WORKING-FROM-HOME (WFH) PRACTICE FOR URBAN POOR RESPONDING TO PANDEMIC SITUATION

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Abstract

The situation where one can practise working from home is not easy for some people in Malaysia, especially those with limited space at home. Working from home (WFH), on the other hand, needs to be rethought and thoroughly examined for individuals in the bottom 40 percent (B40) for a variety of reasons. A total of 144 samples from low-income households in Shah Alam responded to the structured questionnaire. The questionnaire focuses on two main investigations: (1) the WFH conditions in terms of space and environment among the B40; and (2) how they manage WFH distractions in connection to the house space and environment. According to survey results, most respondents prefer working in a bedroom or living room since it is a more pleasant environment. The availability of electrical plugs, internet access, and adequate ventilation are further considerations that influence their choice of workspace. The survey's findings indicated that the lack of a comfortable workspace made the majority of respondents unhappy about practising WFH. The majority of responders suggested that future bedrooms be larger to guarantee that those practising WFH are comfortable. The results of this study are expected to enhance the planning and design of residential living space and pave the way for future low-cost housing development that places greater emphasis on the well-being of the urban poor.

Keywords: work from home, WFH workspace design, B40, covid-19, quality of life

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INTRODUCTION

Through the Prime Minister's announcement on 18th March 2020, the Malaysian government officially declared the Movement Control Order (MCO) under the Prevention and Control of Infectious Diseases Act 1988 and the Police Act 1967. The Movement Control Order (MCO) was imposed due to COVID-19, creating an unprecedented situation in which a third of Malaysians in the private sector were required to work from home (UNDP, 2020). This situation provided a once-in-a-lifetime opportunity to assess attitudes toward working from home (WFH), as well as the trade-offs between WFH conditions and life and environmental outcomes. Based on the survey conducted by UNDP among employees during the MCO, it was found that WFH had largely been beneficial for work-life integration and productivity when time-saving could increase productivity in terms of work and domestic responsibilities. More respondents reported an increase in their quality of life rather than a decrease, even for those who found domestic responsibilities slightly more difficult, or who put in extra time while working from home.

However, the B40 group, particularly in the informal economy, is offered little or no labour protection, and often has a lower ability to work remotely. Recent survey findings indicate that only one in four self-employed individuals has been able to WFH during the MCO. The International Labour Organisation (ILO) has also identified informal economy workers as the most vulnerable to business closures due to the pandemic, with workers in this sector experiencing an estimated 60% decline in income globally. Since most studies focus on the impact of WFH in the context of economic, social, and employer-employee relationships, there is still inadequate research pertaining to the impact of WFH on housing design, planning, home space planning, and ICT infrastructure, particularly among low-income earners.

Low-Income Households and Low-Cost Housing in Shah Alam

According to the Department of Statistics Malaysia (DOSM), household income can be defined as the total income received by each member of one household unit (Romeli, 2021). In Malaysia, low-income earners are classified as the Bottom 40% (B40), consisting of a societal group with a monthly household income of RM4,850 or less. According to Bank Negara Malaysia (BNM), to live comfortably in Malaysia, the estimated cost of living in a large city such as Kuala Lumpur ranges from RM2,700 to RM6,500 (Eilyn Chong and Farina Adam Khong, 2018). An unmarried individual needs to earn at least RM2,700 per month, a couple without children must earn about RM4,500, and a couple with two children should earn at least RM6,500 to live comfortably in Malaysia.

Nowadays, the availability of inexpensive housing is one of the pressing concerns that developing countries face the most due to increased urbanisation and population growth. The need for housing has become a major concern for a lot of individuals, with having a home as one of their top priorities (Wan Mohamad et al., 2018). Without a place of residence, people feel unprotected from various dangers or other environmental factors. Housing fulfils both psychological and physical needs by providing a sense of privacy and personal space, as well as protection from the elements. In other words, low-cost dwelling designs in Malaysia have changed over time from two to three bedrooms. Additionally, extra space can be used as a dining room, a separate toilet and bathroom, or a place to dry laundry (Construction Industrial Development Board/CIDB, 1998; Wan Mohamad et al., 2018).

To promote social well-being for all communities and ensure sustainable and comfortable communal living spaces, infrastructure and social facilities must be provided. The PKNS Flat, a low-cost housing development in Shah Alam, has proven to be of some success. There are about 3530 units of 5-story walk-up flats with a built-up size of 650 square feet in low-cost house developments. This project was completed in 2000. There are three bedrooms, living rooms, a kitchen, a washing or drying area, and a bathroom with specific dimensions and materials used in low-cost house developments. There are also other facilities provided to the communities, such as primary and secondary schools, community halls, commercial areas, shop lots, bus stops, car and motorcycle parking areas, and others.

According to Wan Mohamad et al. (2018), Malaysian low-cost housing must have a built-up size of 550 to 660 square feet, consisting of two bedrooms, a living room, a kitchen, and a bathroom. Past research has been conducted in this field. A normal Malaysian family typically consists of three children and two adults, for a total of five people. Accordingly, each room or space would accommodate two to six people. This situation may contribute to inconvenience and privacy issues for families with more than four members. In a previous study on spatial behaviour in low-cost housing, two primary types of coping behaviour were identified: adaptation to the available space and adjustment toward the space (Indriyati, S.A, 2013). The results show that a large number of households were able to adapt to their surroundings by making physical and functional changes to their homes.

The New Norm of Working from Home (WFH) Practice as the Current Situation
Over the last three decades, researchers have analysed working from home and its consequences in various disciplines like business and economics, environmental sciences, and psychology (e.g., Bailyn, 1988; Henderson, Koenig, and Mokhtarian, 1996; Gajendran and Harrison, 2007). According to the

literature, working from home is characterised by two main aspects. First, employees work outside the common workplace. Second, a connection between home and office exists. Information exchange and communication with colleagues are possible using information and communication technologies (Bélanger, 1999; Bailey and Kurland, 2002). Moreover, the literature states that employees need to have a suitable job design for working from home. Home-based work is mostly suitable for employees who mainly engage in knowledge-based tasks, have limited face-to-face contact, and possess a high degree of autonomy (Bailey and Kurland, 2002).

Furthermore, WFH is a new modern norm that requires a stable connection to the internet, enables mobility, and allows individuals an easy way to complete work. Working from home can also be defined as working remotely or telecommuting. This enhances employees' ability to complete their tasks from a different location, in contrast to a normal office environment. They will use telecommunication tools such as phones, the internet, e-mails, and video apps for meetings and task delegations. Besides, telecommuting can also be considered a flexible occupational option that allows employees to work in remote locations using modern telecommunications technologies (Fougere K.T. and Behling R.P., 2016).

Advantages and Disadvantages of Employees' Practising WFH During the Pandemic
Findings from a survey by Fougere and Behling (2016) discovered that about 64 percent of respondents believed that telecommuting can increase the productivity of work responsibilities, while 87 percent of them thought that it could reduce stress among employees, and about 70 percent assumed that telecommuting can lead to greater job satisfaction or a well-managed workload. From another point of view, employees may have a more flexible work schedule by telecommuting since they can work at their own pace without any pressure or other normal distractions common in the workplace. Additionally, employees who need to travel for work will save money on transportation and can increase time consumption for working, which will lead to better productivity during working hours. Companies can also reduce costs in terms of energy bills and other regular office maintenance.

While enjoying the benefits of working from home, there are also some challenges and disadvantages to this new working lifestyle. The practice of working from home has beneficial effects for both parties, i.e., employers and employees (Vyas & Butakhieo, 2020). Some people who have a stable internet connection and a work space at home prefer to work at their own pace and at their own pace (Grant et al., 2019; Purwanto et al., 2020). Those who have problems accessing certain connections, however, would like to go to the workplace and

operate in a typical space with current amenities. Employers support certain expectations when working from home, such as the cost of facilities associated with WFH, training in the use of technology, and organisational communication, among others. Employees' well-being and IT support from the organisation are examples of other types of support for the WFH arrangement (Baker, Avery, and Crawford, 2007; Vyas & Butakhieo, 2020). Some employees will have more personal and social interaction with their co-workers and managers in obtaining clarification, while others may encounter difficulties in terms of connectivity to the internet and mobile connection and need to pay more for that. Other than that, employees, either those with families or those who are single, may have a high tendency to experience more distractions at home compared to working in office environments. Examples include disturbances from children and/or other family members, noise problems, cell phone issues, and others, which are beyond the employers' power to control. Employees will also tend to use their working time for personal matters. According to previous studies, working from home is influenced not only by the organisation but also by the individual employee and other family factors (Baker, Avery, and Crawford, 2007; Solõs, 2016; Vyas & Butakhieo, 2020). Besides, for someone who works in a security department, some issues may arise in terms of data transfers, especially pertaining to the company's confidential data or information. There is a possibility of data theft or data leaks to third parties. Not all types of work can be conducted outside of office environments. Some departments need high accessibility to folders and data from the office, and mistakes can occur if there is miscommunication among employees. According to a Nexthink poll, 38% of employees had problems with VPN access to vital applications. At the same time, 37% of employees had issues with their Wi-Fi connection, while 35% of employees had issues using video conferencing apps (Periasamy Nathan et al., 2021).

Working from home is not easy to manage. There are distractions and impacts from several different perspectives during WFH. These distractions and impacts are not only encountered by low-income employees but also by those who have adequate facilities to accommodate them. According to Sloan (2017), distractions occur when people need to work from home, which can affect employees' work productivity and opinions on how to handle such problems. According to recent research (Vyas & Butakhieo, 2020), many individuals had been under the notion that WFH was an eccentric idea before the pandemic and was considered impractical in densely crowded places.

Sometimes, hearing excessive noise can reduce concentration, which may become almost impossible at times. This is likely to be experienced by people with limited working spaces who need to focus on completing their tasks (Sloan, 2017; Vyas & Butakhieo, 2020). Noise can come from family members or even from music that one listens to. In addition, individuals who are required

to work from home will be subjected to noise coming from home appliances such as the dishwasher, the washing machine, and the vacuum cleaner, as well as other family members' activities. Individuals who must work from home should, therefore, plan for permanent office equipment such as a computer, printer, and filing system in their own space (Montag & Walla, 2016). Those who stay with other family members are compelled to be partly responsible for helping out with household chores. A working mother will be distracted by an overflow of dirty dishes in the sink and a mountain of laundry that requires folding. Therefore, people who practise WFH need to have their own working space to focus and concentrate on completing tasks. Setting a schedule to complete tasks is an important priority.

RESEARCH METHODOLOGY

This study intends to examine the quality of life of the B40 group in connection to the design and surroundings of their living spaces or residences during WFH. The purpose of this study is to assess the impact of COVID-19 on low-income residents of high-rise and landed residential units who need to work from home. This study employs the case study technique by selecting the poor urban residents of Shah Alam as its subject. This study explores the hypothesis that the architecture of residential units affects the quality of life of the urban poor who practise WFH following the implementation of government restrictions during a pandemic.

The PKNS Flat, a low-cost housing unit in Section 7, Shah Alam, was selected as the distribution area for the study's questionnaires. The questionnaires were distributed to residents who reside in the PKNS Flat in Shah Alam. A sample of 144 respondents from low-income households in the selected study area provided their responses to the structured questionnaire. The questionnaire focuses on two main areas of inquiry: 1) WFH conditions in terms of space and environment for the B40 group, and 2) how distractions were handled during WFH in terms of space and environment.

A total of 144 respondents were selected for this survey using the stratified random sampling method to represent the low-income households of the PKNS Flat in Shah Alam. The selection of the sample was calculated based on the total units of the PKNS Flat, which amounted to 3530 units, with a 95% degree of confidence and an error margin of 8%. Distribution of the questionnaire was made house to house as well as by approaching respondents at parking and recreation/open space areas. However, some residents declined to answer the questionnaire due to time constraints. The questionnaire is somewhat detailed, requiring about 10–15 minutes to complete.

FINDINGS

This study analyses the design, space requirements, and size of the room or unit used by low-income employees while working from home. It is important to know their requirements for the future home-workspace design. Based on the observation of the low-cost units in the study area, each unit with a built-up size of 650 square feet has three bedrooms, a living room, a kitchen, a washing or drying area, and a bathroom with specific dimensions and materials used in low-cost house developments. Approximately 44.3% of the respondents reside in rented units, while about 55.7% reside in their own properties. About 27.3% of the respondents reside with their parents, while 42.3% live in units with three to four other people. A little over 35.5% of respondents reported living in a unit with more than five people. Following 3–4 people in a unit, this data shows a higher second. Wan Mohamad et al. (2018) discovered that the typical Malaysian family consists of three children and two adults, for a total of five people. This study's findings are similar to those of that study.

Table 1: The number of residents in each unit

Number of residents in a unit	Percentage (%)	Total
Alone in a unit	2.7	4
2 people in a unit	9.8	14
3 to 4 people in a unit	42.3	61
More than 5 people in a unit	35.5	51
Alone (renting a room in a unit)	9.7	14
Total	100	144

According to previous studies, working from home is influenced not only by the organisation but also by individual and family factors (Baker, Avery, and Crawford, 2007; Solõs, 2016; Vyas & Butakhieo, 2020). According to data acquired from the questionnaire survey, respondents who reside with 3–5 individuals in a unit expressed dissatisfaction with their ability to practise WFH (37.3% & 58.1%) due to the lack of an appropriate workspace. The number of people residing in a unit corresponds to the unit's size. Thus, families with more than 3–5 people in a unit experience "distractions from family members" while engaging in WFH. They also took into account the fact that they have to work alongside those with whom they are living. The chi-square test results in Table 2 indicate a value of 27.306 and a significance level of 0.05, p = 0.001. This result indicates that the number of people in a unit is associated with WFH issues or the

general ability to practise WFH. Thus, the size of respondents' living areas influences the problems they confront during WFH.

Additionally, there are certain problems with data transfer and confidential company information for someone who works in the security department. Internet access is a critical factor to take into account when working away from the office (Periasamy Nathan et al., 2021), particularly if they have to share internet access with their families.

Table 2.0: The number of residents in a unit versus the issues encountered by respondents working from home

Issues encountered by respondents during WFH	The number of residents in a unit				
	Alone in a unit	2 people in a unit	3 to 4 people in a unit	More than 5 people in a unit	Alone (renting a room in a unit)
Uncomfortable workspace	0	0	37.3	58.1	4.6
Limited access to resources such as office documents	5.3	15.7	28.9	36.9	13.2
Unstable internet access	5.4	13.5	27	45.9	8.1
Distraction from a family member	0	0	33.3	46.7	20
Others	0	27.3	27.3	36.4	9

Chi-square = 27.306; Significance = 0.001

Work Space chosen by the respondent during WFH
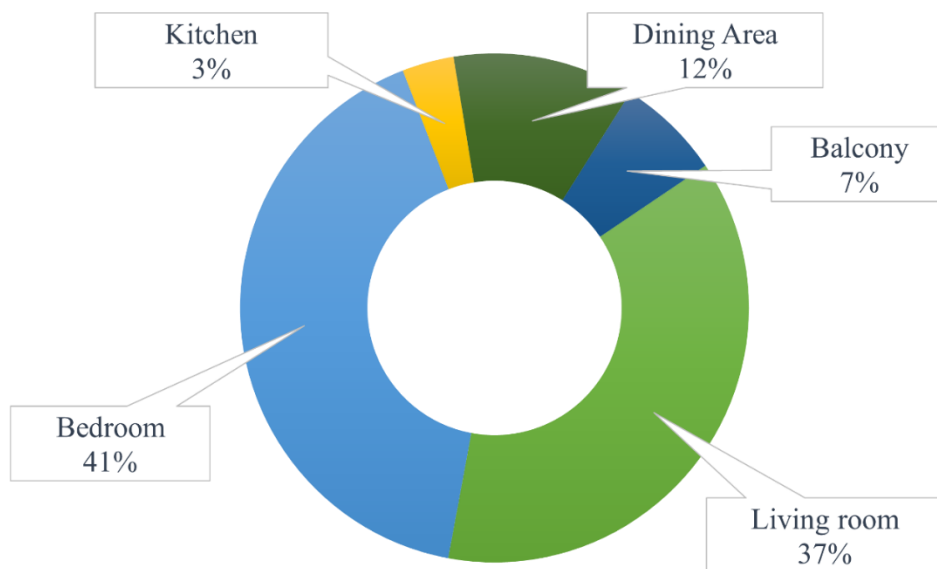

Figure 2: Work Space chosen by the respondents during WFH

Most respondents, according to the data collection, prefer to work in their bedrooms, and about 41% of them will remain in their bedrooms throughout the working day. According to the literature review, working in a room can be one of the best options to keep family members away from distractions. Additionally, it can reduce any background noise that may impair focus during work. An employee must ensure a peaceful setting and be able to make a fair judgement that is not influenced by any emotional issues in order to help the office management complete their responsibilities. In addition, working in a room can impede someone else from doing other household chores like washing the dishes or clothes, among other things. Likewise, the living room was chosen as the workplace location by 31% of the respondents. Dining 13%, balcony 7%, and kitchen 3% are other areas that have also been used as workspaces for office work. Table 3 shows the reasons these areas were chosen to complete daily duties during WFH.

Table 3: Reasons for choosing WFH space according to the number of residents in a unit

Reasons for choosing WFH space	Number of persons in a unit (%)				
	Alone in a unit	2 people in a unit	3 to 4 people in a unit	More than 5 people in a unit	Alone (renting a room in a unit)
Close to electrical outlets	0	21.2	26.3	36.8	15.7
Good ventilation	3.7	7.4	22.2	55.5	11.1
Comfortable space	5.7	16.6	11.1	44.4	22.2
Good internet access	4.2	12.5	29.2	50	4.1
Far from family members' disturbances	0	0	41.5	51.7	6.8
Considering other family members' movements in the house	0	0	64.3	28.5	7.2
Easy to eat and cook	0	16.6	33.4	50	0
Away from the distractions of children	0	0	42.8	57.2	0

Chi-square =504.411; Significance = 0.001

WFH is difficult for people who have a large family in a small unit. To learn more about their experiences and challenges, respondents were chosen to participate in telephone interviews. According to the feedback, they occasionally needed to switch their workspace to keep everyone satisfied and make it conducive to spending time with other WFH family members. For them, managing stress and diversions is a major struggle.

Crosstabulation analysis in Table 3 explains that the majority of respondents with families larger than three to five members chose their space for WFH with the consideration of "far from family members' disturbances," "considering other family members' movements in the house," and "away from the distractions of children". The Chi Square analysis indicated a Chi Square value of 504.411, which is significant at a 0.05 level (p = 0.001). The number of individuals in a unit and the reason for selecting WFH space were found to be significantly correlated. This suggests that the number of individuals in a unit is taken into account when deciding where to conduct WFH.

Table 4: Space to Reduce Stress While Working from Home

Space to reduce stress while WFH	Percentage (%)	Total
Bedroom	29.1	42
Television room/audio room	27.7	40
Living room	19.4	28
Kitchen	14.5	21
Balcony	9.3	13
Total	**100**	**144**

Table 4 shows that the majority of respondents each have a different method for managing stress when working from home during the pandemic. People are not permitted to leave the house during this time unless in cases of emergency. As a result, while under stress, people often find it difficult to focus on their work during the workday. The survey's findings indicate that the majority (29.1%) of respondents would stay in their bedrooms to manage their stress. Around 27.7% chose to relax by watching television and listening to music in the television/audio room. Additionally, they would make an effort to clean their living spaces or homes. Approximately 19.4% of the respondents chose to clean or tidy up their living room, which might help them reduce stress before resuming work in order to concentrate better in a tidy environment. About 14.5% of respondents also enjoyed trying out new recipes in the kitchen to share with their family members.

People who have to deal with interruptions from family and friends may need to develop time-management skills in order to perform daily duties. Table 5 details how respondents dealt with interruptions while conducting work from home during the pandemic. With 25% of the vote, some chose to work in a contained space. This may refer to a location that is adjacent to the main room and is shared by other members. 21.8% of people attempted to minimise interruptions by using signs and symbols that indicate "I am working" and/or "do not disturb." This indicates that the small space at home has an impact on the respondents since they find it hard to adjust to WFH when they have many family members living with them.

Table 5: Approaches for Coping with WFH Distractions

Approaches for coping with WFH distractions	Percentage (%)
Working in a contained room	25
Using signs and symbols to indicate "I am working" and "do not disturb."	21.8
Turning off notification alarms on mobile phones	15.4
Staying away from mobile phones	13.7
Avoiding working in the living room	13.7
Total	100

CONCLUSION

In conclusion, it might be challenging to work from home when there is a lack of space when a large number of family members reside in the same house. This significant subject needs to be handled with caution while under stress. In the future, a better alternative to building low-cost housing units can be suggested by learning more about this community's requirements in terms of home design and space.

The majority of respondents, as indicated by the data collection, decided that they would want a larger bedroom in the future so that they could practise WFH in more comfort. In addition, their choice of working area for their daily work as an employee will complement this. This is due to the fact that staying in a locked room will avoid family and spouse attention and reduce family stress. They can focus more intently on completing their work and producing a prompt response.

RECOMMENDATION

As part of the process of mitigating the practise of WFH during pandemics like COVID-19, it is hoped that the study's findings will be used in the design planning of low-cost residential units. The results of this study should lead to advancements in home planning and design, as well as the development of future low-cost housing projects that take the quality of life of the urban poor into greater account.

The practice of working from home can become an option to increase the productive output of a company and mitigate its financial problems in the future. Furthermore, it can be a different strategy to prepare for subsequent periods of any pandemic situation. The benefits and downsides of this approach have been explored in many nations. People prefer to work in a contained/closed-off space and relax in their bedrooms, according to a survey on lower-income

neighbourhoods. Therefore, they have suggested that their bedrooms be made larger.

Authorities may also consider creating a future small working/study space specifically for WFH needs. Children can use this room to study in private or to take online courses during pandemic situations. Developers of affordable housing projects can capitalise on this opportunity by ensuring the most efficient design that fulfils residents' requirements.

The regulations and guidelines for home development must also be regularly revised by the government to provide suitable space requirements. Based on this study's analysis and past research on space adequacy, the Uniform Building By-Law of 1985 should set a standard size for master bedrooms in low-cost housing developments.

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