URBAN SETTING: INDUCE OR REDUCE MENTAL HEALTH?

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ABSTRACT

This paper presents and reviews various literature and scholarly studies regarding the effect of globalisation and developments in urban areas which causes mental health issues. It is aimed to provide a comprehensive understanding on the current knowledge in the field of mental health problems particularly at the early stages of stress. This study utilises qualitative content analysis method which focuses on reviewing and summarizing literatures such as papers, journals, articles and books related to urbanization and mental health. The further analysis shall then conclude the relationship between urban setting and stress in Malaysia, as well as the stigma that is attached to it which may resulted in mental deterioration where a new design intervention is required. Hence the proposal for a therapeutic environment particularly in relieving early stages of stress is essential.

Keywords: Urbanisation impact, mental health issue, urban stress, therapeutic environment, health design intervention

1. INTRODUCTION

A growing urbanisation is indeed a global movement, and Malaysia is ranked together with East Asia's other more urbanised countries where the urban population continued to increase rapidly from 43% in 2000 to 53% in 2010 (World Bank Group, 2015). Urbanization is not only a demographic movement, but it also involves economic, social and psychological changes. This universal transition is complemented by economic growth and industrialization as well as changes to the social structure which involves the pattern of an individual routine or even families' lifestyle. According to the new World Bank data, Malaysia has 19 urban areas with more than 100,000 people, and Kuala Lumpur is ranked with the highest population of more than 5 million people. The phenomenon of urbanization undoubtedly increased the work opportunities in the cities where everyone seems to be lured to work in the central business district for a greater financial profile. This over-crowded scenario is said to be one of the breeding ground of mental health issues with increasing urban dwellers and increasing number of people traveling from outer regions to the central business districts for work opportunities.

The movement of people to urban areas often required more facilities and a growing system of infrastructure to be made accessible to cater for their needs. However, the current state of developments shows that these requirements do not happen in accordance to the increase of urban dwellers and working groups. This has caused an increasing number of mental health issues to occur and has been a major concern of both governmental and non-governmental organisations worldwide where the World Bank data has revealed that 340 million people worldwide will suffer from depression by year 2020. With this ever expanding and deteriorating condition, the city continues to demand for new design interventions that could provide enriching surroundings for specific activities. Nevertheless, with the lack of evidence based design knowledge

implemented into design planning, the built environment is constantly putting more stress onto daily experience of the people despite having successfully providing them with the space or facilities for work (Whitemyer, 2010).

2. URBAN FARMING AND FOOD SECURITY

The occurrence of mental health issue in Malaysia has been observed by health practitioners in the past with the formation of Malaysian Mental Health Association (MMHA) by University Malaya Medical Centre (UMMC) as a non-profit voluntary organisation in 1967. Today, where most countries are taking progressive strides in dealing with the reality of mental health issues, Malaysian government has also put in a similar effort with the formulation of the National Mental Health Strategic Action Plan which is a five year plan that drafts out effective measures to tackle mental health issues for the government agencies, non-governmental agencies (NGOs), employers, schools and the public (New Straits Times, 2016).

Statistic shows that the global average stress level is at 53% and the stress level in Malaysia is at 63% (Health Works, 2015). The high level of stress is not an issue that only happens to the poor, weak or lonely but also to anyone with regards to the mental state of health. The abundance of mental health issues in Malaysia is at a worrying state where every 3 out of 10 Malaysian is suffering from a form mental health issue throughout their lives according to the National Health and Morbidity Survey (NHMS), and psychologists strongly believe that this number will continue to grow. This is further supported by the NHMS in 2015 which shows an increasing trend in the prevalence of mental health issues among adults in Malaysia where the percentage of mental health issue prevalence has increased from 10.7% in 1996 to 29.2% in 2015 (Ministry of Health, 2015).

Hence, a research has been done to investigate the demographic of the prevalence of mental health issues in Malaysia through socio demographic profiles such as state, age, gender, ethnicity, education level, occupation and income group and the significance of such aspects in the resulting occurrence of mental health issue.

Referring to Table 1, the three states in Malaysia with a higher level of mental health issue occurrence are Sabah and Wilayah Persekutuan (WP) Labuan, W.P Persekutuan Kuala Lumpur and Kelantan with 42.9%, 39.8% and 39.1% respectively. This result however shows a main discrepancy where it comprises of states like Sabah, WP Labuan and Kelantan which experience a more subtle progress and WP Kuala Lumpur which experiences on going major high profile developments.

This could be due to the causal link of such mental health occurrence which is most likely to be different from people staying in a slow developing states and a fast developing states as the mental health levels in rural and urban areas are insignificant. In the rural areas, causes of metal health issues are most likely to be poverty, disasters and poor living conditions in response to the statistic of the same report that shows a higher occurrence of mental health issues among the income groups of RM1999 and less (Ministry of Health, 2015). On the other hand, the mental health issues in urban areas are most likely due to economic and social pressure as well as surrounding environmental pressures such as work, traffic congestions, over-crowding and greater demand for higher quality of life (Srivastava, 2009).

Figure 1 below shows that occurrence of mental health issues in Malaysia is higher among those from the age of 16 to 44 years old. They are either working or studying in the universities and are considered as the most productive group of the population. This means that ignorance towards the knowledge on mental health is a major concern for the future generation and the nation's development.

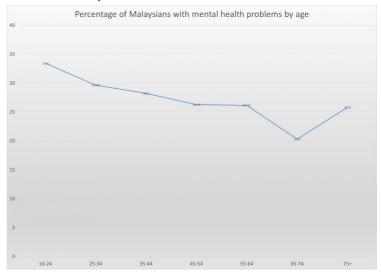


Figure 1: Prevalence of mental health issue by age (NHMS, 2015)

The study by NHMS declared that stress which the younger adults are experiencing mainly comes from the assignment workloads and worrying about future undertakings. On the other hand, working adults often face the problem of growing demand on the work productivity and efficiency at the

workplace. Similarly, the condition of both groups became worst through daily physical environmental factors such as the urban concrete city where they study or work and urban congestions. Unsurprisingly, these are the factors that are prevalent in fast growing cities.

Despite being a developing nation today, Malaysia is reported to have an alarming rate in the number of suicide cases with an average 60 people committed suicide every month in the country, according to the National Suicide Registry Malaysia (NSRM, 2011). Suicidal behaviour is a growing cause for concern in Malaysia since suicide rates have increased by 60% over the past 45 years (MPA, 2007). The Ministry of Health Malaysia had announced that more than 1 000 people killed themselves over the 3-years period of time from the year 2007 to 2010 according to the National Suicide Registry Malaysia Annual Report.

3. MENTAL HEALTH ISSUE: STRESS

The definitions of mental health and mental illness are constantly changing from the mid-20th century to the present time. The major changes depicted a patient-focused explanation of mental illness from an absence of disease model towards stressing on positive psychological function for mental health. Health is defined as, "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity" (WHO, 2014). This definition encompasses the empathy towards positivity and enthusiasm in multiple aspects of life, regardless of the presence of a clinical illness. Therefore, mental health is defined as a state of well-being in which every individual realizes his or her own potential, able to cope with the normal stresses of life, work productively and fruitfully and able to make a contribution to her or his community (WHO, 2014).

Nevertheless, mental illness and mental health are commonly being used in a similar context while in fact, these two terms are actually different. Everyone would have experienced mental health; however, not everyone will experience mental illness in their lifetime. This is because mental illness involves recognised and diagnosed disorder which causes significant disturbance in an individual's cognition, emotion regulation or behaviour that reflects a dysfunction in the biological, psychological as well as development processes fundamental to mental functioning (APA, 2013).

Nonetheless, in the course of a person's lifetime, struggles or experiencing challenges associated with mental well-being will definitely happen, similar to challenges that everyone will face with their physical well-being from time to time. According to the American Psychological Association (APA, 2013),

the causes of these struggles or stress can be generally categorised into three groups which are social, environmental and biological, as summarized in Figure 2 below.

Causes of Stress |

(American Psychological Association)

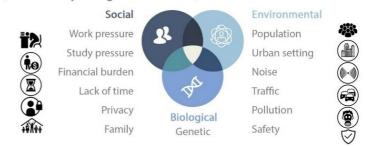


Figure 2: Causes of stress. (Info by APA, 2013 - graphic by author)

There are basically three types of stress which are acute, episodic and chronic. However, the concern of this study is on the acute and early episodic types. Based on Figure 3 below, acute stress is the most common, and it comes from past or future demands and pressures which are closely linked to urban related stress symptoms. Acute stress can crop up in anyone's life. Fortunately, this complication is highly treatable and manageable.

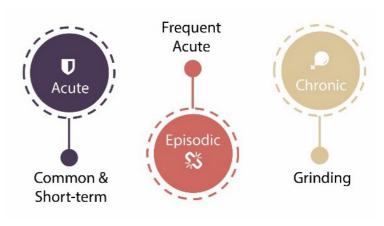


Figure 3: General types of stress. (American Psychological Association, 2017)

The second type of stress, episodic stress, is also closely linked to urban related stress. Episodic stress is triggered when frequent occurrence of acute stress causes disorder in one's daily routine where situation are always in chaos or crisis. Often, such problems in their daily routine are so habitual that people think nothing of it.

4. STRESS INDUCING URBAN SETTING

In the presence of rapid urbanisation, a higher density urban fabric is inevitable, and the stake holders, either the developers, users or even politicians, often like to see the developments of central business districts as an ideal environment which offer a better variety of destinations such as shopping, eating and playing. In contrast, developments that are more attached to low-density lifestyle with room to spare, huge car porch and wide boulevards is also another form of the urban fabric.

Regardless of which type of the densification divide of the urban fabric one might choose, it is undeniable that living the urban life has an impact on both the body and the mind. This is because other than being in the natural context, most of the time humans are experiencing the built environment whether at home, at work, social, entertainment and even sleeping. It has been proven for quite some time that the rate of mental health issues tends to be higher in busy urban centres compared to the countryside (Ellard, 2012). Many studies have also shown that people born and raised in the urban setting have higher rates of psychosis (OS, 2004), anxiety disorders and depression (Peen, Schoevers RA, Beekman AT, & Dekker J, 2010) where such results may be independent of confounding factors such as socio-economic status or family factors.

Nevertheless, urban social environment is still considered as the most influencing factors among mental health topics where the socio-economic status being the most studied risk factor and highly associated with mental health issues. The social factors in urban settings include social segregation, differences in social economic status and low social capital (Rapp, Kluge, & Penka, 2015). However, it is important to bear in mind that the correlations in these studies does not always linked to actual causation and hence. Other factors still have to be taken into account in order to understand the condition thoroughly.

The other factor which is likely to cause stress is the urban physical environment such as specific urban design which might seem suppressing to urbanites or even physical threats in the urban setting. Researches also show that urban air, water and noise pollution have substantial effects on the mental health of urban populations (Rocha, Pérez, Rodríguez-Sanz, Obiols JE, & Borrell

, 2012). Urban design undoubtedly exhibits a close relationship with mental health (Galea, Freudenberg, & Vlahov, 2005) where better access to green areas, greater walkability and enhanced physical activity are associated with lesser depression and may promote better health (Cohen-Cline, Turkheimer, & Duncan, 2015).

Thus, the cityscape that people navigate through is in fact a medium which affects emotions. In spaces where emotions become intense, materials, sounds, smells, light, spatial navigation and colour have a major influence on how people perceive themselves and cope with their current situations. The human body has an amazing ability to heal itself when immerse in positive healing environments or therapeutic spaces which is enabled by tapping into the internal pharmacies of the body when responding to the surrounding spaces (Sternberg, 2013).

5. URBAN STRESS AND BEST TARGETED STAGE

Mental health issue is a complicated field of studies where Dr. Philip George, a consultant psychiatrist from IMU, has mentioned that according to the National Institute of Health, depression is the most disabling sickness because it is intangible and most people find it difficult to understand (The Star, 2017).

Hence, the targeted stage of stress to be address through urban interventions has to be limited based on an achievable level and not targeting to solve the entire issue. As stress are being distributed into several stages, from the initial alarm stage to post breakout, the target stages of this study are from the normal homeostasis condition to resistance stage as shown in Figure 4 below (Selye, 1936).

Selye's General Adaptation Syndrome

homeostasis alarm stage resistance stage exhaustion stage

Figure 4: General Adaptation Syndrome in stress response (Selye, 1936)

Post exhaustion or mental breakdown stage is often the only concern where medical treatment would take place. However, as mentioned by Dr Hans Selye, MD, "every stress leaves an indelible scar, and the organism pays for its survival after a stressful situation by becoming a little older". Hence, solution should always come before the exhaustion stage. It has to focus on the early stages of mental health issue that is often caused by early stress or depression which emphasizes a full spectrum of thoughts, emotions and feelings that would possibly build up the initial symptoms of mental health problems. It typically refers to one's level of happiness, and fulfilment relating to problems management and overcoming stressful events such as the nature of social relationships or interactions with the surrounding environment.

6. CONCLUSION

Urbanisation is one of the main health-related factors that humanity is facing today and will continue to face in the future (Adli, M, & Brakemeier, 2016). In conjunction with this growing trend, more urbanites will be exposed to risk factors coming from different experiences in life such as social and economic factors or even the physical environment of the urban setting which may contribute to the increasing stress and eventually, negative mental health.

Specialists believe that the number of mental health cases is often downplayed due to the stigma implanted into the perception of most people where mental health issue is viewed as a disgrace, and people is ashamed to admit it (George, 2017). This stigma often leads to the major breakout stage and even towards the worst scenario of mental issue which is suicidal where there is an estimation of 1 million suicide-related deaths every year around the world. The continuation of such stigmatic scenario without any new approach towards overcoming the mental health issues will result in the escalation of such problem. However, having programmes that expand the knowledge of mental health and produce more specialists to provide mental health services are not adequate when the stigma itself is the problem among the people.

Interestingly, the urbanised city setting provides better access to health care, employment and education despite being one of the major causes of stress. The balance between the effects of urbanisation that is detrimental and beneficial for mental health requires a better understanding of the interaction between urban living and mental health.

In conclusion, urban neighbourhoods play an important role in forming the urban population health due to the crucial socio-ecological environments which constituting both risk and health promoting factors (Mair, Diez Roux, & Galea, 2008). Hence, there have to be a new intervention acting as a catalyst to be injected into the developed urban setting. Therefore, the solution towards mental health issues should not only be confined to the post-breakout

treatment and recovery which often results in a slow progress but should also start at the pre-breakout or minor early stages of stress by incorporating possible solutions into one's daily routines at urban and building

REFERENCES

- Adli, M, B., & Brakemeier. (2016). Neurourbanism—a joint methodological approach between urban planning and neurosciences. *Die Psychiatrie*, 70-78.
- American Psychological Association. (2017). Stress: The different kinds of stress.. Retrieved from http://www.apa.org/helpcenter/stress-kinds.aspx
- APA. (2013). Diagnostic and Statistical Manual of Mental Disorders, 5th Edition. American Psychiatric Association. Retrieved from https://capitaleap.org/blog/2016/08/12/mental-illness-vs-mental-health-the-difference-and-why-it-matters-in-the-workplace/
- Arumugam, T. (2016). Mental health plan on the cards. *New Straits Times*. Retrieved from https://www.nst.com.my/news/2016/10/177646/mental-health-plan-cards
- Cohen-Cline, Turkheimer, & Duncan. (2015). Access to green space, physical activity and mental health: a twin study. J Epidemiol Community Health, 523-529.
- Ellard, C. (2012, August 21). Stress and the City. Retrieved from Psychology Today: https://www.psychologytoday.com/blog/mind-wandering/201208/stress-and-the-city
- Galea, Freudenberg, & Vlahov. (2005). Cities and population health. Soc Sci Med, 1017-1033.
- George, D. P. (2017, April 2). Depression: 40% of Malaysians will suffer from mental health issues in their lifetime. The Star. Retrieved from https:// www.thestar.com.my/news/nation/2017/04/02/malaysians-will-sufferfrom-mental-health-issues-in-their-lifetime/
- Health Works. (2015). Retrieved from Health Works: http://www.healthworks.my/stressed-check-signs/
- Mair, Diez Roux, & Galea. (2008). Are neighbourhood characteristics associated with depressive symptoms? A review of evidence. *J Epidemiol Community Health*, 940-946.
- Martin, B. (2017, June 30). Depression, the silent killer. The Star. Retrieved from https://www.thestar.com.my/opinion/columnists/on-your-side/2017/06/30/depression-the-silent-killer-mental-illness-is-on-the-rise-but-with-help-and-support-most-patients-c/
- Ministry of Health. (2015). National Health & Morbidity Survey (NHMS). Retrieved from http://iku.moh.gov.my/images/IKU/Document/REPORT/ nhmsreport2015vol2.pdf
- MPA. (2007). Retrieved from Malaysian Psychiatric Association. Suicide-It's

- SOS: http://www.psychiatry-malaysia.org/article.php?aid=504
- NSRM. (2011). National Suicide Registry Malaysia Annual Report.
- OS, J. V. (2004). Does the urban environment cause psychosis? *British Journal Of Psychiatry*, 184, 287-288.
- Peen, Schoevers RA, Beekman AT, & Dekker J. (2010). The current status of urban-rural differences in psychiatric disorders. *Acta Psychiatr Scandinavica*, 84-93.
- Rapp, Kluge, & Penka. (2015). When local poverty is more important than your income: Mental health in minorities in inner cities. World Psychiatry, 249-250.
- Rocha, Pérez , Rodríguez-Sanz, Obiols JE, & Borrell . (2012). Perception of environmental problems and common mental disorders (CMD). Soc Psychiatry Psychiatr Epidemiol.
- Selye, D. H. (1936). Stages of General Adaptation Syndrome Model. Retrieved from https://psychologenie.com/stages-of-general-adaptation-syndromemodel-by-hans-selye
- Srivastava, K. (2009). Urbanization and mental health. *Industrial Psychiatry Journal*, 75-76. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996208/
- Sternberg. (2013). The Science of Healing Places.
- Whitemyer, D. (2010). The Future of Evidence Based Design: It's not just for Healthcare anymore. *IIDA The Commercial Interior Design Association*. Retrieved from https://www.iida.org/resources/category/1/1/1/6/documents/sp10-ebd.pdf
- WHO. (2014, August). Mental health: A state of well-being. Retrieved from World Health Organization: http://www.who.int/features/factfiles/ mental_health/en/
- World Bank Group. (2015, January). East Asia's Changing Urban Landscape: Measuring a Decade of Spatial Growth. Retrieved from World Bank Group: http://www.worldbank.org/en/news/feature/2015/01/26/malaysia-among-most-urbanized-countries-in-east-asia