

URBAN DESIGN AND PUBLIC HEALTH: A CASE STUDY

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Abstract

More than half of the world's population today lives in cities, and this figure is expected to rise in the future. In the next years, it is expected that 70% of the world's population will live in towns and cities, with one in every three urban dwellers living in slums. As a result, urban challenges are taking center stage in development discussions. The inner city and the health of its residents in particular have been a source of concern, as managing the inner city has always been a difficult issue for planners worldwide. Individuals' feelings of well-being, security, and productivity are strongly influenced by their health and their expectations of a healthy environment for their families and communities. The research seeks to untangle the intricate interaction of factors affecting urban health, with a specific focus on Amritsar's walled city. The goal is to assess the quality of life within the fortified city in order to evaluate the level of health and well-being. The findings presented indicate a rather low quality of life within the walled city, which is harmful to people's health. The case study highlights concerns and behaviors inside the city while also providing a clue to urban management in order to reorient efforts to create inclusive and healthy urban settings.

Keywords: City, Built Environment, Design, Health, Walled City, Well Being

I

Introduction

Throughout history, cities have consistently served as epicenters of commerce, science, politics, and culture. However, despite their vibrant diversity and dynamism, cities grapple with unique challenges. Many Indian cities, in contrast to their Western counterparts, have evolved from humble villages through a protracted developmental journey, while others boast rich historical characters and distinctive cultural identities. Initially rudimentary, Indian cities have gradually transformed into modern urban centers, still retaining elements of traditional sociography. State governments are giving more importance to attempts to build cities that are health-conscious as a result of the expanding urban population. The spatial patterns of contemporary Indian cities reveal a complex terrain defined by tensions and inequities. On the one hand, there is increasing urbanization and growth, but there are also concerns about inequality and sustainability. Cities are grappling with exponential population expansion, which is putting enormous pressure on migration to semi-peripheral or newly developed core districts, which frequently enjoy better rights than once-dominant inner city hubs. A walled city, often referred to as an inner city or traditional core city, evolves as a complex structure driven by economic, political, administrative, or military imperatives. A walled city can be defined as an older town with distinct boundaries and internal buildings inside the larger urban context. It is distinguished by a fusion

of residential and commercial districts, as well as a noteworthy concentration of full-time workers from varied backgrounds, many of whom live in substandard housing with inadequate incomes.

Historically, inner cities, whether walled or not, have been associated with overcrowding, crime, pollution, and unhygienic conditions. They have, paradoxically, also served as lively hubs for wealth development, innovation, cultural expression, and architectural magnificence. The spatial structure of walled cities demonstrates a deliberate distribution of manufacturing and consuming spaces.

Furthermore, the inner city environment stimulates social contacts among varied communities, contributing to the concept of a "livable city," in which the urban landscape generates possibilities for individuals to connect. Walled cities and inner cities follow similar planning patterns around the world, with localized differences. Despite their historical significance, inner cities suffer a slew of obstacles to reform. These difficulties can be attributed to government apathy, public apathy, or signs of unequal capitalism development. As a result, walled cities are progressively pushed to the periphery, while new dangers to the urban core emerge on a regular basis.

No doubt, there are many cities in India which can justifiably boast of much longer span of existence but very few of the legitimately claim credit of having risen to eminence of Amritsar: inception and ordeal of survival i.e., conflicts and thirdly, growth and development (Singh, 2000). The origin of the walled city dates back to the sixteenth century. The city is taken for granted as a center of religion and commerce but has a multifarious personality (Gupta, 2017). Since the inception of the city as a religious center, till date the inner city has maintained many of its aspects along with the changing boundaries and structure. At the initial stage, the city had no wall; the city got walled only in 1825 during Ranjit Singh's reign and by 1849 Amritsar was a completely walled city (Gaubha, 1988). Initially, 100 families established themselves in the city and practiced trade and sold products in open markets or bazaar (Singh, 2000). Caste groups of 52 different trades and crafts from the surrounding villages of the city were called upon by the Sikh guru to take up residence in Amritsar (Kaur, 1996). Together they formed the first marketplace 'Batti Hattan' (32 shops) which was close to Guru Ka Mehal.

Alongside, market places developed the residential areas in small lanes barely 5-6 feet wide. The places of residence were segregated on the lines of caste, with higher castes having their residences in the centre and lower castes lived on the peripheries (Sharma, 2010). However, due to increasing urbanization Dalit settlements no more exist on the periphery and are surrounded by people of various castes. Population of the city rose in a considerable manner with the inflow of people of different communities; of it immigration from Bombay and Sind was considerable. The growing concentration in the inner space led to development of several problems in the walled city which Ranjit Singh took up during his period through beautification projects carried out within the wall.

With the annexation of Punjab by the British, the process of reconstruction began which led to cutting down of several natural spaces and their replacement by pucca roads, thereby contributing to shrinking of open spaces in the city. British administrators took keen interest in demolishing the old wall and expanded the city beyond the walls. A boulevard called 'outer and inner circular wall' was constructed so as to give breathing space to the city. However, to create a traffic island to control the increasing rush of traffic the fountains and

gardens in the several places were removed by 1941. The growth of the inner city was quite unplanned and very irregular as factories and trade centers developed in haphazard manner. With the rise of population and industry's demand for larger space most of the factories had shifted to the outskirts leaving the inner spaces vacant for migrants who utilized it for residential purposes.

Planning of the city had always been a serious issue for all the administrators of different periods. Till 1857 if we look, the local committee members such as Panches and Chaudharis had been performing the task of managing the city. However, in 1868 Municipal Committee was formed as a formal body to look after the demands of the city such as water supply, sanitation, electricity. Much could not be done with regard to the built environment as construction had already taken place at large scale yet some of the laws were passed by committee with regard to housing. Sanitation, public health was given due importance by the municipal committee. Sanitation, paving and drainage of streets was a long and difficult project which continued throughout British rule in 1902, hardly basic and preliminary work was completed (Gauba, 1988). Water and electricity charges became important during the 20th century. Tap water was introduced in 1904 and by 1947 the whole city was lit with electricity earning the only one in the entire Punjab. A huge amount of the budget was also spent on health and medical facilities as a result of which committees were able to considerably control the epidemics. Nevertheless, post 1947 the communal riots destroyed one-third of the city. The entire walled city was declared as a damaged area under Punjab Development of Damaged areas Act, 1951 for the purpose of redeveloping the area and restoring it to its former glory. The city had been under constant demolition and threats which paralyzed the growth and maintenance of the city. The city is a particular example of an introverted planning system with unique areas that are self-styled residential as well as market areas known as 'katras' that were made to provide a unique defense system during the attack on the city. Redevelopment plans of the city have been taken up from time to time as a result of which positive changes have taken place in the city but the task remains incomplete yet.

Taking into account the growth and challenges of the city the paper intends to explore some evidence on area based inequality with the help of secondary data on the city, along with its participant observation was also used. The observed area differences can be studied on the two grounds: social composition and social context. The former refers to the aggregate characteristics of individuals living in the area within the walls. While, the latter refers to the features of the physical environment, provision of services, features of social fabric which makes a place healthy or less healthy for living (Earle, 2008). Hence, of the various ways in which an area might generate or promote poor or good health, I would herein focus upon social environment which carries certain implications on the health and determines quality of life of people living within the walls. The data has been drawn from Government gazetteers, Books, Dissertations as well as from Drafts of Municipal Town Planning Department. The assessment method includes the effect of physical attributes on the quality of life and its implication on health of people living therein has been measured by examining the physical conditions of space. The concept of quality of life in a residential environment is more related to a group of people who are sharing the common physical, social and environmental conditions where objective values determine the quality of life.

II

Social Composition, Urban Context, and Well-being in Inner City

The walled city, although accounts for only 2.44% of the total municipal corporation area, is home to nearly one-sixth of the municipal corporation's inhabitants (www.indiaenvironmentalportal.org.in). While acting as a major tourist attraction, the city's historic centre stands in stark contrast to the remainder of the urban region. It has serious issues, such as insufficient necessary services, poor living circumstances, and a general decline in quality of life (Teotia, 2013). The walled city, distinguished by its ancient origins, necessitates unique attention and targeted development efforts. Social determinants such as bad housing, unstable employment conditions, restricted access to clean water, and inadequate sanitation have a significant impact on the health of urban people. Furthermore, the food and behavioral traditions of many societies influence the well-being of their population. Examining key developmental indicators provides insights into how the walled city's environment negatively effects the overall health and welfare of its citizens.

Increasing Population and Physical Environment:

Crowding is an important element in disease transmission, particularly of airborne infectious agents. The statistics on population within walled city can help us in better understanding how the inner city has been and continue to face human pressure which has lead to deterioration of the physical environment and health of people. In 1855, the total population of Amritsar was 1, 22,181 and in 1941 it was 3, 91,211 and city of Amritsar was ranked 9th in India and in 2011 the total population of entire Amritsar city is 1168803 (Town Directory, 2011). Punjab census report 1891, states Amritsar city population declined by 11% during the last ten years and many cities' unhealthiness of the space as a major reason. 1901-1911 data also states the population declined because of malaria and plague and this repulsed several communities from the walled city. In 1911-1921 the population again increased because of improved sanitary conditions and water supply. In 1981, population of the Amritsar city grew to 5, 89, 229 persons and the city became congested with commercial activities continuing still in the walled city area (Gaub, 1988). Even today, walled city area has not increased but it is interesting to note that population within the walls continues to be on rise. The localities lie segregated on the grounds of caste and class, thereby increasing vulnerabilities of the lower groups who live in much deteriorated conditions and filthy environment.

Housing:

According to Draft Master Plan 2010 survey, the housing condition in the walled city is in dilapidated or poor condition characterized by old age buildings with an average building height of four storey without any setbacks and narrow access roads with poor mass space relationship. In 2011, 84 buildings were defined as 'dangerous' and 'highly dilapidated' by the Amritsar Municipal Committee. However, the Committee tagged 119 buildings as most 'dangerous' and demolished 35 of them in the past. Most of these buildings were located in Bazaar Cheel Mandi, Ghantaghar, Ram Gali, Katra Ahluwalia, Bazaar Maha Singh, Gali Dhrek Wali, Gali Lamba wali and Haveli Zamadaraa (www.articles.timesofindia.com). The built environment is quite damaging. One can find houses are tiny, clustered closely together giving inadequate space for ventilation and sunlight which is a common contributor to respiratory as well as skin disease.

The result is that houses facing each other on opposite sides of the street nearly meet in the middle but form a tunnel like passageway over the street. The first floor of many houses still is till date, generally housed by the artisans shop with living quarters on the upper floors with seeping walls. However, some changes have taken place such as earlier most of the houses were made of wood and cement therefore, they burned frequently. Fire was a constant threat in earlier times within the walled city. But now, most houses are of brick and cement but still close proximity to each other poses a constant threat for mis-happening and it is evident from the several incidences of fire that come up in newspapers. Overcrowded, ill-ventilated and poorly drained settlements are breeding grounds for infectious diseases of all kinds. Third major problem in the area is inadequate housing which is another major contributor to social breakdown, domestic violence, unintended pregnancy as its consequences. This is more prominent in areas of people hailing from lower caste or class backgrounds. A high level of illegal drug use is associated with poor housing relationships which is particularly evident in the lower income areas, where substance abuse is a common norm and gender and age is no bar (Sharma, 2010). Many of the houses are small with one or two rooms. Human congestion in the houses can in particular be seen in the houses of lower income groups but even in the higher income groups paucity of living space can be seen.

Food and Nutrition:

Food divide in the city has become a key marker of the health divide in cities and a stark reminder of inequality. Not only do poorer populations in cities experience a greater difficulty in meeting basic food needs but also in accessing nutritious food. For inner city residents, food deserts include high concentrations of cheap and unhealthy fast food outlets and have contributed to resident's greater risk of acquiring serious chronic illnesses, such as diabetes, cardio, obesity and other lifestyle diseases. Junk foods are widely available in the inner city, though the quality of food is questionable. The unorganized informal sector continues to operate without much support from the city managers. The food habits of people living within the walled city are not very healthy as there is a huge liking for too fried and spicy food by the people which is available at low cost and convenience. There is a huge variety of traditional food which they can buy from yet, consciousness among dwellers regarding the healthy food habit or nutritious meals is quite low. Conditions of life within the walled city, especially for the most vulnerable groups are either poorly documented or the data are difficult to access, and are under analysed. Families living in the most economically deprived areas least likely adopt health education messages and hence are more likely to get sick. There is a huge concentration of lower caste as well as lower class within the walled city for whom the idea of adequate food is unthinkable.

Open Spaces:

The fortified city was once having ample open spaces in the form of bagichas (gardens) inside the katras. Initially, the walled city of Amritsar was marked with a number of parks and open spaces, which over the time have been used for commercial purposes. The area such as Hall gate, which at present is acting as C.B.D., was initially a green open space (Gupta, Gupta, 2017). Likewise, Ramanand Bagh, Jhande Wala Bagh, Kesari Bagh, Bagh Akalian, etc. have been exploited for commercial use (<http://www.indiaenvironmentportal.org.in>, Scribed.com). Further, it has been observed that the existing open spaces are being encroached and not

properly maintained. Several butchers, grocers and smiths had illegally set up shops by the gates and they dumped animal waste and garbage near the structures.

The walled city is a major tourist attraction. Tourists visiting the Golden Temple have been estimated to be approx. 1 lakh per day (<http://www.indiaenvironmentportal.org.in>) which is indicative of the fact that secondary pressure on space also exists in a huge manner and has led to degradation of the environment. Vehicular congestion has also increased much as compared to the past which has immensely contributed to noise pollution, air pollution. The walled city area of Amritsar lacks open areas/parks where these only exist in the form of tot lots. Hence, the already congested core with influx of commercial activities does not provide for recreational requirements of its residents which again mean that residents do not have adequate scope of walking in the clean and green spaces.

Other Services:

Understanding the dynamics of disease helps to illuminate the relative risks of urban populations. Health depends directly on the resistance of the population to disease, on the virulence of the disease-causing pathogens or disease agents, on lifestyles and social interactions, and on the nature of the responses of the health delivery system. Each of these is different in areas and is equally different for the poor than for the better off. In settings where infectious diseases remain serious health threats, often compounded by malnutrition, faulty sanitation, unsafe water and pollution, and where chronic disease and disability are also rising, different segments of the population find themselves pitted against each other in competition for public resources, services and for institutional priorities. Failure to meet the needs of the poor will both prevent them from becoming productive and drive the already productive to locate in more congenial surroundings leading to unevenness (MCA, 2017).

While many aspects of walled city infrastructure have improved as compared to the past, comparisons consistently showed large disadvantages for poorer populations, in terms of sanitation and quality of water. It seems nevertheless that urban water supplies are still better overall than rural or the new core city. Potable drinking water is a matter of concern in almost all the localities of the city and in particular, in the surrounding poor localities.

Secondly, the inner city draws migrants with the promise of higher living standards, but the wealth produced in the city does not necessarily translate into prosperity for all. The residents follow varied occupations, most of them in the informal sector- skilled, semi skilled and unskilled craftsmen. Many of them are involved in various categories of retail and wholesale trade. Many work for municipalities (lower castes). Some families make their living within the area itself by running small shops or as vendors. A large number of women from lower rung work as domestic labour in the city as well in the hotels in the surroundings of the Golden Temple. Generally, the newer migrants to the inner city are poor with no skills and assets. Urban poverty has decreased proportionally but, even with this success income inequality is increasing. Opportunities for the more advantaged are increasing at a faster rate than those available to the disadvantaged.

Schemes Implemented in the Walled City Area

Considering the challenges being faced by the walled city and its residents, here is an overview of various schemes that have been implemented in the walled city area. Out of the total schemes sanctioned and implemented, merely 20% of the schemes have been undertaken in the walled city area. 91 percent of the total schemes implemented in the walled city are Re-Development Schemes undertaken by Amritsar Improvement Trust covering an area of 137.5 acres approximately. These are spread over the whole of the walled city area. The 6.66 percent of the schemes implemented in the walled city are Town Planning Schemes and only 1 Building Scheme has been undertaken which is inside Bhagtanwala Gate. 70.5% of the walled city area to be covered under various schemes. Some other ongoing projects within walled city are Rehabilitation of Sewerage In Walled City worth Rs. 40.79 crore Rehabilitation of Water Supply In Walled City project worth Rs. 52.97 crore (<http://www.indiaenvironmentportal.org.in>).

Conclusion:

A yardstick for assessing the state of affairs inside the walled city was attempted by the application of indicators. In this study, it was shown that there are relatively few people living in a region with good physical, social, and environmental conditions, which may have some negative consequences on people's health. Furthermore, people who live in the most underdeveloped areas are more susceptible to illness. The proposed Draft Master Plan for Amritsar (2010–2031) aims to encourage, direct, and rationalize urban centers' continued expansion and development in light of the city's current urbanization pattern.

It offers to support desired growth, stimulate economic development, improve service delivery, and provide amenities to local residents, which appears to be a good changemaker. The policy and practice implications of this article are that individual and geographic health inequities should be addressed separately. Similarly, if people are targeted rather than areas, the nature of differences will continue to inflate potential benefits to particular individuals. This implies that policymakers require targeting techniques that integrate redistributive measures at the individual and community levels.

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Endnotes:

1. Quality of life normally means the general well being of people and the quality of the environment in which they live. Quality of life is defined as an interaction of social, health, economic and environmental conditions that have an impact on the development of the individual and society. On the other hand, when it is defined as the sense of well-being of the individual, satisfaction of the individual from his or her life; and the quality of life is emphasized as being related to individual perceptions and senses, this is related to the subjective values.

2. Katras were a mix of market as well as residential areas so as to carry trade with much ease. Each Katra was named after either a chieftain or on the kind of trade activity carried within that place.

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