ORIGINAL ARTICLE

Urban-Rural Discrepancies of low-income Women-headed Households in Malaysia

Hazila Abdul Kadir, Sharifa Ezat Wan Puteh

Department of Community Health, Faculty of Medicine, Universiti Kebangsaan Malaysia, Cheras, Kuala Lumpur

ABSTRACT

INTRODUCTION: Malaysia's rapid economic growth and rising living costs have affected the lives of lower-income B40. This population group acquire less than 3,855 Malaysian Ringgit (892.26 US Dollars) per month. This study aims to determine the health status, quality of life (QOL) and needs of B40 women in an urban and rural area in Malaysia. **MATERIALS AND METHODS**: A total of 300 B40 women from Beranang (Selangor) and Kuala Lumpur (KL), Malaysia, participated in a cross-sectional study concerning their needs, health status, and QOL using semi-guided instruments. Bivariate and multivariate analyses identified QOL and health status factors. **RESULTS**: Rural (OR=10.68; 95% CI=1.85-61.10) and poor urban participants (OR=8.54; 95% CI 2.36-15.62), with the higher income households were healthier. Government hospital patients in Beranang were healthier (OR=9.52; 95% CI=2.64-24.10). Staying alone (OR = 8.33; 95% CI=2.94-25.00) and non-recipient of government aid, Bantuan Sara Hidup (BSH) (OR=3.85; 95% CI=1.10-13.43) was associated with poor health status among KL poor B40 women. B40 women's QOL was predicted by marriage (OR=14.28; 95% CI=1.81-24.54), not staying alone (OR=2.04; 95% CI=1.13-5.88), recipient of BSH (OR = 28.83; 95% CI=10.11-71.13), and absence of an underlying disease (OR=5.90; 95% CI=1.26-33.93). Meanwhile, the odds of meeting B40 women needs was associated with lower ages (40-49 years) (OR=21.00; 95% CI 2.25-34.56), absence of an underlying diseases (OR=32.10; 95% CI 4.62-124.56), recipient of BSH (OR=30.49; 95% 5.92-64.01), and married status (OR=19.61; 95% CI 1.42-27.15). **CONCLUSION**: B40 women's QOL, health status, and ability to meet basic needs in Beranang and KL are diverse. Policymakers and relevant authorities should consider these factors to improve the QOL and health status of B40 women and women-headed households in Malaysia.

Keywords
Bottom 40%, rural B40, poor urban B40, quality of life, health status

Corresponding Author
Dr. Hazila Abdul Kadir
Department of Community Health,
Faculty of Medicine,
Universiti Kebangsaan Malaysia, 56000
Kuala Lumpur, Malaysia
E-mail : zzila112@gmail.com

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INTRODUCTION

Malaysia has a current population of 32 million people and is considered one of the densest populations for a country of this size.[1] Several major cities in the country contribute to these figures with an estimated population of 10,000 to 100,000 people from115 Malaysian cities.[2] According to the 2016 annual report by the Department of Statistics in Malaysia, the country's annual population growth rate was 1.5%.[2] In both urban and rural areas, the B40's spending surpassed their income between 2009 and 2014, thereby affecting their quality of life (QOL).[4] Although a higher percentage of B40 households was headed by men (80.7%) compared to 19.3% headed by women, the Malaysia Human Development Report revealed that female-headed families were worse off.[4]

In order to elucidate the challenges faced by female-headed families, the social and economic context could be employed to assess their QOL. In this context, QOL is usually characterised in three dimensions: needs, health state, and income status.[5] QOL has also been employed as a unique measuring tool in intervention research or clinical trials, economic impact research combined with cost-utility analyses, and health technology assessment studies. Several alternative approaches or

indicators are available in determining the gradient level when measuring socioeconomic status.[6] Less affluent people utilise public health services more than wealthier people. Arguably, this scenario could result from their decreased wealth or a wider social phenomenon. Household income can also be used to assess socioeconomic class. The ability of an individual to balance or meet expenditures is directly related to the income per households.[7]

The World Health Organisation (WHO) stresses the importance of evaluating and improving people's health and QOL.[8] The QOL is often referred to as health-related QOL (HRQOL) and it has become a key criterion for public health and healthcare intervention. HRQOL is also associated with evaluating happiness and life satisfaction relative to the health of the individual.[9] Several techniques are utilised to investigate the link between health and QOL. This study focuses on holistic health by employing the EuroQOL 5 Dimension (EQ5D) with five levels of health problems[10] and Needs Assessment (CANSAS-P), specifically for assessing the health status and needs to be met among B40 women. Most of the contents in these instruments have been validated in Malaysia.[11]

Malaysia's rapid economic growth and rising living costs may have an impact on the B40 group, so the government has focused on improving their economy, income, and well-being. However, the link between socioeconomic status and QOL have generated extensive debate in the literature. The impact of socioeconomic factors in determining health status has been acknowledged since the 19th century.[12] For instance, lower socioeconomic status is frequently associated with a higher risk of mortality from non-communicable diseases.[13] Location, particularly urban and rural amenities and services, also affects QOL. Poor urban housing conditions, insufficient healthcare facilities, and a lack of social support have all been found to have a negative influence on the QOL of residents.[14] In rural Malaysia, poor health, the prevalence of communicable diseases, and poor housing conditions are associated with low QOL.[15,16] Meanwhile, the QOL is significantly higher among populations above the B40 group characterised by overall better health conditions and good housing. [16] Low QOL among those belonging to the middle-income and high-income were mainly linked to lifestyle and psychological factors rather than issues relating to healthcare and socio-economic status.[15,17]. Hence, more research is required to elucidate the relationship between QOL and socio-economic status, especially among B40 women-headed households, since this low-income group is significantly affected by the discrepancies in rural and urban settings in Malaysia.[17,18] Moreover, there is insufficient data comparing the subpopulations of B40 in rural and urban areas. The QOL of B40 women assessment will help decision-makers strategize on how to improve their income, health, and wellbeing, in line with the National Plan of Malaysia.

This study hypothesises that the needs of B40 women, QOL, and health status vary between Beranang (Selangor) and Kuala Lumpur (KL.) This study focuses on the B40 population in Selangor, since it is the state with the highest percentage of the country's population at 19.9%.[2] Beranang is sub district in the state of Selangor where farming is the main occupation. Females make up approximately nearly 50% of the population, and the working-age sub-population increased by 0.2% to 69.5% in 2016 while the elderly population increased by 0.2% to 6.0%. Whilst, KL, Malaysia's largest, capital city, is a key metropolis that acts as a cultural, financial, and economic hub. KL has a population of approximately 1.76 million people and covers an area of 243 square kilometres.[1] Hence, this study aimed to evaluate the QOL, needs, and health status of B40 women living in impoverished a rural and poor urban area in Beranang and KL.

MATERIALS AND METHODS

Study Area

This study was conducted in Beranang and KL in nine districts that are separated into rural and urban areas. Beranang has a population of 50,000 people who primarily rely on agricultural related activities-and connected suburb of Hulu Langat. A recent report revealed that approximately 25,000 of the working and aged population in Beranang were females.[2] Meanwhile, KL City Hall (KLCH) is responsible for allocating and administering 60,853 People's Housing Scheme (PPR) units to low-

income residents in KL through a formal application process. These units are in high demand due to low rental rates. Nevertheless, most citizens do not live in Malaysia's developed cities but rather in rural areas.[16] Most of the rural inhabitants are the lower-income population who earn less than 3,855 Malaysian Ringgit (892.26 United States Dollars) per month, also known as the B40.[3]

Study Design, Sample Size Estimation and Sampling Procedure

This comparative cross-sectional study was done from February until August 2020. The required sample size was estimated as 300, 150 from each area, based on the overall mean score of QOL in a previous study conducted among B40 in Malaysia, a precision error of 5%, a 95% confidence interval, and a population of 500,000 B40 citizens living in the study area.[19] Thus, 300 B40 women from rural and poor urban areas were randomly sampled. From January to December 2019, these women were recruited using DOSM and KLCH data.

Inclusion and Exclusion Criteria

Women belonging to the B40 group in the study areas were selected according to specific inclusion criteria.[1] The participant must be aged 18 years and above and earning a maximum income of MYR 3249 per month (aligning with the definition of B40 individuals by the Malaysian Department of Statistics, 2019).[2] The participant plays a role in their household spending and financial obligations[3] must be presently living in an area that can be categorically classified as either urban poor or rural areas in the study area and[4] those living in rural areas must come from Beranang, and[5] both provide an oral and written consent.

Participants' Consent and Ethical Approval

The 300 participants were instructed on the study's aims and confidentiality. They were assured the survey presents no risk and will only be utilized for research. Participants were presented with a hardcopy of the survey showing no personal data would be collected. Participants signed a consent form before completing the questionnaire. The study commenced with the approval and ethical clearance from Universiti Kebangsaan Malaysia's Research Ethics Committee.

Study Instrument, Measurement, and Administration

The data was gathered using a semi-guided questionnaire. Sections A and B comprised the questionnaire. Section A (Socio-Demographic Data) includes age, strata (rural vs urban), household monthly income, ethnicity, occupation, number of dependents, marital status, educational qualification, and religion. This section includes regarding participants' health, healthcare delivery (outpatient and inpatient), and healthcare expenses. Section B measures QOL, health status, and needs. QOL and health status were measured using EQ5D and VAS, respectively. Through CANSAS-P, participants' needs were assessed. The CANSAS-P is a self-completion assessment that evaluates each of the 22 CAN domains. This study utilized the CAN questionnaire since it has been verified for reliability and validity, resulting in significant results. It can assist establish a service user's treatment plan and evaluate unmet needs, therapeutic alliance, and QOL.

Measurement

This study measured QOL, needs, and health status using EQ5D utility value, CANSAS-P, and VAS. Sociodemographic data from the previous section were independent factors. Demographic characteristics were measured as categorical variables, except for age and household income which were measured as continuous variables. Additional variables were classified into four levels using the mean value as the cut-off.

EQ5D-5L utility value and EQ-VAS were used to measure health status and QOL as continuous variables. The EQ-VAS utilizes a vertical 0 to 10 scale to measure participants' health on the same day, with 10 representing "best imaginable health" and 0 representing "worst imaginable health." The EQ5D descriptive method measures five elements (mobility, self-care, usual activities, pain or discomfort, anxiety or depression) on the same

day. These factors were assessed using a five-level scoring system, where Score 1 = no problems, score 2 = slight problems, score 3 = moderate problems, score 4 = severe problems, and score 5 = extreme problems. Each respondent was provided five numerical values representing the five dimensions of the EQ5D questionnaire.[20] The survey instrument demonstrated an acceptable concurrent validity with the SF-12 questionnaire among Malaysian adults (r = MCS-12: 0.2 and PCS-12: 0.4).[11] Likewise, the validity of Spearman Rank correlation coefficients in Malay, English, Mandarin and Tamil was reported to range from 0.61 to 0.86. Concurrently, the EQ5D test-retest revealed an Intra-class coefficient (ICC) ranging from 0.01 to 0.92 for the five dimensions of the EQ5D.[19]

Statistical Analysis

Results were analyzed by using SPSS version 25. Categorical data were summarised and presented in frequency (n) and percentage (%) using descriptive statistics, whereas continuous data were assessed for normality using skewness and kurtosis before further analysis. Continuous data complying to normality assumptions were presented as mean and SD, while non-normally distributed data were summarised as median and IQR (IOR). Pearson correlation coefficient was utilised to analyse the bivariate relationship between QOL, needs met, and health status.

Since the utility value and QOL outcome were measured as continuous variables, their mean values were used as cut-off points to divide the outcomes into two categories: high and low, as described in previous studies.[15,19] Next, associations between dependent (participants' QOL, health status, and needs) and independent variables (socio-demographic characteristics) were determined using separate binary logistic regression analyses among rural and urban poor B40 women. A univariable model was first built and factors significant at the p-value of 0.1 were selected for the multivariable model. Multivariable model predicts QOL, health status, and needs with a p-value of 0.05.

RESULTS

Participants' Characteristics

Of the 300 women (Table I), with 150 each from rural and poor urban areas. Most of the poor urban and rural participants were between 30 and 49 years old (53.3% vs 35.3%), with an average of 45.5 years old. The majority were Malays (76.7% vs 99.3%), married (62.7% vs 58.7%), and Muslims (76.7% vs 100%). The majority of B40 women from rural and poor urban areas attained primary and secondary education (79.3% vs 86.7%). However, a higher proportion of the poor urban B40 women were employed (42.0%) while 44.6% of the rural B40 women were housewives (Table I).

In terms of household income, 50.0% of the poor urban participants earned between 1001 and 2000 RM per month, whereas 44.6% of rural B40 women earned less than <1000 RM per month. The mean household income was 1654 RM per month. Most of the rural participants (83.3%) were beneficiaries of subsistence assistance (*Bantuan Sara Hidup*-BSH) compared to urban participants at 25.3%. Whereas none of the rural B40 women affirmed to be currently having health problems, 47.4% of the poor urban had a chronic medical illness, including hypertension, diabetes, hyperlipidaemia, renal difficulties, asthma, heart disease, or cancer. Most participants visited primary care clinics and hospitals (86.0%), sought care in government hospitals (89.3%), and pay for their treatment costs (71.3%).

For both poor urban (OR = 10.68; 95% CI = 1.85-61.10) and rural participants (OR = 8.54; 95% CI 2.36-15.62), those with the highest income were more likely to record better health status compared to those with lower income levels (Table II). For rural participants, those that attended government hospitals had a better health status (OR = 9.52; 95% CI = 2.64-24.10) than those that attended "other" health facilities. Specifically, staying alone (OR = 8.33; 95% CI = 2.94-25.00) and non-recipient of BSH (OR = 3.85; 95% CI = 1.10-13.43) was associated with poor health status among urban B40 women.

Table I. Frequency distribution of socio-demographic characteristics of participants' (n = 300)

Variables (n = 300)	Poor Urban (n = 150)		Rural (n = 150)		Total	
	Frequency	%	Frequency	%	Frequency	%
Age						
18-29 years	24	16.0	21	14.0	45	15.0
30-49 years	80	53.3	53	35.3	133	44.3
years	22	14.7	31	20.7	53	17.7
>60 years	24	16.0	45	30.0	69	23.0
Ethnic						
Malay	115	76.7	149	99.3	264	88.0
Chinese	7	4.7	1	7.0	8	2.7
Indian	28	18.7	0	0.0	28	9.3
Marriage status						
Married	94	62.7	88	58.7	182	60.7
Single	17	11.3	24	16.0	41	39.3
Divorced	13	8.7	5	3.0	18	
Widow	26	17.3	33	22.0	59	
Religion						
Muslim	115	76.7	150	100.0	265	88.3
Non-Muslim	35	23.3	0	0.0	35	11.7
Education						
No Formal Education	7	4.7	4	2.7	11	3.7
Primary and Secondary School	119	79.3	180	86.7	297	81.7
College/University	24	16.0	16	10.7	44	14.6
Number of dependants						
0	25	23.3	59	39.3	94	31.3
1-3	31	20.7	41	27.3	72	24.0
>4	84	56.0	50	33.4	134	44.7
Staying alone						
No	143	95.3	91	60.7	234	78.0
Yes	7	4.7	59	39.3	66	22.0
Current type of work:						
Housewife	52	34.7	67	44.6	119	39.7
Employed	63	42.0	48	32.0	111	39.0
Unemployed	28	18.6	29	19.3	57	21.3
Others	7	4.7	6	4.0	13	3.0
Total household income:						
<1000	28	18.7	67	44.6	95	31.7
1001-2000	75	50.0	51	34.0	126	42.0
2001-3860	47	31.3	32	21.3	79	26.3
Are you a BSH recipient?						
No	38	25.3	125	83.3	124	41.3
Yes	112	74.7	25	16.7	176	58.7
Do you have any health problems?						
Absent	79	52.6	0	0.0	71	47.7
Present	71	47.4	150	100.0	279	52.3
Where do you often get health care as an outpatient?						
Government Clinic/Hospital	132	86.0	126	84.0	258	86.0
Private Clinic/Hospital	17	11.3	23	15.3	40	13.3
Others	1	2.7	1	0.7	2	0.7
Where do you often get health care as an inpatient?						
Government Hospital/clinic	145	96.7	123	82.0	268	89.3
Private Hospital/clinic	5	3.3	20	13.3	25	8.3
Others	0	0.0	7	4.7	7	2.4
Who pays for your health care expenses?						
Husband	78	52.0	136	90.7	214	71.3
Self-payment	54	36.9	14	9.3	68	22.6
Employee	18	12.0	0	0.0	18	6.1
Variables (n=300)	**Minimum**	**Maximum**	**SD**	**Median**		
Age (years)	18	104	15.73	44.00		
Total income	100	3500	845.34	1600.00		

Table II: Separate logistic regression models for factors associated with health status among urban and rural B40 women

	Urban poor B40 Women				Rural B40 women			
Variables	**P-value**	**Odds ratio**	**95% CI**		**P-value**	**Odds ratio**	**95% CI**	
Income	0.028				0.04			
2001-3860	0.008	10.68	1.85	61.10	0.001	8.54	2.36	15.62
1001-2000	0.156	2.72	0.68	10.90	0.243	3.54	0.78	11.24
<1000		Ref				Ref		
Currently staying alone								
Yes	0.000	8.33	2.94	25.00				
No		Ref						
Recipient of BSH								
No	0.034	3.85	1.10	13.43				
Yes		Ref						
Hospital visited for healthcare services					0.001			
Government					0.003	9.52	2.64	24.10
Private					0.341	1.42	0.72	13.60
Others						Ref		

Quality of Life (QOL)

Table III summarizes the final model and predictors of participants' QOL. The final model presents an R square value of 0.52, which indicates that 52% of the variance in QOL was explained by the variables. Overall, the predictors of high QOL among B40 women were married status (OR = 14.28; 95% CI = 1.81-24.54), not staying alone (OR = 2.04; 95% CI = 1.13-5.88), recipient of BSH (OR = 28.83; 95% CI = 10.11-71.13), and absence of an underlying disease (OR = 5.90; 95% CI = 1.26-33.93).

Table III: Final logistic regression model for factors associated with high quality of life (QOL) among 300 B40 women from rural and urban areas

Variables	**B**	**SE**	**Wald**	**P-value**	**Odds Ratio**	**95% CI**	
Marital status			13.10	0.004			
Married	-2.66	1.06	6.30	0.012	14.28	1.81	24.54
Single/Divorced					Ref		
Currently staying alone							
No	-3.02	0.64	22.12	0.000	2.04	1.13	5.88
Yes					Ref		
Recipient of BSH							
Yes	3.29	0.49	43.71	0.000	28.83	10.11	71.13
No					Ref		
Presence of a chronic disease							
Yes	4.07	0.89	20.87	0.000	5.90	1.26	33.93
No					Ref		

Needs (CANSAS-P)

The multivariable model for the predictors of needs of the participants is summarized in Table IV. Based on the R Square value, the variables in the model explained 52% of the variation in B40 women's needs. The likelihood of meeting B40 women needs was associated with lower age (i.e., 40-49 years) (OR=21.00; 95% CI 2.25-34.56), absence of an underlying disease (OR=32.10; 95% CI 4.62-124.56), recipient of BSH (OR=30.49; 95% 5.92-64.01), and married status (OR=19.61; 95% CI 1.42-27.15). In contrast, no specific factor was associated with the needs of rural or urban poor participants.

DISCUSSION

This study revealed a positive correlation between QOL, needs met, and health status among 300 B40 women in Beranang and KL. These findings agree with previous studies reporting a positive association between QOL and health status.[20] QOL is considered a proxy of health and social well-being. QOL encapsulates several facets including the social, environmental, psychological, and physical domains and is described as an indicator of desire, needs, and life satisfaction of an individual.[13] On the other hand, the capacity to meet basic needs and health status were negatively correlated in our study, which indicates that other factors may play a role in moderating the relationship between both concepts. For instance, less fortunate B40 women who are incapable of meeting their basic needs are more likely to be malnourished, stressed, and impoverished, which may culminate into health-related issues.[18,19]

Good health was associated with higher income, not receiving aid from BSH, not suffering a specific illness, and not staying alone. Higher monthly income and no underlying disease were associated with better health among rural and urban B40 women. For rural participants, those that attended government hospitals had a better health status than those that attended other health facilities. Specifically, staying alone and non-recipient of BSH was associated with poor health status among urban poor B40 women.

Approximately 30.3% of the Malaysian low socioeconomic population is chronically unhealthy.[19] Most of them have metabolic diseases such as diabetes

Table IV: Final logistic regression model for factors associated with needs met among 300 B40 women from rural and urban areas

Variables	B	SE	Wald	P-value	OR	95% CI	
Age			9.02	0.03			
18-29	3.02	1.54	3.80	0.05	20.51	0.98	42.69
30-49	3.04	1.13	7.15	0.007	21.00	2.25	34.56
50-59	1.26	1.07	1.37	0.24	3.54	0.42	29.34
60 and above					Ref		
Marital status			12.82	0.005			
married	2.97	1.34	4.93	0.03	19.61	1.42	27.15
Single/Divorced					Ref		
Currently staying alone							
No	3.41	0.83	16.70	0.000	30.49	5.92	64.01
Yes							
Recipient of BSH							
Yes	-4.32	0.65	43.05	0.000	15.31	2.10	56.48
No					Ref		
Presence of a chronic disease							
Yes	-6.78	1.32	26.12	0.000	32.10	4.62	124.56
No					Ref		

mellitus, hypertension, and excessive cholesterol levels. Lower socioeconomic people in Asia-Pacific Region have been disproportionately affected by the lack of access to health services, strategies, and legislation to reduce non-communicable diseases.[21] Additionally, studies have found that chronic medical illness significantly impacts people's health and QOL due to disease-related consequences, disabilities, or acute complications.[22-23] These findings support the present findings among B40 women as the odds of good health status were higher among those not presently having a chronic disease or underlying medical conditions.

The impact of household income on health status and QOL among B40 have been reported in previous studies conducted in Malaysia[15]. For instance, increasing income levels assisted the rural and urban poor, including the B40 women-headed households in meeting their basic necessities, thus assisting them to achieve a better QOL and health status.[24-26] Similar findings were documented in studies conducted among rural dwellers in China, Russia, and India.[27-29] These events are also enhanced by the government's intervention in providing BSH to the participants as a means of supporting their monthly income.

Individual health is significantly related to social support, which is lacking when someone stays alone. Having a companion to share feelings and interact with has been linked to healthier states among the less advantaged population (B40) in Malaysia.[15,30] This event was reportedly connected with the decline in rural population growth and increasing numbers of single elderly populations in rural areas.[31,32] A survey involving hypertension responders with a higher income and good social support demonstrated improved health and QOL.[33] Furthermore, separate logistic regression for rural B40 women revealed that those attending government hospitals had a better health status compared to participants that attended "others" health facilities. This finding could be linked to the fact that government hospitals in rural areas are more equipped with advanced healthcare facilities and personnel compared to other healthcare providers such as pharmacies and clinics.

The predictors of high QOL and needs met among the participants were younger age groups, married status, not staying alone, recipient of BSH, and absence of an underlying disease. Prior studies conducted in other countries among disadvantaged populations found that younger residents displayed a better perceived QOL across all domains in comparison to elderly populations (60 years and above),[34,35] which is consistent with our study. An individual's physical and mental state associated with ageing can have an impact on their health and well-being,[36] thus their QOL and capacity to meet their basic needs. The poor physical, social, psychological, and environmental domains of QOL among elderly B40 women are further explained by their deteriorating health conditions, comprising mental health, restricted mobility, and age-related prejudice.[34,37]. These events coincide with the strong association between QOL of the participants and presently leaving alone, marital status, and having an underlying medical condition. The first two factors are directly connected to the social domain of QOL – a critical component for perceived QOL. When evaluating B40 women's QOL, different nations use distinct value sets based on their sociocultural traits, resulting in varied comparable characteristics.[38-39] According to studies conducted in Hong Kong, respondents with household incomes below the poverty line experienced significant impairments in physical and mental aspects of QOL, correlating with the present findings among B40 rural women.[40]

This study is among the first attempt to determine the factors influencing the QOL, health status and needs met among rural and poor urban women-headed households in Malaysia. Most previous studies investigated each of the mentioned outcomes in isolation or individually,[25] whereas our research employed specific instruments to assess B40 women's QOL, needs to be met, and health status. The sample size is also relatively higher compared to prior studies[16], thus increasing the generalisability of the results. Other studies employed the national level QOL[25-26] rather than the individual level QOL as captured in the current research.

Nevertheless, there are limitations in this study. Only the rural and poor urban B40 women from Beranang and KL

were included in this study, hence, any generalisation of the findings to other Malaysian populations should be done with caution. The results only depict associations between the tested variables and QOL, health status, and capacity to meet basic needs rather than a causal relationship. These limitations could be addressed in future studies by recruiting B40 women from various states in Malaysia to reflect the Malaysia's population, as well as using longitudinal or randomised control study designs.

CONCLUSION

This study revealed that the B40 women population from poor urban areas demonstrated better QOL, health status and needs met compared to those from rural areas. For both rural and poor urban participants, those with the highest income were more likely to record better health status compared to those with lower income levels. For rural participants, those that attended government hospitals had a better health status than those that attended other health facilities. Specifically, living alone and being BSH recipients was associated with poor health status among urban B40 women. Meanwhile, the predictors of high QOL and needs met were younger age, married status, not living alone, recipient of BSH, and absence of an underlying disease. These factors could be considered by the Malaysian government in improving the QOL, health status, and capacity to meet basic needs among B40 women and women-headed households in the studied areas.

CONFLICT OF INTEREST

The author(s) declare that there are no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

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