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Author(s): Syed Ayub Qutub, Nomana Anjum, Nazia Iftakhar, Mehnaz Mehmood and Nighat Bibi

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# **Adolescent Girls' Choices of Schoolyard Activities in Urban Pakistan**

**Syed Ayub Qutub**

*Pakistan Institute for Environment-Development Action Research*

**Nomana Anjum**

**Nazia Iftakhar**

**Mehnaz Mehmood**

*Environmental Design Program, Allama Iqbal Open University*

**Nighat Bibi**

*Pakistan Institute for Environment-Development Action Research*

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## **Abstract**

*Adolescent girls in Pakistan are restricted from outdoor physical activities due to the risks of crime and teasing, and by "cultural norms." Schoolyards are potentially key recreational places. However, there is little space for recreation at most low-fee private schools, and State-run schools have little incentive to support outdoor activities. Focus group discussions, participant observation, interviews and group work elicited the outdoor space preferences of parents and schoolgirls. The girls display considerable ingenuity for outdoor play in constrained environments, and aspire for more vigorous physical activity and quality recreation. Policy reforms, changes to schools' approaches to the use of outdoor space, and societal efforts are required to make adolescent-girl-friendly spaces more widely available.*

**Keywords:** adolescent girls, environmental design, physical activity, schoolyards, Pakistan

## Context and Literature Review

The world is undergoing the largest wave of urban growth in history. As of 2008, for the first time ever, more than half of the world's population lived in towns and cities. By 2030 this number will swell to almost 5 billion, with urban growth concentrated in Africa and Asia (UNFPA 2007). The world is increasingly a planet of cities (Angel 2012).

Urban open spaces are highly valued for their contribution to the quality of life in cities (Burgess, Harrison and Limb 1988; Madanipour 1999), but open spaces are under pressure due to city growth and urbanization, especially in un-planned settlements in the less developed countries. It is difficult to find parks and playgrounds in and near dense residential areas and squatter settlements. Many children live in overcrowded, unsafe and polluted environments. They roam the streets and encounter adverse social situations, such as the threat of trafficking, violence and pollution (Dewi 2012). In planned localities, parents' concerns about safety and security constrain children's access to open spaces. The common result is that public open spaces provide little opportunity for learning, play or leisure for children in deprived and less deprived settings.

Play is defined as intrinsically motivated, spontaneous, and rewarding activity with the performance as a goal in itself (Bateson and Martin 2013). Play, especially the elaborate play of primates, was long considered a puzzling anomaly in animal behavior, since it consumes large amounts of energy yet almost by definition seems to have no instrumental goal. Research in neurobiology and ethology supports the hypotheses that play is crucial to human cognitive development, creativity, innovation (ibid), and for cultural change (Wexler 2006). Taking children outdoors heightens their opportunities for play, though not all play occurs outdoors and some outdoor games are serious, far from playful, activities. Bateson (2014) asserts that interventions that provide children with greater opportunities for play make the children more creative. Conversely, and worryingly, fears about safety and the pressures of school curricula are reducing opportunities for free play. Given the importance of play in child development, he urges those involved in education to take note (ibid). Non-aggressive playfulness is crucial to creativity (the generation of novel behavior and ideas) and to innovation (the implementation of these novelties).

In *Beyond Recreation: A Broader View of Urban Parks*, Turner (2004) demonstrates how open spaces, playgrounds, sports fields and recreational programs may offer high-quality opportunities for adolescents to build their skills and strengths that can help them to lead rewarding lives. Creative, fun recreational programs can help kids acquire physical, intellectual, emotional, and social skills (ibid).

Schoolyards<sup>i</sup> can provide safe and convenient opportunities for environmental and social learning. In fact, school environments are the choice of adolescents for trying out new activities, obtaining new information and hanging out (Duzenli, Bayramoglu and Ozbilen 2010). With parks too often occupied by strangers, drug addicts and street gangs or simply pre-empted for use by the boys, schoolyards become even

more significant sites for adolescent girls' outdoor physical activities (Malone and Tranter 2003).

The importance of research on schoolchildren's physical activities has been recognized in the developed countries. A system for observing play and leisure activity in youth (SOPLAY) has been tested for school environments (McKenzie et al. 2000), and used for objectively measuring physical activity by schoolyard type (Andersen et al. 2015) and for validating particular physical activity programs (Black, Menzel and Bungum 2014). The observed drop in the levels of physical activity among girls as they hit puberty has been quantified. A research program for the design of activity trials in adolescent girls (TAAG) has been instituted, with the objective of reducing by half the age-related decline in moderate to vigorous physical activity (MVPA) among middle-school girls (Stevens et al. 2005). Other research has investigated children's preferred types of playground zones for MVPA (Anthamatten et al. 2014), for play values (Czalczyńska-Podolska 2014), and the influence of children's enjoyment of school playground activities on their participation in physical activities (Hyndman and Lester 2015). Yet other studies address specific issues such as young adolescent girls not identifying schools as weekend recreational resources (Scott et al. 2007).

Young people should participate in 60 minutes or more of MVPA daily, and greater benefit is derived by exceeding these minimum recommendations (WHO 2015). Compared to their inactive peers, adolescents meeting or exceeding this standard have higher levels of cardio-respiratory fitness, muscular endurance and strength. The documented health benefits of regular physical activity among young people also include reduced body fat, more favorable cardiovascular and metabolic disease risk profiles, enhanced bone health, and reduced symptoms of anxiety and depression (PAGAC 2008). However, Global Health Observatory data shows that globally 81 percent of school-going adolescents aged 11-17 years were insufficiently active in 2010. Insufficient physical activity levels were the highest (88 percent) in the WHO Eastern Mediterranean Region that includes Pakistan. School-going adolescent girls were less active than boys in all the WHO regions, with the least active in the Eastern Mediterranean Region (WHO 2015).

Studies investigating the types and correlates of physical activity have been largely limited to Western countries, despite the evidence of insufficient MVPA in other regions of the world (Chen, Haase and Fox 2007). We have not been able to find any prior study on environmental design, gender and physical activity in schoolyards in Pakistan. It is a research gap that needs to be addressed.

Adolescence is a transitional phase when attitudes are consolidated, skills are acquired, health behaviors are formed, and life courses are charted (Brady 2003). It is a period of rapid growth and development during a few short years of puberty, earlier for girls than for boys, and a time of intense psychological activity. The acute self-awareness can be a source of positive growth, but can also cause retreat into isolation. Many young males take refuge in the security of peer group allegiance and in behaviors that are challenging for their families and others. For many girls, adolescence may mean a new isolation. They may be required to stay close to

home, out of the public eye, and their opportunities in life may be more constrained than before. The challenges for children in poverty are frequently compounded for girls owing to systematic discrimination. For example, two-thirds of the world's children not in school are girls. Although official figures show more boys at work than girls, girls' daily work burden is commonly far greater. Many girls are involved in undocumented hidden occupations such as domestic service, working long, arduous hours for little or no pay (Bartlett et al. 1999).

Adolescent girls' license for outdoor physical activities in the twin cities of Rawalpindi and Islamabad, Pakistan are restricted by their parents owing to the reality/perception of a rising incidence of crime and teasing, but also "cultural norms." It is not the norm for teenage girls to play on the streets as boys do or go to the neighborhood park unaccompanied. Pre-teen girls also report the fear of terrorism as a significant barrier to outdoor activities (Qutub and Anjum 2015). There has been no scientific study for other cities, but a general perception is that the situation and restrictions are as severe, if not more so, across urban Pakistan.

Pakistan has lagged behind comparable countries in the provision of education to its children. The estimates of out-of-school children vary widely. However, the gross enrollment rate (GER) for urban children has improved in recent years. It is especially noteworthy that the GER for urban girls for the secondary school certificate (Classes IX and X) has reached 74 percent, the same as for boys (PBS 2014). A contributing factor is the growth in private schools, which now account for half the urban enrollment (Ibid.).

Every year, proportionately more urban children are being enrolled in private schools (Ibid.). One view is that parents with resources prefer to send their children to reputable private schools with better quality of teaching than at the State schools<sup>1</sup>. Another view is that private schools are more open to innovation (and gimmickry) to establish and maintain their reputational values, essential for survival and growth in a competitive environment. This study is limited to the implications of the private provision trend for outdoor physical activities.

Most private schools for low- and middle-income groups are located in converted residential units. A concern is that the limited yard space in such settings constrains outdoor play and denies children the opportunities for physical development and for cognitive and social learning in schoolyards.

In contrast, most State schools have adequate schoolyards. This includes long-established government schools located in city centers and other dense localities. The Islamabad Model Colleges<sup>ii</sup> have large schoolyards. Sadly, it is observed that too few of these institutions encourage their students to fully utilize the existing schoolyards, and none have developed their open spaces for creative play.

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<sup>1</sup> In Pakistan, the common term is Government School. We have mainly used the internationally recognized term, State school.

## **Methodology**

The approach is premised on the hypotheses that young people have evolving preferences and priorities that need to be understood by adults, schoolyards offer high-quality opportunities for youth development, and restrictions imposed on girls in the name of "cultural norms" limit not only their human growth but also that of society.

Skelton has observed that the United Nations Convention on the Rights of the Child (UNCRC) is the pillar of a significant shift in thinking about children, youth and childhood, introducing participation as a third "P" alongside provision and protection (Skelton 2007). Yet, there remain concerns about the manipulation of children or at least tokenism in many so-called processes of participatory decision-making. It is indeed a challenge to demonstrate a respectful way of engaging children in research, particularly in societies without strong protocols and traditions in this regard. The best interest of the child and prior informed consent are two principles that we have sought to keep foremost in the design and implementation of this research study.

## **Basic Questions and Research Design**

The aim of this study is to properly frame the key issues around the use/non-use of schoolyards by adolescent girls for physical activities/recreation in the under-researched context of urban Pakistan.

The basic questions this research asks are:

1. What do adolescent girls do during recess (the break between classes) at school?
2. What do adolescent girls want in schoolyards (that is, what are their initial and informed preferences for facilities for outdoor physical activities)?
3. What use of these facilities are adolescent girls allowed by their guardians?
4. Is it possible to facilitate more opportunities for girls in secondary State and low-fee private schools to have creative and educative outdoor play?

We have adopted a mixed-methods research design appropriate to a formative phase of research to address the questions. It is comprised of a suite of tools that can be used in conjunction to cross-check the findings, and to provide different perspectives on them.

## **Scope and Domain of Research**

For a feasible scope of work, four case study localities were selected in Islamabad and Rawalpindi to represent the planned and unplanned sectors and wards of the cities and towns of Pakistan. They are:

- Sector G-7, Islamabad (squatter settlements in a planned sector)
- Sector G-8, Islamabad (a planned sector with squatter settlements)
- Rehmatabad/Afzal Town, Rawalpindi (an upgraded squatter settlement)
- Block-B, Satellite Town, Rawalpindi (a planned sector)

In Pakistan, secondary schools go up to Class X. Some have been upgraded to Intermediate (Class XII) or Degree (Class XIV) levels. We selected a mix of State and private schools and colleges (n=13) on the basis of convenience to represent the educational institutions in the localities, including one Model College in Islamabad.

**Table 1. Schoolyards at selected schools and colleges in Rawalpindi and Islamabad**

| #  | Name  | Type             | Level  | Yard Size |
|----|---|------------------|--------|-----------|
| 1  | Islamabad Model College for Girls, G-8/4, Islamabad               | State/Girls Only | B.A.   | 5         |
| 2  | Islamabad Model School for Girls, (IMSG), Sector G-7/1, Islamabad | State/Girls Only | S.S.C. | 5         |
| 3  | IMSG, Sector G-8/2, Islamabad                                     | State/Girls Only | S.S.C. | 5         |
| 4  | Government Girls High School, (GGHS), Afzal Town, Rawalpindi      | State/Girls Only | S.S.C. | 4         |
| 5  | GGHS Shimla, Satellite Town, Rawalpindi                           | State/Girls Only | B.A.   | 5         |
| 6  | Hira Public School, Afzal Town, Rawalpindi                        | Private/Co-ed    | S.S.C. | 2         |
| 7  | Apsis School System, Afzal Town, Rawalpindi                       | Private/Co-ed    | S.S.C. | 1         |
| 8  | Brightland Secondary School, Satellite Town, Rawalpindi           | Private/Co-ed    | S.S.C. | 2         |
| 9  | Civil College, Satellite Town, Rawalpindi                         | Private/Co-ed    | B.Com  | 2         |
| 10 | Fayyaz Memorial High School, Satellite Town, Rawalpindi           | Private/Co-ed    | S.S.C. | 1         |
| 11 | Pakistan Cambridge School, Satellite Town, Rawalpindi             | Private/Co-ed    | S.S.C. | 3         |
| 12 | Fatima Jinnah Public School, Satellite Town, Rawalpindi           | Private/Co-ed    | S.S.C. | 1         |
| 13 | Eagle Public School, Satellite Town, Rawalpindi                   | Private/Co-ed    | S.S.C. | 1         |

Notes: 5 = Large Schoolyard; 4= Ample Schoolyard; 3 = Adequate Schoolyard; 2= Small Schoolyard; 1 = No or Notional Schoolyard; S.S.C. = Secondary School Certificate, B.A.=Bachelor of Arts, B.Com = Bachelor of Commerce

The key point to note is that the sampled State schools in Islamabad and Rawalpindi have large schoolyards compared to the private schools. Also, the private schools are co-educational, while the State secondary schools are segregated by gender. Both these features are common to schools across urban Pakistan. Government boys and girls secondary schools have dedicated sites, while most private schools are co-educational and are located in refurbished residential units. Islamabad Model Colleges have exceptionally high levels of facilities relative to other State schools, but they also suffer from the policy of not being allowed to charge fees. Thus, they rely entirely on government budgetary allocations, and like

other State schools across the country, suffer from the lack of any incentive for performance. On the basis of these parallels, we contend that the findings of the research are applicable across urban Pakistan.

### **Research Tools**

The research design seeks to address the basic questions through 1) focus group discussions with parents and other guardians, 2) participant observation in schools, 3) interviews of individual girls, and 4) pair-wise preference ranking of schoolyard features by groups of early- and late-adolescent girls before and after exposure to layout and design options developed by planning professionals. Each of these components is described in this section.

#### ***Focus Group Discussions***

We conducted four focus group discussions, one in each target locality, with 24-26 guardians, mostly mothers, along with some fathers, brothers, and teachers. The Principal Investigators trained the session facilitators in ensuring the voice of every participant was heard. Through these focus groups, we solicited the views and concerns of parents and guardians about outdoor recreation for their daughters/wards. We also sought their views on school arranged outdoor activities.

#### ***Participant Observation***

Recess is typically of 20-25 minutes duration. We observed the activities of small clusters of early adolescent (11-14 years) and late adolescent (15-18 years) girls during recess at each of the 13 target institutions during the summer (2013) and winter (2013-14) academic sessions. Two research team members discreetly scanned the physical activities and assigned them to three categories, 1) sedentary (sitting/standing), 2) moderate (walking), or 3) vigorous (running, exercising or taking part in a game) in the first half of the recess period. They also noted the type, and social and environmental context of the physical activities. They took photographs of the activities from a respectful distance to document and validate their assessments. The process was repeated after 10 minutes.

#### ***Interviews***

To cross-check our observations, we administered a questionnaire including open- and closed-ended questions to a purposive sample of eight girls each at a State (IMCG G-8/4) and a private school (Brightland Secondary School), followed by interviews to probe the questionnaire responses.

#### ***Group Preference Ranking***

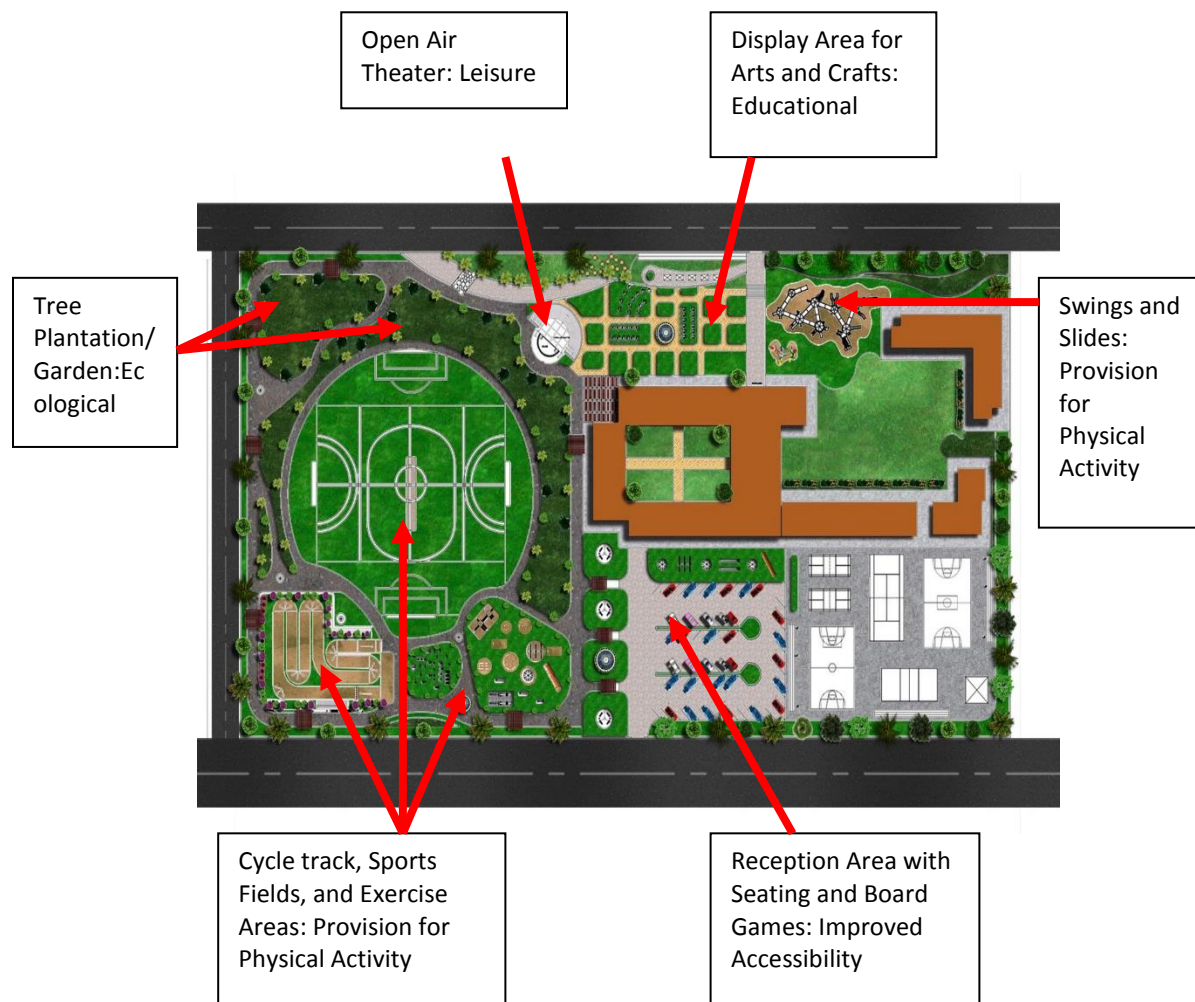
The purpose of the group work was to ascertain the preferences of adolescent schoolgirls for outdoor facilities in the schoolyard from an initial set based on their own experiences (a, b,...n), and a wider set (a, b, x, y,...n), based on new information.

Two students of MS Environmental Design at Allama Iqbal Open University prepared layout plans and designs for the improvement of two schoolyards at Islamabad Model School for Girls, Sector G-7/1 and Government Girls High School, Afzal Town, Rawalpindi, according to the instructions of the Principal Investigators. The students

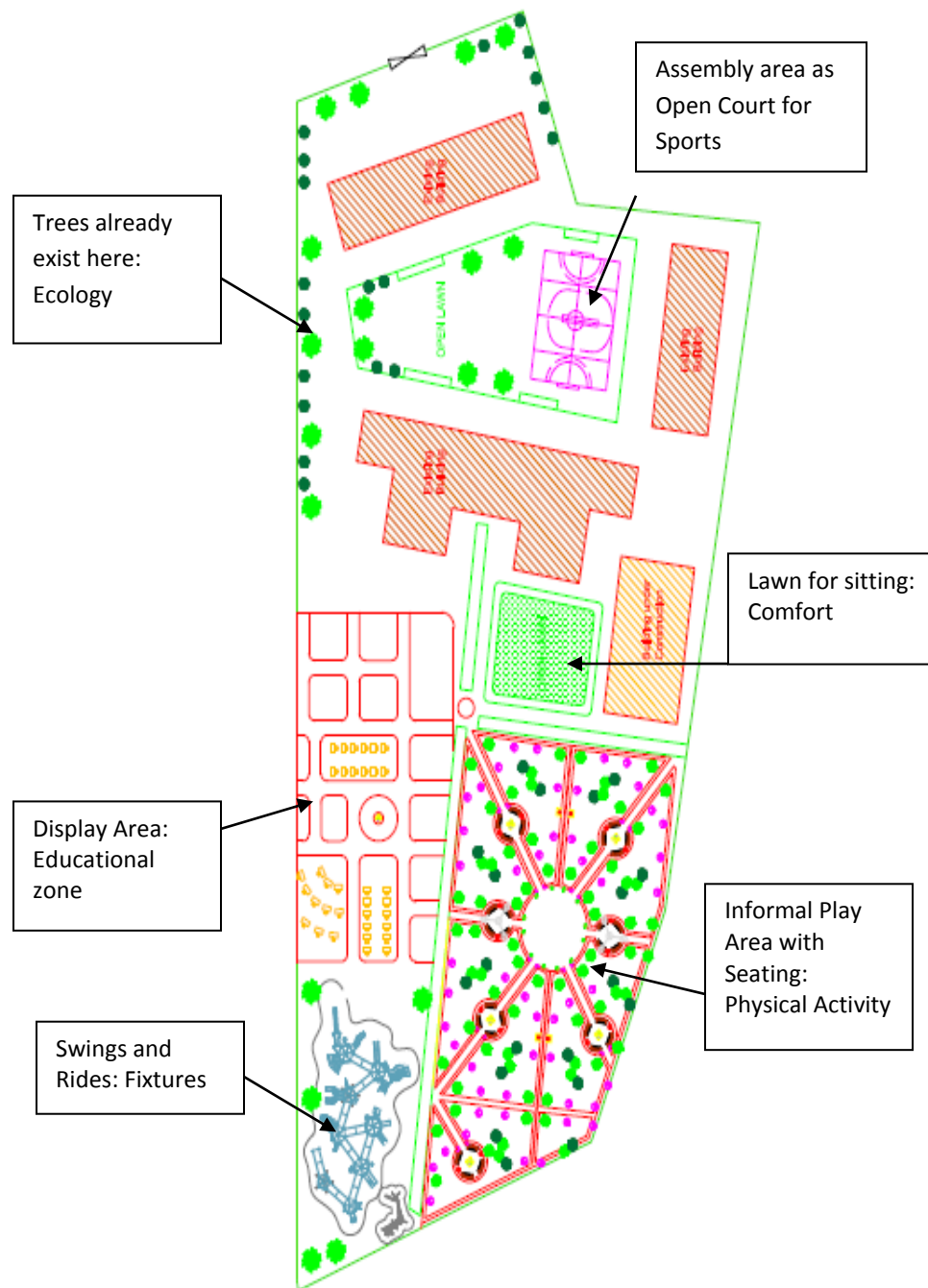


were professional architects, but not landscape design specialists. They were instructed to design the schoolyards with reference to the eight criteria for child-friendly spaces (CFS), namely Security, Safety, Leisure/Comfort, Accessibility, Provision for Physical Activity, Environment, Ecology, and Educational Value (Moore et al. 1992; Dewi 2012). The Principal Investigators ensured that the plans and designs contained both "innovative" features with educational values (comprised of moveable and malleable elements) and "traditional" fixed play elements, such as slides and rides. These plans were used to stimulate the preferences of early- and late-adolescent girls for recreational facilities and activities. Figures 1 and 2 show the layout plans.

**Figure 1. Proposed plan for schoolyard at IMSG G-7/1 Islamabad**



**Figure 2. Plan for schoolyard at Government Girls High School, Afzal Town, Rawalpindi**



Pair-wise ranking is a straightforward but powerful tool for prioritizing items for further investigation. It takes the form of a simple matrix that allows many (easily up to 13) items to be compared together and rated (PLA Notes 1997). A group size of five to ten persons has been recognized as ideal for brainstorming from the inception of the technique (Osborn 1953/1979).

In our study, four groups of approximately eight early- and late-adolescent girls were first asked to brainstorm and list the features they would like to see in schoolyards, based on their prior experiences and knowledge. We collated their individual lists and facilitated the group in achieving a common preference ranking for these features using the pair-wise ranking method.

When they had accomplished this exercise, we shared the new layout plans and designs with them for 15-20 minutes with equal attention to each CFS element, whether innovative or traditional. We then asked the girls to again brainstorm, develop new lists, and rank their preferences using the same method and process.

Since the purpose was to ascertain the initial and informed preferences of groups of early- and late-adolescent girls, it was important to control for expert biases and other confounding variables. Three levels of blindness were maintained to reduce the risk of biases in the post-exposure responses:

- The girls were shown the layout plans and designs for a schoolyard in the next sector/locality to avoid any parochial biases related to their own schoolyards;
- The presenters were instructed to give equal attention to all the eight CFS elements in the plans without differentiating in any way between the innovative and traditional ones; and
- The Principal Investigators did not share with the student-architects the research finding first made by C. Th. Sorensen (Staples 2006) that children become quickly bored with traditional schoolyards with fixed play fixtures, such as slides and swings.<sup>2</sup>

Of course, simply sharing the possibility of multiple uses of a play space with the girls was expected to lead to some changes in their preferences. As anticipated, the appreciation that a space can be put to different uses at different times led two of the groups to state their priorities (*ex post*) at a higher level of abstraction, as described below.

## Results

### Focus Group Discussions with Parents and Guardians

Most mothers said that girls could not go to public parks in the neighborhood or sector/locality as they either did not exist or were pre-empted by boys. Girls could not even play on the roof tops of their homes owing to the misbehavior of the boys next door. City parks are appreciated for their variety and range of features, but visits to them are time-consuming, expensive and a burden on the household budget. Fathers regretted not having the time to take their family to the parks frequently, but owing to security issues, could not allow their daughters to go there unaccompanied. Street crime is common, and kidnapping along with other crimes against girls are major risks. Girls have more responsibilities for housekeeping and

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<sup>2</sup> C. Th. Sorensen (1893-1979) was a pioneer of the adventure playground concept using junk materials and loose equipment to promote creative recreation.

are more engaged at home. Parents can easily permit pre-teen girls to play in the neighborhood open space, but older girls cannot go outside unaccompanied. These limitations enhance the importance of school-arranged excursions and schoolyard activities for adolescent girls.

Three of the four parent groups reached agreements on allowing school managers to arrange outdoor recreational opportunities for girls, and committed to cooperate with the schools in this regard. The parents recommended that the school managers of private schools with no or small yards should seek the use of the available grounds at State schools after consultation with district education officials. At the same time, the parents stressed that if schools arranged such recreational activities, the managers would have to be fully responsible for the security and safety of the girls. In response to the proposal to use the open spaces in Government schools in the evenings, the mothers expressed a reluctance to drop off and pick up the girls again in the evening, although they could not allow them to go unaccompanied.

### **Participant Observation of Girls' Outdoor Activities**

Half of the sampled low-fee private schools (n=4) are virtual "chicken coops." They have no schoolyards, just small open-to-the-sky courtyards or covered reception spaces. The children's access to the rooftop is limited, owing in one instance to another tenant in the building. In two other cases, the rooftops are unfit for physical movement owing to uneven surfaces and/or utility lines. In the fourth case, the girls are allowed to go to the rooftop only in winter. Thus, during recess at these schools, they cluster around the water cooler and snack shop.

The remaining schools (n=9) have small to large schoolyards, and/or access to a rooftop that is fit for play. The girls were seen playing games at some of these schools, while at others they were observed sitting around, indoors and outdoors.

For example, many girls enrolled at the private Brightland Secondary School played on the roof of this cramped facility during break time. The girls at the State IMCG G-7/1 and IMCG G-8/4 also played regularly during the break, and took part in inter-school volleyball competitions. On the other hand, most girls at the Government Girls High Schools at Shimla in Satellite Town and Afzal Town, with equally large schoolyards, were observed as either sedentary or walking about. Repeat observations showed that many in the last group did not take part in any vigorous physical activity during recess.

There appeared no direct correlation between the size of the schoolyard and girls' activities or lack thereof or in the level of skills and equipment with which games were played across the nine schools. Among the active girls, the pre-teens were observed playing informal games, such as hide-and-peek, and *Pitthu Garam*.<sup>3</sup> The older girls played formal games, such as cricket, football, badminton, and volleyball, though at a range of skill levels and with a variety of equipment across

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<sup>3</sup> Traditional South Asian game with a ball and seven stones.

the groups and schools. The types of games were generally similar with some minor adjustments, such as rope skipping on rooftops compared to tug of war on school grounds. Informal knocking back and forth of the shuttlecock was observed as well as competitive badminton that was played with a proper net and markings. IMMSG G-7/1 reported winning the inter-school volleyball competition, for example. Furthermore, it did not seem to matter for the engagement level and intensity of outdoor activity whether the schoolyard was grassy or barren. The girls at GGHS Shimla with well-maintained lawns were as laid back as those at GGHS Afzal Town with barren grounds (Figure 3).

**Figure 3. Passive relaxation during the recess period**



On the hand, when permitted, children displayed considerable ingenuity to play even in physically constrained environments, such as rooftops. Boys and girls can engage together in constructive outdoor activities under proper guidance, for example during an environmental education program (Figure 4).

**Figure 4. Active and engaged relaxation during the recess period**

Once basic access to a schoolyard has been provided, the overall pattern of recess period activity does not seem to vary between the observed State and private schools despite the great differences in schoolyard sizes. In both groups, there is a minority that just plays, another minority that uses the break to study, and a few who eat during the break. The majority socializes as well as plays. The types of games also do not seem to vary, although adjustments have to be made to play them on a rooftop as opposed to a school ground.

### Interviews

The responses to the interview questions provided by the late adolescent girls are presented in Tables 2 and 3.

**Table 2. Responses of late-adolescent girls at a State School with a large schoolyard**

| Student | Class | Age | What do you do in break period?    | Do you use the yard during break? | If yes, what type of games do you play? | If not, why?    |
|---------|-------|-----|------------------------------------|-----------------------------------|---|-----------------|
| 1       | 10    | 16  | Study for tests, play with friends | Yes                               | Cricket                                 |                 |
| 2       | 11    | 17  | Chat, play with friends            | Yes                               | Cricket, badminton                      |                 |
| 3       | 11    | 17  | Study math                         | No                                |   | Burden of study |
| 4       | 11    | 17  | Chat, play with friends            | Yes                               | Cricket, badminton                      |                 |
| 5       | 10    | 16  | Play with friends                  | Yes                               | Cricket                                 |                 |
| 6       | 11    | 17  | Chat, play with friends            | Yes                               | Cricket                                 |                 |
| 7       | 12    | 18  | Play                               | Yes                               | Volleyball                              |                 |
| 8       | 11    | 18  | Play, eat                          | Yes                               | Cricket, badminton                      |                 |

**Table 3. Responses of late-adolescent girls at a private school with a small rooftop yard**

| Student | Class | Age | What do you do during break period? | Do you use the yard during break? | If yes, what type of games do you play? |
|---------|-------|-----|-------------------------------------|-----------------------------------|---|
| 1       | 9     | 15  | Study for tests                     | Yes                               | Football, hockey                        |
| 2       | 9     | 15  | Play with friends                   | Yes                               | Football, hockey                        |
| 3       | 9     | 15  | Chat with friends                   | Yes                               | Cricket                                 |
| 4       | 9     | 15  | Play, chat with friends             | Yes                               | Informal games                          |
| 5       | 9     | 15  | Eat lunch, play with friends        | Yes                               | Cricket, hide & seek                    |
| 6       | 10    | 17  | Play, eat lunch                     | Yes                               | Cricket                                 |
| 7       | 10    | 16  | Play                                | Yes                               | Go-go, cricket, football                |
| 8       | 10    | 16  | Play different games                | Yes                               | Go-go, football                         |

The responses appear to confirm the findings of the field observations. Most late-adolescent girls go outside their classrooms to the schoolyard during the break, but only some of them go out just to play. Some use the break period to study for tests, others go out to chat with friends, and others to eat lunch, before or after play.

### Group Preference Ranking

Table 4 consolidates the priorities of early- and late-adolescent girls at a State school and a private school before and after exposure to plans for proposed improvements to the schoolyards at a school similar to their own or a larger one in the next locality.

One change that is obvious is the reduction in the number of items in the after-exposure preference list of the girls responding to Figure 1. It is likely a result of the girls recognizing the multi-functionality of play spaces demonstrated in this layout. Alternately, or in addition, the change could be a result of the brainstorming and pair-wise ranking process. From the experience of the first round of brainstorming and ranking, the girls may have recognized that more general concepts have a better chance of being accepted by their peers. However, such aggregation was not made by the girls responding to Figure 2 that does not demonstrate multi-functionality. Thus, we may hypothesize that the recognition of the potential for multiple uses of a play space is the main reason for the reduction of items in the preference list.

**Table 4. Priorities of early- and late-adolescent girls for schoolyards**

| State School with Large Schoolyard |      |                    |      |                       |      |                    |      |
|------------------------------------|------|--------------------|------|-----------------------|------|--------------------|------|
| Early-Adolescent Girls             |      |                    |      | Late-Adolescent Girls |      |                    |      |
| Before Exposure                    |      | After Exposure     |      | Before Exposure       |      | After Exposure     |      |
| Preferences                        | Rank | Preferences        | Rank | Preferences           | Rank | Preferences        | Rank |
| Swings                             | 1    | Informal Play Area | 1    | Cycling               | 1    | Formal Play Area   | 1    |
| Shopping Area                      | 2    | Natural Area       | 2    | Walking Track         | 2    | Natural Area       | 2    |
| Badminton                          | 3    | Formal Play Area   | 3    | Cricket               | 3    | Informal Play Area | 3    |
| Plantation                         | 4    | Art Work           | 4    | Plantation            | 4    |                    |      |
| Slides                             | 5    |                    |      | Ground/Green Area     | 5    |                    |      |
| Cricket                            | 6    |                    |      | Swings                | 6    |                    |      |
| Football                           | 7    |                    |      | Gym                   | 7    |                    |      |
| Hockey                             | 8    |                    |      |                       |      |                    |      |

| Low-Fee Private School with Small Schoolyard |      |                |      |                       |      |                |      |
|--|------|----------------|------|-----------------------|------|----------------|------|
| Early-Adolescent Girls                       |      |                |      | Late-Adolescent Girls |      |                |      |
| Before Exposure                              |      | After Exposure |      | Before Exposure       |      | After Exposure |      |
| Preferences                                  | Rank | Preferences    | Rank | Preferences           | Rank | Preferences    | Rank |
| Basketball                                   | 1    | Play Area      | 1    | Plantation/Green Area | 1    | Cycling Track  | 1    |
| Open Spaces                                  | 2    | Natural Area   | 2    | Swings                | 2    | Canteen        | 2    |
| Badminton                                    | 3    | Exercise Area  | 3    | Canteen               | 3    | First Aid Room | 3    |
| Swings                                       | 4    | Cycling Area   | 4    | Badminton             | 4    | Cricket        | 4    |
| Cricket                                      | 5    | Jogging Track  | 5    | Walking Area          | 5    | Exercise Area  | 5    |
| Plantation                                   | 6    | Art Place      | 6    | Play Ground           | 6    | Wash Room      | 6    |
| Walking Area                                 | 7    | Sitting Area   | 7    | Exercise Area         | 7    | Ground         | 7    |
|  |      |                |      |                       |      |                |      |
|  |      |                |      | Sitting Area          | 8    | Walking Track  | 8    |

The key results from a comparison of the prior and informed rankings of the features that girls would like to see in the schoolyards are:

- The emergence of a preference for "natural areas" in the priorities of three of the four respondent groups after exposure to proposed schoolyard plans and designs;
- Early adolescents' preference for an informal play area for unstructured creative play was strengthened by the exposure to the schoolyard plans and designs;



- There was a sharp decline in the ranking of fixed play fixtures, such as swings and slides, among both age groups after exposure to the layout plans that revealed other options;
- Late adolescents' preference for individual recreation, individual exercise and formal games were strengthened by exposure to the layouts and designs; and
- In particular, cycling in the schoolyard is a high priority for many late adolescent girls.

Most of the results are consistent with established and recent findings on children's play preferences, such as the provision of "junk" or "loose materials" promoting exploratory and creative physical activities in parks and schoolyards (Moore, Goltsman and Iacofano 1992; Moore and Wong 1997; Willenberg et al. 2010); and on cycling as a liberating and empowering activity for young women (Hanson 2010). The shift from safe thrills at slides and rides to creative relaxation, such as outdoor art work, also suggests cross-cultural validity of the observations of Turner (2004) and other researchers.

Herrington and Lesmeister (2006) and other researchers (such as Kuh, Ponte and Chau 2013) have documented young children's enjoyment of nature and elements that mimic nature in the Western cultural context. Our finding suggests that the aspiration for play in natural settings is shared by groups of adolescent girls in urban Pakistan, and by extension, elsewhere.

## **Discussion**

In the context of urban Pakistan, the size of the schoolyard or the nature of provisions within the yard does not seem to matter much for girls' activities after a basic level of access is arranged. Early- and late-adolescent girls demonstrate considerable ingenuity in using the limited spaces for recreation.

A key finding of Malone and Tranter (2003) in their research on Australian schools was that the school philosophy concerning the use and management of the outdoor school environment was equally or more important than the physical qualities of the school ground for influencing children's play. We have not studied school management in relation to physical activity thus far, so we cannot corroborate this finding. However, it opens up a prospective area of research in our particular cultural context.

Early- and late-adolescent girls in urban Pakistan aspire to more vigorous physical activity and quality recreation. Adolescent girls are quickly bored with swings and slides, and many aspire to play in natural settings. Early adolescent girls prefer "loose features" that can be manipulated in the process of informal creative play. There is a huge gap between aspirations and social realities for the older girls. They aspire to cycling, walking and other forms of individual exercise, but are observed mostly engaged in sedentary socialization during the break.

Pakistani parents commonly state that girls have duties at home, "assisting mother," and most are reluctant to make a second drop-off and pick-up trip for

school games in the evenings. However, many parents, especially mothers, are also willing and keen for adolescent girls to avail safe and secure facilities for outdoor physical activity. Most parent groups in the study allow or can allow school managers to take adolescent girls for excursions and outdoor physical activities. The permission is subject to the provisions that the managers take full responsibility and no second drop-off and pick-up trip is entailed.

On the basis of the international guidelines for physical activity, departments of education should consider reviving the requirement for recess/physical exercise periods, and revitalizing inter-school girls' games competitions. For this purpose, urban State schools with adequate grounds may be designated as the hubs for inter-school girls' games. From the discussions with parents, it would appear worthwhile for groups of private schools to pool their resources to access public parks and State school grounds during recess or immediately after classes. It would be essential to establish safe walking tracks between the schools and the parks or other school grounds, and to maintain security to sustain this initiative. These arrangements could benefit all the stakeholders if the practical arrangements can be worked out. A social movement may best address the girls' aspiration for creative recreation in natural settings.

The aim of this exploratory study was to identify policy-relevant, researchable issues related to the recreational activities of adolescent girls in schoolyards. We have identified school philosophy or management approach towards outdoor physical activities as one such key issue. It has eminently researchable components, such as the indicators, correlates and effects of "encouraging" outdoor physical activities.

## Conclusions

Children's lives are increasingly structured and regulated, leaving little time for the free and spontaneous play that is crucial to their development. The research literature reveals direct links between creative outdoor play and the health, well-being, and social and emotional development of children. This underlines the importance of schoolyards and school grounds. Most private schools catering to children from lower- and middle-socioeconomic groups do not have adequate open spaces. State schools do have open spaces but do not motivate girls to engage in outdoor activities. Urban planners, policy makers and educators in Pakistan are urged to re-visit urban development and education sector policies and regulations in order to promote the concept of child-friendly cities and schools. Our hope is that the adolescent-girl-friendly space concept will be mainstreamed in the policies, designs and programs of the urban planning and education sectors along with broader societal efforts to improve the current situation.

## Endnotes

- i. The common term in Pakistan is playground. We have used the internationally recognized terms *schoolyard* (for an open space at ground- or roof-level in the school compound) and *school ground* (for a discrete facility), while retaining the term playground for generic use or if used in an external referred source.

- ii. Islamabad Model Colleges (IMCs) are a distinct stream of public sector educational institutions (FDE 2013). English is the medium of instruction at the 22 IMCs. They start from Prep and go up to Secondary, Graduation, and in four cases up to Post-Graduate levels. They get more funds, have higher qualification criteria for teachers, and induct teachers at a higher pay scale compared to the approximately 400 other Federal Government colleges and schools (also called Model) in Islamabad, and provincial State schools across Pakistan that are generally instructed in Urdu.

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**Syed Ayub Qutub** is the Lead Principal Investigator of this Study and Executive Director of Pakistan Institute for Environment-Development Action Research (PIEDAR). He has four decades of experience in environmental management and urban and regional planning, and has led several trans-disciplinary research groups. He is the principal author of the Pakistan National Human Settlements Policy Study, National Reference Manual on Planning and Infrastructure Standards, National Conservation Strategy, and National Response Strategy to Climate Change. He chaired the Working Groups on the draft National Drinking Water Policy 2007 and Drinking Water and Sanitation Program for the 10<sup>th</sup> Five Year Plan. He has participated in research projects on environmental indices, vulnerability and resilience. He has a Masters in Geography from Cambridge University, UK. Email: [s.a.qutub@pedar.org](mailto:s.a.qutub@pedar.org)

**Professor Dr. Nomana Anjum** is Associate Professor of Environmental Design and Head, Department of Home and Health Sciences at the Allama Iqbal Open University (AIOU). Nomana accomplished her doctoral studies in Environmental Design from the University of Dundee UK in 1999. She is running the PGD/MS Environmental Design program for built environment professionals since 2003 at AIOU. She has won many prestigious international awards including the Charles Wallace Fellowship. Her research interests include workplaces/office design,

environmental assessment of buildings, sustainable development and urban design. She has many publications to her credit in national and international journals.  
Email: [anjums41@hotmail.com](mailto:anjums41@hotmail.com)

**Nazia Iftakhar** is Research Associate, Environmental Design Program, Allama Iqbal Open University. Nazia has a Bachelor's degree in Architecture and Urban Planning from NED University of Engineering and Technology, Karachi, Pakistan. She has contributed to several research papers on intelligent school designs.

**Mehnaz Mehmood** is an architect and environmental designer. Mehnaz has completed her MS in Environmental Design from Allama Iqbal Open University. Earlier, she had done her Bachelors in Architecture from NED University of Engineering and Technology, Karachi. She is a practicing architect in Wah, Pakistan, specializing in the design and fabrication of home, playground and street fixtures and furniture.

**Nighat Bibi**, Research Assistant, Pakistan Institute for Environment-Development Action Research (PIEDAR). Nighat has a decade of experience in extension and reflection as part of an environmental education program. She promotes schoolchildren's outdoor activities for environmental care, such as managing green patches. She has a M.Sc. degree in Sociology from Allama Iqbal Open University.

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