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## **Shaping a Healthy Setting Concept for Public Terminal Based on Stakeholder Perceptions**

Andi Surahman Batara<sup>a\*</sup>, Muhammad Syafar<sup>b</sup>, Sukri Palutturi<sup>c</sup>, Stang<sup>d</sup>,  
Darmawansyah<sup>e</sup>, Veni Hadju<sup>f</sup>, Amran Razak<sup>g</sup>, Muhammad Nasir<sup>h</sup>, Muh. Hasrul<sup>i</sup>

<sup>a</sup>*Public Health Faculty, Muslim University of Indonesia, Makassar 90231, Indonesia*

<sup>b,c,d,e,f,g</sup>*Public Health Faculty, Hasanuddin University, Makassar 90245, Indonesia*

<sup>h</sup>*Medical Faculty, Tadulako University, Palu 94148, Indonesia*

<sup>i</sup>*Law Faculty, Hasanuddin University, Makassar 90245, Indonesia*

<sup>a</sup>*Email: as.ammankbatara@gmail.com*

### **Abstract**

Development of public facilities such as a public terminal of land transportation is very important to support the growth of a country. Building public facilities has to meet some aspects including economics, social and health aspects. This study aimed to shape a concept of a healthy setting for a healthy public terminal based on stakeholder perception. The research used a qualitative method with participation action study. The data were collected through Focus Group Discussion and in-depth interview. The respondents of the study included management staff of the terminal, NGOs, passengers, Public Health Experts, sellers, and related department. The study found that a healthy terminal has to meet environmental and social indicators. The environmental indicators comprise disability facilities, sanitation, smoking room, nursery room, vehicle maintenance area, clinic, and green spaces, and social indicators. Moreover, the social indicators include safety and comfort.

**Keywords:** healthy setting; healthy terminal; Stakeholders; Concept.

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\* Corresponding author.

## **1. Introduction**

In 1987, World Health Organization (WHO) launched healthy city program [1]. A healthy city focuses on setting concept to create a healthy area for people living and working. The healthy setting has been recognized as an optimal way to improve public health condition [2]. The healthy setting approach began from Ottawa Charter acknowledging that environment support health much. The Ottawa Charter encouraged WHO to prioritize setting approach. Under WHO, setting approach grew rapidly, WHO had a meeting “beyond health care” in Toronto in 1984. Moreover, healthy city program was initially launched in Jakarta in 1997. The program developed fast becoming a global public health “new” [3,4].

In Europe, the program became a smaller setting approach such as in school, prison, hospital, and university. Furthermore, in USA and Canada, the program started with a healthy community in 1986, while healthy school program was developed in 1987. Moreover, South-east Asia recommended healthy city program as a shade for a setting on a smaller scale. On the other side of the Globe, Africa applied the healthy city by using the setting approach which emphasized “Action” in every setting. A specific focus of Africa was on the healthy environment setting for children [3].

Therefore, the healthy setting is very important to be applied in developing public facilities including public terminal. Terminal is one of the public facilities where people work and/ or transit. They come from and go to many different places. Thus, there is a high potential for the spread of some diseases through the air, water, food, beverage, or direct contact (human to human). Additionally, social and psychological disturbance might appear that can cause stress and discomfort.

## **2. Methodology**

The study used a qualitative method to deeply understand the idea and opinion of stakeholders. The data were collected through in-depth interview and Focus Group Discussion (FGD) with related stakeholders that come from different background. The stakeholders include the chief of the disabled association of South Sulawesi, the chief of Land Transport Organization, the representative of women’s solidarity, terminal users, passenger, hygiene coordinator, public relations staff, operational director, public health expert, seller, and general director of the terminals. The study observed 21 terminals in 19 different cities in South Sulawesi Province, Indonesia from August 2016 to September 2017. The data were analysed using software called “NVIVO” that helps in coding and interpreting the data. The data were analysed thematically.

## **3. Result**

The study found that the concept of a healthy terminal must fix two indicators; environmental and social indicators. Environmental indicators include disabled support facilities, sanitation, smoking room, nursery room, vehicle assessment area, clinic, and green spaces. On the other hand, a terminal must ensure visitors and workers safe and comfortable. Additionally, an integrated collaboration among stakeholders is needed to create a healthy and better terminal.

## **4. Discussion**

### **4.1. Environmental Indicators**

#### **4.1.1. Disabled support facilities**

15% world population is people with disabilities. Most of them live in poverty, bad stigma, socially marginalized, discrimination, unequal public support, and unequal health services [5]. Based on the field trip and direct observation, there are still very limited public services for the person with disabilities including lack of special facilities. The most common issue related to facilities was the architectural obstacle. The research revealed that none of the terminals in South Sulawesi meets the requirement of disabled support facilities such as lift, wheelchair path, disabled toilet, and disabled parking area. This inhospitable condition can steal their right and equality to get equal service and facilities as those without disability get. The unfriendly environment will limit disabled people doing activities independently as bad as worsen their mental condition. As a result, it will widen social gap among communities because they cannot work to survive themselves or independent financially, get health care and education facilities to improve the quality of their life; and can lead to mental disturbance. The number of research found that individuals with disability mostly have lower employment rates and lower educational levels compared to those without disabilities [6]. In the other hand, WHO revealed that good accessibility in the transport system and public infrastructure will reduce barriers to activities (working, school, and sports exercise), and participation for many disabled people [7]. Additionally, aside from physical infrastructures or facilities, the disabled persons also need personal support services such as personal assistance, assistive devices, and sign language interpreter services [6].

The finding shows the lack of seriousness of the governments and related stakeholders in following and implementing regulations about disability in Indonesia. On 30<sup>th</sup> March 2007, Indonesian government agreed to sign *The Convention on the Rights of Person with Disabilities* in the New York. Indonesia even has issued its own regulation about disabilities under Act no. 8, 2016 on Persons with Disabilities.

#### **4.1.2. Nursery Room or Breastfeeding Room**

The third goal of Sustainable Development Goals (SDGs) is “Ensure healthy lives and promote well-being for all at all ages”. One of the targets is end preventable deaths of newborns and children under 5 years old, with all nations aiming to cut down neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births [8]. The numbers of studies have proved that breastfeeding can reduce infant and baby deaths. According to Cesar and colleagues, infants exclusively breastfed have only 12% of the risk of death compared to who was not fed by breast milk [9]. Breast milk has been known as the best nutritious food for the best growth of an infant. Breast milk has all essential nutrition needed by infant and unique biological influence for baby [10]. Breast milk is the strongest antibodies which can protect new-born infant from the number of diseases such as respiratory infection (pneumonia) and gastrointestinal illness (diarrhea), allergies, obesity and certain metabolic diseases [11,12]. Moreover, breastfeeding also benefits the mother. An Early sip of baby helps to release the oxytocin which assists uterus contraction and reproduces blood loss post-natal [12].

Exclusive breastfeeding program requires commitments and support from family, community, and family. It has been clearly emphasized and regulated under Act no. 36 in 2009, section 128 that “every infant has right to get breast milk in the first 6 months of their lives and family, central government, local government, and all community must support the mother by providing time and facilities”. Therefore, all public facilities including Terminal must provide nursery room for the mothers to breastfeed their babies. Some mothers are not comfortable to breastfeed in public places because in some circumstances society continues to view breast as a sexual object rather than as a source of nutritious food for baby. Mothers who breastfeed her baby in public area are often shunned by foreigners, might be forced to breastfeed in an unpleasant and unhygienic environment such as in the washroom, food courts, and backroom [13]. Such condition can inhibit mother to breastfeed their baby.

Huge evidence shows that the existing of nursery room in public area has a positive impact on breastfeeding program and mothers. In some countries such as USA and Australia, the mothers can breastfeed their baby everywhere including in the workplace, restaurant, shopping center, and public spaces because the nursery facilities are already exist. A study conducted by Nik Azhari in Malaysia revealed that nursery room in the Mall has increased and the nursery room is accessible everywhere [14].

#### **4.1.3. Smoking area**

All people have right to inhale fresh, clean and healthy air without smoke from tobacco or another form of the cigarette. It is highly and seriously concerned cross the globe. There are millions of studies regarding smoking which showed that smoking has a huge detrimental impact on human health as bad as on the environment. Smoking has been associated with some chronic diseases such as cancer, coronary disease, diabetes, TB, pregnancy disturbances, and sexual system damage. However, for some people, smoking is a daily need and cannot be separated from their lives [15,16]. Indonesia stands on the third highest rates of smoking in the world after China and India, while in 2007 Indonesia was in the fifth position after China, USA, Russia, and Japan. The data from World Health Organization revealed that there were 65 million smokers in Indonesia in 2013 or equal with 225 billion cigarette consumption annually [16,17].

Governments around the world have been struggling to reduce the detrimental health impact of smoking both to smokers and non-smokers. The governments have applied many efforts including the price of tobacco, restriction on tobacco promotion, and promoting health effects of tobacco. Restriction of smoking in public areas such as governmental buildings, office buildings, shopping centers, and restaurants also has been implemented in many countries. The restriction aims to reduce harm caused by smoking to non-smokers [18].

Unfortunately, in some countries, the governments look not serious in implementing and controlling the policies created. Indonesia, for instance, has created regulation regarding restriction of smoking in public space. However, in the reality, there are still many people smoking in public area. The study found that, although some terminals in South Sulawesi provide the smoking area, there are still many people smoking everywhere (not in the smoking room provided). Additionally, the cigarette is very easy to find, there are many sellers in the terminal as many as smoking advertising.

#### **4.1.4. Sanitation**

Sanitation is one of the factors that can affect human health. Sanitation contributed to 5.7% of the burden of diseases on the earth. A study in Mozambique from 2012 to 2015 presented that 30% of diarrhea was significantly related [19]. Sanitation includes waste management, drainage, clean water supply, and toilet. All public facilities particularly terminals must pay huge attention on sanitation because many people work and transit in the terminal who come and go to many destinations that can contribute to the spread of communicable disease to a wider area.

#### **4.1.5. Health service facility**

All stakeholders agreed that terminal must provide health service facility. Workers and passengers can visit the health facility when they have a health problem. Routine medical examination for drivers is considered very important to reduce traffic accidents. The stakeholders also hoped that health service can lead on health promotion such as anti-smoking campaign, good sanitation, drugs abuse, alcohol consumption, and breastfeeding. Additionally, they can conduct environmental protection such as sanitation and air contamination control. Unfortunately, the fact in the field exhibited that health facility in the terminal is lack of maintenance. According to some informants, the health service facility is only used in homecoming seasons such as Ied Mubarak, Christmas, and new year. Ironically, commonly only volunteers such as students worked in the health service facility.

#### **4.1.6. Green Spaces**

Green space is a term that refers to a wide variety of natural areas both publicly and privately owned including a park, ravines, schoolyards, private yards, street, landscaped open spaces along the street and around buildings, cemeteries and green roofs. According to the regulation of ministry of home affairs No. 1 in 2007, green space is defined as spaces within the city or wider area. Green space has been broadly studied in conjunction with health and environmental benefit.

There is a high potential for air pollution from vehicle in the terminal. The air pollution can be reduced by plantation and providing green spaces. A researcher in Norway found that trees with 14 m of diameter with 1.600 m<sup>2</sup> of leaf coverage can absorb CO<sub>2</sub> and SO<sub>2</sub> in the atmosphere and can produce O<sub>2</sub> that can be used by one person for one year. The tree also can filter one ton of dust in the atmosphere annually. A car with 1,600 KM of mileage annually needs 200 trees to pervade CO<sub>2</sub> resulted by the car [20,21].

A review of evidence of World Health Organization for Europe regional officer summarizes and gathers the numbers of scientific evidences from different researchers and approaches on the relationship between green spaces and public health. Firstly, the pathways linking urban green space to improved health and well-being. Assorted theories, models, and approaches have been applied to analyze the correlation between green spaces and public health which found that the major roles of green spaces to human health are to improve relaxation and restoration; improve social capital; improve functioning of immune system, improve physical activities, fitness and reduce obesity; Anthropogenic noise buffering and production of natural sounds; reduce exposure to

air pollution; reduce the urban health island effect; enhance pro-environmental behavior; and optimized exposure to sunlight and improve sleep. Secondly, the evidence of health advantages of green spaces includes to enhance mental health and cognitive function; to reduce cardiovascular morbidity; to reduce the prevalence of type 2 diabetes; to improve pregnancy outcomes, and to reduce mortality [22]. Accordingly, green space is very important in public terminal.

#### ***4.1.7. Vehicle check up facility***

One of the efforts to reduce traffic accident rate experienced by public transportation is routine check-up for the vehicle. The availability of vehicle check-up facility in the terminal will ensure that all public transports operating in the area are properly feasible to operate.

The vehicle accident is a public health problem in Indonesia or even cross the globe [23]. The United Nations has declared the year of 2011 to 2020 as the decade of safety road action. This action aims to reduce deaths and injuries caused by traffic accident. The traffic accident has caused 1.2 million of deaths and 10 million of injuries or paralyzed on the earth annually. The traffic accident has contributed as the ninth burden of diseases and the tenth cause of death from injury. The deaths caused by injury are predicted to increase 8.4 million around the world in 2020 [24]. The traffic accident in Indonesia is a very worrying issue because of serious injuries and deaths. One of factor determinants of passenger safety on the road is the feasibility of the vehicle, another factor is human factor and road condition [23,25,26]. From 2010 to 2014, the accident of public transport was the second highest after the motor accident which was 26495 cases, 25502 cases, 25200 cases, 21304 cases and 18147 cases respectively [27].

## ***4.2. Social Aspects***

### ***4.2.1. Security***

Human security becomes the world's intention since UNDP has published Human Development Report 1994 which mentioned seven dimensions of human security including economic security, health security, food security, environmental security, individual security, community security, and political security. The UNDP report shows that human security is relevant with all human in the world because security threats in human security are universal in all nations [28]. The availability of the disabled facility, for instance, is a form of creating security for disabled persons either individually or in groups.

Moreover, the appearance of the hawkers and porters brings fear as they behave and dress in bad manners. The porters sometimes force the passengers to use their help to carry passengers' luggage. Furthermore, the lost of luggage or goods sometimes happens and causes the insecure stigma in the terminal. Additionally, the researchers witnessed a tragedy in the terminal. There was a hassle between staff of Transport Company and the porter in the terminal with using a traditional sharp weapon called "Badik". This incident was also witnessed by terminal officials, however, they did not do anything to stop the incident such as calling the police and the security officers were not in place at the time. These incidents proved that the terminals are still unsecured for the people.

#### **4.2.2. Comfort**

Comfort or comfortable feeling is a comprehensive assessment of an individual to the environment. Human values the environment based on stimulation accepted through the sensory organs to the brain, then the brain will give feedback either comfortable or uncomfortable [29]. Terminals as public area have to ensure that all the visitors and workers feel comfortable. The comfort is related to environmental indicators stated in the previous section. The disabled facility makes person with disability comfortable to work, transit, or move; the smoking room will make smoker comfortable in the terminal because they are still able to smoke without causing harm to non smokers; the nursery room allows the mothers to feed their baby and sustain their exclusive breastfeeding program in the comfortable and hygiene room; the availability of green spaces will keep the atmosphere clean, fresh, and healthy; the vehicle check-up facility can reduce the traffic incident rates; and the sanitation support facilities such as waiting room, toilet, water supply, and waste management will ensure the terminal area keep clean and comfortable for all.

### **5. Conclusion and Recommendation**

#### **5.1. Conclusion**

In conclusion, the study has shaped a new concept of a healthy terminal to meet the essential needs of people based on the idea of related stakeholders. Building a terminal must be safe, comfortable, healthy, and accessible and secured for all people including workers, passengers, sellers, and people who have special needs such as a person with disabilities and mothers with a baby. There were two main aspects which were suggested by stakeholders including environmental aspects (disabled facilities, nursery space, green spaces, smoking room, vehicle check-up facilities, sanitation, and health services) and social aspects (security and comfort). Numerous studies have proved that both environmental aspects and social aspects which were recommended have a huge benefit on the public health as well as environment.

#### **5.2. Recommendation**

Based on the result, it showed that most of the terminals visited have met neither environmental aspects nor social aspects yet. Accordingly, the study suggests the policymakers to create or regulate clear procedures and standard for the public terminal. Therefore, all terminals can meet the requirements. This study can be used and developed as a protocol or guide in creating public terminal. Moreover, further studies are needed particularly in measurements of environmental indicators.

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