



Instructions for authors, subscriptions and further details:

http://rimcis.hipatiapress.com

Is Affordable Housing an Issue? A Case Study of Housing Stress among Middle-Income Group in Malaysia

Shadiya Mohamed Saleh Baqutayan¹

1) University Technology, Malaysia

Date of publication: March 30th, 2016 Edition period: March - July 2016

To cite this article: Baqutayan, S.M.S. (2016). Is Affordable Housing an Issue? A Case Study of Housing Stress among Middle-Income Group in Malaysia. *International and Multidisciplinary Journal of Social Sciences*, *5*(1), 26-50. doi: 10.17583/rimcis.2016.1871

To link this article: http://doi.org/10.17583/rimcis.2016.1871

PLEASE SCROLL DOWN FOR ARTICLE

The terms and conditions of use are related to the Open Journal System and to Creative Commons Attribution License (CC-BY).

RIMCIS – International and Multidisciplinary Journal of Social Sciences Vol. 5 No.1 March 2016 pp. 26-50

Is Affordable Housing an Issue? A Case Study of Housing Stress among Middle-Income Group in Malaysia

Shadiya Mohamed Saleh Baqutayan University Technology

Abstract

Dwellers facing one housing problem typically face multiple risky housing circumstances that threaten an array of their outcomes. Experiencing multiple unfavourable housing issues can intensify the negative effects that such conditions has on the whole person's physical, psychological, emotional, and cognitive development. This paper is a survey study, and it discusses the effect of some housing issues and conditions on dwellers' psychological and emotional well-being. The purpose is to understand the effect of such problems, such as housing price, safety and security, housing quality, transportation, schools and economic development on dwellers' stress level and emotional well-being. Simple random sampling was assigned to a large number of middle-income residents in Malaysia. The accumulated data were then analysed, and descriptive statistics were used to interpret and evaluate the prevalence of housing issues and housing stress. The findings of this study indicated that there is housing stress among middle-income groups caused by transportation, housing quality, and economic development that force dwellers to stay far from their workplace and to be unable to afford the moving cost. Hence, it is highly advisable for the governments and stakeholders to look comprehensively at these issues and tackle their consequences by emphasizing people's need for affordable, liveable home standard.

Keywords: housing stress, housing issues, factor contributing to housing stress, affordable housing

2016 Hipatia Press ISSN: 2014-3680 DOI: 10.17583/rimcis.2016.1871



RIMCIS – International and Multidisciplinary Journal of Social Sciences Vol. 5 No.1 March 2016 pp. 26-50

¿La Vivienda Asequible es un Problema? Un Estudio de Caso de Presión Inmobiliaria entre la Clase Media en Malaysia

Shadiya Mohamed Saleh Baqutayan University Technology

Resumen

Los inquilinos que afrontan algún tipo de problema de vivienda normalmente afrontan múltiples riesgos y circunstancias en la vivienda que amenazan una diversidad de sus gastos. Experimentar múltiples y desfavorables problemas de vivienda puede intensificar los efectos negativos de tales condiciones sobre el desarrollo físico, psicológico, emocional y cognitivo de la persona en conjunto. Este artículo presenta el análisis de una encuesta y debate el efecto de algunos problemas y condiciones de la vivienda sobre el bienestar psicológico y emocional de los inquilinos. El propósito es entender el efecto de tales problemas, como el precio de la vivienda, seguridad, la calidad de la vivienda, el transporte, las escuelas y el desarrollo económico en los niveles de estrés y bienestar emocional. Se realizó una muestra aleatoria simple de un gran número de residentes de clase media de Malaysia. Se analizaron los datos recogidos y se utilizó la estadística descriptiva para interpretar y evaluar la prevalencia de problemas en la vivienda y presión inmobiliaria. Los resultados de esta investigación indicaron que hay presión inmobiliaria entre la clase media causada por el transporte, la calidad de la vivienda, y el desarrollo económico que fuerza a los inquilinos a quedarse lejos de sus puestos de trabajo y a ser incapaces de soportar el coste del desplazamiento. Consecuentemente se recomienda encarecidamente a los gobiernos y actores implicados abordar estos problemas de forma comprehensiva y afrontar sus consecuencias enfatizando la necesidad de las personas de disponer de una vivienda accesible y habitable.

Palabras clave: presión inmobiliaria, problemas de vivienda, factores que contribuyen a la presión inmobiliaria, vivienda accesible/acceso a la vivienda

2016 Hipatia Press ISSN: 2014-3680 DOI: 10.17583/rimcis.2016.1871



he establishment of housing is a very important component of the provision of basic needs. For many years, housing has been acknowledged as one of the main issues that affect human health (Jackson, 2003). Commonly, housing is very fundamental to the welfare, survival and health of individuals; with that in mind, the common feeling these days is that houses are becoming too expensive, and affordable housing is an issue that stresses the public. Although such impacts are broadly accepted, the concrete relationship between housing issues and wellbeing has so far not been fully understood.

Families want to live in homes that will get them off to the best possible start. Yet high housing costs in many parts of the world complicate housing decisions, as families must weigh trade-offs among cost, housing quality and condition, as well as location. In Malaysia, for instance, the middle and lowincome families are currently likely to face the greatest constraints on their housing choices. These families, who are already some of the most vulnerable are also the most likely to suffer from housing-related problems and housing stress.

The Malaysian Government has pledged to improve quality of life and life outcomes for all citizens in areas such as health, safety, enjoyment, achievement and economic wellbeing. Despite the ambitious nature of these commitments, public policy has paid little attention to the impact of housing on dwellers' lives and psychological well-being. Furthermore, housing issues can have adverse effects on the family's psychological well-being; therefore, most of the studies relate housing issues to housing stress. It is indicated at the Malaysian Insider (2015), that "issues of affordability and housing stress become central to a larger section of society in Malaysia, especially in bigger cities".

It is indeed a tough task to define the housing issues that contribute to housing stress. The Department for Communities and Local Government (2012) reported housing issues as those related to houses that lack the affordability, community safety, transportation and planning, economic development, and neighbourhood development. Recently, Litman (2015) indicated that the most housing stresses are: living in more compact neighbourhoods, traveling by walking, cycling and public transit travel, and crime problems. The NGA Center for Best Practice (2007) reported that

housing challenges are inextricably connected to a variety of other policy issues, like transportation, education, and economic development. From these reports, researchers grouped housing issues into six categories of factors that contributed to housing stress. These are housing price, safety and security, housing quality, transportation issue, school choice, and economic development. The purpose is to understand the effects of these issues on dwellers' well-being, and it is assumed that if a household is experiencing housing stress, then that household's well-being must be lower than a household outside stress. According to Robinson et al. (2006), housing price, housing conditions, temporary accommodation, housing size, and housing tenure raise issues always affect the health and well-being of dwellers.

The Study Background

Everyone has the right to live in a house that meets his/her needs. The essentials to achieve this standard are through accessing suitable housing. Housing is a basic human need that Maslow explained in his hierarchy of needs; it was the first level of need similar to food and drink (Manitoba, 2012); people must have food to eat, water to drink and a place to call home (Martin & Joomis, 2007). Housing is not just a physical shelter of four walls and a roof; it is about the quality of the surrounding housing conditions that Maslow expanded in the second level of need. At this level Maslow's theory demonstrates how important adequate housing is for the security and positive development; people must possess the security of a home and family in order to achieve the higher stage of need, "self-actualization" (Martin & Joomis, 2007).

Ubale, Martin & Wee (2012) define a house as a building made for people to live in. Nevertheless, the challenge people are facing today is the housing prices that have grown faster than wages. It is becoming increasingly difficult for young people in Malaysia to get a step on the housing ladder, and this was one of the major problems that the Prime Minister Najib Abdul Razak's government has faced. The Malaysian government is confronting the urgent need to develop, construct and maintain affordable lifestyle housing for the nation without too much of a burden to those in the lower and middle-income groups.

30 Baqutayan – Is Affordable Housing an Issue?

Housing is a fundamental necessity for mankind, yet the rate of homelessness has been escalating. According to Nair (2012), the UN Commission on Human Rights reported that there were an estimated 100 million homeless people in the world and an additional 1.6 billion living without adequate housing. Actually, the reasons behind the rise in homelessness are varied with some being structural, social and economic in nature. Often the causes are beyond the control of individuals or families concerned, and one of the reasons most often cited for homelessness around the world is a lack of affordable housing.

"Affordability" as a concept is very generic and could have different meanings for different people based on differences in income levels and needs. However, in one hand, it is defined from a consumer perspective as housing that costs no more than 30% percent of a household's monthly income. On the other hand, it is defined from the developer's perspective as the availability of land and the cost factor. Yet, it is a global challenge to get cheap land in urban areas. Malaysia in fact is recently facing an additional challenge of mismatching between the types of housing units offered and the units desired by the lower and middle-income groups. Non-luxury condominium units or intermediate link-houses offered by private housing developers can easily cost more than RM500,000 in most urban and even suburban locations, and that is far beyond the reach of the lower and middle-income groups (Loong, 2013).

According to Wan et al (2010) regarding statistics in Malaysia, approximately 66.7% of Kuala Lumpur populations are middle-income group, and they can only afford to buy a house between RM180,000 and RM200,000. However, the housing prices nowadays are far from the affordability of the Middle-Income Group (MIG), especially those who stay in the capital city (Kuala Lumpur). It can be signified that the housing price in Kuala Lumpur is approximately 40% more expensive than other areas in Malaysia.

Defining "affordability" in terms of finances is not the only concern; there are aspects that must be considered. For example, should households that spend a small fraction of their income on housing but that live in a substandard home or in an unsafe neighbourhood or at great distances from their jobs be considered as having affordability problems? If so, then which such households ought to be counted? According to Belsky, Goodman and & Drew (2005), the global standard measures of affordability do not engage with housing issues. Importantly, these measures fail to take into account compromises that people make to lower housing costs, for instance, housing quality, location, transports choices and economic development.

This paper studies housing affordability, housing issues that contribute to housing stress, and dwellers' well-being. Suggestions for reducing housing price and improving housing quality are made for the purposes of formulating public policy.

Literature Review

Housing affordability, housing issues, and housing stress are widely acknowledged as a significant concern for most people. No matter how one chooses to define or even measure them, it is clearly widespread and growing worse among low and middle-income groups. Moreover, how one explains these housing issues to policy makers is another problem. The only argument with which both parties agree is that people need adequate housing to be healthy, happy and successful. Therefore, in this literature the researcher explains the concept of affordable housing and how it relates to housing stress. Finally, all factors associated to housing stress will also be highlighted in this section.

The Concept Of Affordable Housing

Affordability is a difficult concept to define as it involves subjective judgments and the application of normative standards to assign the labels of affordable and unaffordable to a household's condition or to a rental unit. There has recently been widespread public debate about housing affordability. The term "affordability" is widely used in the English language; a general consensus prevails on the meanings associated with it; however "affordability" as a concept is hard to define. In this context, Collins English Dictionary defined "afford" as "being able to pay without incurring financial difficulties" (Robinson, Scobie & Hallinan, 2006). The term "housing affordability" has come into widespread usage in the last 15

years with many viewpoints. One such view suggests that people buy a house where they want, with price they want, and at a place they deem appropriate (Disney, 2006). Another researcher has suggested that "housing is affordable when it consumes a reasonable or moderate amount of household income" (Kutty, 2005). According to Bhatta (2009), "affordable housing is housing deemed affordable to those with a median household income as rated by country, province, region or municipality by a recognized Housing Affordability Index". More generally, housing affordability relates to the ease by which households across all income groups can access housing (SGS Economics and Planning, 2012).

According to Ubale, Martin and Wee (2012), the best definition of affordable housing recognized by Department of Environment, Transport and Regions (DETR) (2000) defined policies for affordable housing as follows: "Policies for affordable housing must cater for a range of needs; for people whose incomes are well below the levels required for sustainable homeownership and who are likely to need to rent their homes on a long term basis; for people who aspire to homeownership but can only afford properties in lower prices range; and for people with special needs who may require both subsidized accommodation and appropriate support in order to live in it successfully...".

Ubale, Martin and Wee (2012) added that in Malaysia affordable housing is defined according to its selling price of RM25,000 per unit. The Ministry of Housing and Local Government (1998) has further laid down some guidelines for this category of housing; according to them, the target group consists of households with monthly incomes not exceeding RM750, and the minimum design standard specifies a built-up area of 550-600 square feet, consisting of 2 bedrooms, a living-room, a kitchen and a bathroom.

Affordability is defined as being able to pay without suffering mental, social, psychological, emotional and financial hitches. Things are considered unaffordable even when an income can accommodate the cost of the item; affordability is not an inherent characteristic of housing, but a relationship between household incomes, economic development, housing quality, neighbourhoods, and safety matters. According to Kribanandan and Browne (1994), "affordable housing must be viewed as an integral part of an integrated housing and community development. Various elements must be

taken into account before providing affordable house to the low and middleincome groups, for instance, building design and construction methods, culture, value system, and socio political elements, physical environmental elements and comfort levels, health, safety and security measures, income generating activities...". With this in mind, policy-makers must take all of these factors into account when discussing housing affordability.

Factors Contributing to Housing Stress and Wellbeing

Over the past decade, there has been a steady increase in the Malaysian housing prices. This upward trend has occurred in all parts of the country, and there has been no sign that the trend is reversing (Zainal Abidin Hashim, 2010). In the context of the upward trend in housing prices, more and more people find it difficult to purchase a house and consequently have to rely on rental properties for their accommodation. This situation also has an effect on increasing the demand for rental homes and rental charges. Furthermore, the increase in the rental rates has produced issues as "affordable housing stress" (Baqutayan, 2014).

The concept of housing stress has been of interest to the government since the mid-1990s, particularly the issues of definition and data (King, 1994; Karmel, 1998). The term 'housing stress' is regarded as a situation that "denotes the negative impacts for households with insufficient income to secure adequate housing..." (NAHP, 2004). Thus, housing affordability is generally measured in terms of housing costs relative to the income of the household, family, or income unit. Based on this study, there are two broad approaches to measuring housing stress: the so-called 'ratio' and 'residential' approaches. The 'ratio' approach simply examines what proportion of income is spent on housing. The 'residential' approach, however, examines the housing criteria that have impact on the residents' well-being.

Different studies signified that there are several reasons why housing stress could occur. Firstly, it can be confirmed that, on average, housing costs are getting higher and higher, especially in capital cities, and it can also be shown that the average income is also getting higher as well. However, the housing costs are rising faster than incomes (Darebin City Council, 2010). The other reason is that the quality of the houses is getting better, and the so-called affordable housing is not safe and not liveable at all. According to Animashaun (2010), the housing problems vary from inadequate quantity and quality of housing to the attendant impact on the psychological, social, environmental and cultural aspects of housing. Furthermore, housing size, quality, neighbourhood, location and household composition in any analysis of affordability seem to be very important measures of housing stress (Rowley & Ong, 2012).

Housing price is not the only factor that contributes to housing stress. According to Evans, Kantrowitz and Eshelman (2002), worries about house affordability, unsafe conditions, concerns about maintenance, inadequate privacy, restrictions on children's play opportunities, and social stigma are among the factors that affect mental health in families. According to Stone (2006), "housing quality cannot be ignored. To what extent do households in accommodation considered affordable under traditional measures consume poor quality housing because there are no other alternatives?" The wider concept of "housing" and "affordability" needs encompasses many of issues, such as housing size, quality, neighbourhood, location, and household composition (Stone, 2006).

To conclude, this literature review needs to highlight the relationship between housing stress and overall well-being. Rowley and Ong (2012) found that housing stress accounted for a significant portion of variance in measures of mental and physical health. Dunn (2002) indicated that poor physical and mental health was associated with physical and emotional housing stress. Dockery et al. (2010) also documented that stress attributed to housing affordability problems that were found to be associated with wellbeing.

Methodology

Two Hundred survey papers were distributed to participate in this study, but only hundred twenty-two (122) were completed and managed to collect. The main objective of this paper is to measure factors contributing to housing stress of middle-income groups. Therefore, the study was conducted at lowcost houses areas where low and middle-income groups are found. A short questionnaire with the objective to quantitatively investigate issues related to housing stress. The questionnaire consists of two sections; demographic information and factors contributed to housing stress.

Results and Findings

Housing Price to Income Level

The information presented in this part explains the correlation between housing price-to-income ratios. The ratio of house prices to income is a key indicator of the relative affordability of householder-occupation. This note provides data on the affordability of houses in Malaysia. Data reduction was conducted to measure the correspondent analysis. It is interesting to note that the majority 23% pay rental fees between RM400-1200 per month either in a house or a room; however, their income level is only between 1201-2400 (see figure 1).

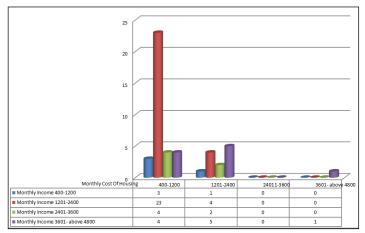


Figure 1. Housing Price to Income Ratio

Furthermore, the lowest housing price-to-income ratio is almost more than 30% of the householder's income. Consequently, these 23% of respondents represent 50% of those who answered this question; they spend

more money on renting. In regards to those incomes are RM1201 and spend RM400 for housing, they pay 30. 02% of their income on house rent. Several federal and state initiatives have targeted this problem, but have failed to provide enough affordable, inclusive, and sustainable housing for New York City residents. This indicated that there is housing stress caused by the amount been paid to rent a house or even a room. As stated in NCOSS (2014), low and moderate income households are generally considered to be experiencing housing stress when they have to pay more than 30% of their gross income on housing. Similarly stated by Darebin City Council (2010), individuals and households who earn less than 80% of the median income and who pay more than 30% of their income for housing are said to be in housing stress.

The majority of the Malays prefer to live in the cities because of a high salary, quality of life and cultural events, but they forget that living cost is also very high in the city, and the lowest housing/rent price in Kuala Lumpur is almost more than 30% of the majority of householders' income. This enforces that the housing price and the living cost are not in line with households' income ratios, which may lead to housing stress. As a matter of fact, it is stated in the Tenth Malaysia Plan (2010) that 50% percent of Malaysian households are living below the poverty line. The reason is because of the pressures of high cost of living and transportation as well as high prices of goods and services that contributed to the increase of poverty in the cities (Economic Planning Unit, 2009).

Factors Contributing to Housing Stress

The scale used in this study focused on different factors of housing stress that were grouped into six categories as safety and security, housing quality, housing affordability, transportation issue, school choice and economic development. Frequency was conducted to calculate the number and percentage of respondents' complained about housing issues. The outcome is obvious as most of the respondents complained about the economic development (33%); the respondents cannot afford to live near to their workplaces and cannot afford the moving costs. This is because many of them work in towns or cities where offices are located in the centre, and

houses are very expensive. Moreover, 19% of the respondents complained about transportation cost and housing quality as a second important factor that contributed to housing stress (see figure 2).

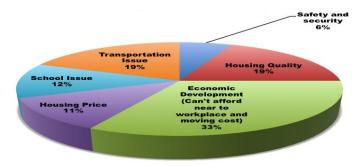


Figure 2. Causes of Housing Stress

The above outcomes signified that avoiding housing stress by living far from the city is not the solution because people are then burdened with high transport costs and will therefore still experience financial stress once these transport costs are taken into account. Similar results have been found in previous studies conducted by different researchers. In Australia, for instance, Vidyattama et al. (2011) suggested that bringing transport costs into a housing stress measure increases the number of both purchasers and renters in housing stress by 25%, and it particularly affects households with children. Another study done by Lloyd-Jones and Halcrow (2013) indicated that housing stress is a complicated matter, and some households may, for example, be paying less for housing by living in a cheaper area but more for transport costs. As a result, this perhaps keeps the household out of housing stress but does not solve the financial stress. Walter (2005) added that transport access has a significant impact on economic and social cohesion, as transport costs are high for low and middle-income households because of heavy reliance on informal modes and limited connectivity by public transit. The urban poor in developing countries spend relatively more time and a larger proportion of their disposable income (25-35% per cent) on transport for traveling to work.

38 Baqutayan – Is Affordable Housing an Issue?

The above six factors are very important and all contributed to housing stress although they vary from one another in how much stress they give to dwellers. In the end, these factors are all related; transportation, for instance, has a crucial impact on the economic development of the dwellers, and the same applies to the other factors. In conclusion, people under housing stress are not avoiding the pressure of transportation, school issues, economic development and safety issues.

The Exact Factor Contributing to Housing Stress for MIG

It is indeed a tough task to define the main factor that is contributing to housing stress. The six factors were divided into sub-factors, and the outcomes showed that the majority complained about safety and security, housing quality and school availability (see table 1).

Furthermore, they were also complaining about transportation and economic development; a significant percentage of respondents answered "Yes" to all questions related to housing issues and "economic developments". Respondents complained more about the distance, that they were "not afford to live near to the workplace", that they can "not afford the moving cost" and that they were "living far from family". This outcome signified that "economic developments" add more burdens to every household, which may lead to greater housing stress and emotional difficulties. This was similarly indicated by the University of Western Sydney (2008) regarding the importance of housing locations and economic development. Distance was also found to be a significant predictor of housing stress (Kearns et al., 1992). Respondents in a study conducted by Dunn (2002) complained about transportation cost as a contributing factor to housing stress. A significant percentage of 55.70% of respondents answered "Yes" to the question on transportation. To conclude these outcomes, living closer to the workplace or having easier access to public transportations are very important as they help dwellers feel less stressed and achieve peace of mind.

Table 1

Causes of Housing Stress. Factor Contributing to Housing Stress

		%	Freq.	
Safety and Security				
I am living somewhere where I don't feel safe	Miss.	0.0%	0	
	No	82%	100	
	Yes	18%	22	
Housing Quality				
I am living somewhere, which is in poor repair	Miss.	0.00%	0	
	No	77%	94	
	Yes	23%	28	
I am living somewhere, which costs a lot to heat	Miss.	0.00%	0	
and/or cool	No	68.90%	84	
	Yes	31.10%	38	
Economic Development				
I can't afford to live near enough to work	Miss.	0.00%	0	
	No	50.80%	62	
	Yes	49.20%	60	
I want to move but can't afford the moving costs	Miss.	4.90%	3	
	No	45.90%	56	
	Yes	49.20%	60	
I live too far from my family or other supports	Miss.	1.60%	2	
	No	50.80%	62	
	Yes	47.50%	58	
Housing Affordability				
I'm still living at home because I can't afford my	Miss.	1.60%	2	
own place	No	62.30%	76	
	Yes	36.10%	44	
School Issue				
I can't afford near to chool/Uni/college	Miss.	3.30%	4	
	No	62.301%	76	
	Yes	34.40%	42	
Transportation Issue				
I am spending more on transport, childcare and/or	Miss.	3.30%	4	
energy because of where I live	No	41.00%	50	
	Yes	55.70%	68	

40 Baqutayan – Is Affordable Housing an Issue?

Furthermore, the study detailed the entire questionnaires given to the respondent, and the outcome signifies that the majority knows how bad the conditions of their houses are, but they have to accept as it is (see figure 3).

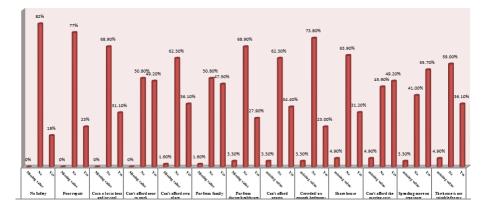


Figure 3: The Entire Causes of Housing Stress

This outcome supported the acceptance theory in psychology; a person's assent to the reality of a situation, recognizing a process or condition (often a negative or uncomfortable situation) without attempting to change it, protest. The concept is close in meaning to 'acquiescence. The respondents of this study face lots of housing difficulties and stressors; they stay far from their workplaces, they spend more money on transportation, the house is not affordable and the condition is terrible, but they have no choice than accepting the living circumstances. In the acceptance theory of psychology, researcher indicated that whether it is a situation you cannot control or an emotion that overwhelms, accepting it can allow you to move forward. Obsessing, worrying and playing things over and over keep you stuck. Therefore, the best is to accept the reality and work with what you have (Deborah Serani Psy.D, 2011).

Discussion and Conclusion

Housing circumstances often have a direct impact on family income, which in turn significantly affects their stress level and psychological well-being. The issue of housing affordability is of major concern to many households as part of the broader concern about cost of living pressures. It is an issue that can be considered from the perspective of individual households as well from a range of other levels from State planning and land release policies to debates about macro-economic and broad demographic trends. This study was motivated by an increasing concern about housing affordability in Malaysia (Zainal Abidin Hashim, 2010). This concern has grown rapidly due to the increasing cost of purchasing a house that has forced many younger families into rental properties. The possibility to find cheaper house in the capital cities has become very difficult, especially for low and middleincome groups.

In the past, housing was a less significant issue as the populations were smaller, and the houses were cheap. But now the issue is just the opposite; the populations are getting bigger, and the houses are becoming more expensive. In the future, this issue will become ever more important in promoting the health and well-being of the local middle-income groups. Therefore, the need for affordable housing should be included in the country vision and mission. If not, the key needs for the middle-income populations may be missed.

The current research offers strong support for the view that if issues on affordable housing were increased, the rate of housing stress would also increase. The main factors contributed to housing stress in this research are as follows: housing price, safety and security, housing quality, transportation, school and economic development. The outcomes indicated that housing stress often occurs not only in families who always pay more than 30% percent of their income on housing, but also to those who spend more on transportation, living in an unsafe environment, staying far from their office and families, and so on. The objective of this study was to analyse the main factors of housing stress. The findings clearly indicated the following: (a) the majority of the respondents had middle and low-household incomes, they earn between RM1201-2400 per month; (b) there is

inconsistency between housing price, living cost and income ratio; (c) the majority of people complain about housing price; (d) housing affordability is an important factor of housing stress; (e) the other factors contributed to housing stress were transportation and economic development; (f) the majority of respondents cannot afford to live near to their workplaces and cannot afford the moving cost and thus live far from their workplace.

Several conclusions can be drawn from this discussions and outcomes. First, housing affordability is a difficult concept to define because it involves individual judgments and different evaluations. Second, evaluations will likely continue to vary because it is unlikely that all researchers will agree upon the same set of assumptions, measures, and datasets to use when quantifying housing affordability, housing issues and housing stress. Third, there are many more factors contributing to housing stress that need to be considered in future research. Fourth, the government must work hard to improve the quality of house for all citizens without too much of burden to those in the low and middle-income groups. Fifth, policy makers must make an extra effort to understand housing affordability conditions. Sixth, there are several ways that the investigation of affordability could be expanded and improved. Among them are to create Malaysia housing indexes for middle-income groups so that changes in housing price can be compared with changes in a constant income ratio and to better account for trade-offs made that lower housing costs but add to other costs.

From an implementation point of view, the present research findings can be used to tackle the affordable housing issues and emphasize the need for more affordable housing that is liveable and sustainable to all family members. Keeping in mind that rising cost of living with the income being kept constant over time will create many stressors to people who tend to live in a condition whereby most of their expenses are going up every single year. Undeniably, affordable homes have been linked with improving health and economic outcomes for all people. As proved by Powell (1999), the word 'home' is both a foundation for well-being as well as a platform for connecting people to services and resources that include health care, schools, community, transportation to and from their workplace and quality day care services. Therefore, the government needs to plan for the "future houses" to be better designed and built, inexpensive, less risky, healthier, less stressful, provide easy access to services and more available transport choices, so that housing can contribute to improved physical, economic, environmental and social health. Furthermore, on a practical level, the contribution of this study lies in the utilization of research data in order to reduce issues related to affordable housing and adjust the living conditions by taking citizens' wellbeing into account.

In conclusion, a review of academic literature has drawn together strong evidence of the direct impact of housing on well-being. However, given the clear link, the volume of high quality research in this area is surprisingly limited, and there is an urgent need for more comprehensive research in this area. Areas where the need for further research is particularly pressing are the psychological, social or behavioural effects of housing conditions and home environments.

References

Animashaun, I.A. (2010). Provision of residential housing and environmental development in Calabar: Policy Contradictions. Retrieved from

http://www.readperiodicals.com/201001/2307422931.html

- Baqutayan, S. (2014). The Affordable Housing Stress among Middle-Income Group. Journal of Humanities And Social Science (IOSR-JHSS), 19(7), 82-90. Retrieved from http://iosrjournals.org/iosrjhss/papers/Vol19-issue7/Version-4/N019748290.pdf
- Belsky, E., Goodman, J., & Drew, R. (2005). *Measuring The Nation's Rental Housing Affordability Problems*. Retrieved from http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/rd05-1_measuring_rental_affordability05.pdf
- Bhatta, B. (2009). Analysis of urban growth pattern using remote sensing and GIS: a case study of Kolkata. *India International Journal of Remote Sensing*, 4733-4746. doi: 10.1080/01431160802651967
- Canada Mortgage and Housing Corporation (2008). Affordable Housing. Retrieved from

http://www.bcnpha.ca/media/Research/affordable%20housing%20bac kgrounder09.pdf

- Darebin City Council (2010). Responding to housing stress A Local ActionPlanforDarebin.Retrievedfromhttp://www.darebin.vic.gov.au/Files/6_September_2010_Item_8.4_Appendix_A_-_Darebin_Local_Action_Plan_on_Housing_Stress.pdf
- Deborah Serani Psy, D. (2011). Acceptance and commitment therapy. Retrieved from https://www.psychologytoday.com/blog/two-takesdepression/201102/acceptance-and-commitment-therapy
- Department for Communities and Local Government (DCLG) (2012). *National Planning Policy Framework*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf
- Department of Environment, Transport and Regions (DETR) (2000). Proposals for a Good Practice Guide on Sustainability Appraisal of Regional Planning Guidance. Retrieved from http://regulations.completepicture.co.uk/pdf/Planning/Proposals%20fo r%20a%20Good%20Practice%20Guide%20on%20Sustainability%20 Appraisal%20of%20RegionalPlann.pdf
- Disney, J. (2006). Over our heads: Housing costs & Australian families. *Australian Quarterly*, 78(2), 4-11. doi: 10.2307/20638385
- Dockery, A.M., Kendall, G., Li, J., Mahendran, A., Ong, R., & Strazdins, L. (2010). Housing and children's development and wellbeing: A scoping study (AHURI Final Report No. 149). Melbourne: Australian Housing and Urban Research Institute.
- Dunn, J.R. (2002). Housing and inequalities in health: A study of socioeconomic dimensions of housing and self-reported health from a survey of Vancouver residents. *Journal of Epidemiology and Community Health*, 56, 671–681. doi: 10.1136/jech.56.9.671
- Economic Planning Unit (2009). Economic Planning Unit, Prime Minister's Department Malaysia. Retrieved from http://www.epu.gov.my/en/themalaysian-economy-in-figures-2009
- Evans, G.W., Kantrowitz, E., & Eshelman, P. (2002). Housing quality and psychological well-being among the elderly population. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 57, 381–383. doi: 10.1093/geronb/57.4.P381

- Jackson, R.J. (2003). The impact of the built environment on health: an emerging field. *American Journal of Public Health*, 93(9), 1382–1384. doi: 10.2105/AJPH.93.9.1382
- Karmel, R. (1998). Housing assistance: Reports on measurement and data issues. Australian Housing and Urban Research Institute, Welfare Division Working Papers No. 17, Canberra. doi: 10.1080/02673039208720743
- Kearns, R.A., Smith, C.J., & Abbott, M.W. (1992). The stress of incipient homelessness. *Housing Studies*, 7(4), 280–298.
- King, A. (1994). Towards indicators of housing stress, Department of Housing and Regional Development. Housing and Social Policy Group. Monograph series No. 2, AGPS, Canberra.
- Kribanandan, G., & Browne R.D. (1994). Life Cycle Cost Design for Buildings & Structures: A Strategic Initiative. MIGHT Forum on the Construction Industry, 4 February 1994, Kuala Lumpur, Malaysia.
- Kutty, N.K. (2005). A new measure of housing affordability: Estimates and analytical results. *Housing Policy Debate*, *16*(1), 113-142. doi: 10.1080/10511482.2005.9521536
- Litman, T. (2015). Affordable-Accessible Housing In A Dynamic City: Why and How To Increase Affordable Housing Development In Accessible Locations. Victoria Transport Policy Institute. Retrieved from http://www.vtpi.org/aff_acc_hou.pdf
- Lloyd-Jones, C., & Halcrow J. (2013). Pilot study of housing stress and poverty indicators amongst tertiary students in the ACT. Retrieved from

http://www.anglicare.com.au/data/ACT_Student_Housing_Pilot_Stud y1.pdf

- Loong, C.K. (2013). Housing Needs and Aspirations II. The Housing Affordability Question. Cagamas Holdings Berhad, Kuala Lumpur, Malaysia.
- Manitoba (2012). All aboard: Manitoba's poverty reduction & social inclusion strategy. Retrieved from http://www.gov.mb.ca/fs/allaboard/pubs/strategy_paper.pdf
- Robinson, M., Scobie, G.M., & Hallinan, B. (2006). Affordability of Housing: Concepts, Measurement and Evidence. Working paper 06/03, New Zealand Treasury.

- 46 Baqutayan Is Affordable Housing an Issue?
- Martin, D., & Joomis, K. (2007). *Building Teachers: A Constructivist Approach to Introducing*. Education, (Belmont, CA: Wadsworth, 2007), pp. 72–75.
- Ministry of Housing and Local Government Malaysia (1998). Buletin Perangkaan Perumahan 1998, Percetakan Nasional Berhad, Kuala Lumpur.
- NAHP (2004). Housing Affordability: A Summary of Evidence and Issues in Measurement, National Affordable Housing Project. Report prepared for AHURI and Policy Research Working Group.
- Nair, N. (2012). Affordable housing for all. Retrived from http://thestar.com.my/metro/story.asp.file=/2012/11/2/north/12261942 &sec=north
- NCOSS (2014). Affordable Housing: What we want & background resources. Retrieved from http://fairbruary.net/resources/20140204affordable-housingresources.pdf
- NGA Center for Best Practice (2007). Policy Academy on Coordinating Housing and Economic Development Best Practices and Lessons Learned. Retrieved from http://www.nga.org/files/live/sites/NGA/files/pdf/0701HOUSINGAC ADEMY.PDF;jsessionid=62987D7C7B16F3FF2F622730F8CA0A3A
- Powell, J.A. (1999). *Race, Poverty and Urban Sprawl: Access to Opportunities through Regional Strategies*. Retrieved from http://www1.umn.edu/irp/publications/racepovertyandurbansprawl.ht ml
- Rowley, S., & Ong, R. (2012). *Housing affordability, housing stress and household wellbeing in Australia*. Retrieved from http://www.ahuri.edu.au/downloads/publications/EvRevReports/AHU RI_Final_Report_No192_Housing_affordability_housing_stress_and_household_wellbeing_in_Australia.pdf
- SGS Economics and Planning (2012). *Affordable Housing Review Final Report City of Ballarat*. Retrieved from http://www.ballarat.vic.gov.au/media/723300/affordable_housing_fin al.pdf

- Stone, M.E. (2006). What is Housing Affordability? The Case for the Residual Income Approach. *Housing Policy Debate*, 17(1), 151-184. doi: 10.1080/10511482.2006.9521564
- Tenth Malaysian Plan (2010). *Tenth Malaysian Plan*, 2011-2015. *Percetakan Nasional Berhad, Kuala Lumpur*. Retrieved from https://www.pmo.gov.my/dokumenattached/speech/files/RMK10_Speech.pdf
- The Malaysian Insider (2015). *New policy to tackle affordable housing issues in Sarawak.* Retrieved from http://www.themalaysianinsider.com/malaysia/article/new-policy-totackle-affordable-housing-issues-in-sarawak#sthash.JElOyTfv.dpufat:
- Ubale, M.Y., Martin, D., & Wee, S. T. (2012). The Current Practices Of The Malaysian Formal Low Cost Housing Provision System. Proceedings International Conference of Technology Management, Business and Entrepreneurship 2012 (ICTMBE2012), 18-19.
- University of Western Sydney (2008). *Models of Sustainable And Affordable Housing* For Local Government. Retrieved from http://www.uws.edu.au/__data/assets/pdf_file/0019/164620/models_o f_sustainable_and_affordable_housing_for_local_govt.pdf
- Vidyattama et al. (2011). Housing Stress or Transport Stress? Issues in Australian Housing Affordability. Retrieved from http://www.natsem.canberra.edu.au/storage/Housing%20Stress%20or %20Transport%20Stress%20Issues%20in%20Australian%20
- Walter, H. (2005). Urban Transport and the Millennium Development Goals. Retrieved from http://siteresources.worldbank.org/INTTSR/Resources/Hook_MDG_a nd_Transport_Article_final_nov05_no_pictu res.pdf
- Wan, N.A., Hanif, N.R. & Singaravelloo, K. (2010). Affordable Housing for Middle Income Households in Malaysia. IRERS Conference, Kuala Lumpur, April 27-29.
- Zainal Abidin Hashim (2010). House Price and Affordability in Housing in Malaysia. *Akademika*, 78, 37-46.

Appendix

This study aims at understanding your belief and opinion concerning various aspects of housing stress. There is no right or wrong answer, but it requires your honest opinion. Please go through this questionnaire. All questions contained in this questionnaire are strictly confidential. Thank you in advance

Gender					
• Female					
• Male					
• Other					
• Prefer not to	Prefer not to specify				
What is your age Monthly Income	? *What is your age? □ □ RM 400-1200	□ RM 2401-3600			
	□ RM 1201-2400	□ RM 3601-above 4800			
Monthly Housing Price	□ RM 400-1200	□ RM 2401-3600			
	□ RM 1201-2400	□ RM 3601-above 4800			

I am living somewhere where I don't feel safe

• _{No}

 α 1

• Yes

I am living somewhere, which is in poor repair

- _{No}
- Yes

I am living somewhere, which costs a lot to heat and/or cool

- O No
- Yes

I can't afford to live near enough to work

- No
- Yes

I'm still living at home because I can't afford my own place

- O No
- Yes

I live too far from my family or other supports

- © _{No}
- Yes

I live too far from my doctor/healthcare

- No
- Yes

I can't afford to live near my school/Uni/college

- _{No}
- Yes

My home is crowded; there aren't enough bedrooms

- ° _{No}
- Yes

I live in a share house but would rather live alone/with fewer people

- No
- Yes

I want to move but can't afford the moving costs

- _{No}
- Yes

I am spending more on transport, childcare and/or energy because of where I live

- Ο_{No}
- Yes

My house isn't suitable for my disability, the disability of the person I care for or for when I age.

- Ο _{No}
- Yes

Shadiya Mohamed Saleh Baqutayan is professor at the Perdana School of Science, Technology, and Innovation Policy. University Technology of Malaysia

Contact Address: Perdana School of Science, Technology, and Innovation Policy University Technology of Malaysia, Kuala Lumpur Campus. Email: shadiya.kl@utm.my