PUBLIC SPACES AND THEIR EFFECT ON SOCIAL COHESION:

PUBLIC POLICY EXPERIENCE IN MEXICO.

Abstract

This research assessed the direct and indirect influences of renovated public spaces (parks and sports facilities) on social cohesion and residential satisfaction, in the context of low and medium-low socio economic status individuals in Mexico. The research method is based on structural equation models. The findings of the study suggest the importance of public spaces in promoting informal social ties that enhance social cohesion. The effect of social cohesion is able to counteract perceived insecurity and fear of crime.

Keywords: public spaces, social cohesion, perceived insecurity, structural equations

Introduction

Latin America is marked by sharp differences in levels of well-being among areas within each country, and among different segments of the population. Many of these inequalities are of long-standing, but in some cases modernization processes are exacerbating them. In any case, Latin America's development potential is being by these exclusionary mechanisms, which limit the development of both individuals and society by fuelling increasingly intrapersonal conflicts. It is clear that progress needs to be made towards greater inclusiveness and social cohesion.

Public policies aimed at creating greater social inclusion or equality of opportunity require a social contract to give them force and continuity. The citizenry's greater willingness to support democracy, play a role in public affairs and deliberations, and place trust in society's institutions, as well as the people's greater sense of belonging to the community and solidarity with excluded and

vulnerable groups, pave the way for the social covenants or contracts needed to underpin policies for achieving equity and inclusion (ECLAC, 2006).

Social cohesion implies a causal link between the mechanisms that provide integration and well-being, on the one hand, and a full individual sense of belonging to society, on the other. Social cohesion may thus be understood in terms of both the effectiveness of instituted social inclusion mechanisms and the behaviors and value judgments of the members of society. Inclusion mechanisms include employment, educational systems, rights and policies designed to encourage equity, well-being and social protection. Behaviors and value judgments include issues as diverse as trust in institutions, social capital, belonging and solidarity, acceptance of social rules and the willingness to participate in deliberative processes and collective endeavors.

Growth and increased access to information and communications have also created expectations of greater well-being, but these expectations clash with the concentration of wealth present in Latin America. While cultural changes encourage greater individualism, it is unclear how they recreate social ties. The primacy of the private sphere over the public sphere, and of personal autonomy over collective solidarity, is a product of both the economy and the media culture, as well as the heightened role of consumption in social life. Several authors have noted that these phenomena coincide with the decline of utopias, collective endeavors and the sense of belonging to a community. These trends have led to a search for ways to recreate social ties, from small family circles to society at large. From that perspective, working to achieve social cohesion means working to recreate social ties, perceptions of a clear separation from society as a whole.

The same phenomenon can occur as a result of other types of social segmentation, such as that based on place of residence. It would be interesting to consider physical space not just as an expression of social inequalities and discrimination, but also as something that helps to form the "habitus" conditioning people's closeness to and distance from one another on the subjective plane, in the sphere of beliefs, thoughts, dispositions and perceptions (Bourdieu, 1993).

Both academic investigation and the outcome of public policy in numerous countries have emphasized the fundamental role that quality public spaces play in the strengthening of social cohesion in a community of any size. Particularly of note is the capacity for public spaces to generate feelings of security and a sense of community and trust among inhabitants of the area, as well as adherence to a set of rules and values so that groups with different cultural and social backgrounds can coexist harmoniously (Mulgan et al, 2006).

Conceptual Models

Evidence exists that the physical environment influences human behavior; there are even theoretical models that propose a deterministic relationship of the environment on many kinds of human phenomenon (Blaut, 1999). Even when this position is considered to be too extreme, there is agreement about the function of architects and urban designers as those who identify the ideal design of a space for human use. For example, people must feel comfortable and safe in a place to assure its continued use (Llewelyn-Davies, 2000). It is thought that public spaces correctly designed and adequately maintained promote social inclusion and civic-mindedness, as well as contribute to social cohesion and residential satisfaction, while low-quality public spaces (from physical deterioration) incite antisocial behaviors (Brook Lyndhurst, 2004).

Nonetheless, it would be naïve (and deterministic) to assume that the construction of attractive public spaces automatically translates to an improvement in social activity and an increase in use, but rather there are other important factors that must be taken into account to obtain a favorable interaction. The factors that influence social cohesion include social participation, appropriation of space, community support, the perceived level of insecurity, social actions in public spaces, among others (Recovery of Public Spaces Program, SEDESOL, 2010, p.24). For this reason, it is possible that urban design increases the potential for certain desirable social behaviors (like social inclusion, civic-mindedness and social cohesion) and reduces anti-social behaviors, which include criminality and violence (Ferguson and Mindel, 2007, p.325).

A number of authors have empirically shown that residential stability (associated with the time of residence in a given neighborhood) is positively associated with a sense of belonging to a neighborhood (Brown et al, 2003). One of the mechanisms that explains this effect is related to contact with other neighbors by means of reciprocal information exchange (like advice on child-rearing, employment opportunities) and favors that happen because of increased levels of trust, a critical characteristic of social cohesion (Coleman, 1990).

This investigation seeks to evaluate a conceptual model that explains social cohesion and residential satisfaction, which includes as antecedents perceptions of physical and tangible aspects that are generated by external conditions (insecurity, neighborhood infrastructure and evaluation of the physical attributed of public spaces). The study will analyze the influence of these external and physical factors on the social interaction of neighbors, as well as on the social cohesion and residential satisfaction as endogenous[1] variables. The conceptual model is illustrated in Figure 1.

Figure 1. Conceptual model of social cohesion and residential satisfaction

Perception of Insecurity

In Social Psychology literature, the construct of perceived insecurity is related to three fundamental dimensions: fear of being a victim of crime, the characterization of a place and dangerous and the processes of risk perception. In the first case, the fear of being a victim of a crime is generally related to four fundamental elements (Miceli et al, 2004: p.778): (1) The objective level of crime, with the understanding that not all crimes equally influence the perception of insecurity; (2) evidence of physical neglect and anti-social behavior as these can be interpreted as indications of social degradation; (3) characteristics of urban life, for example, the size of buildings, levels of perceived aggressiveness and level of vegetation, among others; (4) psychological and

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1 The endogenous variables in a regression model are also known as dependent variables; analogically the exogenous variables are the independent variables.

demographic variables, such as perceived self-efficacy of personal ability in controlling a dangerous situation.

In second place, the characterization of a place as high risk is related to activities potentially criminal or marginalized. This perception depends on physical aspects (lighting, perceived vandalism, gang presence) and social ones (available help, presence of threats). Another dimension refers to the social processes of information diffusion and the opinion of how many criminal activities are detected in the zone. Finally, the representation of the place includes variables pertaining to the identification of the community or neighborhood, social influence, etc. In a study by Carro et al (2010, p. 309), precisely this factor is seen to exercise great influence on the perception of insecurity.

With regard to the influence of the physical environment on the perception of insecurity, there is a tendency, both conceptual and practical, to emphasize the role that urban and architectural design has in criminal opportunity. This tendency, called Crime Prevention Through Environmental Design (CPTED), is becoming more and more popular in various countries of Latin America, specifically Chile and Brazil. The principal ideologist of this trend C. Ray Jeffery, assert that "the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life' . It is a crime prevention philosophy based on proper design and effective use of the built environment leading to a reduction in the incidence and fear of crime, as well as an improvement in quality of life. CPTED reduces criminal opportunity and fosters positive social interaction among legitimate users of space. The emphasis is on prevention rather than apprehension and punishment. It is an advanced approach and is being implemented on a global scale (Cozens et al., 2005).

Authors like Wilson (1975) point out that neglect and lack of civic-mindedness in the environments in which people reside or travel contribute to increasing a sense of insecurity and perception on risk. It has been proven recently that these signs of deterioration influence

perceptions of fear, risk and satisfaction with the community, both at an individual, resident level residents, as well as that of the neighborhood (Robinson et al, 2003: p. 271).

For this reason, the hypothesis (H1) that high levels of insecurity are associated with perceptions of deficiencies in the quality of public spaces (neglect or abandon) is put forward.

Neighborhood Infrastructure

Kamphuis et al (2010) investigates the causes behind why people of a low socioeconomic level perceive their environment much more negatively that those of a high level. The analysis concludes that these differences can be explained for the most part by the physical characteristics of the neighborhood (aspects such as urban design, aesthetic aspects, traffic, perception of security); low social cohesion and adverse psychosocial circumstances exercise limited influence. Likewise, Hur and Morrow-Jones (2008) suggest that the aesthetic appearance of the neighborhood, which is normally positively related to physical indicators of urban design quality, is the most important factor of residential satisfaction. This same finding is reported by Lovejoy et al (2010).

Evaluation of Public Spaces

Studies previously related to satisfaction with public spaces (as is the case with parks and sports and cultural facilities) are rare and have been done in other national contexts, as is the case with the English park done by Eng and Niinimen (2005). There are at least two differentiating elements in traditional satisfaction studies: (1) the absence of the human element, such as a service provider, which is a central part of service evaluation in the majority of private sector investigations; (2) intangible elements related to emotional experiences that are out of the control of public authorities.

Some of the criteria frequently considered in the evaluation of public area quality are the following (Carmona and Magalhaes, 2007: p. 10): cleanliness, accessibility, aesthetic, comfort, functionality, safety, durability and resistence, personality, and sense of permanence. There is a growing tendency to emphasize the importance of stregnthening a sense of community and thus public policy dealing with public spaces in countries like the United Kingdom are moving away

from an emphasis on tangible aspects such as clean and green spaces toward a holistic approach of community strengthening.

These elements have been identified by Carmona and Magalhaes (2007) in a study done in the United Kingdom. The results are plausible in general terms, as public spaces with evident signs of lack of maintenance are evaluated very negatively by residents.

Risk Behaviors in the Neighborhood

This construct reflects the level of respects for laws and social norms in the neighborhood o community, which translates into a level of peace and security perceived by the residents. In reality, it is a phenomenon of two opposites: order and disorder. For this reason, measurement can be done from a negative or positive point of view. Residents of the neighborhood or visitors normally use a series of tangible indicators or visible clues to evaluate a level of organization; these clues can be both physical and social. Thus, the social organization is interpreted by means of visible signals that evidence a lack of control by people, such as fighting and problems between neighbors, the presence of intoxicated people and gangs, which all contribute to a sense of lacking in adherence to social norms and a sense of danger. This construct can therefore be designated high risk behaviors. With regard to physical disorganization, this refers to the physical appearance of a neighborhood or community, including signs such as dirtiness, neglect, excessive noise, deteriorated constructions or buildings, and signs of vandalism and graffiti. In fact, graffiti and vandalism indicate a loss of social control.

High risk behavior in a neighborhood translates into very relevant consequences for neighbors on an individual level (for aspects such as loss of wellbeing, isolation, anxiety and loss of confidence) as well as at a community level (reduction in social bonds), which can cause greater levels of neighborhood disorganization.

These facts lead us to postulate the hypothesis (H2) that a deficient infrastructure in a neighborhood is related to high risk behavior in the neighborhood and that positive evaluations of physical aspects of public spaces are related to a low risk behavior in the neighborhood.

Social Cohesion

Some definitions of social cohesion refer specifically to public spaces, as proposed by Nash and Christie: cohesion means that all social groups feel free to enjoy the public spaces, free from attack, abuse and hostile acts (2003, p.39). Nonetheless, the majority of authors concur in pointing out that social cohesion represents integration of individual behaviors in a social environment and has many dimensions. The study that is probably the one most cited is that of Buckner (1988), who conceptualized social cohesion as a phenomenon at group level that consists of three dimensions: (1) Sense of Community, defined as a feeling of belonging to a certain group; (2) Attraction, understood as the capacity for a neighborhood or community to persuade its inhabitants to continue residing in this area; and (3) Social Connection, which is the development and frequency of social ties among neighbors.

Authors like Dempsey (2009) relate social cohesion to the following dimensions: social interaction, social networks, sense of community, participation in organized activities, trust and reciprocity, perceived security and sense of belonging.

Another critical aspect is the direction of influence between social cohesion and public space. Though some authors affirm that correct urban design promotes a sense of community (Talen, 1999), others conclude that additional factors exist that are not related to physical space and whose influence in social cohesion is fundamental. These factors are aspects that cannot be controlled, such as the friendliness of neighbors, vehicle traffic and others that can be controlled by public policy, such as political presence, community activities, among others.

In the case of high risk behavior in the neighborhood, a lack of house and street maintenance, uncivil behavior such as graffiti, garbage on the street or intoxicated people, constitute symbolic insults and are indicators of a lack of control in development of the neighborhood and that the social fabric is in the process of disintegrating (McGuire, 1997).

For this reason, the following hypothesis (H3) is proposed: As perception of low risk behavior in neighborhood increases, it has a positive effect on social cohesion.

A clear indicator of deterioration in an urban zone is the growth in insecurity and criminal indicators. As a consequence of this increase in the perception of insecurity, the levels of a sense of

community and attraction to the neighborhood are significantly reduced (Sampson y Raudenbush, 2004; p. 331). Insecurity causes residents to not participate in community activities and to keep away from public spaces, thus reducing the physical limits of the places of which they feel they are members, many times reducing them to their own home. In this way, their relationships with their neighbors are restricted, so that the level of social cohesion is negatively affected.

Based on this, the following hypothesis (H4) is put forward: the perception of insecurity has a negative effect on the social cohesion around public spaces and therefore is a factor which inhibits social interaction.

Considering that one of the three dimensions of social cohesion is attraction, understood as the ability of a neighborhood or community to persuade its inhabitants to continue residing in this area, one can then assume that projects and social action in public spaces that exceed inhabitants' expectations would tend to improve social cohesion.

Therefore, the following hypothesis (H5) is formulated: satisfaction with projects that promote social participation in public spaces has a positive impact on social cohesion.

Residential Satisfaction

Residential satisfaction is defined as the general opinion of residents of their neighborhood environment. Lovejoy et al (2010) carried out an exhaustive revision of literature that analyzes the factors which explain residential satisfaction. The analyzed characteristics were: attractive (measured by characteristics such as physical appearance, level of upkeep and style of houses), safety (to walk, for children, low crime rates), tranquility, social interaction of neighbors, size of house yards, availability of commercial zones and community centers, infrastructure (street lighting, sidewalks in good condition, availability of parking). Of all of these, those that most determine satisfaction are the first two: attractive and neighborhood safety.

Based on the conclusions of the previous investigation, the following hypothesis is proposed: greater levels of low risk behaviors in the neighborhood are related to a higher residential satisfaction. In addition, greater levels of perception of insecurity are related to a lower residential satisfaction.

With regard to the possible effect of social cohesion on residential satisfaction, it is important to consider that social cohesion acts as a motor which impulses participation in programs that are carried out in public spaces. This has been documented in investigations, such as the one published by Cradock et al (2009), in which it is shown that social cohesion in a neighborhood is a significant determinant for promoting participation among youth in sports programs that take place in public spaces. Other authors have found identical social cohesion effects in promoting participation in health programs among neighborhood residents (Kawachi and Berkman, 2000).

Given that insecurity and social cohesion in a community have competing influences, it is important to evaluate the relative magnitude of both. To this effect, social cohesion reduces a person's perception of vulnerability as it is understood that any neighbor could come to the aid of this person if he were in danger. Other authors determine that the most profound processes of social interaction carried out by a neighborhood organization for the coordination of actions in benefit of the neighborhood motivate feeling of affection for the neighborhood that surpass any perception of insecurity (Comstock et al, 2010).

The following hypothesis (H7) foresees that the effect of social cohesion on residential satisfaction will be of greater magnitude that that of perceived insecurity.

Objectives of the Study

This study analyzes the various proposed hypotheses in order to study the effect of perceived insecurity, neighborhood infrastructure, the condition of public spaces and risk behavior on social cohesion and residential satisfaction in urban environments of medium and low socioeconomic levels in Mexico. These effects are studied empirically using data from a survey and through structural equation models (Bollen, 1989) as is shown in Figure 1; the effectiveness of this methodology for analyzing complex social phenomena has been previously demonstrated in literature (Barrón and Sánchez, 2001).

Methodology

The design of the investigation involves the carrying out of three consecutive stages with two complementary methodologies, which are illustrated in Figure 2. Specifically, the study begins with *Stage 1*, with the theoretical conceptualization of the model laid out in Figure 1. In this stage, an extensive review of literature in the areas of Sociology, Social Psychology and Advanced Statistics is carried out; in this phase the hypotheses based on the proposed model are generated. Similarly, by means of a qualitative study, the domains are specified that define and influence the constructs of the study objective. In this same phase, questions (items) are identified from the questionnaire and the wording of each one of the items is evaluated. In this stage, a qualitative investigation is proposed, aimed at exploring concepts related to insecurity, satisfaction and social cohesion.

Figure 2. Qualitative and Quantitative Methodology for the Study of Perceptions of Insecurity, Satisfaction and Social Cohesion

In Stage 2, the instrument is applied to a sample similar to the objective population. This sample is used as a basis for the exploratory and confirmatory factorial analysis. The purpose of this is to verify the psychometric properties and identify the proposed latent variables; in other words, the validity of the constructs and reliability are tested and in this phase the instrument of measurement (questionnaire) is built, which measures the proposed constructs of the model.

In Stage 3, the Structural Model proposed in Figure 1 is adjusted so that the coefficient of the proposed model is estimated based on the empiric data obtained in the National survey in various public spaces and thus the proposed hypotheses are proven.

Sample

The study uses the survey carried out in Mexico by the Secretariat of Social Development's Recovery of Public Spaces Program (*Programa de Rescate de Espacios Públicos de la Secretaria de Desarrollo Social* or PREP-SEDESOL), in a population with medium-low and low socioeconomic levels located in urban and semi-urban areas. During the third quarter of 2010, 8,242

surveys were carried out in homes located in areas that had recovered public spaces in 2008, 2009 and that were currently in the process of recovering or had completed very recently. The sampling method was a stratified random sample.

Of the 8,242 surveys, 5,645 stated that they visited the public space located in their neighborhood. Of the activities performed, the most frequent was exercise (sports) (especially in spaces focused on sports) followed by visiting without a specific activity. Significant differences were found using a Chi-Squared (as the activities, which are nominal variables, were compared) between men and women in activities performed most frequently. Men tended to exercise, followed by visiting without a specific activity (this category includes activities like walking, chatting and interacting with others etc.). Women were found to visit without a specific activity in mind, followed by doing exercise. Notable is the scant participation in cultural events, which can be explained by factors dealing with the availability of these types of events or by a lack of interest on the part of those that use the spaces. As pertaining to age, this exerts a determinate influence in the selection of activities to carry out in public spaces; in fact, significant differences were identified using the Chi-Squared test among age groups. 43% of survey adolescents identified exercise (sports) as their most frequent activity, followed by play. The percentage of sporting activities descends to 30% after leaving youth and then progressively to 26% in adults older than 50. The activity of visiting without a specific activity is characterized by having an opposite evolution as its frequency increases by age.

The household questionnaire consists of 65 questions distributed in 5 sections, which are designed to evaluate public spaces and other questions to evaluate the neighborhood. This questionnaire contains the constructs: risk behavior in the neighborhood, perceived insecurity, satisfaction with the physical conditions of the space, social cohesion, infrastructure and residential satisfaction. The Cronbach's alpha for the constructs was satisfactory as the recommended minimum is 0.7 (Nunnally and Bernstein, 1994).

Table 1. Construct Validity

Construct	Cronbach's Alpha
Risk Behavior in the Neighborhood	0.90

Neighborhood Insecurity	0.90
Satisfaction with the physical conditions of space	0.89
Social Cohesion	0.90
Neighborhood Infrastructure	0.90
Neighborhood Residential Satisfaction	0.77

CFA results showed a good fit (CFI=0.94) and all parameter estimates were significantly loaded on the respective factors. The other goodness-of-fit indices suggest a good fit of the confirmatory measurement model: SRMR=0.04, and RMSEA=0.050.
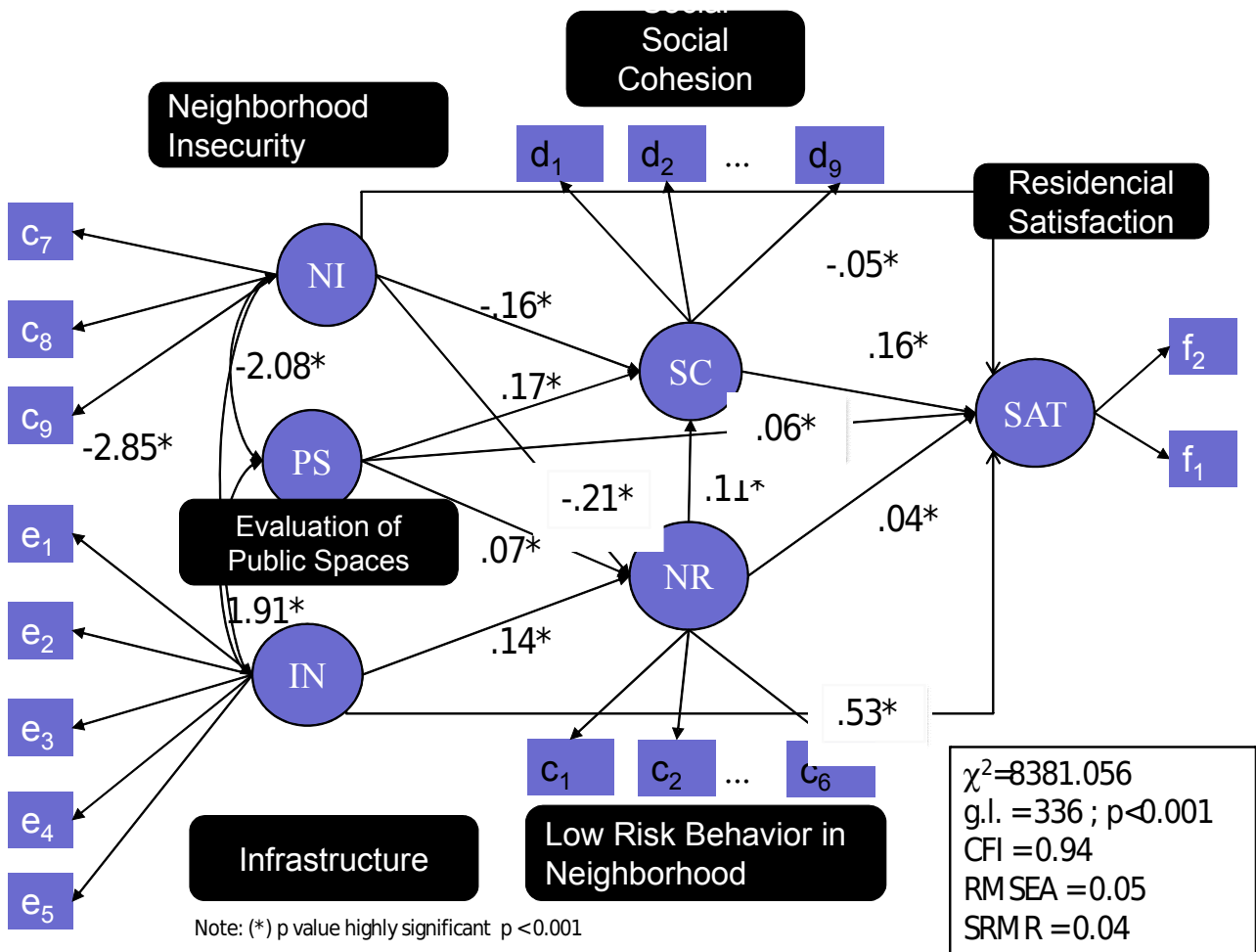

Figure 3. Results of social cohesion and residential satisfaction Model

As shown in Figure 3, results support all proposed hypothesis. The main argument is that the perceived neighborhood insecurity hinders major relationships in the community, reducing social interactions (hence, social cohesion) and residential satisfaction. In fact, Neighborhood Insecurity is negatively related to Satisfaction with the physical conditions of space (H1 Cov= -2.08), Social

Cohesion (H4, b= -0.16, p<0.05) and residential satisfaction (direct effect b= - 0.05, p<0.05) and indirect through social cohesion. Also, perception of insecurity hinders the perception of low risk behavior in the neighborhood, and therefore reduces residential satisfaction in a indirect fashion (H6: b=-0.04, p<0.05). Low risk behavior measures perceived control of potential violence and frequency of violent events in the neighborhood. Finally, there is a significant negative covariance between perception of insecurity and Neighborhood Infrastructure (Cov= -2.85) which indicates that high levels of insecurity are associated with deficient physical infrastructure.

On the contrary, satisfaction with the physical conditions of space promotes social cohesion in the community, whereas high marks on public spaces are related to low risk behavior. The effect of satisfaction with public spaces on residential satisfaction is both direct and indirect through social cohesion because both paths are significantly supported.

Also, the positive coefficient between the variables infrastructure and high risk behavior in the neighborhood indicates that a perception of street deterioration is related to perceptions of high risk behavior (H2: b=-0.14, p<0.05) . Likewise, a negative coefficient between the variables physical appearance of public spaces and high risk behavior in the neighborhood indicates that a dynamic public space reduces the perception of risky activities in the neighborhood.

As for the determinants of social cohesion, public spaces seem to play a significant role of developing social cohesion, well beyond its initial purpose of health promoter through sports and open-air activities. Conversely, a negative coefficient between the perception of high risk behavior in the neighborhood and social cohesion, suggest that social disorganization is inversely related to social cohesion.

It is fundamental to underscore that social cohesion is the most important factor to improve residential satisfaction, due to the positive impact of social cohesion in the generation of a shared identity among neighbors.

Conclusions

Public spaces seem to be an effective instrument in promoting social cohesion and residential satisfaction. When individuals are able to become involved participating in public

spaces, and transforming, the meaning of their physical and cultural activities, the transformative effects could reach beyond health and quality of life issues. These actors may feel that they are part of a greater whole and must be willing to give ground in terms of their personal interests for the greater good. Participating in public spaces (specifically in committees organizing activities within the public space) represent a first step to play a role in public affairs and deliberations, and place trust in society's institutions, as well as the people's greater sense of belonging to the community and solidarity with excluded and vulnerable groups, pave the way for the social covenants needed to underpin policies for achieving equity and inclusion.

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EXHIBIT 1 QUESTIONNAIRE

VARIABLES RELATED TO PUBLIC SPACE

- **Satisfaction with the physical conditions of the public space (PS)** as the average of questions B11 to B13:

    B11.- In general, for the facilities of (PUBLIC SPACE), what grade do you give?

    B12.- With regard to the lighting in (PUBLIC SPACE), what grade do you give?

    B13.- Considering the physical aspect of in (PUBLIC SPACE), what grade do you give?

VARIABLES RELATED TO THE NEIGHBORHOOD

- **Neighborhood disorganization (DES_C)** as the average of questions C01 to C06:

    C1.- In my neighborhood, there are many gangs or groups that commit criminal acts

    C2. - There are many drunkards in my neighborhood

    C3.- People are afraid of being mugged in my neighborhood

    C4.- There are robberies on the streets and in the houses of my neighborhood

    C5.- Drugs are sold and consumed on the street in my neighborhood

    C6.- Violence against women happens frequently in my neighborhood

- **Neighborhood organization (ORG_c)** as the average of the questions C01RECOD, C02RECOD, C03RECOD, C04RECOD, C05RECOD, C06RECOD.

- **Neighborhood insecurity (IS)** as the average of the questions (C07RECOD, C08RECOD, C09RECOD). They were recoded so that 10 is very bad and 1 very good.

    C7R.- Rate the police vigilance in your neighborhood

    C8R.- Rate the safety of your neighborhood during the day

    C9R.- Rate the safety of your neighborhood at night

- **Social Cohesion (CS)** as the average of questions D01 to D09

    D1.- People that live in the neighborhood are willing to help their neighbors

    D2.- Neighbors in your neighborhood, in general, get along well

    D3.- Neighbors in your neighborhood are trustworthy

    D4.- Neighbors in your neighborhood share the same moral values

    D5.- I like to participate in neighborhood gatherings with my neighbors

    D6.- I would ask for advice or help from my neighbors

    D7.- Neighbors organize together to carry out activities that benefit the neighborhood

    D8.- The relationships between neighbors in my neighborhood is, in general, good

    D9.- I would ask a neighbor for a loan

    - **Infrastructure (IS)** as the average of question E01 to E05

    E1.- What grade do you give the cleanliness of streets in your neighborhood?

    E2.- What grade do you give the pavement of the street (potholes, ruts, etc)?

    E3.- What grade do you give the appearance of sidewalks?

    E4.- What grade do you give street lighting?

    E5.- In general, what grade do you give the physical appearance of your neighborhood?

    - **Residential Satisfaction (SAT)** as the average of questions F01, F02.

    F1.- How satisfied are you with the state of your neighborhood?

    F2.- Think of the ideal neighborhood and compare it to the current situation in your neighborhood. What grade would you give your neighborhood compared to the ideal one?