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EXPLORING THE QUALITIES OF CHILD-FRIENDLY OUTDOOR SPACES: A FIELD STUDY IN LOW INCOME NEIGHBOURHOODS - CASE STUDY: SABRA, BEIRUT, LEBANON

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Abstract

Children's play areas are from the past an indispensable right for children, in which it allows children to build their physical environment and assess it cognitive thinking. But today, the city, especially in low-income population suffers from a clear shortage of open spaces, where the leftover spaces are left empty used for garbage, old tanks car parts, and many other bad issues. This has negatively affected society, mainly children, where they become vulnerable to many social ills and problems that threaten their lives and behaviour. This paper tries to ameliorate and presents adequate children's play areas, for the low-income population, through an analytical example, suffering from a lack of playing spaces between residential buildings, and show us how responsible and associations find a clear and appropriate solution for their society. For that reason, the paper focuses on principles of how to present safe playing areas and to be accessible by all children without inequality between boys and girls, and it also presents a case study that analyses the current situation presented in this region, in order to solve it. Moreover, the paper declares that the low-income population living in the high-density urban fabric, can manage and form suitable public and kid's gatherings, or may take advantage of good use of existing public open areas, where these can improve social relations and develop children's physical environment. In order to survey the current situation of the case study, Sabra, the paper follows a field methodology using a questionnaire. This methodology shows the complications of low-income Sabra inhabitants and children and concluded with guidelines to ameliorate and enhance the quality of life and upgrade adequate outdoor spaces for play.

Keywords

Architecture, Child, Play, Open Space, Low income, Inequality

1. INTRODUCTION

Human rights are children's rights too. Whereas international human rights declare that children, as well as adults, have also basic human rights that should be presented and preserved. They have the right to play in appropriate areas, and they have the right to special protection from vulnerability, from exploitation and abuse. But today, the rapid growth of urbanization, due to the high-density urban fabric, has reduced the open spaces inside the city, wherein some areas, it is found a lack of spaces mainly in active cities, where an increase of construction appears every month. These scattered open spaces are left over and they are presented between buildings. This reduction has affected the neighbourhood, inhabitants but mainly children. It had led to many social problems mainly for children, where they become deprived of play, and also become dangerous to go outside and play in these empty lots. In addition, the inappropriate design for open spaces presented in the city, where garbage, wheels and tanks are left inside, neglect the children's right to play and become a dangerous place for him. This paper, firstly, explores the problems presented in the Lebanese region, where low income existed and high density urban existed. Second, it shows an example suffering from overcrowding population with a very low income, and how they solve and found an appropriate area for children within their neighbourhood. Third, it shows the results of a questionnaire done in the Sabra region, the case study, showing the inequality and the lack of adequate playing areas for children. Finally, there is an idea or suggestion how we can make safe available playing areas for children close to their neighbourhood units. Before mentioning the main aim of this paper, and after noticing the lack of open spaces, and the presence of inappropriate scattered spaces and empty lots, it is important to pose some important questions, directed mainly for responsible, children's associations, and local communities, on which the paper is based and analysed. What are the important conditions and standards aspects to an adequate playing area in low-income residential neighbourhoods? Why children don't play in these available empty lots presented in high-density regions? Do local communities and children's associations present adequate solution for children's play areas? Can scattered spaces become a good choice for children and a safe place for them to play?

This paper aim to: "Improving a comprehensive upgrading strategy for assessing and ameliorating children-friendly spaces in low income housing".

The main objectives are:

- Trying to know children's problems, mainly psychological and social problems.
- Developing solution to this crisis of having adequate kid's play area.
- Involving children in the design of open spaces, through workshops, discussions, and fill questionnaire.
- Directing the responsible to take into consideration to ameliorate the scattered open spaces and to make it easier for children's access.
- Planning, in adequate way, the scattered open spaces in the city, that suites children's needs.

The paper assumes that if children's association, local communities and municipalities find suitable and adequate children's play areas, will develop children's physical environment, psychological effect and reduce obesity, as well this will return positively on families and the surrounding. The paper will be limited by two determinants: Temporal and analytical. For the temporal determinant: there will be an introduction and keywords definitions, as well analysing an example suffering from a lack of open spaces showing how they solve. For analytical determinant: the case study in this paper, will talk about the problems of low-income population, and how it can be solved to prepare and present adequate and safe children's areas.

2. LITERATURE REVIEW

The research presents in that part an overview on the theoretical background as follows:

2.1. Defining 'Play'

Play is the free activity practiced by children, where play is one of the strongest and valuable tendencies in their physical development. From a young age, the child tends to play solitary and the older he becomes, the more he tends to play within a team. Many have defined play, where the Dutch cultural historian Johan Huizinga (1995), in his book "Homo Ludens", summarizes that play is a free activity standing outside ordinary life as being not serious which is an activity with no material interest and no profit can be gained by it.

“Combinatory play seems to be the essential feature in productive thought”

Albert Einstein declares also that play is an essential feature for having a productive thought, where children while playing together can easily recognize their surrounding and can built their cognitive thinking. Play encourages children to learn how to work in groups, to negotiate, the share, to learn self-advocacy skills and to resolve conflicts. Moreover, plays enables the child to discover the basic laws and rules of the nature.

“Children need the freedom and time to play. Play is not a luxury. Play is a necessity.”

Kay Redfield Jamison, mentions that play is composed of three components. First it is an activity desired by the child. Second, play permits children to involve imaginary situations and third, play always involves rules, which some are in the minds of the players and may not be laid down in advance. Play permits children to explore and to create a world they can master it, conquering their fears, and building their own character

“Play is our brain’s favourite way of learning”

In addition, Diane Ackerman and her colleagues finds that play is intrinsically motivated by children, focused on means rather than ends, free from externally imposed rules and it is actively done by children. They find that play develop the cognitive thinking of the child, and it is its own way of learning. Moreover, play is an essential tool to understand the needs and functions of children, it is considered as the work of the child. It is an important phase in childhood development, where through play, children become able to express and control their feelings, actions, and thoughts and help themselves to achieve their self-confidence. Concerning the UN convention on the rights of the child, in its article 31, finds that play and recreation help in developing the health and wellbeing of children, and promote the upgrading of cognitive thinking, self-confidence and skills. The UN sees that play is a form of participation in everyday life and it is an intrinsic value to the child. In addition, while playing, children learn by doing, where they explore and experience the world around them; experiment with new ideas, roles and they learn to understand their social position within the world. On the other hand, the play offers an important opportunity for parents to engage with their children, it also helps children to develop skills, flourish their physical, to use their creativity and emotional strength. In addition, it offers a healthy brain development, where children can interact with their surroundings at a very early stage. Furthermore, it prepares the child to be able to work in groups to share with others and to resolve conflicts.

2.2. Inequality in high density ‘Urban Fabric’

Concerning child’s rights, it is mentioned that 75% of the world’s population live in cities, where many children are deprived of their rights. According to Harvard Kennedy School, where urban inequality reflects the unequal distribution of skills. Rousseau talks about inequality indicating that it is one of the strongest critics of cities and modernity. The inequality between children existed for a long period, where it appeared mainly in physical activity of genderism, in which the level of physical activity is reduced in girls. In another word, many types of research indicate that girls have lower self-esteem, perceive lower health status, and view themselves as less athletic than boys do. Furthermore, boys are more likely to exercise for competitive and personal recognition, they are more encouraged to be intrepid and adventurous, but girls are more silenced, praised for neatness rather than their achievements. As well, according to the article *“Access parks for youth as an environmental justice issue”* mentioned that the majority of studies indicated that low-income areas have open spaces that have poor quality amenities than higher income. The access to play in open spaces differs from one region to another and from an income level to another, where vulnerable and poor children have less chance to access these scattered open spaces. Moreover, it is indicated that if these scattered open spaces or the unused empty lot of poorer areas are dangerous and unsafe to be accessed, children tend to play on sidewalks, or on the roads instead of playing inside the areas. On the other hand, the segregation and the expansion of residential units, gated communities, new public spaces, public and private spaces, have a very strong and negative impact on young people’s urban life, which is mediated by class and gender conditions. Referring the article *“Youth Experience of Urban Inequality: Space,*

Class and Gender in Mexico” indicates that the urban structure and urban life are shaped by persistent inequality.

The difference in incomes and later the presence of inequality affects the socialization and subjectivisation of children and build a sociocultural gap between other children from middle and high-income families. More particularly, the absence of children and youngsters from the society presented a grave fear and insecurity for their urban surroundings. Gender inequality has different from what appears in the accessibility of open spaces in the formal and informal high-density urban fabric. The gender inequality, in this case, means that young girls receive less care and fewer opportunities to play, which leads to a delay in building their own identity, developing their mental cognitive and constructing social relationships. For that reason, many neighbourhood units let their boys go outside and play while girls don't have the permission to go, simply because they are girls!

2.3. Importance of having an ‘Outdoor Space’

According to Environmental Protection Agency, open space is any part or plot of land, in which there are no buildings or any building construction, and residents can access it. Also, open spaces are recognized as an important setting to promote activity engagement in the neighbourhood built environment. It also confers health and well-being benefits by foresting social connectedness, communication skills, and friendships developments. Although with this rapid growth of population, and the horizontal expansion, it becomes an important need to preserve the open spaces. These empty spaces become leftover places, and unplanned located between the new buildings in many cases.

The importance of having an outdoor area in a residential building is needed because nowadays, the majority of parents are so busy and caught up in the digital world. In their free time or weekend, they spent their time on smart phones or laptops that even their kids find it normal to stay indoors, playing video games or watching cartoons online for many long hours. Playing outdoor become, for kids, an unexpected adventure where the concept of encouraging them to play and spent time and enjoy the fun is decreasing. This bad trend is not only the responsibility of parents but many builders and architects also. They do not realize the need of having outdoor play equipment and recreational areas for children in residential buildings. In addition, as mentioned before, to build the physical activity of the child, it is important to be active, to play outside in order to develop their cognitive, emotional and social development, where it has positive influence as:

- It encourages learning ability.
- It ameliorates communication skills.
- Gets sufficient Vitamin D.
- Rises self-awareness.
- Keeps kids healthy and happy.
- It is a safe area.



Fig.1: Visual representations of open space recommendations

It is important to know that lively spaces and public areas have same concepts, where both focus on the public realm, social functions and on children's behavior.

2.4. Reviewing a 'Previous Study'

The thesis, for the master's degree, done by Faima Suwaidy and Basma Rim, titled "*Improving children's play areas within the residential neighbourhoods*" in 2017/2018 solves a major problem in Algeria which is the absence of open spaces especially for kids, where no suitable children's areas are presented. The main aim of their thesis was to find an adequate location and prepare it to be available and safe for children while playing, within the high-density urban fabric. From this thesis, this paper took advantage, mainly in chapter 1, where the definition of play and its characteristics, as well this article used the explanation of kid's play areas showing what the dangers are and how we can present a safe and suitable place for children in the high-density urban fabric. This thesis concluded and presented many guidelines that suit many other open spaces adequate for kids' areas. The guidelines were preparing suitable areas with good equipment for recreational features and safe for children during play, as well they suggested to improve the neighbourhood region, and present a specific area for car parking far from kids play zone. In addition, they mention to take care of urban features in these open spaces, and increase the implementation, and creating public open spaces for recreational facilities. Besides, this paper applied the case study presented, as an example and how they tried to solve the problems presented, and how they improve and find adequate spaces with complete facilities and recreational facilities.



Fig.2: Plan showing the increasing of green areas in a neighborhood region, in Algeria.

2.5. Introducing the Example Of 'Nabaa - Bourj Hammoud'

2.5.1. Location

Nabaa is located in the eastern suburbs of Beirut within Burj Hammoud cadastre. It has a high density population, and it is densely built up residential area in Beirut, where low-income people are living there, from many nationalities, Lebanese, Syrians, Palestinians and Iraqi refugees, as well the foreign migrant workers from African and Asian countries.

2.5.2. Safety and Security

Based on series of focus group discussions, with groups of different age, gender, and social status, residents were asked many general questions concerning the safety and security, risks facing the community, types of inequality and violence experienced by women and girls, as well questions were directed to children, asking for their free time, and their recreational daily facilities available in their neighbourhoods, and their accessibility for going outside for play. It was concluded and appearing many problems, and unsafety propagating in Nabaa. Concerning children, they



Fig.3: Nabaa map and it surrounding
Source: UN-HABITAT analysis, Nabaa Neighborhood Profile & Strategy, March - 2017

are suffering from a lack of open spaces where they are deprived of the rights of play and no safe places for going outside and play.

In the following diagram, shown in figure 4, there are the threats and bad points presented in Nabaa region.

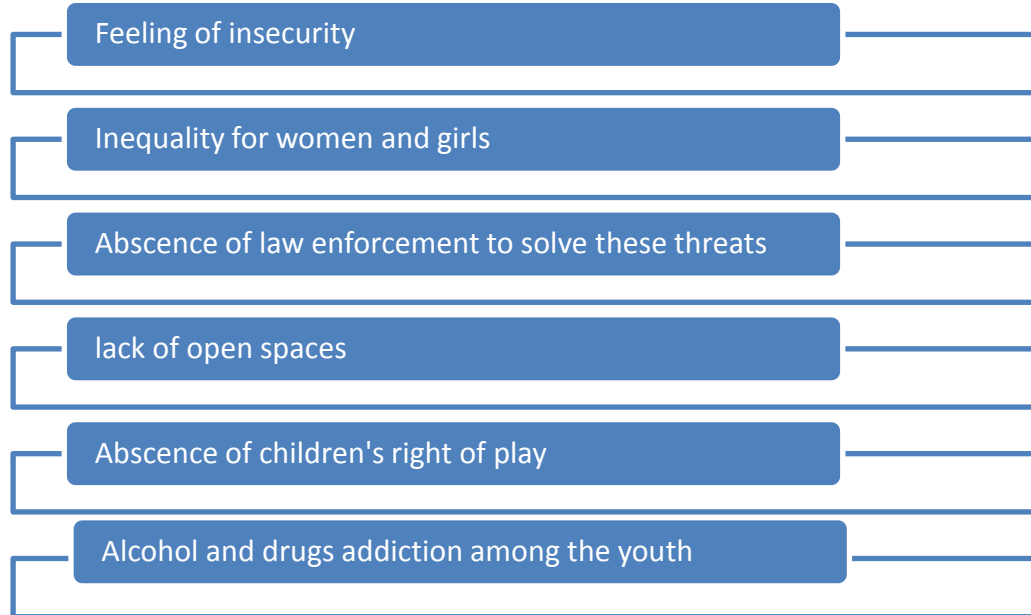


Fig.4: Diagram shows the threats and problems presented in Nabaa region

As shown in figures 5 and 6, problems of lack open spaces are caused by many influences, such as: First, the increasing of Syrian refugees which is indicated that 60% of residents are from Syria, reduce the availability of public spaces in the region. Second, the low income for inhabitants, which prevents the residents to access private open spaces or take their children to private playgrounds and recreational areas. Third, the deteriorated shelters and bad of infrastructure with lack of services, make the empty lot, spaces for garbage.



Fig.5: Children of Nabaa's region
Source: UN-HABITAT, 2016



Fig.6: Lack of open spaces and unsafe regions
Source: Ibid

2.5.3. Minecraft technique for solving the problem

According to UN-Habitat, a sustainable development goal has been mentioned to make cities and human settlements inclusive, safe, and resilient and have sustainable green spaces, in particular for children, women, older persons, and people with disabilities. The UN-Habitat launched in 2011, the Global Public Space Program, using the Minecraft digital program, focusing on developing cities within low-income in high-density urban

fabric, in order to improve the quality of scattered public spaces within residential units and to maintain the capacity of local inhabitants and communities and contributing to long term change. They applied the Minecraft model's program, which is one of the world's most popular computer games. It helps, with the presence of expertise, inhabitants, especially children, to place their recreational needs for play in their surroundings, to build their playgrounds and to install the entertainment features in a safe area near their houses.

The project's objectives are the same for many other overcrowded regions in Lebanon. It enhances social cohesion, raises the importance of having public spaces in each community, encourages children to build and maintain their physical activity, implement safe and accessible public spaces for all users, and finally involve the community to participate in designing their scattered empty open space to apply their needs and demands without any restrictions, as shown in figure 7. The scattered open space, in Nabaa, is located within the residential units with an area up to 200 m². It is an empty lot and has a big problem. This area, before improvement, was used for drug dealing and abuse.

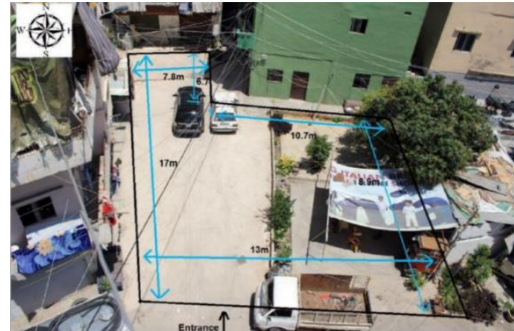


Fig.7: Photo of the scattered empty lot in Nabaa, Bourj Hammoud
Source: Nazzal. M, Chinder. S, "The Journal of Public Space, Title: Regional Public Space Programme for Arab States, in Nabaa, Bourj Hammoud, Lebanon, Vol. 3, 2018

This empty space has not a clear shape, where two different rectangular forms are forming this empty lot. The scattered open spaces are no more than 228 m², used as a parking area and small rest area. The presence of the small shop indicates the useful and active area presented in this empty lot, and it is a connecting point for the inhabitants, where they meet each other and rest together. For that reason, the Minecraft Design, through analysis, indicates the specific activity done in this area. It presents the meeting area for residents, the playgrounds for children and the food service, as indicated in figure 8.

The final Minecraft Design

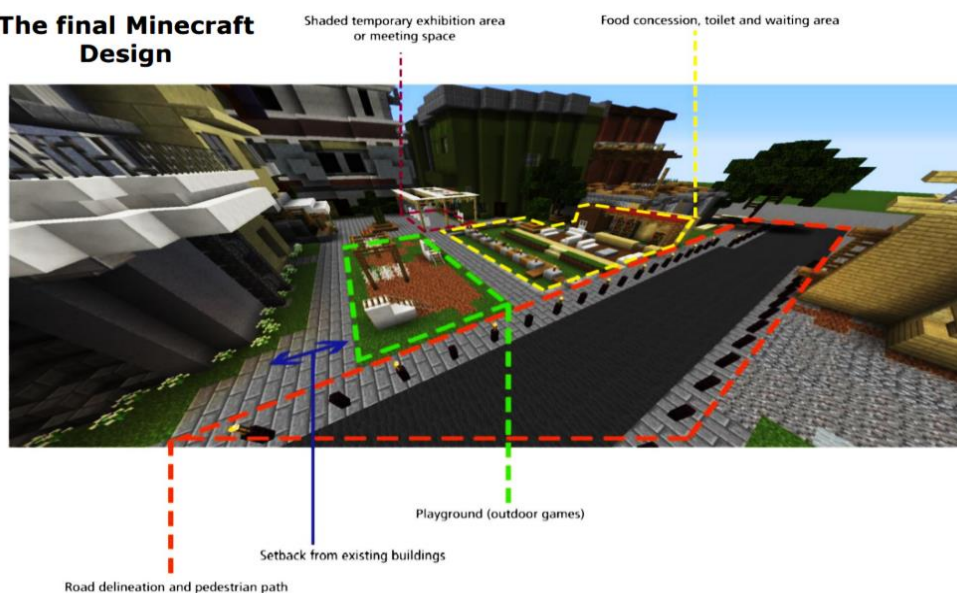


Fig.8: The final output of the design for the scattered open spaces, based on inhabitant's needs.

Source: Nazzal. M, Chinder. S, *The Journal of Public Space*, Title: Regional Public Space Programme for Arab States, in Nabaa, Bourj Hammoud, Lebanon, Vol. 3, 2018.

The applied study on the empty lot is done and become an accessible area for all the inhabitants, and the most important thing is the safety presented inside. It helps to strengthen gathering inhabitants and maintains social relationships together, shown in figure 9.

The paper presents many parameters related to previous topics which will be analysed responding to the case study.



Fig. 9: The improvement of the empty scattered open spaces within buildings - Source: Ibid

3. METHODOLOGY

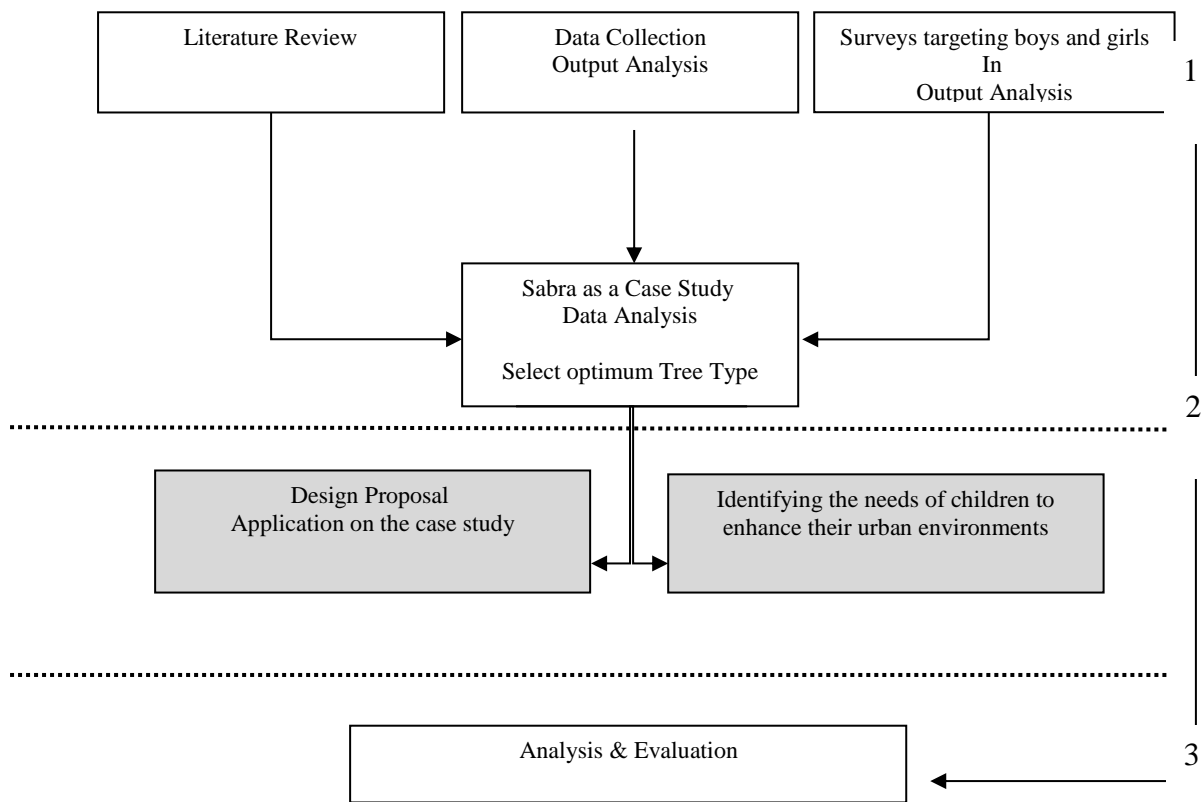


Fig.10: Diagram of the research methodology

As shown in figure 10, this diagram shows, firstly, the steps done for introducing and explaining the case study of the paper. Based on the literature review, after defining the needs of children, and the importance of outdoor spaces without inequality between boys and girls, and after applying a questionnaire, the paper analysed the problems presented in the Sabra region and how it affects children's right to play. In the second phase, the paper presents a design proposal that can be applied in this case study, and identify the need of children in their urban environments. Third, there will be an analysis and evaluation of the case study.

3.1. Introducing the Case Study (Sabra, Beirut, Lebanon)

Analysing a case study summarize many typical problems presented in another region in Lebanon. The paper presents analytical research concerning Sabra and explaining the problems confronting children living in this low-income region. Sabra is the name of an administrative district related to the municipality of Ghobeiri in Mount Lebanon. As shown in the map of figure 11, Sabra Souk is bordered by the city of Beirut from the north, the sports city (Al Madina Al riyadiye) from the west, Kaskas from the east, and Shatila camp from its south. It contains a large percentage of the Palestinian population that lives in its neighbourhood, but now Sabra is not considered as an official refugee camp although its name is still associated with the Shatila camp. The name belongs to the Sabra family, whose name was given to Sabra Street, which passes by many regions, starting by Al-Dana area and Tareek El Jdideh in Beirut passing in Sabra square where vegetable market existed and ending at the entrance of Shatila camp. Plus, the street separating Sabra from Shatila is called also Sabra Street.



Fig.11: Map showing Sabra Street and its surroundings.

Source: Google Map

3.2. Problems and Impacts

Problems presented in Sabra are large, but in this paper, only problems related to children's right to play will be mentioned and analysed. As it is known, Sabra is the most populated neighbourhood of Beirut. Its public spaces are neglected, and some are unplanned spaces presented in the region and used as parking areas. For that reason, we find that children's living condition in Sabra's Street poses a persistent challenge that presents larger socioeconomic and political problems in many other regions Lebanon, such as indicated in figure 12. First of all, the high-density urban fabric in Sabra affected children's open spaces, where more the overcrowding population increases, the open spaces decreases. This equation propagates more and more in the region, where no open spaces for children to play. The presence of scattered open spaces around Sabra Souk is in many cases unplanned, unsafe and used as garbage and rubbish. For that reason, children go far from their region to play, which lead to another problem of violence and child rape, others stay inclusive, near their home, and scared to go outside and to integrate with their community. Second, the increase of refugees from Syria, many of whom are children, has exacerbated the problem. Nevertheless, many driving factors cause children to live or work on the streets; mainly the social exclusion, vulnerability of households, the unplanned recreational open spaces.



Fig.12: Inappropriate sidewalks, and garbage lots, in Sabra, Beirut, Lebanon

Source: Photographed by one of the authors, January 2021

As shown in figure 13, the diagram – next page - shows the direct and indirect problems or factors that had led to the main problem, analysing also, through observation and questionnaire the bad impacts appearing in Sabra.

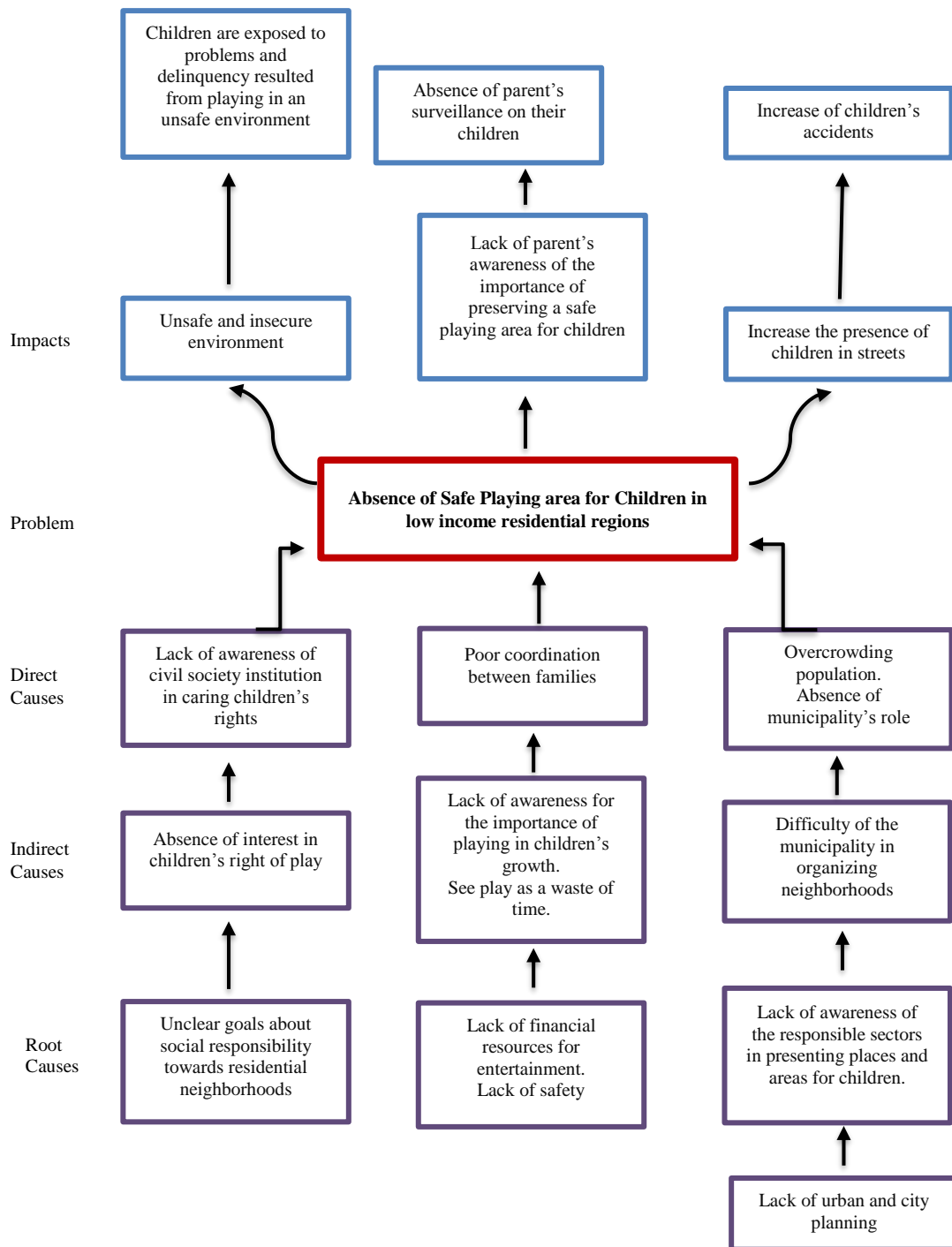


Fig.13: A diagram shows the problem branches and its impact

3.3. Analysing the Parameters

The paper analyses four parameters for the case study of Sabra. These parameters are presented below.

3.3.1. Empty Lot

Sabra region is an overcrowded region, but still has a small empty lot between its buildings, and used as garbage and parking. These empty lots are sandy areas and unbuilt zones, shown in figures 14 and 15. They are mainly presented near the souk of Sabra.



Fig.14: The garbage and rubbish in the empty lot in Sabra



Fig.15: The unused empty lot and the sandy playgrounds in Sabra

3.3.2. Children's Right of Play

Living in Sabra and much other high-density urban fabric in Lebanon is very difficult for children. The rapid growth and urbanization deprived children's right to play - shown in figure 16, where each family search for a shelter to live in. Regions near Sabra is not safe, where parents do not let their children, mainly their girls, go far from their house. Many bad issues happen inside these empty lots, drugs, violence and so many dangerous issues.



Fig. 16: Enclosed scattered public space by walls and rubbish - Source: Video - Mar Elias, un camp de réfugiés palestiniens en plein Beyrouth, published on 6 December 2009

3.3.3. High-Density

Due to the rising of the high-density urban fabric in many regions of Lebanon, were referring to distribution and population density in Beirut study, it was indicated that the average population density living in the Capital is 26400 people on 1 km². The high density appears in many forms, such as a low-income settlement, in many cases, cinderblock housing, unplanned construction, and irregular provision of basic services. In fact, based on studies on urbanization and urban development in Lebanon categorized these regions as slums and informal settlements. The manner and type of settlement do not constitute only the camps as camps, neither does their demographic makeup per se.



Fig.17: Circulation map of the path from Sabra Street to Horsh Beirut - Source: Google Map

The Sabra region does not only contain a Palestinian population, but it contains also Lebanese people and Syrian Refugees who choose to live there because of the low cost of living. This overcrowding population affects children living in Sabra. They do not have enough space to play nor to build their cognitive thinking and to make relationships with others. A good point presented in Sabra is its nearest to a large park, Horsh Beirut - shown in figure 17, where it is a public space and safe place for children to play. Horsh Beirut is the largest park in the capital of Beirut. It originally covers 1.25 million m² of Beirut, the park's green area is nowadays reduced to a triangular shape of 330,000 m². Furthermore, the World Health Organization recommends a minimum of 9 m² of green public space, the ratio of Beirut is not more than 0.8 m². For that reason, Horsh Beirut is considered the most indispensable public area for residents. While, today, the municipality of Beirut recently took a series of decisions that lead to the destruction of the park, indicating that it will be for a temporary period. The latest being the construction of a military field hospital inside the park. Although, residents protested refusing the projects because Horsh Beirut is the only remaining green space presented in this high-density urban fabric. To accept their claim, the connectivity of Horsh Beirut with its surrounding help children in having a safe place for play, where it will be a good point to improve the accessibility to Horsh Beirut, through a pedestrian road, letting children access it independently without any supervision from adults or parents.

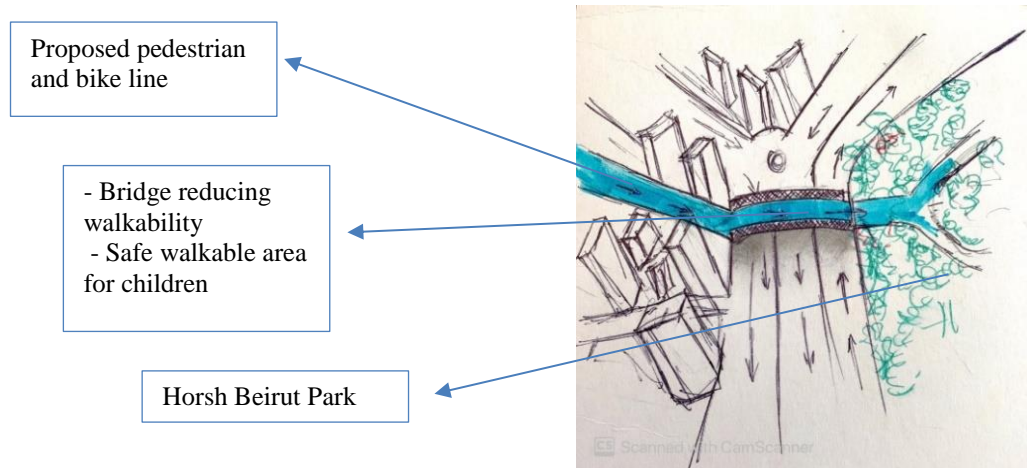


Fig.18: Proposal Bridge linking a small road of Sabra to Horsh Beirut park

The circulation path from Sabra Street to Horsh Beirut indicates 19 minutes of walking distance, because of the crossing vehicular roads, where to conserve and to reduce the walking distance, it is important to have a pedestrian bridge above the vehicular road, reaching the inside park. As drawn in the sketch of figure 18, the idea of a pedestrian bridge will be safe access for children. Besides, designing a bike line is a good idea for children to increase the accessibility to the park.

3.3.4. Gender Inequality

Sabra is considered as a low-income region, where its inhabitants, due to the lack of knowledge differ between their children. Boys can go outside, are responsible for their work, and can do whatever they want, but girls are inclusive and they do not have the permission to go outside far from their house. As indicated in figures 19 and 20, the gender inequality appears clearly in these regions influenced mainly by parents who improve the personal recognition for their boys while girls are lower self-esteem and perceive lower health status and they are less athletic than boys are.



Fig.19: Limitations and gender inequality prevent girls to play freely



Fig.20: Small spaces and alleys inside Sabra region, where children play near their houses

3.4. A Questionnaire and Analysis

This paper has been based on many analysis concerning the high density urban fabric and its problems presented in Sabra region. Many questions have been posed on the inhabitant, and mainly children. The questions are composed for boys and girls.

For boys:

- a- Where do you play?
- b- What are the types of play you like to do?
- c- Do you always go outside and play?
- d- Is the region where you play far from you home?

For girls:

- e- Do you go outside your home for play?
- f- What makes you fear and scared from playing with other?
- g- What do you do in your day?

The study consists of a sample of 50% boys and 50% girls, their total number is 60, and their age range is from 5 years old to 11 years old. So after posing several questions for children living in Sabra region, the results are below, indicating whether children's right are applicable or deprived.

For boys

- Where do you play?

From the pie chart analysis shown in figure 21, it appears that 50% of children use the sandy playgrounds near Sabra souk, where garbage is presented. It is indicated that children play near this rubbish which affects their health and rises the disease and infections. While 20% answered that they play on sidewalks, which dangerous for them, because of its small wide, and parallel to vehicular roads. The rest play between the narrow alley of the Sabra region and some do not find a safe place to play, where their parents don't let them go far from their house.

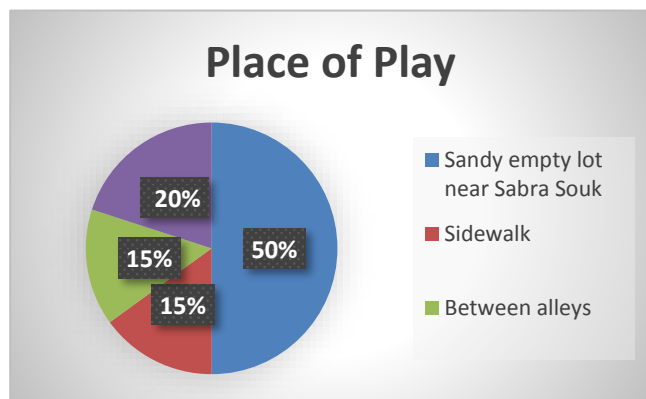


Fig.21: Chart showing the place of play

- What are the types of play you like to play?

It appears in chart of figure 22 that the majority of children like the football play, where 80% choose it, which is a very popular play in the world, and the most attractive for children. While few choose basketball and volleyball. For that reason, the analysis finds that children need playgrounds in their region to play. Improving the empty lot presented in Sabra and transform it into playgrounds and recreational areas is an important modification that gathered children together and makes their parents assured.

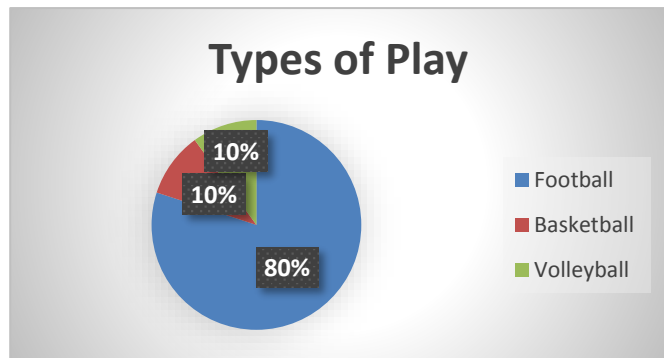


Fig.22: Chart showing the types of play that children do

For girls

- Do you go outside your home for play?

The chart of figure 23 shows that the majority of girls are at home, where before its adolescence, girls are somehow able to play near their house, with their parent's supervision, but after their adolescence they are kept inside their home, claiming that girls are responsible for households only and not like boys should have confidence nor self-esteem.

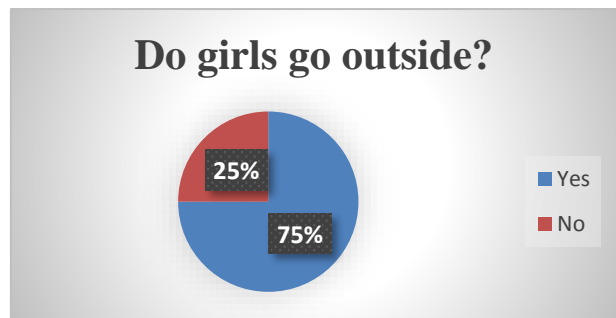


Fig.23: Chart showing the permission for girls to go outside or no

- What makes you scared to play outside?

The chart of figure 24 indicates that girls don't go outside for playing because they are less self-confident than boys, where they are complicated when strangers talk to them, and because their houses are far from the playing spaces. Many reasons make girls to be less mature and don't like to go alone outside the house.

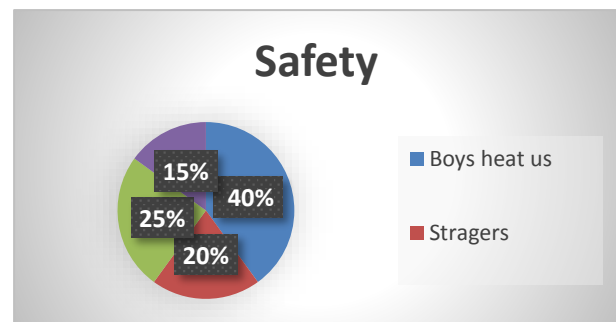


Fig.24: Chart showing the fear of girls from many unsafe issues

- What makes you scared to play outside?

Children girls being at home, learn to do the households and the cook, where their mothers tell them that it is time to be prepared for marriage. Figure 25 represents the girl activities in the house. For that reason, many girls did not live their childhood in its different phases, they are prepared to be married and how they should be after marriage. Inequality and inequality between boys and girls appeared in these bad forms of living conditions for girls. They do not have the ability to play, to be confident, to be integrated within the society nor to be responsible for their work and discover their surroundings.

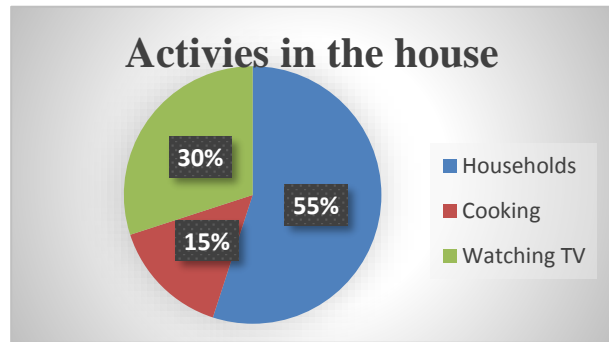


Fig.25: Chart of activities done by girls in the house

3.5. A Proposed Solution

Based on the preceding, the paper may produce the following guide to be applied in the future for designing adequate recreational and safe playgrounds for children living in the high-density urban fabric.

- Improve liveable children space by ameliorating the empty lot near Sabra Souk.
- Present recreational areas inside these playgrounds.
- Make the empty lot useful and safe for boys and girls, and accessible.
- Prepare a pedestrian or bike line within the street of Sabra, connecting the public park, Horsh Beirut.
- Raise awareness for responsible to prepare adequate and safe playing areas.
- Make a bridge above the vehicular roads, where children can access Horsh Beirut safely without the need of their parent's supervision.
- Ameliorate the social life between inhabitants and their surroundings, by preparing adequate gathering outdoor spaces, and safe zone for kid's play, such the empty lot shown in figure 26.

These factors or guidelines are the main important points, which could be available in much high-density urban fabric, which help in encouraging the children to build their physical development, to construct their cognitive thinking, and to discover their surroundings through their small experience.

As noticed in figure 27, in this region, there are one empty lot and 2 existing parking. Because of the high-density urban fabric, it is important to have parking for the inhabitants, but in my opinion, it could be better to transform one of them into a football court, near the empty lot, which in its turn become one big entertainment recreational area for children.



Fig.26: A satellite image for empty lot in Sabra region

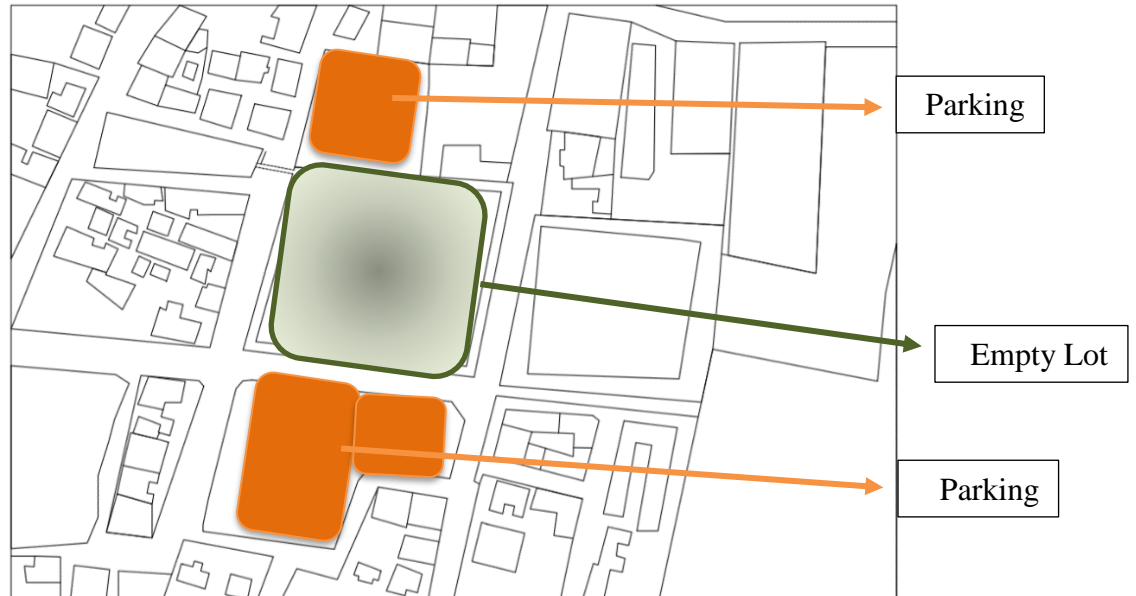


Fig.27: Master plan for the proposal design showing the empty lot in Sabra

This intended empty transformed zone, shown in figure 28, can consist of many zones that are able to change its look, it will be transformed from low, to bright and colourful at the entrance zone, to become more adventurous and encouraging children to access it.



Fig.28: Proposal for an empty lot in Sabra.

The example of entertainment facilities for children can be presented also in the empty lot in Sabra, where the existed empty lot can be transformed into a welcomed area that everyone can accessed, especially by children, and mainly be safe. As seen in (the collected photos) in figure 29, the proposal mass plan of Sabra is explained by photos presented below.



Fig.29: The proposal of entertainment and activities in Sabra, with adequate and safe equipment

Placing safe equipment in a safe playing area, like Horsh Beirut, will encourage children as well as their parents to access this park. Safe features are important for children, where fences, flooring materials, safe equipment, and greenery should be adequate and suitable for parks, where children can play safely.

4. CONCLUSION AND RECOMMENDATIONS

In conclusion, the paper presents several important activities that could be applied, and their positive impact on children. These activities are directed to official authorities, to schools, to associations, and to whom are interested in respecting Children's rights. The following diagram presented in figure 30 can concentrate on these proposed activities.

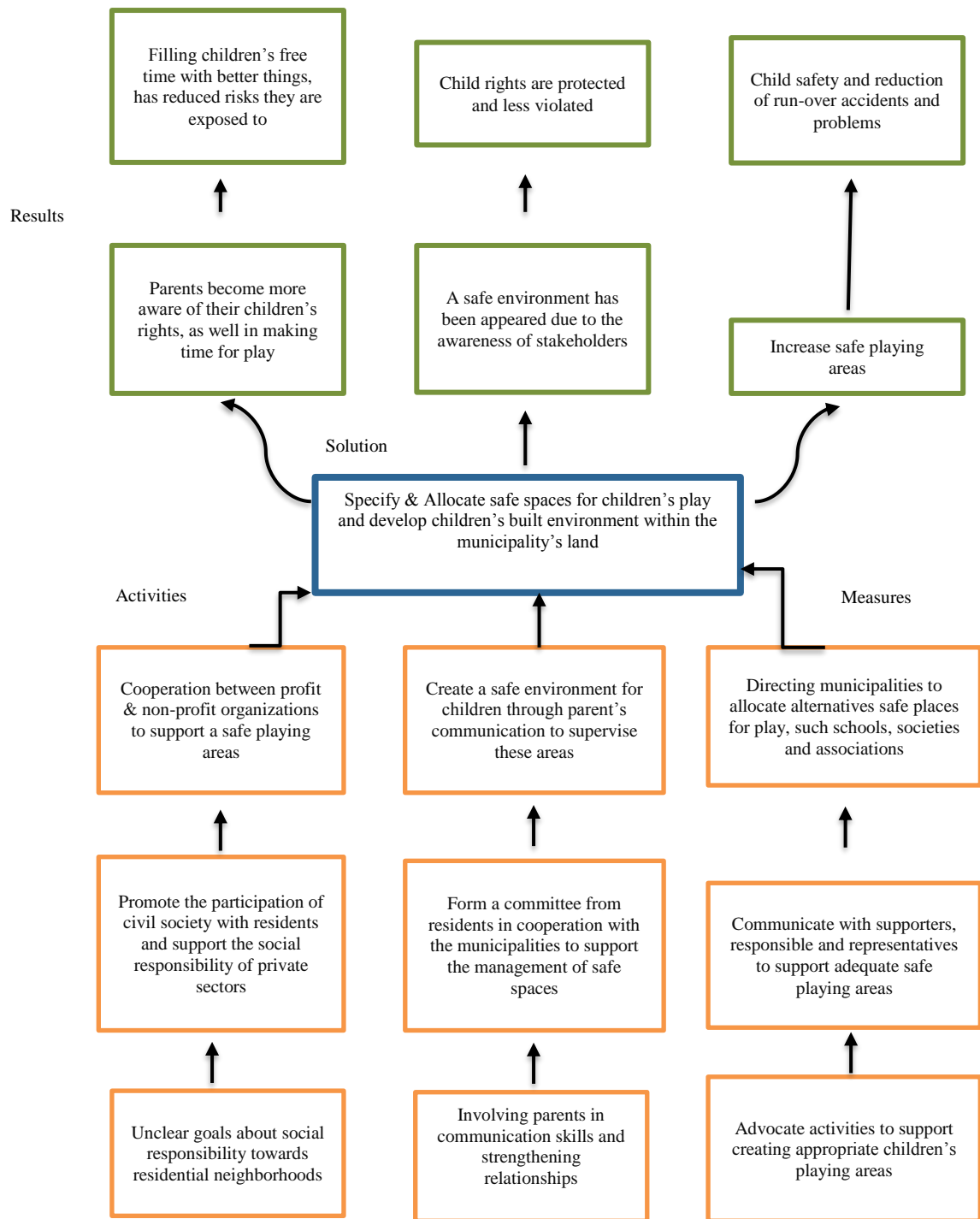


Fig.30: A diagram of the proposed activities and measures that can be applied, and their positive impact

- Alternative Safe Space Options:
 - School grounds after school hours (morning / evening)
 - Local association squares
 - Large mosque yards
 - Private land located in the middle of the neighbourhood
 - Parking lots or squares of government departments or companies in the neighbourhoods
 - Unused condominium garages
 - Public parks, after being prepared to suit the characteristics of the spaces

Finally, the research may produce a set of recommendations as follows:

- Promote the role of civil society and local communities to cooperate with each other to support the child's right to play and claim.

- Creating safe spaces for children to play.
- Promote cooperation between residents of neighbourhoods and empower them to supervise safe spaces.
- Assigning local committees from the local and civil society to oversee children's entertainment.
- Cooperate to support the adoption of the Child Rights Law and the addition of the article on the right of Full coordination between the Play texts.
- Ameliorate development projects that support the creation of safe spaces within development projects.
- Raising awareness of the concerned sectors about the importance of protecting children from exposure to violations and accidents as a result of their playing in streets and dangerous places.
- Support and encourage girls to play in safe spaces.
- Strengthen children's right to play and to learn while playing, through encouraging them to integrate with their surroundings, to meet new friends and to accept others.
- The municipality is responsible to prepare accessible and safe recreational areas for children to play.
- Improve the empty lot and the scattered open spaces within the high density urban fabric, where the public spaces and the presence of trees within an overcrowding population is needed for all inhabitants.
- Remove all types of enclosure spaces, clean all the empty lot and make it safe for inhabitants to access it, and make it a sustainable region by providing inside-outside community relationships.

REFERENCES

- Abarca-Alvarez, F. J., Campos-Sánchez, F. S., & Osuna-Pérez, F. (2019). Urban shape and built density metrics through the analysis of European urban fabrics using artificial intelligence. *Sustainability*, 11(23), 6622
- Mehtap, Ö. (2016), Designing "Livable Children Spaces" in Urban Space: Child-Friendly Streets and Turkey Example, Brasov, Romania.
- Chen, Y., Liu, T., Xie, X., & Marušić, B. G. (2016). What attracts people to visit community open spaces? A case study of the Overseas Chinese Town community in Shenzhen, China. *International journal of environmental research and public health*, 13(7), 644.
- Li, X., Lv, Z., Hijazi, I. H., Jiao, H., Li, L., & Li, K. (2016). Assessment of urban fabric for smart cities. *IEEE Access*, 4, 373-382.
- Newman, P., & Kenworthy, J. (2015). The theory of urban fabrics. In *The End of Automobile Dependence* (pp. 105-140). Island Press, Washington, DC.
- Chaudhury, M., Oliver, M., Badland, H. M., & Mavoa, S. (2015). Public open spaces, children's independent mobility. *Play, recreation, health and well being, geographies of children and young people*, 9, 315-335.
- Studio, G., & Center, J. M. B. (2015). Public Life & Urban Justice in NYC's Plazas.
- UNICEF (2012): The State of the World's Children 2012, Children in an Urban World. Available at: <http://www.unicef.org/sowc2012/fullreport.php>. Accessed: 2021-01-27.
- Trigaux, D., Allacker, K., & De Troyer, F. (2017). Life cycle assessment of land use in neighborhoods. *Procedia environmental sciences*, 38, 595-602.
- Article in (2012), "Play is a fundamental right for children", article in Al-Rai newspaper.
- Anderson-McNamee, J. K., & Bailey, S. J. (2010). The importance of play in early childhood development. *Montana State University Extension*, 4(10), 1-4.
- Article, The International Convention on the Rights of the Child within the Universal Declaration of Human Rights – Article 31.
- Alexander, C. (2008). Towards a sustainable neighborhood: The role of open spaces. *Architectural Research*, 2, 162-177.
- Gehl, J. (1989). Life Between Buildings: Using Public Space, Source: Landscape Architecture Magazine, Vol. 79, No. 8, p. 135, 137, 139.
- Hume, C., Timperio, A., Ball, K., Salmon, J., Andrianopoulos, N., & Crawford, D. Public open spaces—what features encourage. Deakin University.