

Therapeutic Relationship of Salutogenic and Playscape Architecture : A Suicide Intervention within Sarawak Youth Community

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Abstract

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Concerning the issue of increasing youth suicide in Sarawak, the Sarawak Government urged more studies on youth suicides in Sarawak. According to the Ministry of Health, the number of youths with mental health that leads to youth suicide has increased. This requires immediate intervention in architectural strategy. However, there is a lack of youth facilities and programs to tackle youth suicidal issues, especially in safe environments and resiliency in architecture. A literature review was carried out using various databases to examine this issue. The results provide pathways to include gaining insight into salutogenic architecture and playscape architecture affecting youth mental health issues in Sarawak and how it may help to detect the undiagnosed youth with mental health, especially with stress, anxiety and depression, and how this information might be used to help reduce future mental illness and suicide risk with the architectural explorations. This findings will benefit stakeholders to build a Sarawak youth community quality life. The future result will be produced in the framework or tangible output from the study.

Keywords: Salutogenic, Architecture, Playscape Architecture, Mental Health, Youth

Introduction

Increased numbers of undiagnosed and untreated mental illness in cities with a high youth population such as Kuching, Sarawak would increase the number of youth suicides. According to Sarawak Youth Ministry data, the Sarawak youth population is 43.5% of the total Malaysian population, making it one of the highest rates in Malaysia. When broken down further, Kuching city has the highest youth population in Sarawak. Based on demographic data, this is insignificant and recorded numbers of mental health does not correspond to the demography

of the youth population as Sarawak is not recorded with major youth mental illness data, according to National Health and Morbidity study.

Youth between the ages of 10 and 19, marks the transition from "child" to "adult." During these developmental years, According to World Health Organization (WHO), significant physical, psychological, and behavioural changes take place, and they are unprepared for this wild and fast-paced world. Exclusion from society, educational challenges, the stigma that affects youth willingness to seek help, discrimination, physical illness, risk-taking behaviour, and violations of human rights are all disproportionately experienced by adolescents with mental health conditions. These young people have fewer professional and social opportunities than their peers. But what would happen to the youth that is not yet been diagnosed with mental illness? According to World Health Organization (WHO), Mental health conditions are estimated to affect 1 in 7 (14%) of 10 to 19-year-olds worldwide, although most of these conditions go undiagnosed and untreated. Youth health and well-being are dependent on interventions that protect them from harm, foster their social and emotional development and mental health, and meet their healthcare needs.

There are multi-factorial causes that lead to youth suicide. The three main factors are biological, psychological, and social (National Health and Morbidity Study, 2017). In the Biological factors, there are age factor, genetic factor, and gender factors. In Psychological factors, there are interpersonal issue, stress, anxiety, depression, hopelessness, familial issue, academic, and sexual abuse, substance abuse and bullying. The third factors are Social which is ethnicity, economic and environment. These multiple factors when added up in individuals, could lead to wrong judgments. The physical, psychological, and behavioral changes that take place during adolescence exacerbate many of these mental health problems. Many mental health conditions commonly show up in late childhood and early adolescence and can last into adulthood. However, especially in urban areas, early adolescent mental health disorders like anxiety and depression frequently go undiagnosed and untreated because of a lack of available psychological and psychiatric services and a widespread stigma surrounding mental health issues. Therefore, due to stigma, social taboos, and legal issues surrounding suicide reporting, the 'reported' suicide rate in Sarawak may be significantly lower than the actual problem size.

The architectural interventions of salutogenic architecture and Playscape architecture as a community play center that detects, and monitors youth well-being and mental health could mitigate this risk. This combination could improve the youth of Sarawak's mental health and increase their positivity. The primary goal is to demonstrate that it is possible to create a salutogenic and play environment for youth to develop mental coping salutogenic in the urban context of Kuching and that doing so can reduce the risk of youth suicide.



Figure 1: Youth population in Sarawak

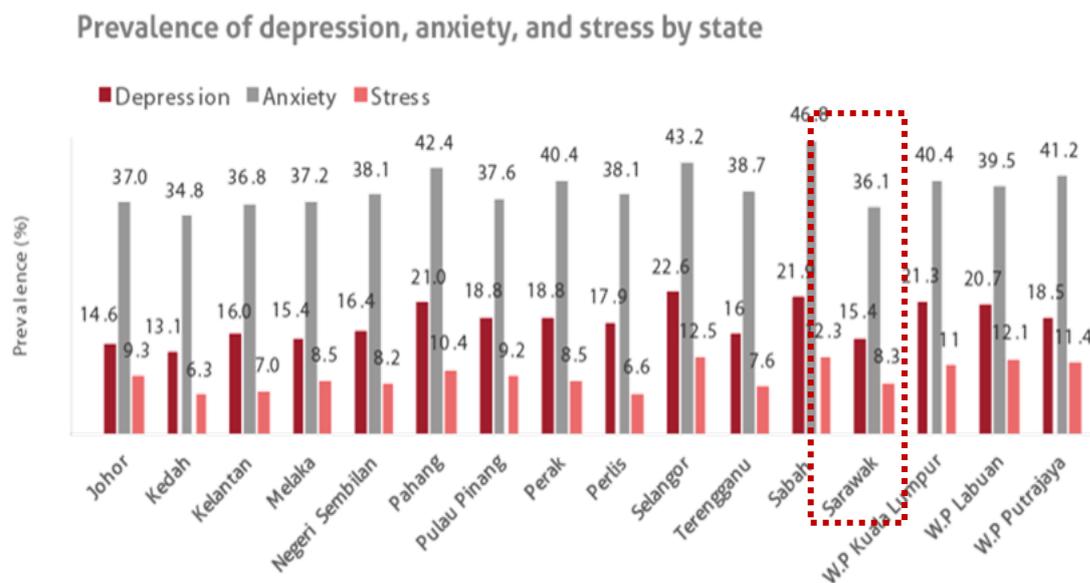


Figure 2: Prevalence study of depression, anxiety and stress by state in Malaysia

There are a total of 1,249,000 youth living in Sarawak, which accounts for 43.5% of the total population of Malaysia. According to the statistics provided by the Sarawak Youth Ministry, this indicates that there are a significant number of young people living in Sarawak. Nevertheless, the findings of the National Health and Morbidity research indicate that depression, anxiety, and stress are less common among the young population in Sarawak. Therefore, it can be concluded from Figures 1 and 2 that the numbers do not have a substantial impact on the demographics of the young population in Sarawak. The solution to this discrepancy is that it is due to unreported incidents in police and government records,

the norms and culture of Sarawak since it is seen as a sensitive topic, media reporting, and fatalities that were determined as other causes. Therefore, the need of this study is to target Sarawak Youth Community and to overcome mental health issues with Architectural intervention to reduce the risk of youth suicide.

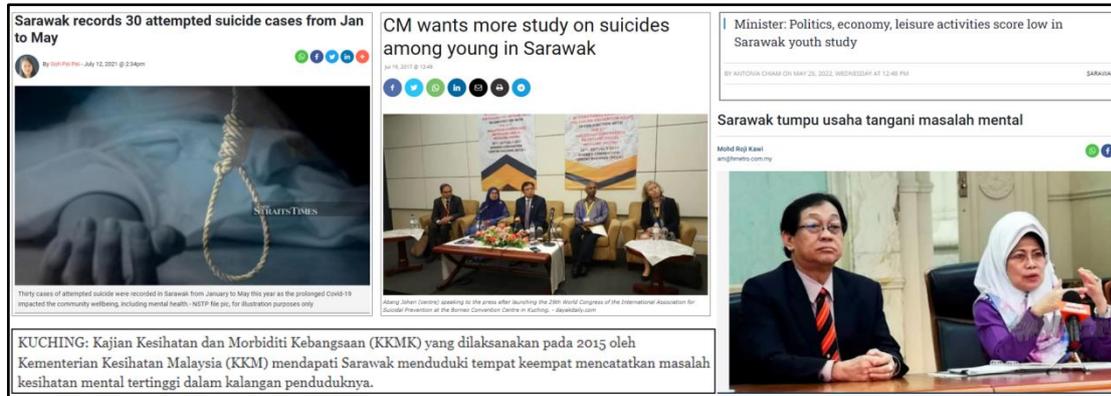


Figure 3: Sarawak State government’s concern about current rising youth mental health issues and suicide cases

Youth suicide is a second major problem in Malaysia. Nearly 7% of teens had suicidal thoughts and almost half committed suicide. Based on research, youth suicide contributed to biological, psychological and social factors. The prevalence of depression and anxiety is higher in the urban population compared with the rural population. (Leong Abdullah, et. al. 2021) There is a lack of intervention on playscape architecture to help boost the psychological effect of reducing youth suicide and a lack of literature on types of architectural programming on mental coping methods to build mental resiliency to combat youth suicide. Therefore, this study aims to formulate a strategy on salutogenic and play design that could detect and build mental coping resiliency for undiagnosed youths with mental health thus lowering the youth suicide rate.

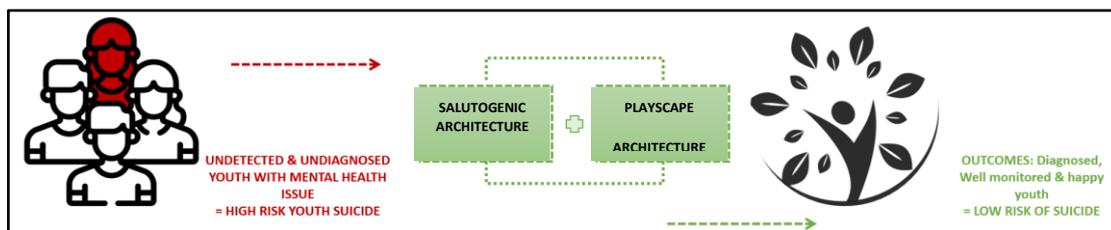


Figure 4: P.O.D framework of architectural intervention to reduce the risk of youth suicide in Sarawak

Methodology

Literature review was conducted through searches in several databases such as Google Scholar, Scopus, and Science Direct. The search was carried out using keywords such as salutogenic, architecture, playscape architecture, mental health, and youths.

Findings and Discussion

This compilation of literature reviews presents a wide variety of research on youth and the behaviour the youth exhibit. This literature review also contains studies on numerous kinds of space design, all of which have the potential to affect the social situations of adolescents

as well as the psychological effects on mental health. There are many kinds of debates about young people's gathering places. Others highlighted the necessity for a wonderful experience of an indoor and outdoor environment with nature, while others underlined the significance of virtual life for children as a stress reliever. Some authors emphasized the relevance of virtual life for youngsters as a stress reliever. Few writers propose deinstitutionalizing health care in public community centres that link with local communities, even though many authors characterize mental health treatment as being provided inside the context of an institution for healthcare. This may help youth feel more comfortable going out in public and won't make them feel the need to hide to get the support and answers they need for their mental health. Prejudice and misconceptions may disappear from the general community as a result of increased education about mental health.

Characteristic of salutogenic and playscape architecture

Through literature review, the characteristic of salutogenic and playscape Architecture looked upon the main keywords which are:

1. BIOPHILLIC and THERAPEUTIC (salutogenic architecture)
2. INTERACTIVE AND ACTIVE (Playscape architecture)

All keywords play important roles in youth mental health, well-being, and self-development. This could be the indicator of the design theme for Salutogenic and Playscape Architecture. The term Salutogenic is a relationship between coping, stress, and health by providing a narrative backdrop, architecture can cognitively affect people in positive or negative ways. The design affects how people act, how other people treat them, and how they perceive themselves. Salutogenic stems from the lessons and skills learned while navigating life's challenges. Salutogenic is an essential component of achieving a suitable level of mental health (Todd & Rottenberg, 2010). Each building has some particular function for which it is designed. In architecture, salutogenic is a strategy to enhance the ability of a building, facility, or community to both prevent damage and to recover from damage. It also helps individuals achieve psycho-social adjustment and stress management when life situations become more critical. (Rudwan S. 2018). Salutogenic denotes the individual's ability to deal cleverly and skillfully with the different demands of life despite surrounding pressures and crises. Furthermore, salutogenic is a key factor in communicating with life and coping with adversity (Grotberg, 2003, p. 1). There are numerous definitions of urban salutogenic, while salutogenic in general is treated as the ability of a system, community or society to withstand pressure, absorb change, transform, adapt and recover quickly with the preservation of its key structures when exposed to various adversities. (Meerow, S. 2016). Key factors in salutogenic architecture consists of vulnerable target user, salutogenic design, biophilic design, and space design on psychology.

The term Playscape Architecture are the notion of play encourages a more laid-back and creative approach to learning, while also bringing joy to the people who utilize it. Playful environment is an interactive teaching technique that teaches young people about space, architecture, and how to create using sensory components. Its target audience is children. Key factors in playscape architecture consists of: safe environments, healthy life style, participatory approach, accessibility, green spaces, daylight and openness, liberation, colour palette, encouraging play, and active life style.

The target user and the user's needs are the main factors why Salutogenic and Playscape architecture is a must for rebuilding youth mental health. Itzkowitz, Megan (2022) highlighted the importance of trauma-centred space in design which is a designed space for already mentally ill patients and it defects the articles by Ramadhan (2019) that highlighted the awareness as an architect to design based on psychology and environment.

Understanding how trauma can affect humans and applying this information from a human-centered approach helps architectural designers create spaces that cultivate well-being. These spaces acknowledge the needs of the user by integrating the knowledge of trauma into its design phase, from beginning to end. As a result, re-traumatization is avoided, and a user-focused space can be created. (Itzkowitz, 2022).

This paper reviews the understanding of how trauma affects humans and using a human-centered approach helps architects build healthy spaces. These environments address the user's requirements by incorporating trauma understanding into their design. However, there is no play interactive strategy incorporated in this study and the targeted audience is youth that has been diagnosed with mental health.

Psychological environment analysis of community environment relationships is effective way to understand density and resiliency of community in area unit. In addition, these analyses can develop more accurate assessment of urban design and has high influences to promote effective salutogenic architecture in city (Ramadhan, 2019).

Through this research, the awareness of architects and designers in designing can be improved by providing knowledge of environmental-based design and psychological environment. By incorporating the psychological needs for youth mental health development could be beneficial in reducing the risk of youth suicide.

SALUTOGENIC AND PLAY ENVIRONMENT

According to Dengwani S. (2022), salutogenic and sustainable design can go hand in hand to combat the risks of mental health in a community, however, based on Francis G. (2021) highlighted on the importance of play environment in youth community for healthier mind. The local environment always plays a critical role in determining the factors that make a building salutogenic or not, and so salutogenic design is always locally specific (Dengwani, 2022)

This article focusing on the understanding of how salutogenic and sustainability can go hand in hand, and to build salutogenic structures that are sustainable. However, it is not stated in their research on the effectiveness of salutogenic and playscape environment in architecture. With targeting undetected youth with mental health issues in mind, play environment should be focused and designed.

Play has a fundamental role in supporting children's various development, including, but not limited to, their cognitive, emotional, language and behavioral regulation skills (Francis, 2021).

This article highlighted the importance of play environment for youth mental health. It is best to combine both salutogenic and play as their mental coping method for mental resiliency.

Theoretical Framework

Deinstitutionalization

The need to deinstitutionalize youth with mental illnesses into public or community-based centres for improved community engagement, flexible programmes and therapies, and

healing and assisting youth in developing mental coping mechanisms from challenges. The transition from mental institution into public community centre could help remove public stigma or stereotypes while raising awareness and creating positive environments that could improve the psychology of undiagnosed youth with mental health issues.

Movement of care into the community setting resulted in a need for many professionals working at the community level to receive additional training, including specific skills for working with the SMI (Serious Mental Illness) population (Kliewer, 2009).

Author highlighted the importance of deinstitutionalize mental health care into community based with youth natural and familiar environment to help with awareness and remove social stigma. Thus, youth that have not been diagnosed could voluntarily seek for help.

Lacking in safe environment

Safe environment is important in youth spaces. Safe spaces is not only in terms of safety but freedom of speech, flexibility of the activity and also the community engagement within the youth environment. According to Healthline website on mental well being, the author cited; Because anxiety causes fear to arise, it can lead to avoidance behaviors, such as avoiding one's fears and isolating from others, Safe spaces can provide a break from judgment, unsolicited opinions, and having to explain yourself. It also allows people to feel supported and respected (Megan, 2019)

The website article was medically reviewed by Timothy J. Legg, PhD, PsyD. The author emphasizes on the importance of mental health especially on campus. The phrase "safe space" is also used to refer to organisations in an environment that support people from historically marginalised groups by fostering a sense of respect and emotional safety.

No sense of belongings

Youth spaces does not emphasize environmental belonging. City loitering and negative leisure could demonstrate this issue. Youth spaces need a sense of belonging to intrigue them. Youth mental development would also worsen.

Places and spaces used by young people for their leisure pursuits, for relaxation and recreation, are better understood in this context. Young people need to discover and to 'own' places of enjoyment and retreat where they have the freedom to relax and pursue 'leisure' in the old meaning of the word (Chapman, & Robertson, 2015).

This article indicate that youth seek "time out" in leisure pursuits alone or with peers in favourite psychological refuges away from adult surveillance both indoors and outdoors. Outdoor leisure activities improve salutogenic, engagement, long-term health, and well-being in youth.

No close monitoring and early detection of mental illness in youth

Duffy et al. (2005) speculated that young people might not yet develop the ability to differentiate between depression, anxiety, and stress. Instead, youth report more negative experiences and physiological symptoms and often overlooked their mental health conditions as mental illness are considered a stigma. This will lead to undiagnosed and undetected youth with mental issues.

Promotion, prevention and early intervention strategies may produce the greatest impact on people's health and well-being (Colizzi et al., 2020).

According to the author, it is commonly understood that prevention and receiving medical care at an early stage are two of the most significant factors in limiting the bad impacts of any potentially severe health problem.

The potential for death by suicide may be significantly reduced with increased vigilance and earlier identification. Because of this notion, youth and communities will be educated on mental health awareness, which will result in the formation of a positive community and the elimination of stigma and misconceptions around mental illness.

Hot environment and unshaded spaces

As observed in common youth spaces such as playgrounds or empty land that has been turned into youth spaces, those areas are often open spaces and under the hot climatic zone with minimal shading devices. According to the statistics collected from world data info, the average daily high temperature in Sarawak is 32 degrees Celsius. The weather is pleasant at times, despite the high humidity and scorching temperatures, which make the climate tropical and humid. It is warm to hot throughout the whole year. The months of November through January have the greatest amount of precipitation. This demonstrates that the climate in Sarawak is unpredictable, with rain and hot weather fluctuations, and that there is a need for shady places as well as a cool and properly ventilated atmosphere for young people to feel comfortable and free from stress.

Young individuals are believed to be at greater vulnerability to the negative effects of climate change by virtue of their developing coping capacity (Majid et al., 2017).

It is possible that youth who already suffer from depression or anxiety are at an increased risk of experiencing a worsening of their symptoms as a direct effect of climate change. As a result, one of the solutions that may be offered for improving their mental health is providing them with an atmosphere that is adequately shaded and has enough ventilation.

“Outdoor environments can offer multiple pathways to well being through opportunities for restoration, physical activity and socializing” (Wales, 2022).

However, according to Wales (2022), he emphasizes on the outdoor environments for youth well beings. This study was done in a cold and comfort environment which is the opposite of Sarawak natural climate. With a comfortable environment and shaded space, youth mental health and wellbeing will not be worsened by Sarawak climate and unpredictable weather conditions. Therefore, the need of shaded and well-ventilated area for youth comfort to be adopted in youth spaces for a positive outcomes and thus will intrigue youth to come and participate in the new youth spaces.

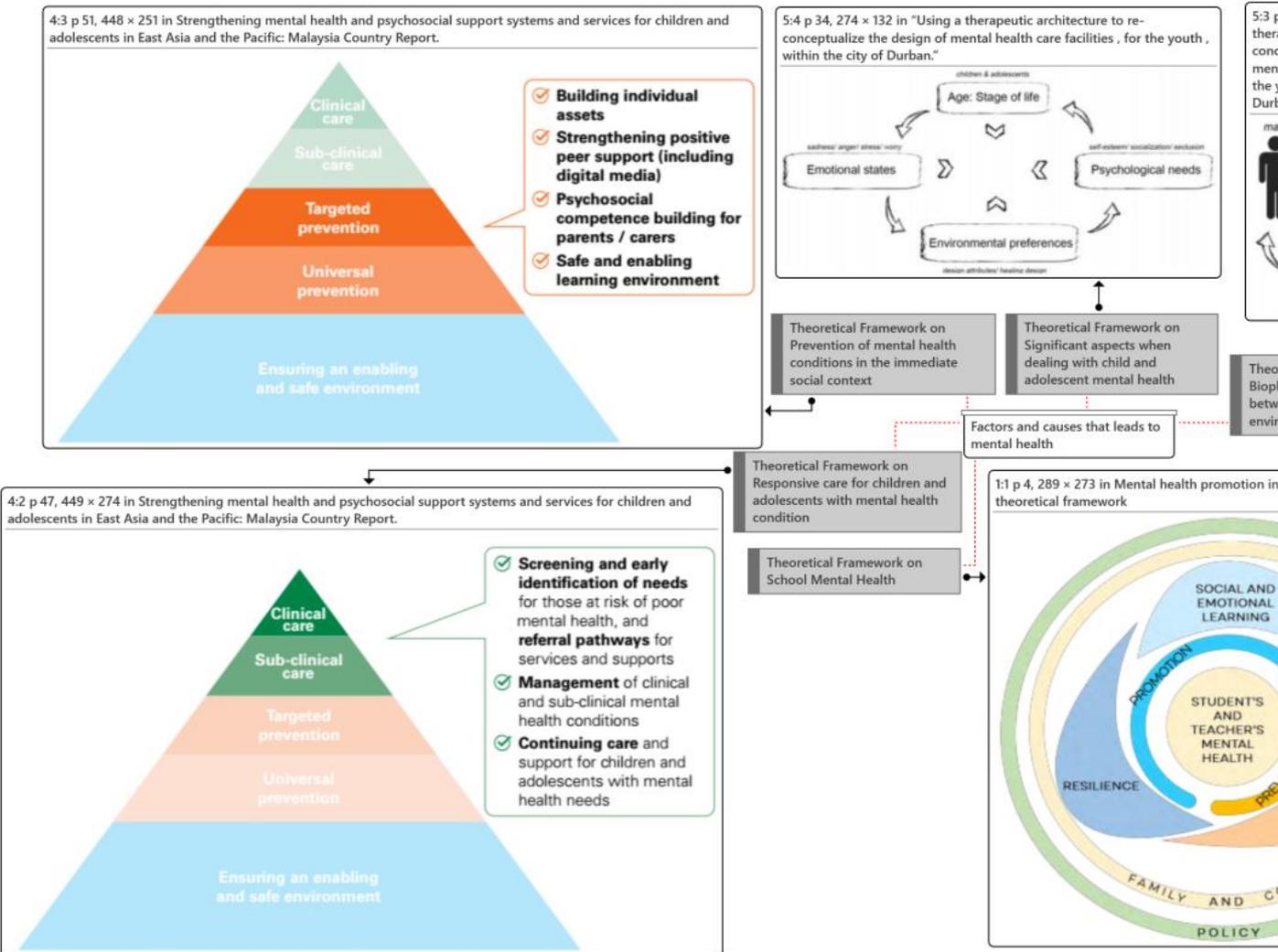
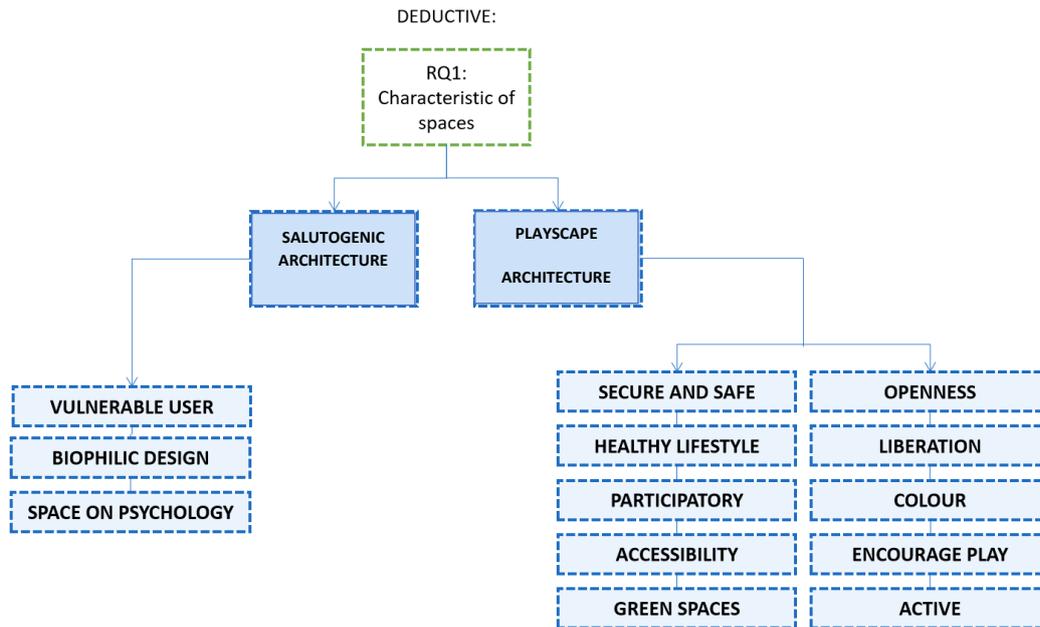


Diagram 3.1 shows characteristic of salutogenic and playscape architecture



Conceptual Framework

Spaces impacts on behaviors

Environmental, educational, sociocultural, curricular, motivational, and economic factors are only a few of the numerous variables that interact with one another. If an individual is exposed to a given environment, they may experience psychological alterations.

“The environment is often referred to as the living space, which changes over time. It plays a significant role as it is much more than a physical space; it involves how time is organized and the roles that individuals are supposed to perform in that environment. It determines how an individual feels, perceives, and acts, and therefore, it profoundly affects an individual's life” - (Mehta, 2021).

According to the author, human often refer to the environment, also known as the living place, which is subject to change throughout the course of time. It is much more than a physical area; it encompasses how time is ordered as well as the duties that users are intended to fulfil in that environment. Because of this, it plays an important part despite the fact that it is not a real space. It controls how a person thinks, feels, and behaves, and as a result, it has a significant impact on the course that a person's life takes.

“refers to the mental representations that store a person’s spatial knowledge of an environment.” (Jatishbag, 2012).

According to the author, his work discusses the following aspects of knowledge: its acquisition, storage and retrieval, modification, and application by intelligent machines, nonhuman creatures, and people alike. In its broadest sense, the term "cognitive systems" refers to the processes of sensing and seeing, thinking, visualizing, remembering, learning, acquiring language, using logic, and solving problems via the use of architecture.

Cultural practices and behaviors are significantly influenced by the physical environments in which they are carried out. With natural lighting, clean air, and open circulation in the interiors and play areas and attractive landscaping on the exteriors, architecture also plays a vital role in determining the quality of the spaces.

Salutogenic design as therapeutic in youth mental health

Instead of focusing just on curing disease, the salutogenic design prioritizes preventing and promoting a healthy lifestyle. Meanwhile, biophilic design is engaging with nature as part of the therapeutic process to help in the healing process. Salutogenic design is to provide an atmosphere that stimulates the mind intending to evoke feelings of pleasure, creativity, satisfaction, and happiness. There is a significant connection between the qualities of an individual's physical surroundings and the state of that person's health. These designs have an impact, both physically and mentally, on the health of the people who utilize the structures in question. A building or a structure inside a building that is meant to seem like a tree is an excellent illustration of this concept. A tree may stand for many things, including security, shelter, shade, and even comfort. While the term "love of nature" is referred to as "biophilia." The term "biophilic design" refers to the method through which architects bring elements of nature into the interiors of buildings to improve the residents' overall health and quality of life. A method of architecture known as "biophilic design" aims to bring people living in buildings into closer contact with natural environments. When applied to the built environment, a biophilic design fosters human well-being on several levels, including the physical, the emotional, and the intellectual. Buildings with a biophilic design use aspect of nature, such as natural lighting and ventilation, as well as natural landscape features and other components, to provide a constructed environment that is more conducive to human health and productivity.

“Salutogenic design definition can more pointedly include other means of stress reduction such as: prospect and refuge, biophilia, relaxation response, and personal empowerment. By recommending deinstitutionalized environments that reinforce understanding of distance and time. salutogenic goals of comprehensibility (transparency and accessibility), manageability (privacy), and meaningfulness (integration, collaboration, and welcoming).” (Shepley et al., 2022)

In this study, the researchers evaluated the clinic's progress toward its six primary design goals, which were determined during the programming phase: transparency, accessibility, privacy, integration, collaboration, and welcomingness. The evaluation was carried out with the help of surveys and interviews.

“Environment comprised a closer presence of Nature compared to what most people experience today. Plants were of crucial importance for survival during most of our evolutionary history, as a food resource, for shelter, and as an indicator of water. On a purely theoretical ground, one would expect the presence of plants, as an integral part of the human EEA (Environment of Evolutionary Adaptation) to have had an impact on the evolution of the brain.” (Grinde, & Patil, 2009)

Author discusses on environmental psychology studies on nature's psychological benefits are usually based on restorative effects ideas. Regaining mental, social, and physical capabilities is restoration. Nature reduces stress faster than urban environment. Aesthetic reactions to plants may reduce stress. Aesthetics are beneficial because beauty is visual information that pleases the intellect.

Sensorial playscape design

Playscape to make use of Nature Play's healing ability for therapeutic reasons. A community must care for children and adolescents who are suffering from mental illnesses but may not get the necessary treatment elsewhere. Among these benefits include the decrease of negative emotions such as tension, fear, anger, and aggression, as well as increases in

functioning, attention, focus, and self-esteem. A playscape's design contains a range of natural play, interactive, and sensory elements, and it should welcome young people, community members, and stakeholders, exposing them to the delights of sensory nature play to boost mental health.

“Three most important being affective well-being (feelings of joy, pleasure, and elation; the hedonic model of seeking pleasure and avoiding pain and suffering)” (Sach,. 2021).

The author elaborates on the abstract idea that only fostering one's well-being is insufficient. Instead, there has to be a movement toward the promotion of happiness, including joy and pleasure, into the experience that customers have with healthcare. Because architecture and design should emphasize the good, the positive, the beautiful, and the uplifting in addition to minimising or mitigating the negative, if they are to assist people in not just being sick, broken, or worn out in body, mind, and spirit, then the architecture and design should be done.

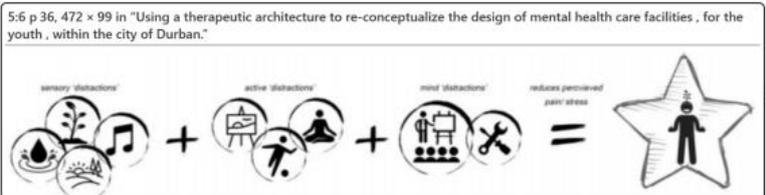
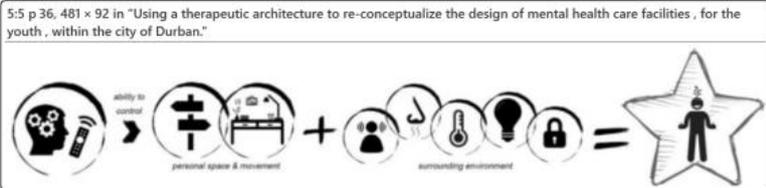
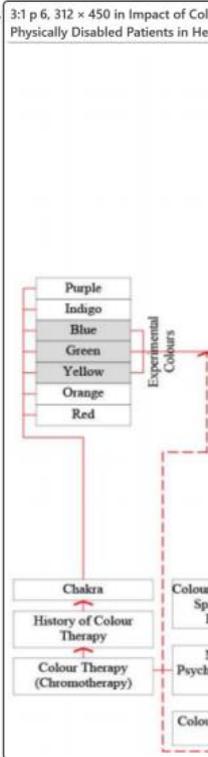
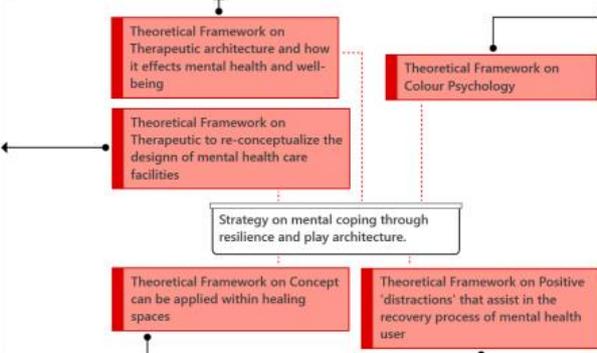
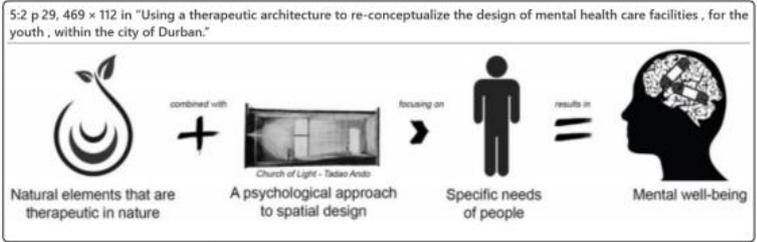
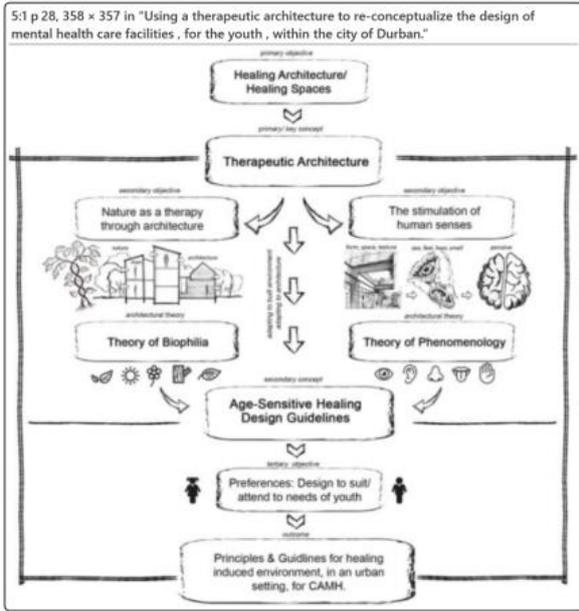


Diagram 4.1 shows strategy on salutogenic and playscape architecture

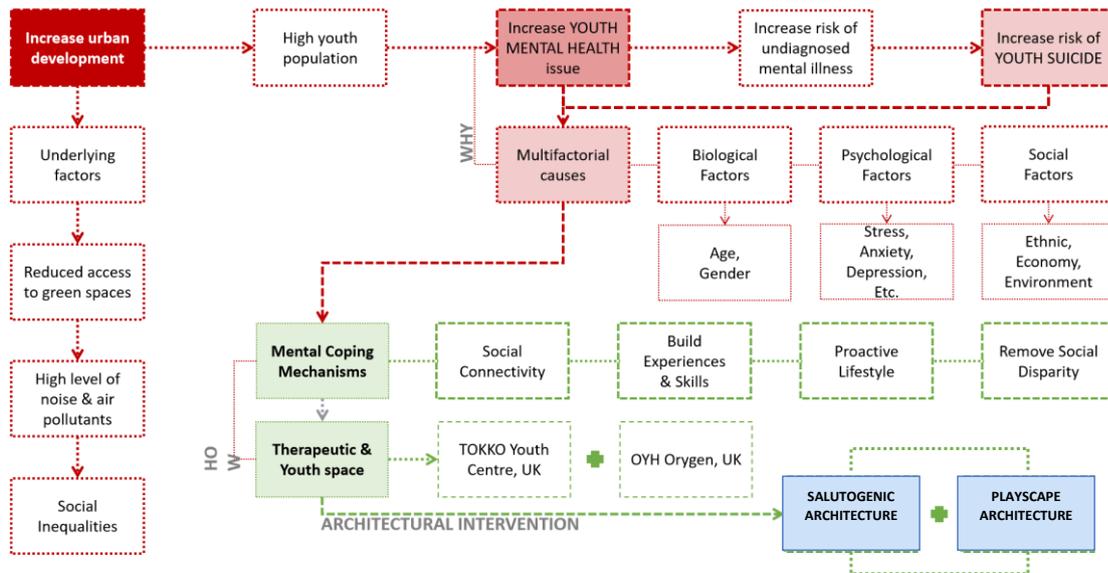


Diagram 4.2 shows conceptual framework for this study

The need for a therapeutic youth space that includes playscape architecture and salutogenic architecture, both of which might assist in the development of mental coping mechanisms on youth social connectedness, experiences, and abilities, as well as eliminate social inequity. It is possible that by using this framework, social stigma and misconceptions will be eradicated, and the acceptability value will be increased within the young community.

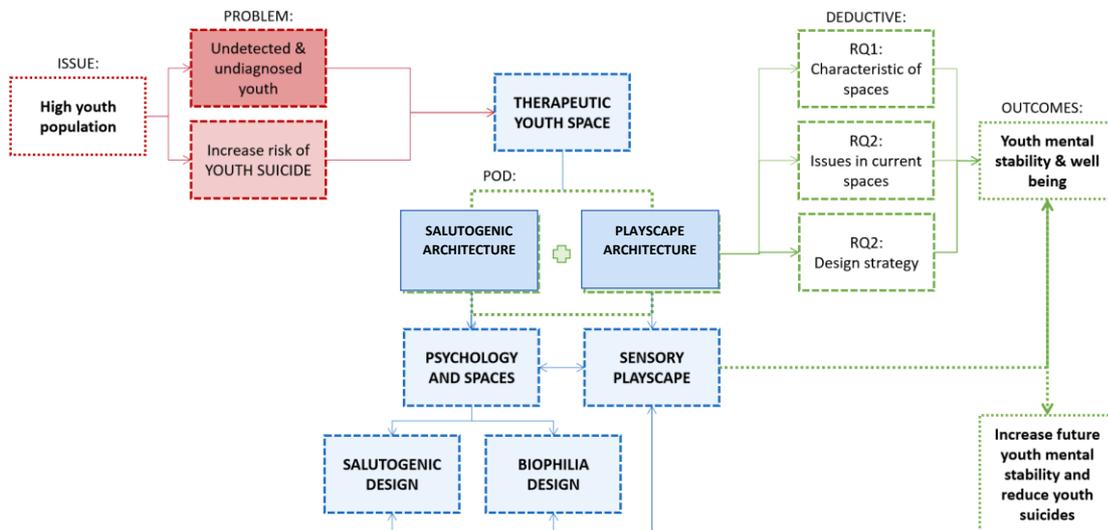


Diagram 4.3 shows framework on the aim of design this study

The requirement of a therapeutic youth space that integrates salutogenic design, biophilia design, and sensory playscape design into salutogenic architecture and playscape architecture respectively, to improve the long-term mental health of young people and to cut down on the number of young people who take their own lives.

Limitation of Research

The combination of salutogenic architecture and playscape design is a relatively new and specialized area of research and it is still gaining recognition and attention, which may

contribute to the scarcity of studies in this specific area. Moreover, such studies involve an integration of knowledge from architecture, psychology, public health, and other related disciplines and these factors contribute to the limited number of studies available.

Conclusion and Future Direction

According to the findings of this study, it is possible to conclude that salutogenic and playscape design both play key roles in the mental stability of youth to reduce the mental health problems that lead to suicide. This youth space may give a respite for young people from having to explain themselves, as well as from criticism and unwelcome ideas. This space design also enables youth to have the experience of being supported and appreciated by their community. As a result, there will be less stigma and misunderstandings, and youth will not be hesitant to ask for the assistance they need. Within the framework of this discussion, youth will get familiar with and eventually claim ownership of the space that provides them with the opportunity to unwind and explore various forms of recreation. This playscape and salutogenic architecture might lead to a more accurate evaluation of Sarawak's urban design, and it will have a significant impact on the city's efforts to promote effective salutogenic architecture.

The possible results of this study have the potential to contribute to many stakeholders in the state of Sarawak, including members of both the public and commercial sectors. This research is in line with efforts by the Sarawak state government to concentrate on the mental health and well-being of young people to reduce the number of cases of mental illness and suicides that occur among the youth population. This research will not only serve as an intervention to improve mental health via architecture, but it will also serve to lighten up the cityscape through salutogenic and playscape architecture, and it will place an emphasis on the growth of young people by creating a youth community play centre. In the city of Kuching, Sarawak, the city's existing youth spaces and mental health facilities are not integrated. The current state of youth spaces in Kuching consists of the adaptive reuse of third spaces and land that was previously undeveloped but has been converted into youth spaces so that young people can loiter and engage in other undesirable activities that may contribute to an undesirable social lifestyle.

Meanwhile, mental health centres are increasingly being institutionalized, which contributes to the spread of stigma and stereotypes. Because of this, only youngsters and adolescents who had significantly worsened symptoms of depression, anxiety, and stress were recommended to go there by their families or friends. The existing places do not emphasize the mental health and well-being of young people and do not prioritize early identification. In a further study, it may be possible to investigate further the appropriateness of spatial usage concerning the size of the space that is now available. investigation into mental health and psychology, as well as architectural design, to provide room for additional recreational activities with the potential to serve as a genius locus for the surrounding community.

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