International Journal of Engineering & Technology, 8 (1.9) (2019) 537-539

International Journal of Engineering & Technology

Website: www.sciencepubco.com/index.php/IJET

Research paper

Crime Prevention Through Environmental Design: A Review on Potential Improvement in its Concept for a Safer City

Arinah Rozhan[1], Mohd Yazid Mohd Yunos[2]*

[1,2]Department of Landscape Architecture, Universiti Putra Malaysia, 43400, Selangor, Malaysia
**Corresponding author E-mail: mohdyazid@upm.edu.my*

Abstract

The rise of crime in Malaysia is causing the people to live in a fear of crime. Criminals are even getting brave enough to commit crime in public areas. The purpose of this paper is to review the current Crime Prevention Through Environmental Design (CPTED) which is one of the effort for the Safe City Program in Malaysia. This study will analyze the effectiveness and weaknesses of CPTED and initiatives that can be done to improve it. This paper seeks to argue that the current CPTED approaches needs to have a critical thinking process to provide a safer living environment for the community. Based on content analysis, this paper reviews several theories and studies that has been done regarding approaches towards a safer city development. The findings from the previous studies are categorized by its strength (s) and weaknesses (w) in relation to the CPTED principles. The analysis concludes that CPTED can block crime from happening, but it does not stop the criminals from focusing on other places to commit crime. The result recommends to thoroughly improve one of the CPTED's principles, which is the Community Development by using the language of built environment to enhance social engagement and development of behavior.

Keywords: *Crime Prevention Through Environmental Design, CPTED, fear of crime, safe city*

1. Introduction

Malaysia is a peaceful country and we are blessed to live in a free - war country. However, as reported in Malaysia 2014 Crime and Safety Report, crime in Malaysia is reported as high (OSAC, 2014). It is not safe to let our children to play even in front of our house without a proper guardian and surveillance. People are living in a fear of crime even in their own houses (Sakip, Johari, & Salleh, 2012) (Mohit & Hannan, 2012). Cases such are burglary, snatching and theft seems to be a norm in our ears nowadays even in housing areas (Arinah et al, 2015, Pain & Townshend, (2002) & Mohit & Hannan (2012)). These cases sometimes involve weapons and horrifying homicides (Fatimatul et al, 2015, Hamid & Toyong, 2014).

1.1. Crime prevention through environmental design (cpted)

Sohn (2016) reported that from the perspective of environmental psychology, the physical environment are responsible for behavior of crime. In 1961, Jane Jacob wrote her book, The Death and Life of the Great American Cities. In her book, she expresses the importance of making pedestrian and city alive to solve criminal issues (Sohn , 2016). Jacob believe that there will be a lower potential of crime to happen when the streets and parks create an opportunity for informal surveillance.

The theory of Jacob and Newman was combined by Jeffery (1969) as a new approach of crime control which is until now known as Crime Prevention Through Environmental Design (CPTED) (Sohn , 2016). It can be said that the origins of CPTED comes from the idea of Jane Jacobs (1961), C. Ray Jeffery (1969, 1971), and Oscar Newman (1972, 1973), among others (Cozens & Love, 2015, Nurshamiela et al, 2015).

1.2. Theories of CPTED

It was also noted that there is a conflict between surveillance and territorial approach where territoriality can somehow increase the potential of becoming a target (Reynald, 2011). Reynald (2011) find out that the idea of natural surveillance or the 'eyes on the street' is actually depending on the people's behaviour itself. Provided that there is an opportunity to observed, some of the residents in Reynald (2011) study chose to ignore and not interfere when something is happening in their neighbourhood. McKay (n.d) and Ekblom (2009) see Reynald (2011) also stated that CPTED is too rigid and does not adapt with people behaviour.

In Cozens & Love (2015) publication, they highlighted a review on the current status of CPTED in terms of its effectiveness and weaknesses. They express that there is still a weak terminology of CPTED and there has been a move to revisit and conceptualized the meaning of CPTED (e.g., Ekblom 2009, 2011a; Gibson and John- son 2013; Johnson, Gibson, and Stevens 2014). Cozens & Love (2015)

Copyright © 2019 Authors. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

highlighted that it is important to not take CPTED as a simplistically method to stop crime and more thinking process is needed to develop the concept.

1.3. CPTED in malaysia

Malaysia has launched the "Safe City Programme" in 2005 by the Federal Department of Town and Country Planning (Mohit & Hannan, 2012). CPTED guideline was prepared by Secretary-General of the Ministry of Housing and Local Government, Malaysia. It aims to ensure that design and development incorporates the CPTED proposal as a crime prevention in 2010. The 'Safe City' programme and CPTED was developed in order to provide a safer environment and a crime-free residential areas by its design approach, target hardening, community development and social activities (nayeem, 2015, Mustaffa, 2007) & (Anuar, Bookhari, & Aziz, 2012).

In September 2016, Majlis Pembandaran Klang (MPK) organized a seminar on the teaching scenario for a Safe City which focuses on CPTED. It was observed that there is a confusion in the level of implementation of CPTED by the Local Authorities. It is noted that the guideline of CPTED has been implemented in the design and authorization process for approval, however when the construction of residential and landscape was completed, some of the constructed work does not meet with CPTED criteria. Who is responsible for this? Is it the developer or the Local Authorities that do not look into details on the real site implementation? The mistake of inspecting the on site design criteria according to the CPTED principles can leads to potential criminal activities.

An interesting case study on the CPTED principles was presented by Crime Safety Specialist, Shamir Rajadurai. He emphasizes on the importance to look into the layers of CPTED on how to implement the concept and also to understand the right principles of CPTED. From his case studies, some of the CCTV was placed at the wrong place, some of the lamp post do not provide proper lighting as it was blocked by trees, the distance between the lamp post was not appropriate, the pedestrian was not designed according to CPTED guideline and many more (Rajadurai, 2016). There is a difference in opinion about the function of CCTV. Some of the CPTED specialist believe that CCTV will hinder the criminal from committing crime however Rajadurai (2016) stated that CCTV does not prevent crime from happening, it only acts as a crime evidence in court. CCTV can be seen as surveillance to address people concern on safety, but it does not prevent crime from happening (Pain & Townshend, 2002). This is because many criminal cases were recorded on CCTV are prove that CCTV does not stops the criminals from committing crime.

Rajadurai (2016) emphasizes that it is important to not just relying on technologies to stop crime but sometimes we need to take a step back and try to understand criminal behavior. The following section will analyze the current concept of CPTED and what are the approaches that can be done to improve it.

2. Methodology

Qualitative research methodology was used in order to identify possible future enhancement for CPTED. Several safe city programme and fear of crime theories from recent studies was categorized into strength (s) and weaknesses (w) in relation to the CPTED principles. The theories is mark as (s) when the research finding supports the CPTED principles and (w) when the finding shows for an improvement of CPTED. The theories are summarized as in the table 1 below:

Table 1: Theories of Safe City Programme and Fear of Crime from recent studies

Author	Study	Theory	(*s*)	(*w*)
Reynald (2011)	Effectiveness of CPTED natural surveillance	The natural surveillance principle is also depending on the resident's willingness to observe, to care and to take action. Social condition can influence fear and effectiveness of CPTED.		●
Gray & Novacevski (2015)	Crime prevention measure in Market Square Mall, Geelong	CPTED does not deal with perception of safety. Crime prevention should provide environment that foster behavior and enhance social ties.		●
Soebarto et. al (2015)	Relationship between CPTED and feeling of safety	People feel safe when there is a presence of activity, familiarity of spaces and maintenance of building and spaces.	●	● ●
Sohn (2016)	Effectiveness of landuse density and public space density to prevent crime	Areas with a good pedestrian street connectivity and occupied with people can reduce residential crime.	●	
Zainudin & Malek (2012)	The effectiveness of CPTED application in Shah Alam, Malaysia.	CPTED physical design does reduce crime rate and security level in Shah Alam. The community does not give attention to the physical aspect of crime prevention but focusing more on community program to prevent crime.	●	
Sakip et. al (2012)	Relationship of CPTED with Fear of Crime in residential areas, Malaysia.	CPTED shows a relation in reducing fear of crime in residential areas. The practice of CPTED is still weak.	●	●
Mohit & Hannan (2012)	Crime Potentials in Taman Melati Terrace Housing in Kuala Lumpur, Malaysia	Terrace houses with CPTED principles such as appropriate street lighting, target hardening and maintenance does provide a better security. Social interaction among residents reduce the fear of crime.	●	●
Sakip et. al (2015)	Relationship between Community Happiness and Environmental Setting.	Social interaction and community activities reduce fear of crime.		●

3. Analysis and Discussion

Referring to Table 1, it can be seen that from previous research, the principles of CPTED can somehow reduce fear of crime and preventing crime in some areas. Some studies on the other hand provides the weaknesses of CPTED. This might be in line with what Rajadurai (2016) mentioned, that in order to see the effectiveness of CPTED, we must understand its layers and implementing it with the right principles.

According to Jacob (1992), an active pedestrian streets can reduce crime and is supported by Sohn (2016) finding. However, most the designs of the pedestrian in Malaysia as presented by Rajadurai (2016) does not meet the criteria of CPTED thus preventing people to actively use it. Another possible factor of dead pedestrian is might due to Malaysia hot and humid climate that makes it uncomfortable for people to use the pedestrian. Therefore suitable design that provides an adequate thermal comfort to the users can invite people to actively use the pedestrian.

Jacob's idea of natural surveillance can prevent crime from happening. However as recognized by Reynald (2011), natural surveillance is also depending on the people's behaviour. Reynald's research shows that some people chose to ignore and to not interfere when they see bad things are happening in their neighbourhood. The lack of concern among the community can be the reason why criminals are not afraid to commit crime in public areas anymore. The idea of natural surveillance will be dead if the community starts to only think about themselves.

4. Conclusion and recommendation

The rise of criminal cases in Malaysia increases the fear of crime among the community. Some criminals are no longer feel afraid to commit crime in front of the public thus CPTED was introduced as a measure to reduce crime rate. Jaafar (2016) reported a decrease percentage of increment for number of crime in Petaling Jaya after the implementation CPTED but the total percentage of crime is still increasing by years. This shows the importance of revisiting the conceptual development of CPTED as mentioned by Cozens & Love (2015).

Rajadurai (2016) explains the psychology of CPTED from the criminals' perspective as "I am not afraid to commit crime, but it is hard to do it". As a result, it can be said that criminals will always be criminals and they will go or shift to another places that is easier for them to commit crime. The current CPTED can block crime from happening, but it does not provide a solution for the development of people's behavior. Based on the analysis of past studies, it is recommended that CPTED will look more on the aspect of developing social behavior and community engagement through the language of built environment. Not only to reduce the fear of crime among the community, but also to improve the people's behavior from having the intention of committing crime.

References

[1] Anuar, A. N. A., Bookhari, S. N., & Aziz, N. A. (2012). The Effectiveness of Safe City Programme as Safety Basic in Tourism Industry: Case Study in Putrajaya. Procedia - Social and Behavioral Sciences, 42, 477–485. http://doi.org/10.1016/j.sbspro.2012.04.213

[2] Arinah, R. Yunos, M.Y.M., Othuman Mydin, M.A.,Isa, N.K.M., Noor Fazamimah, M.A., Nor Atiah, I., (2015). Building The Safe City Planning Concept : An Analysis Of Preceding Studies. Jurnal Teknologi. 75:9 (2015) 95–100

[3] Cozens, P., & Love, T. (2015). A Review and Current Status of Crime Prevention through Environmental Design (CPTED). Journal of Planning Literature, 30(4), 393–412. http://doi.org/10.1177/0885412215595440

[4] Cozens, P. M. (2002). Sustainable Urban Development and Crime Prevention Through Environmental Design for the British City . Towards an Effective Urban Environmentalism for the 21st Century, 19(2), 129–137.

[5] Fatimatul, A. S., Yunos M. Y. M., Sumarni, I. Noor Fazamimah, M.A., Isa, N.K.M., 2015. Establishing Elements Of A Good City Planning: An Analysis Of City Planning Theories. Jurnal Teknologi, 75:9 (2015) 101–105

[6] Gray, F. & Novaceski, M. (2015). Unlawful acts, unkind architecture and unhelpful perceptions: A case study of Market Square Mall, Geelong. In Safe Cities Conference 2015 (pp. 4-18). Nerang: Association for Sustainability in Business Inc.

[7] Hamid, L. A., & Toyong, N. M. P. (2014). Rural Area, Elderly People and the House Breaking Crime. Procedia - Social and Behavioral Sciences, 153, 443–451. http://doi.org/10.1016/j.sbspro.2014.10.078

[8] Jaafar, N. (2016). Perkongsian Perlaksanaan Reka Bentuk Bandar Selamat (CPTED) Majlis Bandaraya Petaling Jaya. Presentation, Hotel Premier, Klang.

[9] Jacobs, J. (1992). The death and life of great American cities. New York, United State: Vintage Books.

[10] Mckay, T. (n.d) Behavioural Based Design. Retrieved from http://www.peelpolice.on.ca/en/crimeprevention/resources/behaviouralbaseddesign4.pdf.

[11] Ministry of Housing and Local Government, Malaysia,. (2012). Crime Prevention Through Environemntal Design (CPTED) Implementation Guide.

[12] Mohit, M. A., & Hannan, M. H. E. (2012). A Study of Crime Potentials in Taman Melati Terrace Housing in Kuala Lumpur: Issues and Challenges. Procedia - Social and Behavioral Sciences, 42(July 2010), 271–283. http://doi.org/10.1016/j.sbspro.2012.04.191

[13] Mustaffa, J. (2007). Aspek Keselamatan Awam Dalam Kajian Kes Alor Star, Kedah Jamaludin Mustaffa. Retrieved from http://eprints.usm.my/8867/1/ASPEK_KESELAMATAN_AWAM_DALAM_PEMBENTUKAN_BANDAR_SEALAMAT_DI_MALAYSIA.pdf.

[14] Nayeem, A., Utaberta, N., Othuman Mydin, M.A., Yunos, M.Y.M. (2015). Redefining Islamic Garden: Comparative Analysis Of Approaches, Ideas And Design Framework. Jurnal Teknologi. 75:9 (2015) 77–81

[15] Nurshamiela, A., Yunos, M.Y.M., Othuman Mydin, M.A., Sumarni, I., Noor Fazamimah, M.A. Isa, M.K.N., Zainab, A.L. (2015). Analyzing The Features Of Mughal Garden Design:Case Of Taj Mahal, Agra, India. Jurnal Teknologi. 78:5 (2016) 165–168

[16] OSAC (2014), Malaysia 2014 Crime and Safety Report. Retrieved from https://www.osac.gov/pages/ContentReportDetails.aspx?cid=15292.

[17] Pain, R., & Townshend, T. (2002). A safer city centre for all? Senses of `community safety' in Newcastle upon Tyne. Geoforum, 33(1), 105–119. http://doi.org/10.1016/S0016-7185(01)00025-2

[18] Rajadurai, S. (2016). Prinsip-prinsip dan elemen CPTED. Presentation, Premier Hotel, Klang.

[19] Razali, S. (2016). Mayat kanak-kanak dipercayai mangsa culik ditemui Selanjutnya di : http://www.bharian.com.my/node/184421. BHOnline. Retrieved 2 September 2016, from http://www.bharian.com.my/node/184421

[20] Reynald, D. M. (2011). Translating CPTED into Crime Preventive Action: A Critical Examination of CPTED as a Tool for Active Guardianship. European Journal on Criminal Policy and Research, 17(1), 69–81. http://doi.org/10.1007/s10610-010-9135-6

[21] Sakip, S. R. M., Hassan, K., & Mansor, A. (2015). Exploring the Relationship between Community Happiness and Environmental Setting. Postgradutate Conference on Global Green Issues (Go Green), (OCTOBER), 425–432.

[22] Zainudin, A. Z., & Malek, J. A. (2010). Keberkesanan program bandar selamat dari persepsi penduduk kajian kes: bandaraya shah alam. Jurnal Teknologi, 53, 13–34.