



New urbanism: assessing the effectiveness of residential complexes on the feasibility of the idea of community (case study: residential complexes in area one of Tehran metropolis)

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Abstract

During 1980s, a large number of American architects and urban planners criticized the consequences of modernism planning, which led to the emergence of a new movement called New Urbanism during 1990s. According to New Urbanists, the quality of designing urban environments (spatial forms) can enhance the sense of community as a social process. The present analytical-comparative study aims to analyze the dialectical relationship between the quality of space design and sense of community in urban residential complexes and examine whether New Urbanists can create a kind of dialectic between space and community in the context of urban residential complexes to enhance the sense of community. To answer the above-mentioned question, Sobhan, Atisaz, and Bagh-e-Arghavan residential complexes and their surrounding neighborhoods were selected and compared. The population included 372 people living in the indicated areas who were estimated based on the Cochran's formula, among which 62 people were selected randomly. Based on the results, a significant difference was observed between the residents inside and outside the residential complexes in terms of sense of community. In fact, there appears to be a significant relationship between spatial form and social processes. In other words, there is a causal relationship between space and community.

Keywords New urbanism · Sense of community · Residential complexes · Socio-spatial dialectic

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Background

During the recent years, the ideas about community in urban planning studies have attracted a lot of attention, which is considered as a reaction to the anomalies formed in the metropolises, resulting in instilling in the planners' minds that the urban man needs a kind of moral solidarity or a form of community to unite his/her members because the community has always promised to cure the ills of urbanization and order stemming from the instrumental rationality of modernity. In fact, the structure of such a promise makes sense in the search for a normative order of communion and escape from anomie¹ and anonymity devoid of urban emotion (Foster et al. 2016, p. 138). Thus, as French et al. (2014) indicated, "recognizing and creating conditions which enhance the sense of community in residential neighborhoods is regarded as an important task for researchers and urban planners" (French et al. 2014, p. 678). In this regard, the New Urbanism approach, as a new way of thinking in urban planning, uses the idea of community as a keyword to identify itself.

New urbanism is considered as a collection including architectural styles, smart urban growth, neo-traditional design, use of various methods of public transportation, the least possible damage to the environment, production of peaceful spaces, centers and defined edges, development of the traditional fabric of neighborhoods, and sustainable urban design and planning, which identifies itself with social construction and reproduction, which has somehow been destroyed in the current world under metropolitan relations (Grant 2006, p. 310). Such thinking emerged by architects and urban planners in their critique regarding the consequences of modernism planning during 1990s since they argued that the ontology of modernism and resulting urban design and planning processes appeared highly inefficient to build modern cities. Andres Duany, Elizabeth Plater-Zyberk (his wife), Peter Calthrop, Jane Jacobs, and Kevin Andrew Lynch are generally regarded as the main theorists of New Urbanism (Grant and Tsenkova 2012; MacLeod 2013; Heins 2015). The thinkers in the aforementioned movement claim that the built environment (spatial forms) can create the sense of community in metropolises (Talen 1999, p. 361). In this respect, sense of community is considered as a term which describes the method of perceiving the community and other communities in a spatial relationship (Perkins and Long 2002, p. 292). In other words, community is something in which space is present and is relatively small (Kaufman 1959, pp. 8 and 10). For a large number of people, the idea of community reflects the picture of a small town or neighborhood where people know each other, reside for a long time, and support each other in different ways psychologically (Bess et al. 2002, p. 3). Based on the above-mentioned concepts, it is not far-fetched to think of residential complexes (enclosed communities) as spatial forms which produce the sense of community within their boundaries in a dialectical relationship. Such residential complexes, which are often protected by CCTV or security

¹Sense of not belonging and inability to share collective feelings with other people.

personnel, are designed by special forms in which public access to their interior territory is restricted by a fence (Blandy 2006, p. 16). In fact, the aforementioned process is regarded as a re-attempt to redefine the concept of territory and protect neighborhood boundaries in communities with similar income levels (Blakely 2007, p. 475).

The present analytical-comparative study aims to evaluate whether New Urbanism can create dialectic between space and community in the context of urban residential complexes to upgrade the sense of community. In other words, can the ideas represented in New Urbanism approach and the principles used in residential complexes produce different socio-spatial dialectic from urban neighborhoods within their own boundaries? This study seeks to examine the dialectical relationships between the quality of space design and sense of community in urban residential complexes and investigate the links between space and social matters. In this respect, a large number of studies have been conducted in urban geography during the recent years. For example Zhang and Lin (2012) assessed the role of enclosed communities in shaping the sense of community in their studies in Taiwan and addressed the border as an important factor in creating such a sense. In addition, Sakip et al. (2012) evaluated the sense of community in two different communities including enclosed and unenclosed by face-to-face interviews and reported that residents in enclosed residential areas are more sensitive to their community than other ones, indicating that the gate is among the factors determining the people's satisfaction and the overall quality of life (Sakip et al. 2012). Further Atkinson and Flint (2004) argued that enclosed communities provide security and social interactions, and present patterns for residents' daily activities which lead to their commitment to space and other residents. In fact, risks such as crime, lack of belonging, and unwanted social contact are managed by people so that there are simple random outputs of paths between nodes. The present study focuses on the key role of space as an influential factor on the pattern of residential dynamics (Atkinson and Flint 2004).

Theoretical foundations

The method of contemplation about the idea of community is very subtle. In fact, many researchers have examined the community from different aspects. This has finally resulted in the creation of various concepts and definitions around the philosophy of community. By the same token, it should not be forgotten that the framework of study in the fields related to community requires a psychological definition of community. Anyway, in Gusfield's (1975) view of the community, two main components stand out. He mentions the territory (boundary) or the concept of geography as the first component. According to Gusfield, community means belonging to a specific space with a specific social structure. Gosfield mentions the communities of interest as the second component. This component

expresses the quality and essence of human relationships, outside of the existence of place (Obst et al. 2002, pp. 2–4). Based on this, the community can be considered as a form of gathering that is connected with the single characteristics that are social and spatial. These characteristics of the unit lead to the production of common meaning and culture among the members and make up all or part of the identity of the members. On the other hand, the community is a social unit in which space exists within it and is relatively small. (Kaufman 1959, pp. 8 and 10). In other words, for many, the idea of a community conveys an image of a small town or a closed neighborhood where people know each other, have been there for a long time, and provide each other with various types of psychological support (Bess et al. 2002, p. 3). By the same token, Heller and his colleagues (1984) express that a community can be formed from a specific geographical place. In this situation, people gain their own identity and experience a sense of belonging to a place that does not exist in other geographical areas. This means constructing a relational community (Sonn and Fisher 1996, p. 417). A relational community, defined by individuals, may consist of different residential places that interact with each other to achieve a common goal. According to this definition, a residential complex can be considered a relational society.

The sense of community is a term that describes how one perceives one's community and other communities in a spatial relationship. In fact, the sense of community is understood and measured by many researchers as an individual structure or individual experience of social life. (Perkins and Long 2002, p. 292). The sense of community was first proposed by Sarason (1974) and focused on sociology and social psychology. Sarason believed that the sense of community is essentially regarded as a mental experience and is related to a sense of belonging, which means understanding the similarity (socio-economic) with others in the form of a distinct spatial form (Sarason 1974, p. 157). In fact, the sense of community is considered as a complex concept identified by various factors such as social interaction, individual perception of safety, arrays related to demographic variables, and spatial forms (Ross and Searle 2018, p. 4). Sarason (1974) indicated that the sense of community is defined with regard to indicators such as quality of daily life, life satisfaction (Prezza and Costantini 1998), mental, social, and physical health (McMillan and Chavis 1986), and perception of safety and security (Perkins and Taylor 2002). According to Chavez and McMillan, the sense of community can be sought in the form of key elements such as membership, influence, integration and fulfillment of needs, and shared emotional connection (Chavis et al. 1986, p. 24). Table 1 indicates the most important components to assess and measure the sense of community which are regarded as the basis for their evaluation in the present study.

Designing residential complexes which are mainly visible in the form of communities enclosed in urban space is among the key instruments for shaping the concept of community in such spaces. The basic hypothesis is that

Table 1 The most important components to measure the sense of community

| Components | Indicators |
|--------------------|--|
| Social integration | Similarity with others, interdependence on others, reliable and stable structure, satisfaction with residents and social satisfaction, and integration |
| Social network | Maintaining social relationships, local friendship network, friendly interactions with neighbors, number of friends, and social life |
| Social support | Performing reciprocal responsibilities, neighborhood priorities, fulfillment of needs, and emotional communication |
| Social capital | Social and civic partnerships, social interaction, organizational participation, localism, competence to act in the community, belonging to the community, membership, and influence |
| Life satisfaction | Quality of daily life, mental, social, and physical health, perception of safety and security, having an appropriate place to live, and privacy |

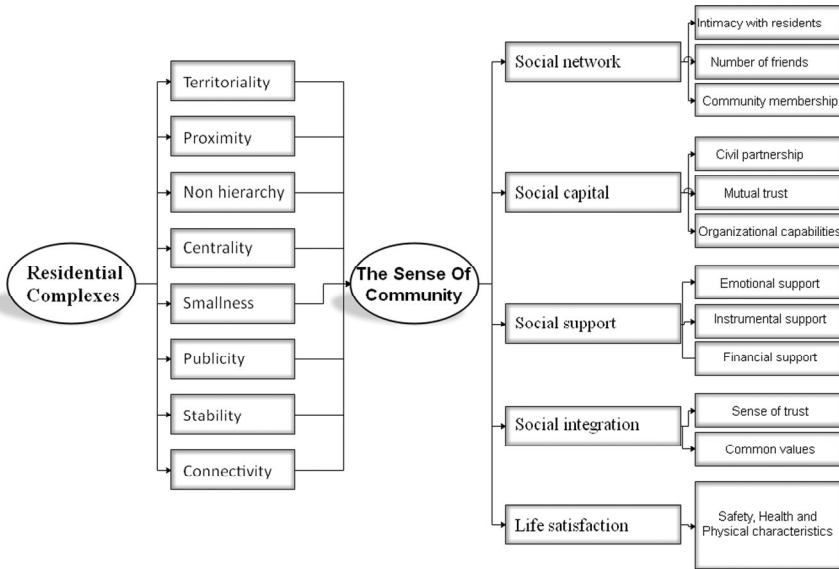
residential complexes as a space can influence social interactions and processes, as well as formation of a sense of community. The origins of modern residential complexes can be traced back to the post-industrial revolution. Harvey (2005) argued that privatization became a strong impetus for economic and political changes in developed and developing countries during the late 1970s. Public spaces were privatized as a wonder throughout cities around the world among all of the consequences related, leading to the emergence of certain forms of urban life (Xu and Yang 2008, p. 214). In addition, the loss of health, constant crises, and social upheavals forced social thinkers to regulate the inappropriate situation of cities during the second half of the nineteenth century. In this regard, the idea of creating several model centers or communities to provide health and safety for residents has attracted a lot of attention, and the proliferation of enclosed communities affected the geographical landscape of European cities since the 1990s (Graham and Marvin 2001; Atkinson and Flint 2004; Gaşior-Niemiec et al. 2007). A significant relationship is observed between residential complexes and the idea of New Urbanism in urban planning. In fact, planning to create the sense of community as the most critical historical component related to New Urbanism was proposed in various scientific chairs with serious focus on well-designed spatial form, and self-sufficient and enclosed human groups to achieve the sense of community (Talen 2006, p. 89).

The historical origins of New Urbanism can be traced to small and traditional American cities, John Nolen's planned communities, or Clarence Perry's neighborhoods. Further, the direct dependence of the idea of New Urbanism on the theories of Jane Jacob's Organized Complexity, Werner Hegemann and Elbert peet's Urban or Civil Arts, Ebenezer Howard's Garden Cities, and Benton MacKaye's Regionalism can be observed clearly considering what is outlined in the Charter of New Urbanism (27 existing principles) (Talen 2006, p. 83). In fact, New Urbanists look at history with a selective view to learn from the classical styles and traditions of the Greeks, Romans, and Europeans, as if they search for architecture in its contexts and social

meanings. New Urbanism, as a social movement during the 1960s, stems from the ideas of a generation of American and European designers who experienced living in industrial and modern societies, gained a proper understanding of the dire consequences for their societies, and criticized the planning of modernism deeply (Pyatok 2000, p. 803), leading to its emergence during the late 1980s and early 1990s. New Urbanism was often equated with suburban, installing Greenfield such as Seaside, Florida, Kentlands, Maryland, and Disney town of Celebration in Orlando (Day 2003, p. 83), while, now it is considered as a thoughtful personality in the scientific literature and academic communities (Grant 2005, p. 103).

The idea of New Urbanism can be criticized from several aspects, for example, some authors believe that any statement issued by the doctrine of New Urbanism or on behalf of them, as much as it expresses their desire to build a community, also reflects the extensive ways of making money (MacLeod 2013, p. 2197). By the same token, the principles of New Urbanism can be considered as a means to serve the affluent and elite of society. Principles that seek to achieve a higher income for developers using space functions. Also, the focus of the idea on aesthetic issues, environmental development, and attempting to implement favorable codes can create questions for critics (Talen 2000, p. 320). For example, Grant in his work "Planning The Good Community" remarks that New Urbanism lacks intricate theories. New Urbanists rarely read complex discussions of the ideas of Foucault, Harvey, Lefebvre, Castells, Lacan, Habermas, and others. It is as if they are only focused on the contradictory realities of project design, coding, and programming (Grant 2005, p. 103). As a result, the new urbanists present an arbitrary and selective reading of society. Instead of seeking to solve the problems of social justice, the reading is aimed at satisfying the interests of a group of elites and wealthy people. In summary, the modern urban man, within the imaginations of planners and of course under the deep domination of capital as an ideological matter, continues his/her daily life until finally, in a dialectical process, space, individuals, and capital create different musical notes (rhythms of daily life)), in metropolises.

The present study aims to explain the impact of residential complexes as a spatial matter on the formation and strengthening of the sense of community in urban spaces comparatively. Residential complexes have spatial components such as territoriality, proximity, non-hierarchy, centrality, smallness, publicity, stability, and connectivity, which are expected to affect the formation of the sense of community in the study area. In fact, the spatial components presented in a dialectical and meaningful relationship are believed to create the sense of community among the inhabitants in residential complexes. The spatial and social dialectic in residential complexes is shown as follows.



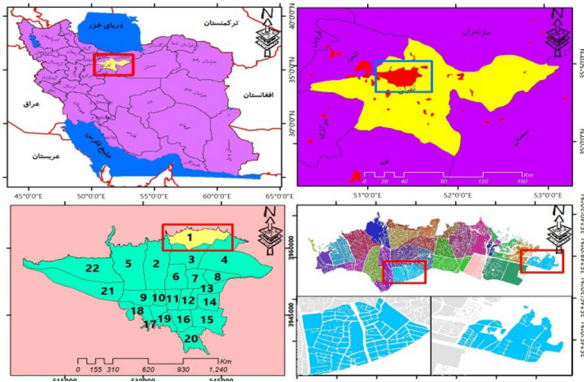
Area of study

In this research, District 1 of Tehran Municipal has been selected for field research. The northern area of Tehran has been considered one of the most important parts of Tehran since the 1940s. The existence of ministries, embassies, government institutions, and residences of politicians and artists has shown the high value of this area and the attractiveness of life in it. In general, District One of Tehran is one of the best urban areas not only in Tehran but also in Iran. This municipal area has enjoyed proper conditions in terms of urban services and facilities. As a result, the residents of different precincts, including the areas that have been selected as the target community in this research, do not face any problems in terms of welfare.

The residential complexes studied and their surrounding neighborhoods

In order to examine the impact of spatial forms on social processes, three residential complexes including Sobhan, Atisaz 2, and Bagh-e-ArgHAVAN with their surrounding neighborhoods in area one of Tehran metropolis were assessed for field studies based on the above-mentioned spatial components due to the comparative nature of the present study. The residential complexes and their surrounding neighborhoods are marked in yellow and red, respectively.

Map of the study areas



Sobhan residential complex and its surrounding neighborhoods



Atisaz residential complex and its surrounding neighborhoods



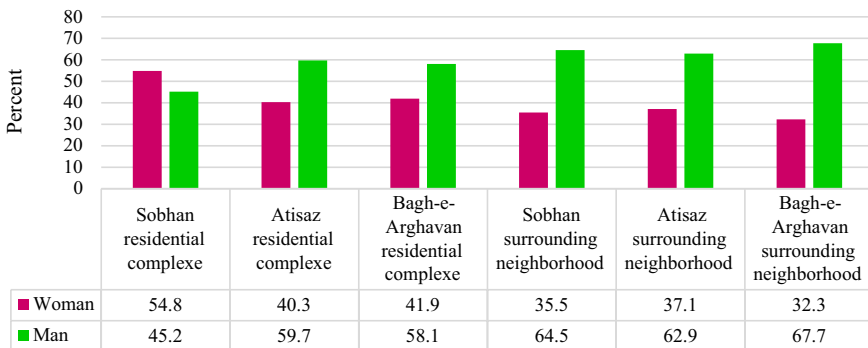
Bagh-e-Arghavan residential complex and its surrounding neighborhoodst



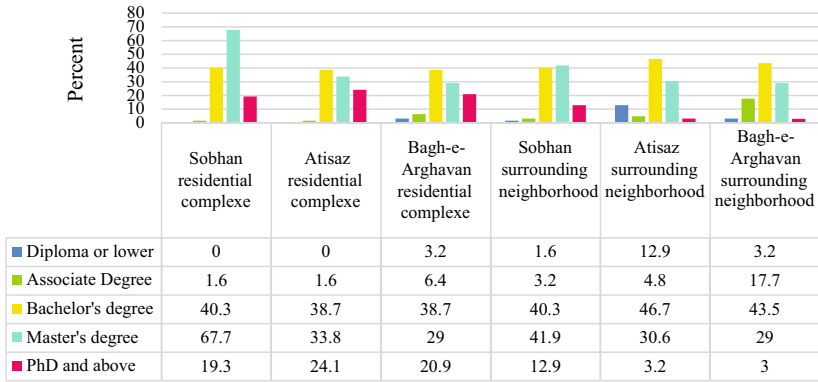
Method and data collection

The method in this applied study is considered as descriptive-analytical, which is followed by an approach based on socio-spatial dialectic. To this aim, theoretical foundations were designed based on the library studies to provide an appropriate ground for further studies. In this regard, the theories appropriate to the subject were identified and the appropriate components for measuring social and spatial matter were extracted. Then, the components were applied in the form of questionnaire and standard questions in field studies and areas including Sobhan, Atisaz, and Bagh-e-Arghavan residential complexes and their surrounding neighborhoods were selected and compared. The population included 372 people living in the indicated areas who were estimated based on the Cochran’s formula, among which 62 people were selected randomly. By the same token, to provide a general vision of the studied society, Graphs 1, 2, 3, and 4 illustrate the gender, level of education, employment status, and the amount of age of the studied individuals, respectively.

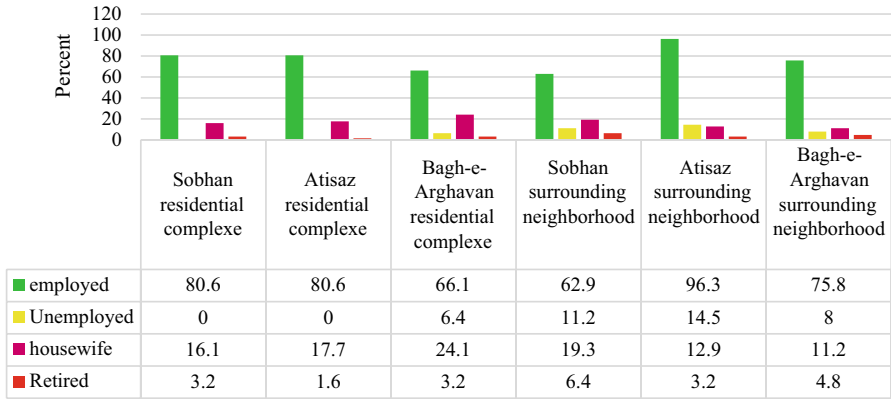
To analyze the data, the answers obtained by a questionnaire were entered into the SPSS software environment. In the next step, the studied groups were compared using t-test. Finally, path analysis technique was utilized to better understand the subject.



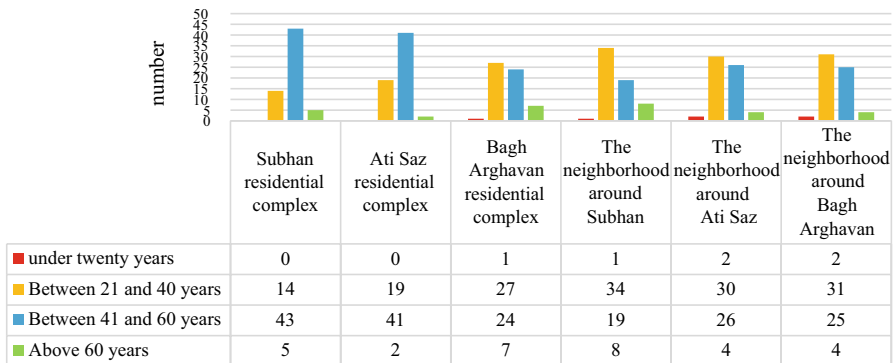
Graph 1 The percentage of gender groups in the sample population by the study areas



Graph 2 The level of education by the areas studied



Graph 3 Employment status by the studied areas



Graph 4 Frequency distribution and percentage of age groups

Results

In order to analyze the questions raised in the study and compare the results obtained by a questionnaire in residential complexes and surrounding areas, an independent t-test was applied, the results of which are as follows.

Table 2 indicates the difference between the means for residents in residential complexes and their surrounding neighborhoods including social integration (3.24 and 2.87%), social network (3.28 and 2.93%), social support (3.47 and 2.56%), social capital (3.70 and 2.62%), and life satisfaction (3.95 and 2.93%), respectively.

The values of t and sig are related to the components such as social integration (8.481 and **0.00), social network (11.003 and **0.00), social support (11.750 and **0.00), social capital (19.690, and **0.00), and life satisfaction (24.979 and **0.00), respectively. A significant difference is observed between the groups studied because the sig obtained for the components related to the sense of community in Table 3 is less than 0.05. In other words, there are somewhat more tangible social processes in residential complexes (designed space forms) than in their surrounding neighborhoods. In fact, the aforementioned social processes do not have the necessary concentration to form the social matter in the neighborhoods around the complexes. Based on the results, the spatial forms have causal relations and can create certain social processes in a socio-spatial dialectical state. However, the above-mentioned feature cannot be attributed to all of the urban neighborhoods since such relationships were reported in some studies conducted in such neighborhoods. In addition, several dimensions related to the sense of community in residential complexes are felt mentally and do not necessarily occur objectively in reality, meaning that the indicated spatial components often makes the sense of community between the inhabitants of residential complexes conceivable, which does not appear to happen in reality.

In order to determine the factors affecting the sense of community in residential complexes, the existence and direction of the relationship with Pearson test were analyzed. The results indicate a significant relationship with 99% confidence among all of the effective components related to the sense of community in residential complexes (Table 4).

Table 2 Statistics of the studied groups in t-test

| Components | studied groups | N | Mean | Std. deviation | Std. error mean |
|--------------------|-----------------------|-----|------|----------------|-----------------|
| Social integration | Residential complexes | 186 | 3.24 | 0.65412 | 0.4822 |
| | Surrounding areas | 186 | 2.87 | 0.59601 | 0.4370 |
| Social network | Residential complexes | 186 | 3.82 | 0.69712 | 0.5139 |
| | Surrounding areas | 186 | 2.93 | 0.71239 | 0.5238 |
| Social support | Residential complexes | 186 | 3.47 | 0.53322 | 0.3952 |
| | Surrounding areas | 186 | 2.56 | 0.62931 | 0.4665 |
| Social capital | Residential complexes | 186 | 3.7 | 0.51744 | 0.3794 |
| | Surrounding areas | 186 | 2.62 | 0.54011 | 0.3960 |
| Life satisfaction | Residential complexes | 186 | 3.95 | 0.46375 | 0.3410 |
| | Surrounding areas | 186 | 2.93 | 0.43068 | 0.3166 |

Table 3 Independent t-test to evaluate the differences between the studied groups

| | Levene's test for equality of variances | | t-test for equality of means | | Sig. (2-tailed) | Mean difference | Std. error difference | 95% confidence interval of the difference | |
|-------------------|---|-------|------------------------------|---------|-----------------|-----------------|-----------------------|---|---------|
| | F | Sig. | t | df | | | | Lower | Upper |
| | Social integration | 1.101 | 0.295 | 8.481 | | | | 368 | **0.00 |
| Social network | 0.71 | 0.79 | 11.003 | 367 | **0.00 | 0.80741 | 0.7338 | 0.66311 | 0.95171 |
| Social support | 0.40872 | 0.28 | 11.750 | 362 | **0.00 | 0.71841 | 0.6114 | 0.59817 | 0.83864 |
| Social capital | 0.302 | 0.583 | 19.690 | 370 | **0.00 | 1.07988 | 0.5484 | 0.97203 | 1.18772 |
| Life satisfaction | 0.22 | 0.883 | 21.979 | 368 | **0.00 | 1.02270 | 0.4653 | 0.93120 | 1.11420 |
| | 1.101 | 0.295 | 21.979 | 366.004 | **0.00 | 1.02270 | 0.4653 | 0.93120 | 1.11420 |

**Independent t is significant at the 0.01 level (2-tailed)

Table 4 Status of the relationship between independent components and sense of community in the study groups

| Independent components | | Independent components | | | | |
|------------------------|---------------------|------------------------|----------------|----------------|----------------|-------------------|
| | | Social integration | Social network | Social support | Social capital | Life satisfaction |
| The sense of community | Pearson correlation | **0.705 | **0.659 | **0.720 | **0.753 | **0.815 |
| | Sig. | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**Significance level of 1%

In order to analyze and predict the intensity and status of the effect of independent components on the sense of community, the Enter method of multiple regression was used. Tables 5, 6, and 7 represent the effect of independent components on the sense of community in residential complexes. The value of multiple correlation (0.928) indicates a significant correlation between dependent and independent variables. Based on the coefficient of determination, 96% of the variance for the sense of community is explained by the aforementioned components.

As represented in Table 6, the combination of independent variables can significantly explain and predict changes in the sense of community as the dependent variable from the respondents' point of view based on the value calculated for F at a level of 99% confidence.

The standard coefficient listed in Table 7 indicates the relative importance of independent variables in predicting the dependent one. Accordingly, the life satisfaction plays a more significant role in predicting the sense of community in residential complexes so that the standard deviation for the sense of community in residential complexes changes by 0.374 with a unit change in that of life satisfaction. In addition, social capital (0.291), social support (0.227), social network (0.178), and social cohesion (0.151) have the most impact, respectively.

To measure the direct and indirect effects of the components on the sense of community, path analysis was utilized by applying the Enter method of multiple regression. Based on Table 8 and Fig. 1, life satisfaction with physical,

Table 5 Results related to regression of components affecting the sense of community in residential complexes

| R | R square | Adjusted R square | Std. error of the estimate |
|-------|----------|-------------------|----------------------------|
| 0.928 | 0.965 | 0.964 | 0.109 |

Table 6 Significance of regression of components affecting the sense of community in residential complexes

| | Sum of square | df | Mean square | F | Sig. |
|------------|---------------|-----|-------------|---------|-------|
| Regression | 117.024 | 5 | 29.256 | **61.63 | 0.000 |
| Residual | 1.671 | 235 | 0.005 | | |
| Total | 118.694 | 357 | | | |

**Significance level of 99%

Table 7 Coefficient for intensity of the effect of independent variables on the dependent one

| Variables | Unstandardized coefficients | | Standardized coefficients | | T | Sig. |
|--------------------|-----------------------------|------------|---------------------------|--|----------|-------|
| | B | Std. error | Beta | | | |
| Constant | 0.122 | 0.020 | | | **0.6059 | 0.000 |
| Life satisfaction | 0.317 | 0.008 | 0.374 | | **40.485 | 0.000 |
| Social capital | 0.222 | 0.007 | 0.291 | | **33.000 | 0.000 |
| Social support | 0.190 | 0.007 | 0.227 | | **27.542 | 0.000 |
| Social network | 0.190 | 0.006 | 0.178 | | **27.762 | 0.000 |
| Social integration | 0.127 | 0.004 | 0.151 | | **14.828 | 0.000 |

**t is significant at the 0.01 level (2-tailed)

Table 8 Direct and indirect effects of independent variables on the sense of community

| Independent components | Direct effects | Indirect effects | Total direct and indirect effects | Number of direct and indirect communications | Rank |
|------------------------|----------------|------------------|-----------------------------------|--|------|
| Life satisfaction | 0.374 | — | 0.374 | 1 | 1 |
| Social capital | 0.291 | 0.871 | 1.162 | 2 | 2 |
| Social support | 0.227 | 5.658 | 5.885 | 4 | 3 |
| Social network | 0.108 | 2.06 | 2.168 | 5 | 4 |
| Social integration | 0.151 | 7.443 | 7.594 | 13 | 5 |

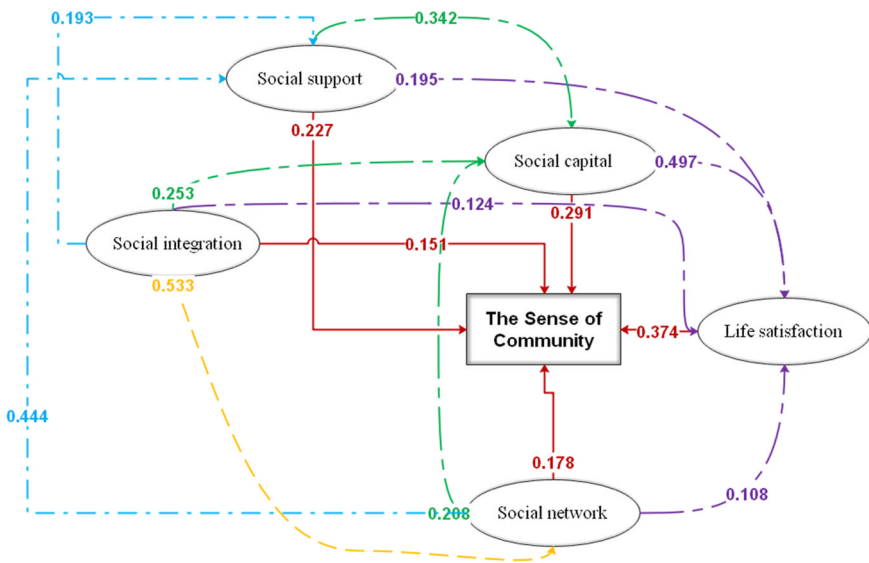


Fig. 1 Path analysis diagram for direct and indirect effects of independent variables on the dependent one

health, and safety dimensions (see the conceptual model of the research) and social cohesion has the highest (0.374) and the least impact (0.151), respectively.

Conclusion

During the last decades, space has emerged as a keyword to identify the studies in the field of geography. Addressing the spatial matter in the form of New Urbanism approach has attracted a lot of attention as a new concept to free from the anomalies formed in metropolises, for which a large number of studies have been conducted during the recent decades. The above-mentioned studies have focused more on borders (walls and gates) as a component for defining space and demographic characteristics as an influential factor in creating the sense of community, and have paid less attention to other spatial factors such as proximity, smallness, centrality, generality, stability, coherence, and lack of spatial hierarchy in the type of residents' housing.

The present study aimed to assess the issue of space and resulting social processes (sense of community) in the form of residential complexes (spatial forms) in area one of Tehran metropolis and investigate whether New Urbanism can create dialectic between space and community to enhance the sense of community in the context of urban residential complexes.

The present study demonstrated that residential complexes designed as spatial forms can produce a spatial and social dialectic. In fact, spatial forms appear to have causal relationships, meaning that spatial practices designed in residential complexes can produce specific and different social processes from the surrounding neighborhoods in a dialectical relationship. However, the social processes examined are more perceived mentally and do not necessarily happen objectively. The sense of community in residential complexes is regarded as a mental matter which capital plays a significant role in its creation in addition to space. In other words, the spatial forms in question are understood as being produced, shaped, molded, and used in certain periods, and money manifests in the form of the ability to buy a house or rent a residential unit in a complex.

According to Lefebvre and Simmel, residential complexes can be considered as the geometric locations produced by social relations, production and reproduction of humans by humans, not production of objects. Spatial forms are produced by factors such as confinement, proximity, smallness, centrality, generality, stability, coherence, and lack of spatial hierarchy in the type of residents' housing. The residential complexes can be called "space-form utopias" to some extent, meaning that the timeliness of social processes and the dialectic of social change (real history) have been eliminated although social stability is guaranteed by a fixed spatial form. Social sustainability in residential complexes is defined and adapted to the evolution of civil society in order to produce an environment which improves the quality of life for all of its residents to encourage social processes.

Limitations of the study

- In future research, attention should be paid to the negative effects of residential complexes on the structure of cities. Although some criticisms have been presented in this research, since the nature of the research was based on the production of space and social processes, the effects of residential complexes on their surroundings have not been specifically addressed.
- Since money plays a very important role in the production of space, it is better to include this phenomenon in the main theme of research and evaluate its effects more precisely in future research.
- In general, in this research, it was shown that designed spatial forms can produce social processes, so it is suggested that in future research, the issue of how to increase these relationships should be addressed and the studied people should be asked to express their opinion about the sense of community and the ways to strengthen it.

Data availability The datasets analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Informed consent Informed consent was obtained from all participants and/or their legal guardians for participation in the study.

Conflict of interest The author states that there is no conflict of interest.

Open access A questionnaire and SPSS software were used to conduct this research. Anyway, this data will be available through the following email. ha.rahimi@mail.sbu.ac.ir

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