Mohamad, M. S.),
smh@ukm.my (Hoesni, S. M.), nas2572@ukm.my (Subhi, N.),
stchong@ukm.my (Sheau Tsuey Chong),
norul@ukm.my (Sarnon, N.), salina_nen@ukm.my (Nen, S.)
* Corresponding author

INTRODUCTION

Internationally, the care of mental health patients has changed dramatically over the last decade. Community care emerged as a philosophy in the locus of treatment to mentally ill patients. Following this trend, there has been a decrease in the number

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of mental health patients in Malaysian institution-based mental health care. In the West, one of the documented effects of deinstitutionalisation and the development of community care is that there is an increasing number of families involved in taking care of patients with severe mental illness including schizophrenia (Lefley *et al.*, 1996). In general, schizophrenia is classified as a chronic mental health disease in Malaysia as well as around the world (Mohamad & Carpenter, 2010). Researchers of family caregiving stated that family caregivers not only provide the basic needs of care, including long-term assistance in housing and financial aid, but also as agents in the rehabilitation process (Hsio & Riper, 2010; Marsh & Johnson, 1997; Sun & Cheung, 1997). However, previous studies have argued that some of the families are untrained and unprepared to provide ongoing care to support their mentally ill relatives (Doornbos, 2002; Magliono *et al.*, 2005; Yip, 2003). It has also been noted that the family caregivers experienced 'burden' and struggle to manage unexpected situations, especially in societies that provide limited support to the mental health patients (Lefley, 1998; Marsh, 1999). Yet, the conceptualisation of 'burden' has been proven elusive and it is frequently criticised for being broad, negative and pessimistic in family caregiving research (Szmukler *et al.,* 1996; Awad & Voruganti, 2008). A previous research has suggested that family caregivers do not necessarily experienced burden (Chen & Greenberg, 2004; Joyce *et al.*, 2000). Szmukler *et al.* (1996) developed the Experiences of Caregiving Inventory (ECI) to tape the aspects of family caregiving, both positive and negative. They used the stress and coping paradigm by Lazarus and Folkman (1984) to explore the family caregiver's experiences to a person diagnosed with schizophrenia. Mohamad and Carpenter (2010) noted that there is a positive emotion in the stress and coping framework of family caregivers, in which it allows individuals to positively appraise their experiences based on their coping resources. In addition, Szumukler *et al.* (1996) noted that the positive appraisal of family caregiving is associated with the patients' Life Skill Profile (LSP). The appraisal of caregiving refers to the way people perceive their experiences based on three factors, namely, are coping abilities, social support and good services, when caring for someone with mental health problems in their community (Szumukler *et al.*, 1996). LSP attempts to emphasize patients' life skills inclusive of good and poor rather than their lack of skills (Rosen *et al.*, 1989). In other words, the good life skills refer to things that the patients can do, while the poor life skills refer to what they cannot do.

According to the World Health Organization (2001), community mental health services need to provide comprehensive and locally based treatment and care, which is readily accessible to people with mental illness and their families. However, the fact that the public mental health budget in many countries is directed towards maintaining institutional care

means that only few or no resources are available for more effective services in the community. In Malaysia, particularly, there are large variations between regions, and between rural and urban areas, where community mental health care facilities are usually found only in large city (Deva, 2004). Zahiruddin and Salleh (2005) found that the prevalence of burden experienced by caregivers in the semi-urban area was extensive with 40% of severe subjective burden (emotional distress) and 35.6% of objective burden (reality problems) to deal with the treatment and services, balance competing family needs, and manage their responses to difficult behaviours. Deva (2004) argued that Malaysian families choose to look after sick relatives at home and see the hospital as the last choice but the situation is reported to be different with mental illness, where they prefer their relative to be admitted into an institution. This might be because mental illness is often misinterpreted in the Malaysian society (Malaysian Psychiatric Association, 2005). For centuries, it has been seen as possession by evil spirits, moral weakness or punishment from a higher being or God (Haque, 2005). Those seen as suffering from mental illness are commonly perceived as restless, violent and unpredictable (Chang & Horrocks, 2006; Merican *et al.*, 2004). Moreover, mental illness is seen as a family problem rather than a societal problem in Chinese families (Yang, 2007; Yip, 2003). The Chinese believe that mental illness is caused by problems related to self-worthiness, which is measured by the material achievement (these include education, occupation and monetary gain) that brings the expected honour to the family (Haque, 2005). Deva (2004) noted that the Malay families believe that mental illness is not merely regarded as a medical illness but as a spirit possession or as a social punishment (Deva, 2004). In addition, Indians believe that evildoers could cast a spell on an individual to make them ill (Haque, 2005). Therefore, the concepts of mental illness and mental health continue to be based on mythology, and are socially or culturally unacceptable in Malaysia.

By considering all the factors that may influence the caregiving experiences by Malaysian families, this study is crucially needed to explore the experiences of caregiving between ethnic groups, and between rural and urban caregivers. Therefore, this study aimed to gain an understanding of the multi-dimensional experiences of Malaysian family caregivers whilst caring for their mentally ill relatives at home. This study hypothesised that the Malay caregivers, who are living in rural area, are more likely to appraise negatively towards their experience of caregiving as compared to the Chinese and Indian caregivers who live in the urban area.

METHODS

This quantitative study used a survey to identify the family caregivers' experiences of caregiving to a patient with schizophrenia. Prior to the data collection, the ethical approval and administrative clearance were obtained from the Malaysia National

Medical Research. All family caregivers caring for patients with schizophrenia, who attended Community Clinics in two areas, the city of Ipoh, Perak in February–April 2008 and the district of Pendang, Kedah in May–July 2008, were approached for participation in the study. The participants were living with patients with schizophrenia and were the main caregivers. Schizophrenic patients who had a substance-abused history were excluded. This was to avoid the study from becoming more complex because of the effects of social problems related to substance abuse. The main caregivers identified to have been taking care of a patient with schizophrenia for at least six months from their discharge from the mental health institution.

The participants were administered using the Malay versions of the Experience of Caregiving Inventory (ECI) and the Life Skills Profile (LSP-39). The back-to-back translation technique was used to translate the English version of the ECI and the LSP-39 into the Malay version. The ECI is a self-administered instrument with 66 items that explores the caregivers' appraisal of the caregiving experience suitable for the population that needs studies and also as an outcome measure for service developments. The items are scored on a 5-point Likert scale. It comprises ten subscales, eight negative (difficult behaviours; negative symptoms; stigma; problems with services; effects on family; need to backup; dependency; loss) and two positive subscales (rewarding personal experiences; good aspects of relationship with the patient). The total scores of the ECI negative sub-scales ranged from 32–148 and the ECI positive total scores ranged from 6-55. The Cronbach's alpha ranged from 0.67 to 0.93 for the ECI negative sub-scales and the ECI positive sub-scales ranged from 0.75 to 0.86. These alpha values were slightly lower than the original scores developed by Szmukler *et al.* (1996).

The LSP-39 was used for non-clinical users to measure those aspects of functioning or life skills which affected how successfully people with mental illness lived in the community or hospital (Rosen *et al.*, 1989). The LSP-39 has positive subscales such as self-care, non-turbulence and social contact. The negative subscales of the LSP-39 are communication and responsibility. It contains 39 individual items that were worded to focus on specific behaviours rather than general dimensions. The items were scored on a 4-point Likert scale. The total scores ranged from 68-155. The total score of the Cronbach's alpha coefficient was 0.84 for internal consistency. This is important, as the alpha value ranging between 0.68 and 0.89 is considered reliable with the samples in this study.

RESULTS

Characteristics of the caregivers

In total, 154 out of 200 caregivers participated in this research and almost 80% were female, who mostly aged between 41-60 years; the vast majority were Malay and dwelling in the rural area; most were married. More than half of the caregivers have had primary level education and less

than half are employed, especially in the rural area. The relationships of the carers to persons with mental illness are parents, spouse and siblings. About 57.1% of the families have a household income more than RM500 per month and over two-third have more than four members in their household. The association between caregivers' backgrounds in the different areas showed that two-third of the Malays are living in the rural area, whereby the urban carers have higher income as compared to the rural carers who have larger household size (see Table 1).

Only the proportions of the ethnic groups, relationship status, household income and household size were significantly different between the two areas. Nonetheless, it is shown in Table 2 that there are no significant differences between ethnicity and caregivers' background, except for household income (χ^2=8.59, p<0.005) and household size (χ^2=13.74, p<0.005).

TABLE 1
The relationship between Carer's Demographic Profile and Area

Characteristics	Urban Area (n = 61)		Rural Area (n= 93)		Total (n= 154)		Test for association
	Frequency	%	Frequency	%	Frequency	%	
Gender							$X^2 = 0.01$
Male	12	19.7	19	20.4	31	20.1	df = 1
Female	49	80.3	74	79.6	123	79.9	p = 0.909
Age Group (Year)							$X^2 = 4.20$
≤ 40	9	14.8	17	18.7	26	16.9	df = 2
41 to 60	48	78.7	59	64.8	108	70.1	p = 0.122
> 60	4	6.6	15	16.5	20	13	
Ethnic Group							$X^2 = 43.55$
Malay	31	50.8	89	98.7	120	77.9	df = 2
Chinese	24	39.3	4	4.3	28	18.2	p < 0.001
Indian	6	9.8	0	0	6	3.9	
Marital Status							$X^2 = 2.46$
Single	5	8.2	5	5.4	10	6.5	df = 2
Married	51	83.6	85	91.4	136	88.3	p = 0.293
Other	5	8.2	3	3.2	8	5.2	
Relationship with relative							$X^2 = 13.35$
Parents	39	63.9	51	54.8	90	58.4	df = 2
Spouse	6	9.8	31	33.3	37	24	p < 0.001
Other	16	26.2	11	11.8	27	17.5	
Education Level							$X^2 = 0.06$
Primary	36	59	53	57	89	57.8	df = 1
Secondary/Tertiary	25	41	40	43	65	42.2	p = 0.803
Job Status							$X^2 = 1.64$
Employed	32	52.5	39	41.9	71	46.1	df = 1
Unemployed	29	47.5	54	58.1	83	53.9	p = 0.200
Monthly Income (RM)							$X^2 = 19.55$
≤ 500	13	21.3	53	57	66	42.9	df = 2
501 to 800	22	36.1	21	22.6	43	27.9	p < 0.001
> 801	26	42.6	19	20.4	45	29.2	
Household Size							$X^2 = 6.35$
≤ Four	24	39.3	23	24.7	47	30.5	df = 2
Five	33	54.1	53	57	86	55.8	p = 0.042
≥ Six	4	6.6	17	18.3	21	13.6	

TABLE 2
The relationship between Carer's Demographic Profile and Ethnicity

Characteristics	Malay (n = 120)		Non-Malay (n= 34)		Total (n= 154)		Test for association
	Frequency	%	Frequency	%	Frequency	%	
Gender							X^2=0.80
Male	26	21.7	5	14.7	31	20.1	df=1
Female	94	78.3	29	85.3	123	79.9	p=0.372
Age Group (Year)							X^2=2.27
≤ 40	23	19.2	3	8.8	26	16.9	df=2
41 to 60	81	67.5	27	79.4	108	70.1	p=0.322
> 60	16	13.3	4	11.8	20	13.0	
Area of living							X^2=43.13
Urban	31	25.8	30	88.2	61	39.6	df=1
Rural	89	74.2	4	11.8	93	60.4	p<0.001
Marital Status							X^2=1.18
Single	8	6.7	2	5.9	10	6.5	df=2
Married	107	89.2	29	85.3	136	88.3	p=0.555
Other	5	4.2	3	18.8	8	5.2	
Relationship with relative							X^2=2.10
Parents	68	56.7	22	64.7	90	58.4	df=2
Spouse	32	26.7	5	14.7	37	24.0	p=0.349
Other	20	16.6	7	20.6	27	17.6	
Education Level							X^2=2.82
Primary	68	56.7	21	61.8	89	57.8	df=1
Secondary/Tertiary	52	43.3	13	38.2	65	42.2	p=0.595
Job Status							X^2=0.43
Employed	57	47.5	14	41.2	71	46.1	df=1
Unemployed	63	52.5	20	58.8	83	53.9	p=0.514
Monthly Income (RM)							X^2=8.59
≤ 500	58	48.3	8	23.5	66	42.9	df=2
501 to 800	33	27.5	10	29.4	43	27.9	p=0.014
> 801	29	24.2	16	47.1	45	29.2	
Household Size							X^2=13.74
≤ Four	29	24.2	18	52.9	47	30.5	df=2
Five	70	58.3	16	47.1	86	55.8	p<0.001
≥ Six	21	17.5	0	0	21	13.6	

Carers' Negative Appraisal of Caregiving

The results of the univariate analysis of predictors are shown in Table 3. Statistically significant predictors for carers' negative appraisal are associated with patient's characteristics, such as younger age and being unemployed, as well as the total score of LSP-39. These findings suggested that carers negatively appraised their experience when their relatives had poor social life skills, no jobs and were of younger age. Furthermore, there was no statistically significant association with the carers' characteristics in the prediction of their negative experience of caregiving, as measured by the ECI negative subscales.

TABLE 3
Predictors on the total score of the ECI negative

Predictor Variables	B	Std. Error	Beta	*t*	*P*	95% Confidence Interval for B	
(Constant)	538.54	46.72		11.53	<0.001	446.17	630.92
LSP-39 Score	-95.65	9.50	-0.61	-10.08	<0.001	-114.42	-76.89
Characteristics of the Carer							
Living in rural area	3.82	5.00	0.05	0.77	0.445	-6.05	13.70
Age	0.34	0.21	0.12	1.63	0.104	-0.71	0.74
Male	2.33	4.05	0.03	0.58	0.566	-5.67	10.33
Parent	-1.94	3.48	-0.04	-0.56	0.578	-8.81	4.94
Monthly Household Income	-0.94	1.79	-0.03	-0.53	0.600	-4.48	2.60
Characteristics of the Patient							
Age	-0.77	0.25	-0.24	-3.10	0.002	-1.26	-0.28
Male	1.94	4.05	0.03	0.48	0.632	-6.06	9.95
Malay	4.55	3.70	0.08	1.23	0.221	-2.76	11.86
Married	3.19	3.18	0.07	1.01	0.317	-3.09	9.48
Unemployed	13.34	3.71	0.21	3.59	0.001	6.00	20.68
Duration of illness	-0.84	2.14	-0.03	-0.39	0.696	-5.06	3.39

Adjusted R Square = 0.593

The multivariate analysis was performed with all these potential predictor variables. The resulting model is shown in Table 4. It can be seen that once again, the Life Skills Profile is a strong predictor. There is also a significant contribution on the ECI negative scores associated with patient's age and patient's employment status. These results indicate that the caregivers' appraisal of caregiving would be more negative if their relative was younger, unemployed and lower ability in social life skills. All the variables accounted for 58.8% of the variance in the total ECI negative scores. This indicates that only the service user's characteristics and the LSP-39 predict the caregiver's negative appraisal of caregiving.

Carers' Positive Appraisal of Caregiving

Table 5 shows that there are four significant predictors associated with the total ECI positive scores. Two of the predictors are the caregivers' characteristics: living in rural area and having household income of more than RM800 per month. The other predictor was the total score of the LSP-39, which is the strongest predictor for the carers' positive appraisal. None of the service user's characteristics, except for the married patients, is a significant predictor for the caregiver's positive experience of caregiving. In all the cases, except for living in the rural areas, others are positively associated with the positive appraisal of caregiving. In conclusion, carers positively

TABLE 4
Multivariate Model for caregiver's negative appraisal of caregiving

Predictor Variables	B	Std. Error	Beta	*t*	*p*	95% Confidence Interval for B	
(Constant)	562.70	42.30		13.30	<.001	479.11	646.29
LSP-39 Score	-98.24	8.8	-0.63	-11.16	<.001	-115.64	-80.84
Age of patient	-0.59	0.18	-0.18	-3.38	<.001	-0.94	-0.25
Unemployed patient	12.72	3.50	0.20	3.64	<.001	5.81	19.64

Adjusted R Square = 0.588

TABLE 5
Predictors on the total score of the ECI positive

Predictor Variables	B	Std. Error	Beta	*T*	*p*	95% Confidence Interval for B	
(Constant)	-138.29	25.97		-5.33	0.000	-189.62	-86.95
LSP-39 Score	33.73	5.28	0.51	6.39	<0.001	23.30	44.16
Characteristics of Carer							
Living in the rural area	-10.15	2.78	-0.34	-3.65	<0.001	-15.63	-4.66
Age	0.12	0.11	0.10	1.05	0.296	-0.11	0.35
Male	-0.10	2.25	-0.003	-0.04	0.965	-4.55	4.35
Parent	-2.38	1.93	-0.12	-1.23	0.221	-6.20	1.44
Monthly Household Income	2.21	1.0	0.18	2.22	0.028	0.24	4.18
Characteristics of the Patient							
Age	0.03	0.14	0.02	0.23	0.822	-0.24	0.31
Male	-0.36	2.25	-0.01	0.16	0.874	-4.81	4.09
Malay	-3.54	2.06	-0.14	-1.72	0.088	-7.60	0.53
Married	4.11	1.77	0.20	2.33	0.022	0.61	7.60
Unemployed	1.93	2.06	0.07	0.94	0.350	-2.15	6.01
Duration of illness	-0.13	1.19	-0.01	-0.11	0.915	-2.47	2.22

Adjusted R Square = 0.298

appraised their caregiving experiences when they were living in the urban area, earning more than RM800 a month, and have had relatives who are married and possess greater social life skills.

As shown in Table 6, the multivariate analysis was performed with all these potential predictor variables for predicting the positive appraisal of caregiving. The Life Skills Profile was again the strongest predictor. There is also a significant contribution on the ECI positive scores associated with caregivers living in the rural area and patients who are married. These variables accounted for 29.3% of the variance. Therefore, this indicated that caregivers positively appraised their experience of caregiving when they were living in the urban area and caring for a married patient who had good social life skills.

TABLE 6
Multivariate model for caregiver's positive appraisal of caregiving

Predictor Variables	B	Std. Error	Beta	*T*	*P*	95% Confidence Interval for B	
(Constant)	-124.09	21.88		-5.67	0.000	-167.33	-80.85
LSP-39 Score	32.38	4.59	0.49	7.06	<0.001	23.32	41.44
Rural area of living	-7.88	2.44	-0.26	-3.23	0.002	-12.70	-3.05
Household Income	1.32	0.89	0.11	1.48	0.140	-0.44	3.07
Patient who is married	3.19	1.57	0.16	2.03	0.044	0.08	6.30

Adjusted R Square = 0.293

DISCUSSION

This study of the experience of caregiving to a person diagnosis with schizophrenia is probably one of the first studies using the experience of the caregiving inventory to have been completed in Malaysia. It is also unusual in two other respects. First, it compared between three different ethnic groups, namely, Malay, Chinese and Indian. Second, the data were collected in two different areas, namely, urban and rural. However, as the data were selected from two community clinics in two states, the findings of the study could not represent the country as a whole.

In this study, the survey data showed that there was no relationship between the appraisals of caregiving, as indicated in the ECI, and the different ethnic groups. Although the different ethnic groups did not predict the caregiver's psychological distress, there were some differences found within the caregiver's characteristics between the Malays and non-Malays. As a consequence of the sampling strategy, the majority of the Malay caregivers were found in the rural area, whereas more Chinese and Indian caregivers were located in the urban area. There was a statistically significant difference between the ethnic groups and area of living. In terms of the socio-economic status, the Chinese and Indian caregivers have higher incomes and smaller household size compared to the Malay caregivers. The family income per month and the number of family members in the household also had statistically significant difference among the three ethnic groups. According to the education level, a higher proportion of the Malay caregivers received secondary or tertiary education as compared to the non-Malay caregivers; however, there was no statistical difference between the different ethnic groups and their education level. This might be due to the fact that the samples were unbalanced, i.e., the majority of the non-Malay sample comprised of those living in the urban area and only a few Chinese participated in the rural region.

In this study, although the caregiver's negative appraisal of caregiving was predicted by the relatives' disability for social functioning, the sample were still young and unemployed. This was because carers might expect their relatives to perform some family obligations such as the ability to

work or to help with the household routines. This finding is congruent with other studies (Zahiruddin & Salleh, 2005; Mo *et al.*, 2008; Tucker *et al.*, 1998; Harvey *et al.*, 2001). Meanwhile, the other scenario that could be derived was that most caregivers who gave positive appraisal live mainly in the rural area even though the community mental health services are commonly based in the urban area. This could be better explained by examining the caregiver's demographic data, where most of the rural caregivers are female and mothers to their relatives who perceived their roles as responsible to care instead of burden (Chadiha *et al.*, 2004).

Further analysis of the survey data revealed a statistically significant difference between the positive appraisals of caregiving and caregivers living in the urban and rural areas. However, there was no statistically significant difference between the negative appraisals of caregiving and caregivers living in urban and rural areas. This shows that the caregivers who are living in the urban area have more positive appraisals in caring for their relatives as compared to those living in the rural even though there no relationship was found between the caregivers living in different areas and their psychological distress. Meanwhile, some previous studies have shown that there were statistically significant differences between urban/rural caregivers and the impact of caregiving but minimal variation in caregiver stress and burden (Perlick, *et al.*, 2006; Dwyer & Miller, 1990; Amato, 1993). There are some structural differences in the ability of the conceptual model to explain stress and burden by the area of residence. Some researchers noted that residential differences are the complex factors associated with family caregiver's burden that need to be considered when formulating public policy, designing intervention strategies, and conducting future research (Perlick *et al.*, 2006; Dwyer & Miller, 1990). Many researchers in the developed countries suggested that the strain of providing care would be greater for caregivers living in rural areas because of greater environmental stressors, such as lack of social support, lack of coping resources and stigmatisation (Roick *et al.*, 2010; Magliano *et al.*, 2005). Some of the researchers who studied the psychological distress in family caregiving found that caregivers not only experience a greater burden due the variety of tasks included in caregiving but there is also a considerable variability in how successfully individuals accommodate and adjust to caregiving resources (Perlick *et al.*, 2006; Lefley, 1998; Schulz *et al.*, 1990).

Similar to these studies, caregivers living in the rural areas were more likely to have a negative experience of caregiving because of the limited resources to help them cope with their stressors, and this might be due to the more extensive community mental health resources available in the urban city (Tsuchiya & Takei, 2004). There are more mental health facilities available in the urban area in this study; in fact, one of the psychiatric hospitals is located and available for all mental health service users, while caregivers in the rural area only receive mental health services through a community

clinic and a general state hospital. The limitations of mental health facilities might affect the relatives' treatment, especially when their conditions worsen and there are inadequate services available to them and their caregivers. This may be the reason why the rural caregivers are less positive in their caregiving appraisals. In terms of the socio-economic status, Dwyer and Miller (1990) noted that rural caregivers had significantly lower incomes and were more likely to be unemployed due to caregiving. Similarly, the findings of this study also noted that caregivers who are living in the urban area have higher family income per month compared to those in the rural samples. A higher monthly income is positively correlated with the positive appraisal of caregiving. Therefore, it is not surprising if the rural caregivers are less likely to become positively appraised their experiences because they have the lowest family income every month.

Moreover, since many people diagnosed with schizophrenia are unmarried and the illness lasts for years, the caring responsibility still falls on the family as time progresses. When the family reaches the stage of the empty nest and the parent's retirement, most of the children in Malaysia leave home to be on their own. The impact of urbanisation is that many young people in Malaysia migrated from rural areas to urban areas to seek for employment. This situation presents a greater challenge to older caregivers, especially for those Malay families who mostly live in rural areas. This is the reason why many rural caregivers are less positive with their caregiving experiences because they may have faced more difficulties in caregiving, which is further complicated by their own ageing problems such as the loss of income and deterioration of their health. In this study, one in seven of the rural caregivers aged above 60 while only one in 17% aged above 60 in the urban area. However, no statistically significant difference was found between the caregiver's age with urban/rural or ethnicity. Most of the Malays are located in the rural area.

This reflects the local findings of Zahiruddin and Salleh (2005) who also found that the majority of the Malay caregivers experienced a greater burden. Therefore, urban caregivers, particularly the Malays were found to be less positive with their experiences, which could be due to the burden of care. Furthermore, the family structure has also been shown to be an important factor in comparing between the caregivers in the urban and rural areas. The rural caregivers have more family members compared to the urban caregivers, which may mean that they experience a heavier financial burden and are less likely to be positive about their caregiving. More parents were found in the urban area, whilst more spouses lived in the rural area. This may also influence the caregiver's positive appraisals where parental caregivers are more likely to be positive about their experiences of caregiving, especially mothers (Lefley *et al.*, 1996).

Generally, this study has demonstrated the considerable differences between

urban/rural caregivers and ethnicity on a number of personal and household characteristics. In addition to the observation that the rural and urban environments are dissimilar in many ways, it is important to point out that not all of the characteristics of the family caregiving vary systematically along the rural-urban residential continuum. In other words, some of the comparisons described in the caregiver's characteristics show uniformly from one point on the residential continuum to the next; for example, all the three ethnic groups were found in the urban area but only two ethnic groups were recruited in the rural area. Nevertheless, wherever possible, such finer distinctions between geographical areas should be parts of future investigations.

CONCLUSION

Overall, this study managed to identify all the potential variables for predicting the caregiver's appraisals of caregiving. The caregiver's rating to have a relative with poor life skills, young and unemployed, seemed to predict their negative appraisal of caregiving. The caregiver's positive appraisal of caregiving was predicted by the caregiver's rating to have a married relative with good life skills and a household income of more than RM800 and they were less positive when living in the rural area. The study also found that the ECI and the LSP-39 were reliable and valid to measure the family caregiver's experiences. In terms of ethnicity, this study found that caregivers who are Malay and non-Malay were not statistically and significantly different in term of their appraisal. Meanwhile, only caregivers' area seemed to predict the positive experiences of caregiving. Therefore, the hypothesis of this study was accepted. The findings of this study should help community health workers in Malaysia to work effectively with the family caregivers of schizophrenia patients.

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