Sense of Community in Gated and Non-Gated Residential Neighborhoods

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Abstract

Neighbourhood design is one of the factors contributing towards the establishment and maintenance of local community ties. The differences in environmental size and design of neighbourhoods are perceived to influence sense of community networking functions. A physical element such as gated element is also believed to have an influence on local community relationship networking. Therefore, a study on sense of community was conducted in two neighbourhood areas: Putrajaya (non-gated) and Bandar Baru Bangi (gated) using face to face interview method. This study found that residents of non-gated residential areas demonstrated higher sense of community (M=6.47, SP=0.08) than residents of gated residential areas (M=6.39, SP=1.08).

1. Introduction

Sense of community is a relationship involving social interaction within a community resulting in a sense of belonging within the group and a perception of ownership through sharing of needs and requiring each other’s commitment (McMillan & George, 1986). In the context of a neighbourhood, community relationships provide the satisfaction of living in a residential area (Blanchard, 2008; Fried, 1984), and are

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also significant determinants of the general quality of life and satisfaction in well-being (Rogers & Sukolratanametee, 2009). It implies a physical area in different sizes and forms to make resident feels socially connected (Talen, 1999). A physical element such as gated element also influences the sense of community in neighbourhoods (Rogers & Sukolratanametee, 2009). Previous research demonstrates that sense of community in gated communities is higher as compared to that in non-gated ones (Blandy & Lister, 2003; Serife, 2007). This relationship believed to be influenced by a few factors such as income level, and similar interests among residents (Blandy & Lister, 2003). However, Georjeanna (2000) found that the sense of community in gated communities is peculiar based on the income level. The residents with higher-income levels have lower sense of community compared to residents with medium or low income levels. These previous researchers referred to physical elements (gated) in terms of gated community as proposed by Blakely and Synder (1997).

Gated community defined as a physical space that separated from its surrounding by fenced or walled elements and separated from another neighbourhood (Blakey & Snyder, 1997). However, in Malaysia’s context, typical residential developments comprise elements of gating at every lot while the concept of non-gated individual residential units is still seldom applied (Siti Rasidah, Aldrin, & Mohd Najib, 2011). Therefore, this study focused on gated and non-gated residential areas as proposed by Siti Rasidah et al. (2011), because gated community in Malaysia targeted for higher-income earners, (JPBD, 2009) and the gated element is different from that proposed by Blakely and Synder (1997). In Malaysia, the gated element in gated community entails two gates namely at every lot and the perimeter of the residential area. That means there have a couple of gated elements with a security guard post at the entrance to the residential area (Siti Rasidah et al., 2011). Therefore, the objective of this paper is to examine the relationships between sense of community and neighbourhood designs with gated and non-gated elements.

2. Literature Review

Hiller (1995) is the person that responsible for introduction of sense of community. Sense of community is one of the indicators of the quality of life in social classes (Blanchard, 2008; Fried, 1984). It can be described as the simplest first grouping beyond the family which has social significance and which is conscious of some local unity (Ashok Kumar, 1973). In other words, a sense of community associated with the commitment given by the members of the community to others in society; which bears significance on sense of security and belonging (Rogers & Sukolratanametee, 2009). Sense of community is an important aspect in a neighbourhood to enhance feelings of safety and eliminate the opportunities for crime (Austin, Furr, & Spine, 2002). However, in terms of neighbourhood designs, it will influence the relationship between communities, especially in physical environments. Talen (1999) argued that an environmental factor is one of the factors that influence and stimulate community relations. The frequency of these relationships is the quality in the sense of community. Uzzell, Pol and Badenas (2002), found that physical and social environment elements can enhance relationships among residents using community space in two Guildford neighbourhoods, Surrey, England. The study found that 70 % of respondents mentioned that the Onslow neighbourhood is better in terms of physical image as compared to the Stoughton neighbourhood (Uzzell et al. 2002).

Rogers and Sukolratanametee (2009) argued that an attractive physical environment will increase the sense of community as spaces created and provided in neighbourhood areas maintain continuity towards spatial integration. These spaces are taken as well-defined boundaries enabling interaction and good community networking (McMillan & George, 1986). Previous research at four suburban, metropolitan neighbourhoods in Houston found that residential areas with ecological designs have a higher sense of community (Rogers & Sukolratanametee, 2009). Ecological design such as mini-parks and pedestrian...
walkways believed to encourage outdoor activities in the space provided. Those activities, leading higher social interaction and networking compare to other neighbourhood without or less outdoor activities (Rogers & Sukolratanametee, 2009).

In the physical environment, five elements are believed to enhance the community relationship, namely architecture and site design, density and scale, streets, public space, and mixed land uses (Talen, 1999). Architecture and site design are defined as social interactions promoted by designing residences. The residents are encouraged to get out of their houses and out into the public sphere. Density and scale are referred as the sense of community and neighbourliness engendered by having small-scale, well-defined neighbourhoods with clear boundaries and a clear centre. Meanwhile, streets are designed to encourage street life, since any increase in pedestrian activity will strengthen community bonds and promote a sense of place. Public space also provides a venue for chance encounters, which serves to strengthen community bonds. The gathering places in neighbourhoods give heart’ to the community and serve as a communication place. Finally, mixed land uses as mentioned by Jane Jacobs (1961) as the mixture of residential and commercial land uses, create a multipurpose space in which lingering is encouraged, creating a setting for “repetitive chance encounters” to build and strengthen community bonds.

Thus, gated feature is one of the physical elements in architecture which is believed to have an influence on community relationships in neighbourhoods. According to Atkinson and Blandy (2005), gated elements in gated communities, cause a loss of social diversity in the neighbourhoods that lead a tendency towards social segregation. This form of segregation is based on the concept of social class. Roitman (2003) argued that this concept is referred to as similar characteristics regarding their productive activities and consequently, have similar economic resources due to similar developed skills and also share similar habits regarding patterns of consumption. It is known as a concept of social class. Therefore, Blandy and Lister (2003) as well as Serife (2007) found that sense of community in gated community is higher than in non-gated community. However, the sense of community in Atkinson and Blandy’s (2005), Roitman’s (2003) and Serife’s (2007) studies referred to the concept of gated community as proposed by Blakely and Synder (1997). However, in the Malaysian context, the typical neighbourhood design refers to a definition as proposed by Siti Rasidah et al. (2011). Gated community in Malaysia is known as gated and guarded community and targeted for higher-income earners (JPBD, 2009). It must be noted that the objective of this study is to examine the sense of community in gated and non-gated residential areas, in the Malaysian context.

### 2.1. Measures of Dimensions

Sense of community (SOC) is measured as the identification of the community members’ feelings about each other and the community’s successful functioning because it leads to the satisfaction with and commitment to the community. This SOC constructs measured by four dimensions adapted from McMillan and George (1986). The four dimensions of SOC are (a) membership: involving boundaries, emotional safety, a right’ to belong, personal investment and a common symbol system; (b) influence: which has to do with group conformity; (c) integration and fulfilment of needs: concerned with the importance of community relations that is perceived to be the motivation to create and maintain a continuous feeling of esprit de corps and (d) shared emotional connections refer to interaction, shared events, and tied into the psychological aspects of sense of community, as opposed to other affective notions.

The SOC dimension is measured by three indicators using a questionnaire. The measurement of SOC is rated using a Likert scale ranging from 1 to 10 whereby scale 1 is “Highly Disagree” and scale 10 “Highly Agree” as shown in Table 1. The high score will indicate that the community relationship in the
neighbourhood is high and vice versa if the score obtained is low. The validation of the sense of community constructs was done by conducting confirmatory factor analysis (CFA) using AMOS and SPSS software. CFA is a measurement model used to specify the relationship between factors and their respective indicators and the relationship between indicator errors. The CFA method was able to ensure and validate the items used in measuring latent variables by taking into account the value of the variances. In CFA, several indices employed to judge whether the model tested fits to the data. The indices are Chi-square, Chi-square/degree of freedom ratio, and goodness of fit indices. Results from the measurement model of SOC construct to demonstrate that only one item in fulfilment of needs indicator has been omitted (Item 2= I can trust the community here) due to low levels of factor loadings (λ<0.3) in the initial measurement model analysis. The reliability test for SOC construct indicated acceptable internal consistency (α= 0.64 to 0.90) with corrected item-total correlation for all variables higher than 3.0, (the accepted cut-off-value according to de Vaus, 2002) and the factor loading is higher than 0.3 (λ= 0.62 to 0.94). The goodness-of-fit indices indicating just identified’ (GFI=1.00 CFI=1.00, RMSEA= 0.56 to 0.76) shows that this model accepted as the indicator for the SOC construct.

Table 1. Sense of community indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Description of instrument</th>
<th>Scale</th>
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<tbody>
<tr>
<td>Membership</td>
<td>I can identify most of the residents here.</td>
<td>1= Strongly disagree</td>
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<tr>
<td></td>
<td>Most of the community knows me.</td>
<td>10= Strongly agree</td>
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<td></td>
<td>I always participate in community activities organised by the community association.</td>
<td></td>
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<tr>
<td>Influence</td>
<td>I look after my neighbours’ children/plants/pets when they go on vacations.</td>
<td>1= Strongly disagree</td>
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<tr>
<td></td>
<td>I value my neighbour’s/community’s views or comments.</td>
<td>10= Strongly agree</td>
</tr>
<tr>
<td></td>
<td>Whenever there are problems in this residential area, they are solved by the community.</td>
<td></td>
</tr>
<tr>
<td>Integration and fulfillment of needs</td>
<td>I feel that I am one of the community members in this residential area.</td>
<td>1= Strongly disagree</td>
</tr>
<tr>
<td></td>
<td>I can trust the community here.</td>
<td>10= Strongly agree</td>
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<tr>
<td></td>
<td>I feel this residential area is good to live in.</td>
<td></td>
</tr>
<tr>
<td>Shared emotional connection</td>
<td>I am happy living among the community in this residential area.</td>
<td>1= Strongly disagree</td>
</tr>
<tr>
<td></td>
<td>The community here always share important events such as birthday parties, weddings, festivals (Deepavali, Hari Raya and so on).</td>
<td>10= Strongly agree</td>
</tr>
<tr>
<td></td>
<td>The community here care about each other.</td>
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3. Methodology
This study was carried out using a structured questionnaire. Face to face structured and formal interviews were used to obtain the data. The settings of the interviews were the pre-selected residential areas in Presint 9 in Putrajaya and Seksyen 4 Bandar Baru Bangi. The focus of this study involved groups of residents in a medium high level of income between RM3000 to RM5000 and categorized as able to afford the medium-high cost houses (JPBD, 2009; Putrajaya, 2009). The study employs the population survey approach on two individual gated residential areas in Bandar Baru Bangi and individual non-gated residential areas in Putrajaya. The site study on individual gated residential areas in Bandar Baru Bangi involved 201 households while that in Putrajaya involved 275 households. The study’s respondents comprise the main breadwinners in the households. The husband or wife was selected as the study’s respondent on account of their responsibility towards the residence. A preliminary site survey was conducted first to identify unoccupied residences such as neighbourhood watch beats, kindergartens, child-care centres, storage buildings and vacant residences. Out of 476 residences, 19 residences were eliminated from the respondent selection list as they have been identified as having non-residential uses. This population study involved a total of 457 residences and 171 respondents.

In selecting the study site, individual non-gated residences were selected first followed by the selection of individual gated residences. This was because individual non-gated residences in Malaysia are very limited, and Putrajaya was chosen as the study area because it is the first residential area in Malaysia to practice the non-gated concept in residential areas (Roslan Talib, 2009). Besides that, individual non-gated residences were selected earlier in order to suit similar selection criteria with individual gated residences. This selection criterion was adapted from Wilson-Doenges’s (2000) study that selected gated community residences first before selecting non gated community residences. Residential selection criterion based on on-site area criteria was adapted from studies by Perkins et al. (1993) and Wilson-Doenges (2000) which are: having resided in the area for a minimum of 5 years; ethnic compositions are similar and; home ownership based on a residential lot size must also be similar. In addition, the layout of the neighbourhood must be uniform, indicating that it is located within a neighbourhood. Based on these criteria, 9B Street and 9D Street in Precinct 9B Putrajaya was selected as the study site for individual non-gated residences and 4/7 Street, Section 4, Bandar Baru Bangi was selected as the study site for individual gated residences.

4. Results and Discussions

In total, there are 171 respondents who participated in both study areas (individual gated residential and individual non-gated residential). 90 respondents participated in individual gated residential areas (IGR), and 81 respondents participated in individual non-gated residential areas (INGR). The result demonstrated that the female respondent (65.4%) is higher compared to the male respondents (34.6%) in INGR. Meanwhile in IGR, the number of male respondents is higher (70%) compared to female respondents (30%). In terms of ethnicity, the dominant respondents in both areas are Malay Muslims (INGR: 100%, IGR: 93.3%). Using the t-test, this study found that marital status has significant influence on sense of community in IGR (t (88) = -2.22; p=0.02), but no significant difference on sense of community in INGR (t (6.43) = 0.75; p=0.47). This result shows that married respondents at IGR (M=6.46) have a higher sense of community compared to single respondents (M=5.53) as shown in Figure 1.
Fig. 1. Comparison between sense of community and their dimensions with marital status in individual gated residential areas (IG R).

As shown in Figure 1, the comparison between SOC dimensions shows all SOC dimensions, namely integration and fulfillment of needs (Married: M=6.5, Single: M=5.44); membership (Married: M=5.89, Single: M=5.31); shared emotional connections (Married: M=6.49, Single: M=5.77) and; influence (Married: M=6.23, Single: M=5.51); are higher in married respondents than unmarried respondents. Meanwhile, results from the One-way ANOVA test found that the length of occupancy in the residential area was significant in INGR (F(4,76)= 5.83, p<0.05) whilst for IGR was (F(4,85)= 2.56, p<0.05). This finding shows that the longer a respondent resides in a residential area (INGR and IGR), the higher sense of community nurtured. This result shows in Figure 2:

Fig. 2. (a) Sense of community with the length of occupancy in IGR; (b) Sense of community with the length of occupancy in INGR

However, in comparing age and sense of community against types of residential areas, there are significant differences between age and SOC in INGR (F(3,77)= 2.73, p<0.05), but no significant differences in IGR (F(4,85)= 0.64, p>0.05). This finding indicates that if the age of the respondents increased, the community relations will decline. This finding is evidenced from Figure 3.

Fig. 3. Sense of community with the level of age in individual non-gated residential area
By referring to Figure 3, the sense of community of the respondents in INGR deteriorates with age. This based on a mean score of SOC for age levels 20’s (M=6.81) 30’s (M=6.47), 40’s (M=6.57) and 50’s (M=5.63).

As mentioned earlier, the objective of this paper is to examine the sense of community in two types of residential areas based on the gated element. Thus, the findings of the study demonstrated that the sense of community in individual non-gated residential areas (INGR) is higher (M=6.47, SP=0.88) as compared to sense of community in individual gated residential areas (IGR) (M=6.39, SP=1.08). In comparing between SOC dimensions against types of residential area, the results show the dimensions of integration and fulfillment of needs (INGR: M=6.52, SP=0.89, IGR: M=6.42, SP=1.25) and shared emotional connections (INGR: M=6.64, SP=1.05, IGR: M=6.44, SP=1.06) were higher at INGR as compared to IGR. On the other hand, membership (IGR: M=5.84, SP=1.23, INGR: M=5.41, SP=1.17) and influence dimensions (IGR: M=6.17, SP=1.19, INGR: M=5.38, SP=1.18) were higher in IGR than compared to INGR. Based on these comparisons among the SOC dimensions, it can be said that the dimension of shared emotional connections was the main dimension in nurturing local community ties at both types of residential areas. This finding is clearly shown by Figure 4:

Fig.4. Comparison of sense of community and their dimensions in individual gated and non-gated residential areas. Note: SOC= sense of community, IFN= integration & fulfillment of need, MSP= membership, SEC= shared emotional connection, IFE= influence

5. Conclusion

The objective of this paper is to investigate the sense of community at two types of residential areas namely individual gated residential areas (IGR) and individual non-gated residential areas (INGR). This study found that sense of community is higher at INGR as compared to that in IGR. The findings of this study support Wilson-Doenges’ (2000) study, which also found that residents in non-gated residential areas (gated elements refer to the gated community) have a higher sense of community as compared to those in gated communities. Talen (1999) argued that this may be caused by environmental factors and the physical layout of residential areas that influence the community ties. Social interaction among residents will be enhancing in an environmental design and building physical designs that motivate them to go out for recreation (Talen, 1999). In addition, this study also found that married residents have a higher sense of community. This was clarified by Campbell and Lee (1992) by proposing that the number of children in a family is one of the factors in community relations. Community relations formed when the relationship among children in the community as childhood friends will lead to the formation of ties among parents. The findings of this study concur with past research (Clampet-Lundquist, 2010; McCulloch, 2003; McMillan & George, 1986; Onyx & Bullen, 2000) that the occupational period of the
residential area is one of the indicators of tight community relations. This study has proven that residents at both types of residential areas (IGR and INGR) have a higher sense of community the longer they reside in that area. This is believed to involve strengthening of sense of belonging and sharing within a neighbourhood, giving rise to good community relations. This finding will influence the decisions made by the parties involved in development in Malaysia such as Architects, Planners, Landscape Architects and developers in designing residential neighbourhoods especially towards fostering local community relations.

In this study, ethnic demography forms one of the limitations. The majority of respondents are Malay Muslim ethnic group. Hence, this study focused on a racially homogeneous group of residents. Thus, the findings of the study are skewed towards the community relations for a homogeneous ethnic demography. Therefore, this study proposes that future research should take into account the diversity of ethnicity to obtain more generalized findings. A more qualitative study need to be undertaken in future research to clarify differences in community relations between individual gated residential areas (IGR) and individual non-gated residential areas (INGR). Such a study is crucial to distinguish community relations network between gated community and individual gated residential areas.

References


