

Redefining Sheltering Approaches to Create a Better Living for Homeless Animal

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Animal shelters place medical welfare at the forefront of the design of the shelter, meanwhile mental welfare is almost completely neglected. There are typically cold, institutional settings with cell blocks of caged animals. No matter how large a cage, animals can succumb to mental illnesses and depression when faced with monotonous living quarters and no social interaction. However, current studies only focus on improving healthcare program, basic facilities of animal shelter and behaviour assessment. The objective of concept paper is to review current literature on animal shelter to formulate a conceptual framework on emphasizes the space requirement with mental enrichment for sheltering approaches to create a better living environment. The result will formulate a new guideline of sheltering approaches for homeless animals. This paper contributes in effectiveness of strategies are taken for quality living of animals and benefit for animal welfare organization. Future research can conduct qualitative study to look in depth on mental welfare in relation to animal sensory and space's requirement.

Keywords: *Sheltering approaches, Redefining, Homeless animal*

1. INTRODUCTION

1.1 Background study

SPCA Selangor is a well-established integrated animal welfare organisation and animal shelter registered with the Registrar of Societies since 1958. It promotes kindness and compassion towards all animals great and small. The intention of the SPCA Selangor is to protect defenceless animals and to alleviate their suffering. They make the effort in adoption program, investigation of cruelty reports, humane education, assistance to community animal caregivers and run a dedicated, low-cost spay/neuter clinic. Animal welfare were founded in Malaysia, place medical welfare at the forefront of the design of the centre such as Department of Veterinary

Services Malaysia was established in 1888, meanwhile mental welfare is almost completely neglected. No matter how large a cage, animal can succumb to mental illnesses and depression when faced with monotonous living quarters and no social interaction. With the recent influx of strays in the streets of Malaysia, shelters around town are running out of space and resources to home these poor souls. Some of these pets were found in poor condition-abuse, starvation, lack of basic hygiene (ASPCA Publication). Therefore, if the animal shelter's environment does not change according to the understanding of animal's behaviour, then it would be just a jail to accommodate the homeless animal and ignore their mental welfare.

1.2 Problems statement

Motivational problems

According to Hanna Hussein (2020), since the Movement Control Order was enforced, animal shelter could not keep the animals due to the limited space at the shelter. Consequently, according to FMT Reporter (2021), animal shelter in Malaysia are struggling with overpopulation and lack of funds, as well as restrictions on the movement of its two-legged members. According to ASPCA Publication (2018), challenges to shelter such as overcrowded, limited healthcare program, limited resources, poorly design facilities and so forth. According to Sarban Singh (2020), the Negeri government is urged to allocate land to set up dog shelters in very district in the state. According to Seremban (2020), starting with only a basic roof and having an abandoned goat shed, the shelter which initially had 70 dogs managed to collect funds from individuals to purchase dog kennels and partitions for the dogs among other necessities. However, it currently concerns about healthcare program, facilities and resources to accommodate the homeless animals but lack of concerning the living environment based on studying the animal living behaviour for their mental health.

Research problems

According to Allen et al. (2010), the article states the well-being of domestic animals is often endangered in today's society because the lack of resources to care for abused or abandoned animals. According to Mostafavi (2018), the article states the problem is that many find the animal shelters a depressing place filled with sick unwanted animal. Further, Zhang (2011) states pet overpopulation has long been stressing the shelters and undermining the bonds between people and animals. Coppola et al. (2006) states noise is a physical stressor on animals that can lead to behavioural, physiological and anatomical responses. Subsequently, Lee (2020) states animal shelters are typically cold, institutional settings with cell blocks of caged animals. However, current studies only focus on improving the resources of traditional shelter, human animal bond and noise assessment but lack of studying the animal living behaviour related to their sensory enrichment. Therefore, this paper will formulate a new guideline that emphasizes the space requirement with mental enrichment to create a better living environment for homeless animals.

2. LITERATURE REVIEW

2.1 Space Requirement

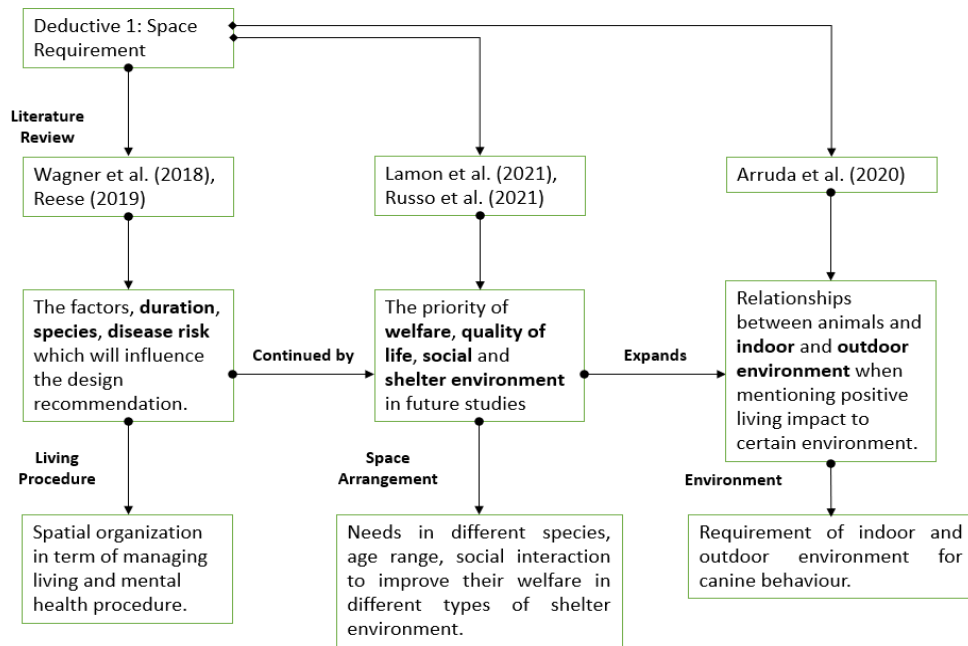
Wagner et al. (2018) stated that not every animal shelter will have purpose built living spaces but housing designed with fundamental needs of animals in mind, it will improve the experience of animals actively passing through the facility. It argued that some factors such as duration of staying, animal species and disease risk will affect which design is the most suitable and adaptable. It highlighted on providing an overview of the essential living procedure and user experience for shelter animals.

Reese (2019) stated that strategies for successful animal shelters assesses the relationship between shelter traits, activities and critical outcome variables such as live release or save rates. It argued that current problems include lack of animal care, caging, and limited spaces for activities that result in animals being accidentally destroyed and causing inadequate screening procedure for adoption. It highlighted on data-based evaluation of animal living processes and practices for improving shelter activities. However, both researches emphasize on providing living procedure but lack of studying how to manage the spaces of living procedure for shelter activities and user experience. Therefore, my study will focus on managing the living procedure for their mental health in living spaces.

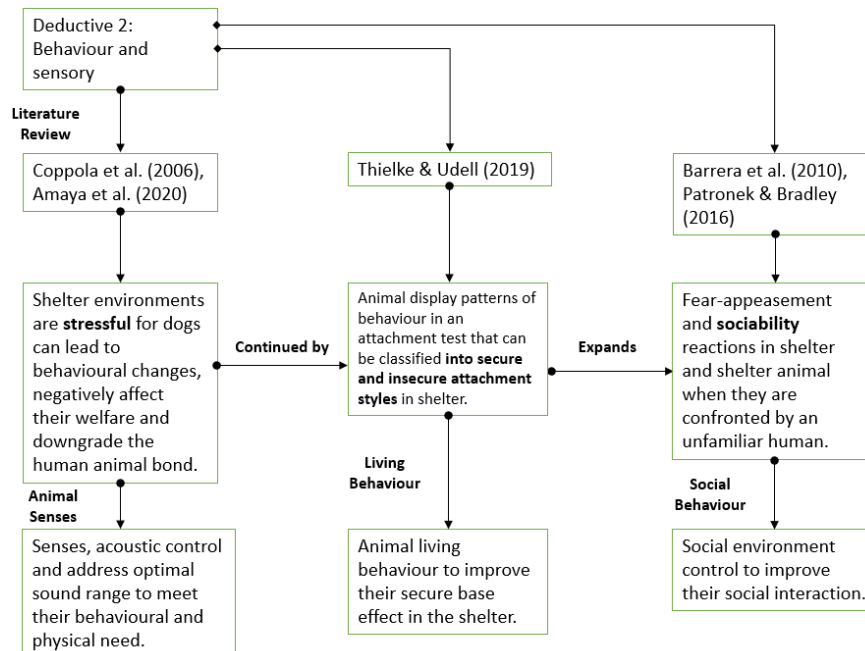
Lamon et al. (2021) stated that quality of animal spaces should be a priority for future studies. It argued that few research evaluated the effects of stress on dog spaces in the shelter long term. It highlighted on identifying welfare assessment, discuss what assessment to be used for identifying quality of animal spaces. Russo et al. (2021) stated that animal welfare organizations in the US offer programs to support dog ownership. It argued that animal welfare organization lacks in providing spaces for behavioural services and social interaction in the shelter. It highlighted on examining factors systematically to identify what programs to encourage human and animal interaction in the communities.

However, both researches not explaining the space arrangement clearly according to the quality living assessment for different species, age range and provided program for social interaction. Therefore, my study will focus on identifying the adaptable space arrangement for their living needs in different species, age range and also for their social interaction program. Arruda et al. (2020)

stated that the welfare of dogs from municipal in the state of Parana, Brazil under the shelter quality protocol. It highlighted on evaluating the welfare of dogs in certain environments such as indoor and outdoor environment. However, this research lacks of studying the benefits and positive impacts of both environments to the animals. Hence, my study will focus on the requirement of indoor and outdoor environment for their habitat enrichment.



2.2 Behaviour and Sensory



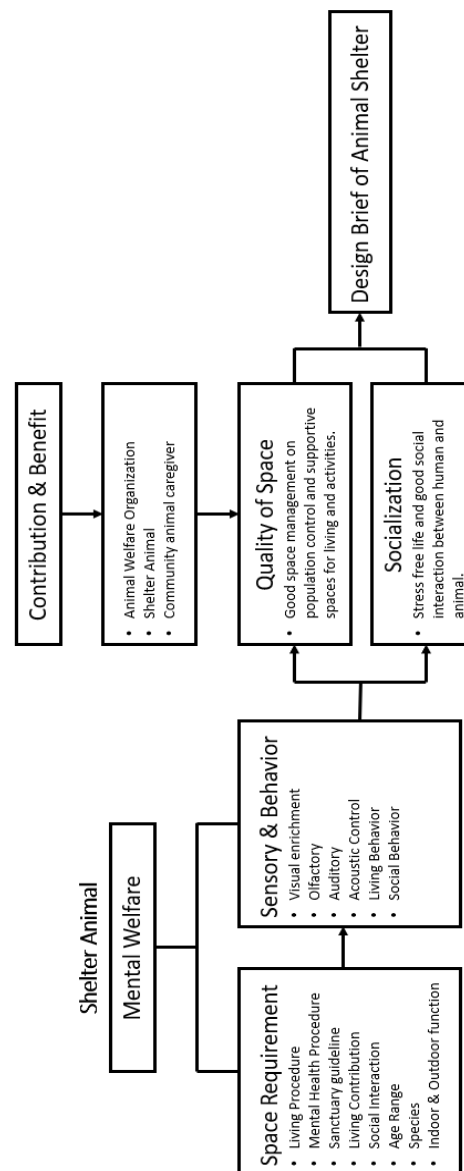
Coppola et al. (2006) stated that acoustic levels in animal shelters normally exceed 100Db. It argued that noise can cause stress to animals that can lead to behavioural and physiological responses. It highlighted on evaluating the acoustic levels of dogs for noise regulations. Amaya et al. (2020) stated that sensory environmental enrichment plays an important role in reducing arousal behaviour, either by masking stressful stimuli or direct physiological effects. It argued that provided environments by the shelter are stressful for dogs can lead to negative behaviour and affect their welfare as well as decrease the human animal bond. It highlighted on sensory environmental enrichment by using olfactory and auditory stimuli under shelter conditions.

However, both researches lack of studying how to avoid noise or acoustic control, smell control and other senses in architecture solution. Therefore, my study will focus on acoustic control, smell control, visual comfort and so forth to meet their behavioural needs in the shelter to avoid stressful environment. Thielke & Udell (2019) stated that pet animals especially dog display patterns of behaviour in an attachment test that can be classified into secure and insecure attachment styles more similar like children and their parent or guardian. It argued that characterizing attachment styles in dogs has recently received attention in the literature although it is widely accepted human and dog form attachment relationship. It highlighted on evaluating cognitive and behavioural outcomes in conjunction with the secure base effect for dogs either in shelter and foster environment. However, this research lacks of studying other living behaviour which should be consider as well to better understand the causes of secure and insecure attachment.

Therefore, my study will focus on animal living behaviour especially dogs and cats to improve their secure base effect in the shelter. Barrera et al. (2010) argued that animal shelter has inadequate living situations that affect canine behaviour. It highlighted on the comparison relate to responses of shelter animals and pet animals to

strangers. Patronek & Bradley (2016) stated that social behaviour evaluation for shelter animals has progressed despite their lack of scientific validation as reliable diagnostic tools. It highlighted on reconsidering canine social behaviour evaluation in shelter. However, both researches lacks of studying the practice of animal behaviour confront to unknown human and social training aspect in shelter. Therefore, my study will focus on understanding social training and environment control to improve their social interaction.

3. CONCEPTUAL FRAMEWORK



4. CONCLUSION

This paper aims to redefine sheltering approaches that emphasizes the space requirement with mental enrichment to create a better living environment for shelter animal. This study contributes in developing a conceptual framework for studying the animal spaces, animal behaviour and sensory enrichment to solve the issues of animal's mental health which is affected by their living environment. For the expected contribution and benefit of research, the study contributes in effectiveness of strategies are taken for quality living of animals and benefit for animal welfare organization. For the future design study, it could be further develop as spatial theory, animal architecture and benefit on proposing this idea in animal care shelter project.

5. CONTRIBUTIONS AND BENEFITS OF RESEARCH.

Research contribution on extending the concept of animal sanctuary known as human created space for care to sensory behaviour integration concept which will help to improve the current space regulation in traditional animal shelter. The research will benefit to animal welfare organization, shelter animal and community animal caregiver

6. LIMITATIONS OF RESEARCH / FUTURE RECOMMENDATIONS

There is a limitation in driving this study forward Limitation of research will only focus on selected animal shelter and their welfare organization but there is no study on other organization such as veterinary, psychology, etc. It is important that future research to explore a larger sample in different organization to have a better conclusion and outcome. Thus, future research can explore more on environmental studies, guideline or regulation for animals regarding to space planning requirement and sensory behaviour enrichment from the discussion with the organization.

7. REFERENCES

Allen, J., McCoyd, R., & Fagan, J. (2010). *Energy Efficient No-Kill Animal Shelter*.
<https://rucore.libraries.rutgers.edu/rutgers->

- lib/41228/PDF/1/
Amaya, V., Paterson, M. B. A., & Phillips, C. J. C. (2020). Effects of olfactory and auditory enrichment on the behaviour of shelter dogs. *Animals*, 10(4).
<https://doi.org/10.3390/ani10040581>
Arruda, E. C., Garcia, R. C. M., & Oliveira, S. T. (2020). The welfare of dogs from municipal shelters in the state of Paraná, Brazil, under the Shelter Quality protocol. *Arquivo Brasileiro de Medicina Veterinária e Zootecnia*, 72(2).
<https://doi.org/10.1590/1678-4162-11323>
Barrera, G., Jakovcevic, A., Elgier, A. M., Mustaca, A., & Bentosela, M. (2010). Responses of shelter and pet dogs to an unknown human. *Journal of Veterinary Behavior: Clinical Applications and Research*, 5(6).
<https://doi.org/10.1016/j.jveb.2010.08.012>
Coppola, C. L., Enns, R. M., & Grandin, T. (2006). Noise in the animal shelter environment: Building design and the effects of daily noise exposure. *Journal of Applied Animal Welfare Science*, 9(1).
https://doi.org/10.1207/s15327604jaws0901_1
Lamon, T. K., Slater, M. R., Moberly, H. K., & Budke, C. M. (2021). Welfare and quality of life assessments for shelter dogs: A scoping review. *Applied Animal Behaviour Science*, 244, 105490.
<https://doi.org/10.1016/J.APPLANIM.2021.105490>
Lee, L. (2020). Pet smarter: An innovative animal shelter introduces people to their future companions in an outdoor setting. *Landscape Architecture, ISSN 0023-8031, Vol. 110, Nº 8, 2020, Págs. 28-30, 110(8), 28-30*.
<https://dialnet.unirioja.es/servlet/articulo?codigo=7552582&info=resumen&idioma=ENG>
Mostafavi, A. (2018). *Humane Architecture to Befriend the Animals we Live with: Animal Shelter in beautiful Alexandria, Virginia*.
<https://vtechworks.lib.vt.edu/handle/10919/82236>
Patronek, G. J., & Bradley, J. (2016). No better than flipping a coin: Reconsidering canine behavior evaluations in animal shelters. *Journal of Veterinary Behavior: Clinical Applications and Research*, 15.
<https://doi.org/10.1016/j.jveb.2016.08.001>
Reese, L. A. (2019). Best Practices in Animal Sheltering. In *Strategies for Successful*

- Animal Shelters*.
<https://doi.org/10.1016/b978-0-12-816058-9.00002-3>
- Russo, A., Dowling-Guyer, S., & McCobb, E. (2021). Community Programming for Companion Dog Retention: A Survey of Animal Welfare Organizations. *Journal of Applied Animal Welfare Science*.
<https://doi.org/10.1080/10888705.2020.1869551>
- Thielke, L. E., & Udell, M. A. R. (2019). Evaluating cognitive and behavioral outcomes in conjunction with the secure base effect for dogs in shelter and foster environments. *Animals*, 9(11).
<https://doi.org/10.3390/ani9110932>
- Wagner, D., Hurley, K., & Stavisky, J. (2018). Shelter housing for cats: Practical aspects of design and construction, and adaptation of existing accommodation. In *Journal of Feline Medicine and Surgery* (Vol. 20, Issue 7).
<https://doi.org/10.1177/1098612X18781390>
- Zhang, D. (2011). *A humane landscape: reconnecting people and animals through landscape design for an animal shelter*. University of Georgia.
<https://esploro.libs.uga.edu/esploro/outputs/graduate/A-humane-landscape-reconnecting-people-and/9949334686902959>