

Improving Residents' Well-being in Low-Cost Housing: An Analysis of Safety and Health Satisfaction.

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Abstract

The well-being of low-cost housing's residents in safety and health is a vital issue, however it is often overlooked. This research delves into the residents' satisfaction in Low-Cost Housing in Shah Alam, focusing on the fundamental aspects in safety and health. This research aims to recommend safety and health improvement to the residents' wellbeing in low-cost housing. The research methodology involved a multi-phase approach, encompassing the compilation of secondary data through literature review and the collection of primary data by questionnaire surveys and on-site observation. The findings suggest that residents are dissatisfied with certain aspects of safety and health, including safety nets, CCTV, firefighting, parking space, and lighting/illumination. Addressing these concerns through targeted measures will not only improve residents' safety and health but also contribute to the overall well-being of the community.

1. Introduction

Home or shelter is fundamental to human life, ranking alongside food, clothing, and medicine in terms of essential needs. A comfortable and secure living environment is crucial for families' well-being and profoundly impacts the community. In Malaysia, the housing market offers a range of options, from luxurious homes for the elite to affordable housing solutions for those with lower incomes. The government's focus on home ownership is evident through initiatives such as the National Affordable Housing Policy (DRMM) [2018 - 2025], which aims to increase the availability of affordable residences for the B40 group, thereby aligning with their financial capabilities (Bernama, 2023). The quality of housing is not just a matter of comfort but is intrinsically linked to health, safety, and the sustainability of the built environment. The Ministry of Local Government and Housing (KPKT) emphasises that housing projects, like the Program Perumahan Rakyat (PPR), must meet essential criteria, including liveability, accessibility, sustainability, high quality, and a sense of community. Poor housing conditions can exacerbate social issues, contribute to crime and substance abuse, and escalate mental health problems (Nurul Ashikin, 2023). Thus, the government's challenges extend beyond providing affordable housing; it includes ensuring these homes support a holistic community life by incorporating facilities such as sports complexes, leisure areas, schools, hospitals, and police stations. The recently introduced National Community Policy aims to foster communities sensitive to social issues and enhance overall prosperity

(Bernama, 2023). Recognising well-being for fostering positive living environment is deeply connected to a harmonious home environment, access to fresh air, and the ability to engage in physical and spiritual activities without concern, feeling safe from dangers and disruptions that could cause harm (Nurul Ashikin, 2023). Therefore, this research aim to analyse the low cost housing's residents satisfaction in terms of safety and health aspects and recommend the safety and health improvements towards better well-being.

2. Literature Review

2.1 Safety and Health Aspects for Low-Cost Housing

Focusing on safety is imperative to minimise the risks of accidents, injuries, and fires within residential areas. The National Community Policy emphasises that PPR structures with multiple floors are more susceptible to accidents and pose challenges in helping DKN (2019) in Mohd Salleh & Ahmad Latiffi (2021). Hence, addressing security concerns is pivotal for ensuring the sustainable well-being of PPR residents, as highlighted by Azita et al. (2015). In these aspects, residents of PPR (Program Perumahan Rakyat) want the installation of CCTV cameras to prevent theft incidents (Ali, 2021). Additionally, residents seek the installation of safety nets to reduce the risk of accidents resulting from residents throwing objects from upper floors (Siti Azila Alias, 2018). According to Ahmad (2023), residents want streetlights installed around the area due to frequent accidents occurring in the darkness. Providing basic facilities is essential in enhancing the overall housing quality in each area. Residential areas equipped with well-thought-out basic facilities contribute to an improved living environment. For instance, PPR housing is designed to include fundamental features such as a community hall or public space, surau, refuse chamber, kindergarten, playgrounds or field areas, and waste management infrastructure (Jabatan Perumahan Negara, 2023). According to residents of PPR residences in the capital city, the lack of parking spaces contributes to various problems among residents, including "cop parking" activities (Iskandar & Amirah Suhaimi, 2023). Lastly, residents want the drains in their residential areas to be kept clean to prevent blockages that can lead to breeding *Aedes* mosquitoes (Zamir, 2023).

A clean environment is crucial in determining the population's satisfaction level. Good hygiene covers several aspects, such as garbage management, sanitation, and environmental hygiene. Adequate sanitation facilities, such as clean toilets and regular garbage disposal, can increase the level of comfort and satisfaction of residents. In addition, environmental awareness campaigns and education on good hygiene practices can also increase public participation in environmental hygiene. By ensuring good hygiene in the PPR, a healthier and more comfortable environment can be produced, which in turn will increase the level of satisfaction of the population with the conditions of their home. When this residential area is clean, the inhabitants start to feel fun and excited Mohd Reda & Awang (2023). Residents want prompt action on every complaint lodged with waste management to prevent foul odours in the vicinity of residential homes (Manan, A., 2019). Fire safety is crucial for the residents of any building because, in the event of a fire, fire-fighting equipment can help prevent the spread of flames. According to Malik (2024), we must ensure that every PPR (Projek Perumahan Rakyat) has fire extinguishers and hose reels because more than half of these residences either lack these tools or are non-functional. Additionally, regular inspections should be conducted to ensure all equipment is functioning correctly, and permits should be renewed annually (Malik, 2024). The parking area should be spacious and not congested with layered parking to facilitate the smooth entry of JBPM (Fire and Rescue Department of Malaysia) vehicles into the residential area (Malik, 2024).

Highlighting the importance of social aspects is crucial for promoting peaceful coexistence among residents. Building strong social connections within communities is essential for those living in residential areas. According to Hussain et al. (2011) and Mohd Salleh & Ahmad Latiffi (2021), fostering solid bonds among neighbours enhances social interactions and promotes unity among residents. Conversely, unfavourable environmental conditions, such as weak neighbourly relationships or strained family ties, can negatively impact the well-being of the population (Selamat et al., 2018). Therefore, nurturing positive relationships among neighbours is crucial in strengthening the social fabric of residential areas. Residents express discomfort with foreigners settling in PPR areas due to perceived moral differences (Mohd Iskandar Othman, 2024). They have high hopes for reducing theft, drug activities, intoxication, and crime in PPR homes (Ahmad, 2023). Residents also expect decreased vandalism to beautify their living areas (Bernama, 2023). According to Suhael (2018), DBKL initiated the "1 rat, 1 ringgit" campaign in 2008, increasing the reward rate to RM3 in 2018 to encourage more people to catch rats and reduce their population, thus lowering the risk of diseases like leptospirosis from rat urine. The foul odour from garbage surrounding residents of the PPR 2 flats in Subang Valley for the past three weeks was finally addressed through a "Gotong-Royong" program organised by members of the Department of Charity of Selangor State (JAPS).

2.2 A vital need for progress of Safety and Health in Low-Cost Housing.

Maintaining cleanliness and ensuring a disease-free environment are crucial for residents. According to Mohd Salleh & Ahmad Latiffi (2021), residents are encouraged to uphold cleanliness in their living spaces to mitigate the risk of diseases and epidemics. This effort involves regular cleaning and adherence to proper waste disposal methods. Implementing recycling practices within PPR housing contributes to environmental sustainability and fosters awareness and responsibility for household hygiene. With this collective effort, residents can enjoy a healthier and more comfortable environment while playing a vital role in preserving environmental sustainability for future generations. Safety is a top priority to mitigate various risks, including accidents, injuries, and fires in residential areas. Additionally, concerns such as theft, drug trafficking, vandalism, and other criminal activities contribute to a sense of insecurity within communities Mohd Salleh & Ahmad Latiffi (2021). To address this, residential developers can consider installing Closed-circuit televisions (CCTVs) in high-risk crime areas, as Rohaniza Idris (2019) suggested, to enhance security measures and provide residents with a safer living environment. The best measure is to install safety nets to protect the public from the risk of being hit by objects thrown from above. Depending on specific needs and situations, these nets can be installed at the bottom or the top of the block. The installation of these safety nets is intended to protect the public from injury and enhance the area's overall safety (Siti Aliza Alias, 2018).

Promoting good social relations among inhabitants is identified as a critical element in ensuring a positive housing environment. Social programs, such as community clean-up initiatives like "gotong-royong," can foster strong bonds among the population (Yusmizal Dolah Aling, 2019). Encouraging residents to participate in such activities enhances the physical appearance of the residential areas. It contributes to a sense of community and shared responsibility for the well-being of the housing environment. According to Radi (2022), the recurring parking problems in the PPR area have prompted residents to propose the implementation of block-specific vehicle stickers. This measure aims to prevent non-residents from parking within the PPR area, a situation that often causes significant inconvenience to the residents. Consequently, the residents' approach involves introducing specialised vehicle stickers to restrict parking access within the PPR area exclusively to residents. This solution will effectively address the parking issues and provide enhanced comfort to low-cost housing residents. As stated by Malaysia Gazette (2017), Federal Territories Minister, Datuk Seri Tengku Adnan Tengku Mansor, issued a stern warning to tenants of Projek Perumahan Rakyat (PPR) and Perumahan Awam (PA) against renting out their houses to foreigners. Tengku Adnan stated that his office has directed the Kuala Lumpur City Hall (DBKL) to inspect all PPR and PA houses to ensure that genuine tenants are not subletting to others, and inspections will be conducted at night. Tenants should be calm if strict actions are taken, as the facilities provided in PPR homes are not meant for others' use but are expressly provided for those in need.

Implementing police surveillance in the Program Perumahan Rakyat (PPR) is essential to enhancing peace and preventing crime in the neighbourhoods. By organising regular police rounds, police presence can provide a sense of security to the PPR residents and reduce the potential for crime, including theft and vandalism. According to Nor Azizah Mokhtar (2020), the police focus is to reduce the 'fear of crime' by increasing the periodic rounds in the PPR and PA. Once again, the police presence will make the people feel safer. Improving streetlights is an excellent initiative to reduce crime rates and minimise the risk of vehicle theft in PPR areas, as highlighted by Rohaniza Idris (2019). According to the report, LED streetlights help reduce crime and save energy, making them more cost-effective for local authorities. This positive step enhances the area's brightness and safety and contributes to environmental sustainability through more efficient energy use. Sinar Harian (2023) quoted the Minister of Local Government Development, Nga Kor Ming, as saying that starting this year, individuals who will own layered houses under the Program Perumahan Rakyat (PPR) will need to attend a civic awareness course to raise awareness, understanding, and responsibility for community life and neighbourhood practices. Awareness campaigns are strongly encouraged to PPR residents to raise awareness of negative attitudes and behaviours that make neighbours feel unhappy. Jusid & Muhammad Rosli (2023) say it is necessary to attend a civic awareness course before obtaining a PPR home key that aims to give awareness, understanding, and responsibility to community life and neighbourhood policies, including hygiene. The residents want to increase awareness about their commitment to collaborating with the police to reduce the

crime rate (Nor Azizah Mokhtar, 2020). Finally, residents want to be patrolling the neighbourhood community society (Ilah Hafiz Aziz, 2024).

Low-cost houses cannot avoid the problem of odour pollution caused by the rubbish that is rolling, the habit of a small population of constantly pissing, and the smell of animal dirt. The people must cultivate responsibility and have a civic consciousness. Ahmad Mustakim Zulkifli (2022) also affirms that tainting hygiene in these homes is a shared responsibility of all residents, and garbage disposal should be done periodically and sustainably. To ensure they remain functional, every low-cost housing project must provide and regularly update fire safety equipment such as fire extinguishers, fire hydrants, and hose reels. Additionally, the parking spaces should be spacious and not cramped to facilitate the entry of fire department vehicles into the residential area in an emergency, especially a fire incident (Malik, 2024). To prevent such incidents from occurring frequently, the Fire and Rescue Department (JBPM) should conduct periodic monitoring to ensure everything is in the designated condition.

3. Research Methodology

Qualitative method via observation and quantitative method via questionnaire survey were employed to gather data in achieving the research aim. A questionnaire survey was utilised as the primary tool for data collection, designed to capture the necessary information from respondents. The questions were constructed based on the research objectives and insights from the literature review. The respondents included residents from the selected case studies which are Flat PKNS Seksyen 6, Flat PKNS Seksyen 7, and Flat PKNS Seksyen 16 in Shah Alam, Selangor. A total of 150 questionnaires has been collected upon distribution by hand and Google form to the community group to WhatsApp and Facebook application. The observation on the facilities and surrounding related to the safety and health was carried out using visual inspection only without using any tools or equipment.

4. Result and Discussion.

4.1 Case Study Observation.

Several issues were considered for the data analysis of case study observation and can be visually compared across the three case studies. The comparison of basic facilities provided such as playground, community hall, parking space, fire safety and lighting are done to highlights the specific conditions in each of the low-cost housing areas thus providing a comprehensive understanding of their differences and similarities.

Table 1: *The Case Study Observation*

No.	Aspect	Flat PKNS Seksyen 6	Flat PKNS Seksyen 7	Flat PKNS Seksyen 16
1.	Playground or field area	 <p>Playground clean and neat</p>	 <p>Playground clean and neat</p>	 <p>Playground clean and neat</p>
2.	Community hall			

		Community Hall is well maintained	Community Hall is well maintained	Community Hall is well maintained
3.	Rubbish Collection	 Isolated Refuse Bin	 Isolated Refuse Bin	 Refuse Chamber
4.	Fire Safety	 The fire hydrant in good condition	 Leaking in the fire hydrant valve.	 Malfunctioning valve covers and a lack of maintenance.
5.	Parking space	 Cramp and overlapping car parking	 Cramp and overlapping car parking	 Additional parking on grassy areas adjacent to the building.
6.	Street Lighting	 Insufficient illumination	 Sufficient illumination	 Insufficient illumination

4.2 Questionnaires Analysis

4.2.1 Demographic information

Table 2 : Respondent's Demographic

	Information	Frequency	Percentage (%)
Background			
	Gender		
	Male	79	52.7
	Female	71	47.3
Age	20-29	53	35.3
	30-39	38	25.3
	40-49	32	21.3
	50-59	17	11.3

	60 and above	10	6.7
Occupation	Government	33	22.0
	Private Agency	52	34.7
	Student	40	26.7
	Not Working	25	16.7
Length of Residency	Below 1 year	28	18.7
	2-4 years	55	36.7
	5-7 years	28	18.7
	8-10 years	14	9.3
	More than 10 years	25	16.7

Table 4.2 presents the demographic profile of 150 respondents, detailing the frequency and percentage distribution based on gender. The data indicates that male respondents constitute the majority, with a percentage of 52.7% and a frequency of 79 respondents. Conversely, female respondents account for 47.3% of the sample, corresponding to a frequency of 71 respondents. In terms of the age groups. The table indicates that most respondents are between 20 and 29, with 53 representing 35.3%. 52 respondents (34.7%) are working in private sector which is the highest in occupation. Lastly, the table shows that most respondents have lived in the residential area for 2-4 years (55 respondents with 36.7%).

4.2.2 Residents’ Satisfaction in terms of Safety and Health Aspect.

Table 3 : Residents’ Satisfaction.

Aspects	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	Mean	Rank
Playground or field areas	4.0%	20.7%	50.0%	25.3%	2.97	1
Community hall or public space	4.0%	20.7%	50.7%	24.7%	2.96	2
Refuse chamber	6.0%	20.7%	48.7%	24.7%	2.92	3
Garbage collection services with designated disposal areas	3.3%	31.3%	45.3%	20.0%	2.82	4
Frequency of garbage collection	6.0%	35.3%	41.3%	17.3%	2.70	5
Street cleaning initiatives	6.0%	38.0%	40.0%	16.0%	2.66	6
Patrolling the neighbourhood by community society	7.3%	38.7%	36.7%	17.3%	2.64	7
Foreigners’ occupancy behaviour while living in residential areas	8.0%	36.7%	39.3%	16.0%	2.63	8
Condition of perimeter drain	9.3%	32.7%	46.7%	11.3%	2.60	9
Police patrolling	10.7%	38.7%	37.3%	13.3%	2.53	10
Garbage smell from the refuse chamber	14.0%	43.3%	24.7%	18.0%	2.47	11
Immoral behaviour such as theft, drug activity, drunkenness, and criminal activity	13.3%	40.7%	34.0%	12.0%	2.45	12
Entry for the fire truck and ambulance in case of	14.0%	40.0%	34.0%	12.0%	2.44	13

a fire emergency						
Fire safety provision	14.0%	43.3%	28.7%	14.0%	2.43	14
Vandalism	18.0%	41.3%	27.3%	13.3%	2.36	15
Lighting in alleys and walkways	15.3%	43.3%	33.3%	8.0%	2.34	16
Sufficiency of parking space	23.3%	40.0%	24.0%	12.7%	2.26	17
Fire safety equipment condition	15.3%	54.7%	21.3%	8.7%	2.23	18
Closed-circuit television (CCTV) cameras in common areas	32.7%	46.0%	14.7%	6.7%	1.95	19
Safety nets	32.0%	48.7%	12.7%	6.7%	1.94	20

Based on Table 4.3, 20 aspects have been listed regarding the satisfaction of residents living in low-cost housing in relation to safety and health. The discussion is only for the top 3 questions with the highest mean scores and the bottom 5 with the lowest mean scores.

The highest-ranking aspect (most satisfied) on the list, with the mean score of 2.97, concerns on the "Playground or field area". Based on the observations outlined in Section 4.1, the conditions of the playgrounds across all three case studies are deemed satisfactory and deemed safe for use by children residing within the housing estate. This indicates that residents consider playgrounds crucial and maintain them well to ensure the safety and comfort of the children living there.

Following closely as the second-highest satisfied aspect, scoring a mean of 2.96, is related to "Community Hall or public space". According to the observation delineated in Section 4.1, it is proven that all three case studies incorporate community halls or public spaces, facilitating residents' conducting meetings for each block within the Flat PKNS community. This underscores the importance of these spaces in facilitating social interaction and community activities within the housing area.

Lastly, the third-ranking satisfaction aspect with the mean scores records a total mean of 2.92 and delves into the "Refuse Chamber." The observations outlined in Section 4.1. underscore that all three case studies incorporate Refuse Chambers, a centralized location to collect garbage from their respective residential areas. This proactive measure helps prevent waste from accumulating elsewhere, contributing to the overall cleanliness and hygiene of the community.

Moving on to the bottom five questions which shows the dissatisfaction of the residents. The lowest aspect with a mean score of 1.94 pertains to "Safety nets." Residents' express dissatisfaction due to the absence of safety nets in their residential areas, which are intended to protect them from falling objects from upper floors (Siti Azila Alias, 2018). This dissatisfaction is substantiated by the absence of safety nets observed in Section 4.1 across all three case studies. Therefore, residents perceive the need for safety nets as a deficiency that reduces their safety against potential hazards in their residential areas.

Next, the question regarding "Closed-circuit television (CCTV) cameras in common areas" ranked second lowest (mean score of 1.95). This score indicates dissatisfaction among residents of Flat PKNS Seksyen 6, Seksyen 7, and Seksyen 16 with the absence of CCTV in their residential areas. Residents perceive CCTV installation as crucial for enhancing safety, as highlighted by Ali (2021). The lack of CCTV in the residential blocks for these three case studies is evident from the observations documented in Section 4.1.

The third lowest ranked aspects are regarding the "Fire safety equipment condition," (mean score of 2.23). Residents of Flat PKNS express dissatisfaction with the condition of fire safety appliances, such as fire hydrants, in their residential areas. As fire hydrants should be well-maintained to ensure functionality in fire incidents, residents emphasize the importance of proper maintenance (Malik, 2024). Refer to table 4.1, Flat PKNS Seksyen 7 and Flat PKNS Seksyen 16, the condition of the fire hydrants could be more satisfactory. It has been observed that there is a leaking on the fire hydrant valve at Flat PKNS Seksyen 7, and valve covers are not functioning well for the fire hydrant in Flat PKNS Seksyen 16, and there is a lack of adequate maintenance to ensure the hydrants operate effectively during emergencies.

Ranking the lowest fourth is the "Sufficiency of parking space", which shares an equal mean score of 2.26. The flat areas need more parking space due to the many vehicles parked in the residential parking areas. Additionally, households with more than 2 cars exacerbate the issue of insufficient parking space. The lack of parking spaces contributes to various problems among residents, including "cop parking" activities (Iskandar & Amirah Suhaimi, 2023). Based on the observation, all the case studies faced the issue of insufficient parking spaces and units. At Flat PKNS Seksyen 6 and Seksyen 7, cars often overlap in the designated parking areas. Additionally, at Flat PKNS Seksyen 16, vehicles are parked in the available spaces within the residential area, with most being parked in grassy areas adjacent to the housing complex.

Finally, the lowest fifth-ranking question, with a mean score of 2.34, concerns "Lighting in alleys and walkways." Insufficient lighting in Flat PKNS areas renders the surroundings too dark and unsafe for movement outside. The risk of safety hazards, property loss, and the frequency of accidents due to darkness are also significant concerns in poorly lit areas (Ahmad, 2023). Observation indicates the street lighting at Flat PKNS Seksyen 6 and Flat PKNS Seksyen 16 needs to be improved, as the available streetlamps lack sufficient illumination.

4.2.3 Improvement to be highlighted.

Table 4 : Suggested improvement

Improvement	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean	Rank
Improve security elements such as Closed-circuit television (CCTV) or guards to avoid criminal activities	1.3%	4.7%	42.0%	52.0%	3.45	1
Periodic monitoring to ensure all fire safety equipment, such as fire extinguishers and fire hydrants, is functional	1.3%	5.3%	41.3%	52.0%	3.44	2
Introducing a vehicle sticker for residents	2.0%	6.0%	39.3%	52.7%	3.43	3
Installing safety nets in areas at risk of being hit by objects thrown from upper floors	2.0%	6.0%	41.3%	50.7%	3.41	4
Streetlights to reduce crime rate and reduce the risk of vehicle infringement	2.0%	8.7%	36.7%	52.7%	3.40	5
Police enforcement operations to enhance security and prevent	3.3%	8.7%	34.0%	54.0%	3.39	6
Hosting community meetings for feedback and dialogue on improvement initiatives	1.3%	6.7%	46.0%	46.0%	3.37	7
Improve maintenance work on the infrastructure to achieve suitable and quality housing.	2.0%	6.0%	45.3%	46.7%	3.37	7
Social programme to share responsibilities for the well-being of the housing environment	1.3%	8.0%	44.0%	46.7%	3.36	8
Attend a civic awareness course before obtaining a house key that aims to give awareness	1.3%	8.0%	44.7%	46.0%	3.35	9
Hygiene education programmes for residents	2.0%	6.0%	47.3%	44.7%	3.35	9

Do a "Gotong-Royong" programme	2.0%	8.0%	47.3%	42.7%	3.31	10
Discouraging foreign residents from renting in low-cost houses.	6.0%	10.7%	36.0%	47.3%	3.25	11

Based on Table 4.3, 13 improvements to the satisfaction level of residents towards safety and health aspects in low-cost housing has been asked. The discussion is made only to the top 5 mean scores. The highest-ranking (No 1) pertains to "Improving security elements such as Closed-circuit television (CCTV) or guards to prevent criminal activities", with an overall mean score of 3.45. Implementing improvements such as installing CCTV or hiring security guards can ensure maximum security for residents against any external threats. Additionally, low-cost housing residents want CCTV cameras installed to prevent theft incidents in their area, ensuring their property is better protected (Idris, 2019). This effort not only enhances physical security but also provides peace of mind to residents, allowing them to feel safer and more protected in their residential areas.

The second highest improvement, with a mean score of 3.44 is "Periodic monitoring to ensure all fire safety equipment, such as fire extinguishers and fire hydrants, is functional." Firefighting tool must be in good working condition to extinguish fires early, preventing the spread of fire and facilitating the use of the equipment by the Fire and Rescue Department. Without periodic monitoring, there is a high risk that fire safety equipment may not function correctly when needed, which can lead to delays in containing the fire and pose a danger to the lives of residents and property. Therefore, periodic monitoring is essential to ensure that every fire extinguisher and fire hydrant is in good condition and ready for use. This not only ensures the physical safety of residents but also provides them with confidence that adequate safety measures have been taken to protect them in emergencies (Malik, 2024).

The third highest-ranking improvement, with an average score of 3.43, is to "Introducing a vehicle sticker for residents." Introducing vehicle stickers is a commendable initiative to address the issue of insufficient parking spaces faced by low-cost housing residents. With vehicle stickers, parking management can be improved, ensuring only authorised residents can park their vehicles in designated areas. This measure also helps reduce the likelihood of vehicle collisions within the residential area and enhances the security of residents' vehicles (Radi, 2022).

In the fourth ranking, with an average score of 3.41 is to "Installing safety nets in areas at risk of being hit by objects thrown/falling from upper floors." Residents want safety nets installed in areas prone to being hit by objects or garbage thrown/falling from upper floors. This measure should be emphasised to prevent undesirable incidents from occurring to residents and provide peace of mind to residents and visitors. With the installation of safety nets, the risk of injury or property damage caused by thrown objects can be significantly reduced, thereby enhancing the overall safety of the residents (Siti Aliza Alias, 2018).

Lastly, the improvement ranked fifth is "Streetlights to reduce crime rate and reduce the risk of vehicle infringement", which collected a 3.40 total mean. Improvements in street lighting, such as installing LED streetlighting, are necessary, they not only help reduce crime but also save energy, making them more cost-effective for local authorities (Idris, 2019). This initiative is expected to create a safer and higher-quality environment for Flat PKNS residents and promote a better community life overall.

5. Conclusion

The findings indicate that there are certain aspects in safety and health that the residents dissatisfied. Among the aspects are safety nets, CCTV, firefighting, parking space and the lighting/illumination. By implementing specific measures to counter the dissatisfaction will not only ensuring the safety and health of the residents, which is fundamental to the community's well-being but also contribute to the peaceful and productive lifestyle. In conclusion, this study identified the current condition of facilities and building that related to residents' safety, measured residents' satisfaction, and provided clear guidance for future actions to enhance the quality of life and safety in low-cost housing. These recommendations are crucial to meet the needs and expectations of residents in the context of low-cost housing in the future, ensuring that such housing is affordable, safe, and healthy to live in.

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** Nur Dini Syazwin Amran, Izatul laili Jabar; **data collection:** Nur Dini Syazwin Amran; **analysis and interpretation of results:** Nur Dini Syazwin Amran, Izatul laili Jabar; **draft manuscript preparation:** Nur Dini Syazwin Amran, Izatul laili Jabar. All authors reviewed the results and approved the final version of the manuscript.

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