

AperTO - Archivio Istituzionale Open Access dell'Università di Torino

Sense of community in adolescents from two different territorial contexts: the moderating role of gender and age

This is the author's manuscript

Original Citation:

Availability:

This version is available <http://hdl.handle.net/2318/149643> since

Published version:

DOI:10.1007/s11205-013-0569-3

Terms of use:

Open Access

Anyone can freely access the full text of works made available as "Open Access". Works made available under a Creative Commons license can be used according to the terms and conditions of said license. Use of all other works requires consent of the right holder (author or publisher) if not exempted from copyright protection by the applicable law.

(Article begins on next page)

This is the author's final version of the contribution published as:

E. Cicognani; L. Martinengo; C. Albanesi; N. De Piccoli; C. Rollero. Sense of community in adolescents from two different territorial contexts: the moderating role of gender and age. *SOCIAL INDICATORS RESEARCH*. 119 (3) pp: 1663-1678.

DOI: 10.1007/s11205-013-0569-3

The publisher's version is available at:

<http://link.springer.com/content/pdf/10.1007/s11205-013-0569-3>

When citing, please refer to the published version.

Link to this full text:

<http://hdl.handle.net/2318/149643>

Sense of Community in Adolescents from Two Different Territorial Contexts: The Moderating Role of Gender and Age

Elvira Cicognani · Letizia Martinengo · Cinzia Albanesi ·
Norma De Piccoli · Chiara Rollero

Abstract The role of structural characteristics of the residential context in influencing adolescents' Sense of community (SoC) has received limited consideration in the literature. Aim of this study was to assess SoC in male and female adolescents living in two Italian provinces characterized by different positions on indicators of quality of life. The moderating role of adolescent gender and age group on SoC was also considered. The sample includes 1,182 adolescents: 46.2 % male and 53.8 % female. Age ranged from 16 to 22 years ($M = 17.5$; $SD = 1.23$). Findings indicate that levels of Sense of community differ between the two provinces and are higher among adolescents living in the more "advantaged" context (Rimini) based on quality of life objective indicators. Males score higher than females except in the more "advantaged" context, whereas girls experience greater opportunities for influence. SoC tends to decrease with age, as the context becomes increasingly insufficient for satisfying adolescents' needs. Findings indicate that the context significantly affects adolescents' SoC and that such effect is partly moderated by gender and age.

Keywords Sense of community · Quality of life · Adolescents

1 Introduction

Within the vast literature on Sense of community (SoC), the need to develop a better understanding of the experience of the residential community and Sense of community during adolescence has been acknowledged (e.g., Pretty et al. 1994, 1996; Pretty 2002).

Over this period of life, the emergence of new opportunities for social involvement and the exploration of new values and interests that follow from psychosocial transitions and changing relationships in different community settings (e.g., neighbourhoods and schools) have potential implications for the construction of SoC with reference to the residential community. Young people's participation in activities in different settings offers them the opportunity to cultivate several social relationships. This helps them to gain a sense of connectedness and belonging, which strengthens their social and community identity. The experience of power, and opportunities to influence and interpret different social roles (through active involvement and participation to different organisations and groups), are crucial for the experience of SoC (Albanesi et al. 2007; Cicognani et al. 2011; Evans 2007). These interactions are central also to the development of a personal and social identity (Pretty 2002). However, empirical research on SoC in adolescence is still limited. In this context, we will focus on the role of the residential context in influencing adolescents' levels of SoC and the moderating role of age and gender.

1.1 Sense of Community and Contextual Characteristics

Traditional conceptualisations of community have stressed the importance of the territorial dimension on which communities are based,¹ as offering resources (material, social, symbolic, etc.) affecting the construction of social relationships and bonds (Fisher et al. 2002). Following Hill (1996), Prezza et al. (2009) emphasised that sense of community is context specific and that territorial communities have certain features that distinguish them from other kinds of communities. Davidson and Cotter (1991) found that SoC is significantly associated with participants' evaluations of the quality of their community. Positive associations between satisfactions regarding the living area/the neighbourhood and SoC, have been widely acknowledged (Chavis and Wandersman 1990; Perkins et al. 1990; Long and Perkins 2007). Hummon (1992) suggested that structural characteristics of the territorial context could determine variation in people's Sense of community.

Some studies have tested the impact of living in small versus medium-size towns on SoC scores: the former are implicitly considered as characterized by greater social cohesion/connectedness following classical conceptualizations of community within sociology (e.g., Tönnies). Findings confirmed the presence of higher SoC scores among people living in smaller towns (Prezza et al. 2001). Research by Pretty et al. (2003) on rural Australian adolescents leaving their hometown for larger cities, owing to lack of opportunities had pointed to the role of SoC in the decision to remain versus leave. In a series of studies conducted in Canada, Kitchen et al. (2012a, b) examined Sense of community both at a regional and at a metropolitan level. They found that Sense of community tends to be higher in rural areas compared to urban areas and that significant variations of SoC can be found also within different areas of the same city. Interestingly, lower levels of Sense of community were always associated with lower levels of mental health (for a different result regarding rural areas see Carpiano and Hystad 2011). The authors concluded that investment in community services in more deprived areas could be helpful to develop both Sense of community and health. This literature suggests that subjective perception of the

¹ Gusfield (1975) identified two dimensions of community: territorial and relational. The relational dimension of community has to do with the nature and quality of relationships in that community. Other communities may seem to be defined primarily according to territory and its geographical characteristics, as in the case of neighborhoods, towns or cities, etc., but even in such cases, the relational dimension is also essential.

existence of opportunities and resources in the community positively influence residents' SoC, however, we still have limited information on whether individuals' SoC might be sensitive to structural characteristics of the context. Such objective indicators of community well being are associated with greater social resources and capital, which lay the ground for people to develop a sense of belonging and emotional connection with others, as well as to feel that the community is capable to satisfy their needs (all components of Sense of community) (see also Carpiano and Hystad 2011). Using a socio-ecological framework, Francis et al. (2012) recently found, in the adult population, that the quality of public spaces and of shops is positively associated with SoC, independently from the frequency of use. Prezza and Pacilli (2007) found that greater use of public places for play in childhood predicted a stronger Sense of community in adolescence.

1.2 Sense of Community in Adolescence: Age and Gender Differences

Individual characteristics of adolescents, and how they may moderate levels of SoC referred to the residential community, have been investigated only at descriptive level, without clear theoretically-based guiding hypotheses. Among such characteristics there are age and gender.

Considering the developmental changes and multiple age-related psychosocial transitions characterising the adolescent period, there are grounds to expect that, as they grow older, young people would experience a reduction of SoC referred to their home town. In fact, psychosocial transitions occurring during adolescence (e.g., school transitions, beginning of new relationships, involvement in new organisations) are accompanied by the emergence of new needs, interests, values, opportunities, as well as social groups and relationships (Evans 2007). Exploration processes associated with identity construction stimulate an increasingly complex and critical understanding by adolescents of the different contexts and their contribution in satisfying their evolving needs (e.g., of connectedness, autonomy, and competence) (Pretty 2002). Moreover, young people achieve greater autonomy and have the desire to make new experiences and explore and familiarize themselves with other places and groups (Chipuer and Pretty 1999; Pretty et al. 1994, 1996). These processes may bring about a general reduction in levels of SoC with reference to the home town. Several empirical studies confirm that SoC is stronger during early versus late adolescence (Chiessi et al. 2010; Chipuer et al. 1999), particularly on some dimensions of SoC (e.g., satisfaction of needs and opportunities for involvement). However, important missing information is the role played by characteristics of the context in influencing such changes. For example, whether the residential community offers young people formal and informal contexts and services (educational, recreational, social, etc.) that match their age-related needs is important for developing feelings of connectedness. This requires examining the experience of SoC among adolescents living in communities that differ in structural characteristics.

This brings us also to the issue of gender differences in SoC. In fact, the gendered patterns of exploration and involvement in the community generally reported by studies examining youth participation in groups and organisations (typically featuring a greater involvement by males versus females, at least in Italy, cf. Cicognani et al. 2012), suggest that male adolescents enjoy greater opportunities for cultivating social relationships and social connectedness with different figures (peers and adults). Family socialization influences also play a significant role: traditionally, male adolescents are more encouraged by parents to become autonomous and make different experiences outside the family than females; with female adolescents parents tend to be more protective and to restrict their

participation, often encouraging involvement in more adult-controlled and caring organizations (e.g., religious, volunteer). Gordon (2008) found that at school and within their families boys and girls are offered different opportunities to emerge as political actors. Stafford et al. (2005) suggested that men and women can be differently exposed to aspects of their local environment, affecting their SoC and health (Rollero, Gattino, and De Piccoli in press).

Evidence of the greater involvement of males comes from studies on formal group membership during adolescence, which continues to report a stronger male prevalence in formal and informal community contexts for youth in Italy (e.g., APQ 2010). These processes would reduce young females chances to construct significant social bonds with different people and develop a more generalized sense of connectedness with the larger community beyond specific dyadic relationships. According to Stafford et al. (2005) this is going to change in adulthood, when women have greater opportunities to experience their local environment: when they have kids, for example, they interact more frequently with the local services and spend more time in their residential environments: this contributes to increasing their SoC (Wood et al. 2013). Also Kitchen et al. (2012a) found higher levels of SoC among adult women with children compared to adult men. Comparisons of SoC scores across genders in adolescence using different measures, confirmed the higher scores among males than females (Pretty et al. 1996; Albanesi et al. 2007; Chiessi et al. 2010).

Summarizing the theoretical and empirical literature reviewed so far, we can conclude that the impact of community structural characteristics in influencing Sense of community cannot be ignored. Such opportunities might differentially affect subgroups of adolescents based on age/developmental factors and gendered socialization influences.

1.3 The Context of the Study

The study involved adolescents from two Italian Provinces: Cuneo and Rimini. The first one covers the area near the Alps in the North West of Italy, whereas Rimini is located on the Adriatic Sea in the North East part of the country.

As reported in Table 1, Cuneo features a greater number of inhabitants but a lower population density than Rimini. According to “Il Sole 24 Ore” (see www.ilssole24ore.com),² the most authoritative Italian economic and financial outlet, these two Italian provinces differ according to quality of life indicators, concerning the domains of education, employment and recreational opportunities and services (see Table 2 for the data concerning the most recent annual survey).

As shown in Table 2, Cuneo ranks among the first in Italy for the number of young entrepreneurs and employment rate, whereas Rimini offers greater cultural and recreational

² “Il Sole 24 Ore” publishes annual reports on quality of life in Italian provinces using 30 objective quality of life indicators, based on statistics drawn from the most authoritative Italian research institutes and centers. They cover six areas: standards of living (i.e. GDP; inflation; houses prices); work and affairs (i.e. number of enterprises; unemployment rates); public security (i.e. crime rates; thefts); population (i.e. number of regular immigrants; birth rates; divorce rates); welfare and environment (i.e. climate; child care services and facilities); and recreational services and facilities (i.e. numbers of restaurants and bookshops). For each indicator 1,000 points are given to the province that obtained the top ranking position. The other provinces receive a proportionate amount of points according to their relative distance from the first position on such indicator. Based on the mean score obtained for each indicator, six ranks are produced, corresponding to the six macro areas (standards of living; work and affairs; public security; population; welfare and environment and recreational services and facilities). The final ranking is obtained by averaging the scores of the six ranks. According to this procedure, Rimini province ranks fourth and Cuneo fifteenth among the 107 Italian provinces.

Table 1 Population and income indicators of the two provinces involved in the study

Province	Inhabitants ^a	Density ^a	Km ²	Per capita income ^b
Cuneo	589,102	85	6,894.94	30,401
Rimini	326,926	378	864.88	27,924

^a Data referring to December 31, 2012

^b Data referring to December 31, 2010

Table 2 Cuneo and Rimini provinces' ranking on selected indicators

	Cuneo		Rimini	
	Value	Rank ^a	Value	Rank ^a
Entrepreneurs per thousand of same age (18–29 years old)	68.9	3	57.2	11
Unemployment rate (% on general Italian population)	3.79	3	8.01	58
Proportion of young people on the total population: % variation (period 2002–2011)	−1.7	20	−1.18	35
Graduates per thousand young people 25–30 years old	59.4	75	66.9	47
Libraries per 100,000 inhabitants	7.8	52	15.7	2
Number of events per 100,000 inhabitants	7.35	37	14.32	1
Index of sport activity	540	51	908.9	43
Number of restaurants and bars per 100,000 inhabitants	567.75	69	602.53	2

Source Qualità della Vita 2012, Il Sole 24 Ore, www.IISole24Ore.com

^a Ranks are calculated on the total of 107 Italian provinces

opportunities and services. The unemployment rate (general population) of both provinces is lower compared to the national one (10.5 %); in the Province of Rimini the unemployment rate among young people aged 15–24 is 20.5 %, ³ whereas in the Province of Cuneo it increased dramatically from 9.4 % in 2011 to 21.9 % in 2012. ⁴ Moreover, according to the data of “Il Sole 24 Ore” year 2012, ⁵ among young people who are currently employed two out of three hold unstable working positions. An important characteristic of the local economy of Rimini is that it offers more opportunities of occasional working positions particularly during the summer season, due to the catering and recreation industry (bar/restaurants/hotels) which attracts especially young people, both as main target and for employment purposes. In fact, Rimini is one of the most famous seaside resorts and is well-known as the “capital” of discos and amusement for young people throughout Italy. ⁶ These characteristics make this context (vs. Cuneo province) particularly sensitive to the needs of young people (in terms of education/cultural, work and leisure needs), thus enhancing their opportunities to cultivate social relationships and bonds.

³ http://www.provincia.rimini.it/informa/comunicati/2013_07_17_02_dati.pdf.

⁴ http://images.cn.camcom.gov.it/f/Studi/RAPPORTOCUNEO2013/10/10611_CCIAACN_1462013.pdf.

⁵ <http://www.ilssole24ore.com/art/notizie/2012-08-31/giovani-nuova-impennata-disoccupazione-102823.shtml?uid=AbVZHFVG>.

⁶ <http://www.lonelyplanet.com/italy/emilia-romagna-and-san-marino/rimini#ixzz2gqrw9jrQ>.

2 Aims and Hypotheses

Aim of this study was to investigate SoC in adolescence. In particular, we wanted to examine:

1. whether SoC differs according to the characteristics of the context (the opportunities and resources offered to young people, e.g., material, social);
2. how adolescents' age and gender moderate the effect of the context on Sense of community.

Based on the quality of life indicators profiles considered, we expected higher SoC scores among adolescents living in Rimini than Cuneo province. Moreover, based on the literature (Chiessi et al. 2010; Chipuer et al. 1999), we expected that older adolescents (18 years and over) would report lower SoC scores than younger adolescents (16–17 years old). Such age pattern should also be partly dependent on the characteristics of the residential context; in particular, the decrease in SoC with age was expected to be stronger among adolescents from communities enjoying lower quality of life and thus lower structural opportunities for satisfying adolescents' emerging needs, whereas in more favourable contexts age was expected to have a reduced impact on SoC.

As regards gender, in line with previous studies (Albanesi et al. 2007; Chiessi et al. 2010; Pretty et al. 1996; Zani et al. 2001), expectations were that male adolescents would score higher on SoC than females. However, it was also hypothesised that gender differences would be partly dependent on the residential context, and on the structure of opportunities offered to young people, and particularly, that gender differences should be stronger in contexts with lower quality of life.

3 Method

3.1 Participants

The sample included 1,182 adolescents: 46.2 % were male and 53.8 % female. Age ranged from 16 to 22 years; $M = 17.5$; $SD = 1.23$ (53.7 % between 16 and 17 years; 46.3 % 18 years or older). 74.2 % of the participants were from Cuneo province; 25.8 % from Rimini province (Table 3).

Male adolescents are slightly overrepresented in the sample of Rimini province ($\chi^2 = 8.254$; $p < 0.01$). No age differences were found between the samples from the two provinces.

3.2 Instrument and Procedure

All participants filled an anonymous questionnaire assessing socio-demographic characteristics (gender, age), and Sense of community. SoC was measured with the Sense of Community scale for adolescents (SOC-A) (Chiessi et al. 2010). The scale measures subjective perceptions and feelings of individuals about their residential community and includes 20 items covering five dimensions (4 items each) Sense of belonging (SB; e.g., “*I feel like I belong to this town*”); Support and emotional connection in the community (SCC; e.g., “*People in this place support each other*”); Support and emotional connection with peers (SCG; e.g., “*I like to stay with other adolescents that live in this town*”); Satisfaction of needs and opportunities for involvement (NS; e.g., “*In this place, there are*

Table 3 Composition of the sample according to gender, age group and province (N = 1,182)

	Total % (N)	Cuneo % (N)	Rimini % (N)
Male	46.2 (546)	43.8 (381)	53.1 (165)
Female	53.8 (636)	56.2 (490)	46.9 (146)
16–17 years old	53.7 (635)	54.4 (475)	51.4 (160)
18 years old and over	46.3 (547)	45.6 (396)	48.5 (151)

enough initiatives for young people”); and Opportunities for influence (I; e.g., “Honestly, I feel that if we engage more, we would be able to improve things for young people in this town”). Participants were asked to respond using a Likert type scale (0 = not at all true; 1 = slightly true; 2 = fairly true; 3 = very true; 4 = completely true). The referent community was the town where the participants lived.

Students filled in the questionnaire in their class, in the presence of a teacher, after authorization of the School Principal.

3.3 Analyses

On the SoC-A scale a confirmatory factor analysis (CFA) was conducted, using AMOS 3.61 software, in order to confirm the theoretical structure, as provided by Chiessi et al. (2010). The analysis was based on the data from 1,121 participants (cases with missing data were excluded). Missing data were the 5.2 % (N = 61); no differences (χ^2 and *t* test) were found based on age, gender, provinces, and Sense of community.

We chose maximum likelihood estimation because our data were normally distributed.⁷ We hypothesized a five factors model, as in the validation study by Chiessi et al. (2010): consistently, each indicator was specified to load only on one factor, measurement error terms were specified to be uncorrelated with each other, and all factors were allowed to correlate with each other. Standardized factor loadings ranged from 0.58 to 0.84 (Table 4): lower factors loading were found for perceived opportunities for influence (I), except for the item D15 (see “Appendix”). For the remaining dimensions standardized factor loadings were always above 0.70. The final model reported a coefficient χ^2/df of 7.47, which appeared less satisfactory than those obtained in the validation study⁸ (see also Cicognani et al. 2014 for further confirmation on the goodness of the five-factor structure). Some scholars consider a value under three a good model fit (see Mîndrila 2010), however there is no universal agreement on this standard (Kenny 2012⁹): for this reason we used different statistics to test the goodness-of-fit of the model, in particular *CFI*, *GFI*, *RMR* and *RMSEA*. Hu and Bentler (1999) provided rules of thumb for choosing cut-off values for declaring significance. According to them, when *RMSEA* values are close to 0.06 or below and *CFI* and *TLI* are close to 0.90 or greater the model has a reasonably good fit. A *RMR* value of 0.08 or less is indicative of an acceptable model. For our five dimension model *CFI* was

⁷ SCC (skewness = 0.22; kurtosis = -0.10); SCG (skewness = -0.20; kurtosis = -0.56), SB (skewness = -0.29; kurtosis = -0.45); NS (skewness = 0.00; kurtosis = 0.60); I (skewness = -0.35; kurtosis = 0.09).

⁸ The coefficients reported in the validation study (Chiessi et al. 2010) were the following: χ^2/df = 3.77; *TLI* = 0.97; *NFI* = 0.97; *CFI* = 0.98; and *RMSEA* = 0.06.

⁹ <http://davidakenny.net/cm/fit.htm>.

0.91; *GFI* was 0.90; *RMR* was 0.08 and the *RMSEA* was 0.07. Variance estimate for each factor was the following: *SCG* = 0.83 (SE = 0.06); *SB* = 0.81 (SE= 0.06); *NS* = 0.76 (SE = 0.05); *SCC* = 0.67 (SE = 0.04); *I* = 0.40 (SE = 0.04). Following the validation study (Chiessi et al. 2010), for each of the five scales, a mean score was calculated by averaging across the corresponding items; the resulting measure can be considered a continuous measure (cf. Norman 2010). Cronbach's alphas were all satisfactory (>0.70) Correlations (Pearson's) among the five scales ranged from 0.49 to 0.76 (Table 5).

To assess differences in SoC scales according to gender and age group, two-way ANOVA was used. Finally, to analyze the effect of the context on the dimensions of SoC and to test the moderator role of gender and age of the contextual influence on SoC we performed a set of hierarchical multiple regressions analyses (OLS estimator; extraction method Enter), one for each dimension of SoC.

4 Results

ANOVA results indicated that adolescents from Rimini score higher than adolescents from Cuneo on all SoC scales: *SB* [$F(1) = 176.72, p < 0.001, \eta^2 = 0.132$], *SCC* [$F(1) = 257.31, p < 0.001, \eta^2 = 0.18$], *SCG* [$F(1) = 81.74, p < 0.001, \eta^2 = 0.065$], *NS*

Table 4 Confirmatory factor analysis: factor loadings (N = 1,121)

Latent variables	Observed variables	Unstandardized factor loadings	SE	Standardized factor loadings
<i>SB</i>	D5	1.00		0.72
	D10	1.01	0.04	0.78
	D12	1.07	0.04	0.82
	D18	0.88	0.03	0.71
<i>SCC</i>	D1	1.00		0.79
	D3	1.04	0.03	0.83
	D4	0.83	0.03	0.72
	D20	1.04	0.03	0.80
<i>SCG</i>	D2	1.00		0.74
	D9	1.03	0.04	0.81
	D6	0.90	0.04	0.70
	D17	0.93	0.03	0.77
<i>NS</i>	D7	1		0.74
	D8	1.02	0.04	0.78
	D11	1.03	0.04	0.78
	D19	1.07	0.04	0.76
<i>I</i>	D13	1.00		0.58
	D14	1.01	0.06	0.66
	D15	1.26	0.07	0.79
	D16	0.97	0.06	0.64

SB sense of belonging, *SCC* support and emotional connection in the community, *SCG* support and emotional connection with peers, *NS* satisfaction of needs and opportunities for involvement, *I* opportunities for influence

Table 5 Descriptive statistics, reliability coefficients and correlations between SoC-A scales (N = 1,121)

	Mean (SD)	Cronbach's alpha	SB	SCC	SCG	NS	I
1. SB	2.45 (0.96)	0.84					
2. SCC	1.85 (0.85)	0.86	0.76*				
3. SCG	2.34(0.95)	0.83	0.70*	0.64*			
4. NS	1.98 (0.97)	0.85	0.73*	0.70*	0.73*		
5. I	2.56 (0.76)	0.75	0.51*	0.52*	0.53*	0.49*	

SB sense of belonging, SCC support and emotional connection in the community, SCG support and emotional connection with peers, NS satisfaction of needs and opportunities for involvement, I opportunities for influence

* $p < 0.01$

[$F(1) = 252.30, p < 0.001, \eta^2 = 0.177$] and I [$F(1) = 66.73, p < 0.001, \eta^2 = 0.054$] (Table 6).

Male adolescents reported higher SoC scores than females in Emotional connection with peers (SCG) [$F(1) = 15.86, p < 0.001, \eta^2 = 0.013$], Emotional connection with the community (SCC) [$F(1) = 8.85, p < 0.005, \eta^2 = 0.007$] and Sense of belonging (SB) [$F(1) = 16.78, p < 0.001, \eta^2 = 0.014$]. Younger adolescents reported higher level of Need Satisfaction compared to older one [$F(1) = 4.96, p < 0.05, \eta^2 = 0.004$].

Hierarchical multiple regression analyses were then conducted, entering Gender (0 = M; 1 = F) and Age (0 = 16–17 years old; 1 = 18 years old and over 18) in the first block, then Province (0 = Rimini; 1 = Cuneo) in the second block, and the interaction terms (Gender*Province, Age*Province, Gender*Age) in the third block.

Regarding SB (Table 7) the demographic variables entered in the first block [$F(2,1149) = 20.88; p < 0.001$] accounted for 4 % of variance: being female ($\beta = -0.19; p < 0.001$) decreased SB, also when province was entered in the second step, accounting for an additional 12 % of variance [$F(3,1149) = 72.08; p < 0.001$]. The β coefficient for province ($\beta = -0.35; p < 0.001$) showed that living in a relatively deprived area negatively affected SB. Interaction terms were not significant, showing no moderator effects of age and gender on SB.

Concerning SCC (Table 8), the demographic variables entered in the first block [$F(2,1159) = 9.72; p < 0.001$] accounted for 2 % of variance of SCC: being female ($\beta = -0.12; p < 0.001$) reduced SCC. This effect, however decreased when province was entered in the second block, while the amount of variance explained by the regression increased significantly (17 %) [$F(3,1159) = 90.95; p < 0.001$], indicating that living in Cuneo ($\beta = -0.42; p < 0.001$) negatively affected SCC. Interaction terms were not significant, showing no moderator effects of age and gender on SCC.

For SCG (Table 9) demographic variables entered in the first block [$F(2,1163) = 18.14; p < 0.001$] accounted for 3 % of variance of SCG: being female ($\beta = -0.15; p < 0.001$) and older ($\beta = -0.09; p < 0.01$) decreased SCG. These effects remained when province was entered in the regression [$F(3,1163) = 40.79; p < 0.001$]. This variable ($\beta = -0.26; p < 0.001$) accounted for another 7 % of the variance, showing a detrimental effect of living in a less favorable environment on SCG. Entering the interaction terms in the third block did not increase significantly the variance explained. However the β coefficient for the interaction term Gender*Age ($\beta = -0.10; p < 0.01$) was significant, showing a moderator effect of gender on age: in particular Fig. 1 shows that SCG follows a gendered developmental pattern: younger males tend to feel more satisfied

Table 6 Sense of community: differences according to gender, province and age (means and standard deviations) (N = 1,121)

		SB M (SD)	SCC M (SD)	SCG M (SD)	NS M (SD)	I M (SD)
Gender	Male	2.66 (0.90)**	1.97 (0.86)**	2.50 (0.93)**	2.11 (0.94)	2.59 (0.75)
	Female	2.30 (0.95)	1.75 (0.83)	2.21 (0.96)	1.88 (0.98)	2.57 (0.75)
Province	Rimini	3.05 (0.83)**	2.48 (0.81)**	2.78 (0.97)**	2.69 (0.82)**	2.86 (0.76)**
	Cuneo	2.25 (0.90)	1.63 (0.75)	2.19 (0.90)	1.74 (0.89)	2.48 (0.72)
Age	16–17 years	2.49 (0.93)	1.83 (0.83)	2.42 (0.93)	2.04 (0.96)*	2.58 (0.71)
	18 years and over	2.43 (0.96)	1.89 (0.87)	2.26 (0.97)	1.92 (0.98)	2.57 (0.79)

SB sense of belonging, SCC support and emotional connection in the community, SCG support and emotional connection with peers, NS satisfaction of needs and opportunities for involvement, I opportunities for influence

** $p < 0.01$, * $p < 0.05$

Table 7 Hierarchical regression analysis on SB (sense of belonging) (β coefficients)

Predictors	Step 1	Step 2	Step 3
Gender (0 = M; 1 = F)	-0.19***	-0.16***	-0.13***
Age	-0.02	-0.03	-0.03
Province (0 = Rimini; 1 = Cuneo)		-0.35***	-0.35***
Gender \times Province			-0.04
Age \times Province			-0.01
Gender \times Age			-0.05
R^2	0.04	0.16	0.16
R^2 (corrected)	0.03	0.16	0.16
	$F(2,1149) = 20.88$	$F(3,1149) = 72.08$	$F(6,1149) = 37.47$

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 8 Hierarchical regression analysis on SCC (support and emotional connection in the community) (β coefficients)

Predictors	Step 1	Step 2	Step 3
Gender (0 = M; 1 = F)	-0.12***	-0.09**	-0.09**
Age	0.05	0.03	0.02
Province (0 = Rimini; 1 = Cuneo)		-0.42***	-0.42***
Gender \times Province			-0.04
Age \times Province			-0.02
Gender \times Age			-0.04
R^2	0.02	0.19	0.19
R^2 (corrected)	0.02	0.19	0.19
	$F(2,1159) = 9.72$	$F(3,1159) = 90.95$	$F(6,1159) = 45.83$

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 9 Hierarchical regression analysis on SCG (support and emotional connection with peers) (β coefficients)

Predictors	Step 1	Step 2	Step 3
Gender (0 = M; 1 = F)	-0.15***	-0.13***	-0.12***
Age	-0.09**	-0.10**	-0.11***
Province (0 = Rimini; 1 = Cuneo)		-0.26***	-0.26***
Gender \times Province			0.07
Age \times Province			-0.03
Gender \times Age			-0.10**
R^2	0.03	0.10	0.10
R^2 (corrected)	0.03	0.09	0.10
	$F(2,1163) = 18.14$	$F(3,1163) = 40.79$	$F(6,1163) = 22.42$

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

of their community than younger girls, however as they grow up, males' perceptions of satisfaction decrease considerably, while for young women age differences are negligible.

Considering NS (Table 10), gender in the first block accounted for 2 % of the variance [$F(2,1160) = 9.60$; $p < 0.001$]; being female ($\beta = -0.11$; $p < 0.001$) decreased NS. Province, entered in the second block, increased significantly the amount of explained variance [$F(3,1160) = 91.42$; $p < 0.001$; R^2 change = 0.17] and confirmed a negative effect on NS of living in a deprived area ($\beta = -0.42$; $p < 0.001$). Also gender ($\beta = -0.08$; $p < 0.01$) and age ($\beta = -0.07$; $p < 0.01$) decreased NS, showing a detrimental effect of being female and older. Interaction terms were not significant, showing no moderator effects of age and gender on SB.

The last dimension of SoC analyzed was perceived opportunities for influence (Table 11). The first block was not significant. In the second block [$F(3,1148) = 19.48$; $p < 0.001$], the amount of variance explained was very limited (5 %) but confirmed a detrimental effect of living in a disadvantaged province ($\beta = -0.22$; $p < 0.001$) on perceived influence. Entering the interaction terms in the third block did not increase significantly the variance explained. However the β coefficient for the interaction term Gender*Province ($\beta = 0.13$; $p < 0.001$) was significant, showing a moderator effect of gender on Province: in particular Fig. 2 shows that women who live in favorable context (Rimini) perceive more opportunities for influence compared to young men, while in less favorable environment the differences are negligible.

5 Discussion

The findings of this study largely confirm our hypotheses supporting the need to further investigate the relationship between the local community and individual residents (in this case youth) according to a multidimensional perspective.

Results indicate that the characteristics of the residential context influence Italian adolescents' Sense of community, suggesting that feelings of connectedness to the community are partly dependent on structural opportunities. Adolescents living in the province with higher quality of life, according to indicators that are most relevant for this population such as education and cultural opportunities, and leisure facilities (Rimini) enjoy greater

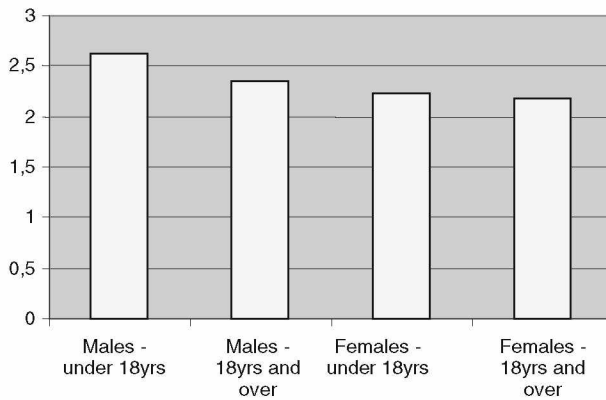


Fig. 1 Support and emotional connection with peers (SCG): gender \times age interaction plots (values in the y axis range from 0 = not at all true to 4 = completely true)

Table 10 Hierarchical regression analysis on NS (satisfaction of needs and opportunities for involvement) (β coefficients)

Predictors	Step 1	Step 2	Step 3
Gender (0 = M; 1 = F)	-0.11***	-0.08**	-0.06
Age	-0.06	-0.07**	-0.07*
Province (0 = Rimini; 1 = Cuneo)		-0.42***	-0.42***
Gender \times Province			-0.04
Age \times Province			-0.01
Gender \times Age			-0.04
R^2	0.02	0.19	0.20
R^2 (corrected)	0.02	0.19	0.19
	$F(2,1160) = 9.60$	$F(3,1160) = 91.42$	$F(6,1160) = 46.86$

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 11 Hierarchical regression analysis on I (opportunities for influence) (β coefficients)

Predictors	Step 1	Step 2	Step 3
Gender (0 = M; 1 = F)	-0.01	0.01	0.00
Age	-0.01	-0.02	-0.05
Province (0 = Rimini; 1 = Cuneo)		-0.22***	-0.23***
Gender \times Province			0.13***
Age \times Province			-0.03
Gender \times Age			-0.07
R^2	0.00	0.05	0.06
R^2 (corrected)	-0.00	0.05	0.05
	$F(2,1148) = 0.08$	$F(3,1148) = 19.48$	$F(6,1148) = 11.87$

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

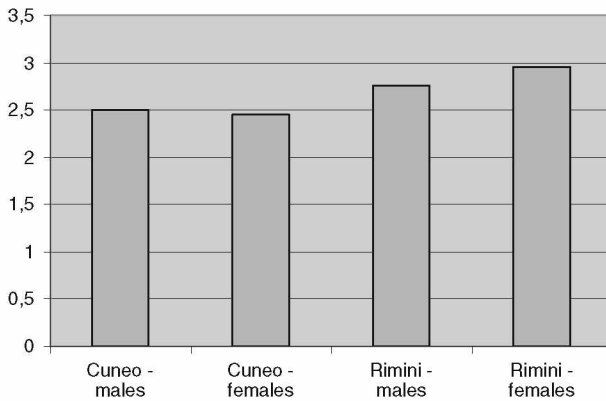


Fig. 2 Opportunities for influence (I): gender \times province interaction plots (values in the y axis range from 0 = not at all true to 4 = completely true)

SoC than youth from an area (Cuneo province) with lower opportunities on the same indicators. This finding points to the interdependence between structural life conditions of the communities and emotional feelings that people develop toward them (Chavis and Wandersman 1990; Fassio et al. 2013; Hummon 1992; Long and Perkins 2007; Perkins et al. 1990; Rollero and De Piccoli 2010).

We also tested age and gender influences on SoC, considering both the direct effect of such variables on Sense of community and the interaction effect with the context. Gender influences are partly consistent with previous studies (Albanesi et al. 2007; Chiessi et al. 2010; Pretty et al. 1996), indicating higher SoC among males, for Sense of belonging, Support and emotional connection with the community and Support and emotional connection with peers. Possible explanations of such differences can be found in the gendered patterns of exploration and involvement in the community, typically featuring a greater involvement by males versus females, at least in Italy (cf. Cicognani et al. 2012); this allows male adolescents greater opportunities for cultivating social relationships and social connectedness with both peers and adults and thus, developing a sense of belonging. Another potential influence is family socialization: (Italian) parents typically encourage male adolescents to become autonomous and make different experiences outside the family, whereas with female adolescents they tend to be more protective and to restrict their participation, often encouraging involvement in more adult-controlled and caring organizations (e.g., religious, volunteer). However, an additional and important finding of this study is that gender effects are partly dependent on the context where adolescents live: in particular, where the context is perceived as offering greater opportunities for satisfying adolescents' needs and have an influence (e.g., Rimini), gender differences appear to be reversed, in favor of females. Young women seem particularly sensitive to the opportunities offered by their living environment to exert an influence on their community: they seem able to recognize those opportunities and feel empowered by that recognition; however, when they do not find opportunities and resources, they feel more powerless. In a positive environment, which fosters quality of life for all citizens, where structural and social inequalities, including those based on gender, are lower, adolescents find more opportunity and reasons to develop a positive relation with their community.

Considering age differences, irrespective of residential context, and in line with previous studies (Chiessi et al. 2010; Chipuer et al. 1999), young people experience a lowering of Satisfaction of needs and opportunities for involvement as they grow older; such decline may well reflect developmental processes and age related changes in adolescents' needs and structural opportunities offered by their community. For example, it is likely that the local community becomes no more sufficient for satisfying adolescents' needs as they grow up, because they need to explore different contexts and situations, irrespective of the environmental "richness" that they experience. Furthermore the younger people show higher levels of Support and emotional connection with peers than young adults: it is well known that peer relationships are important in adolescence and they diminish as they grow up. This process is more evident for boys than for girls.

Although these data confirm the relevance of the context for developing Sense of community and the need to further examine the interdependence between individual and structural characteristics, between structural opportunities and satisfaction with them, this study presents some limitations. In particular, the low amount of explained variance in the regression analyses indicates the need to include additional variables that could mediate the relationships between SoC and context, in particular family socialization and organizational membership.

Further studies should investigate how young people's quality of life is affected by macro social factors and social and economic inequalities; moreover it would be interesting to understand how young people's sense of connectedness with the community is affected by the level of cultural and ethnic homogeneity of the living environment. Future studies should involve different young populations and diverse contexts as well as cultures and ethnic groups. Furthermore, qualitative methods would be important to shed light on the role that contextual characteristics might play in affecting SoC, to understand of the factors and processes influencing the construction of SoC and how the relationship with the local community changes across the life course.

Appendix: The Brief Scale of Sense of Community in Adolescents (SoC-A)

1. People in this place support each other (SCC)
2. I spend a lot of time with other adolescents that live in this place (SCG)
3. Many people in this town are willing to help each other (SCC)
4. People in my town work together to improve things (SCC)
5. I feel like I belong to this town (SB)
6. If I feel like talking I can generally find someone in my town to chat to (SCG)
7. In this place, there are enough initiatives for young people (NS)
8. In this place, there are enough opportunities to meet other boys and girls (NS)
9. I like to stay with other adolescents that live in this town (SCG)
10. As compared to others, my town has many advantages (SB)
11. In this place, there are many situations and initiatives which are able to involve young people like me (NS)
12. I think this is a good place to live in (SB)
13. I think that people who live here could changes things that are not properly working for the community (I)
14. Honestly, I feel that if we engage more, we would be able to improve things for young people in this town (I)

15. If the people here were to organize, they would have a good chance of reaching their desired goals (I)
16. If only we had the opportunity, I think that we could be able to organize something special for our town (I)
17. In this place, I feel I can share experiences and interests with other young people (SCG)
18. This is a pretty town (SB)
19. In this place, young people can find many opportunities to amuse themselves (NS)
20. People in my town collaborate together (SCC)

References

- Albanesi, C., Cicognani, E., & Zani, B. (2007). Sense of community, civic engagement and social well-being in Italian adolescents. *Journal of Community and Applied Social Psychology, 17*(5), 387–406.
- APQ GECO (2010). Gli spazi di aggregazione giovanile in Emilia Romagna, Report Provinciale 2010, Regione Emilia Romagna.
- Carpiano, R. M., & Hystad, P. W. (2011). “Sense of community belonging” in health surveys: What social capital is it measuring? *Health and Place, 17*(2), 606–617.
- Chavis, D. M., & Wandersman, A. (1990). Sense of community in the urban environment: A catalyst for participation and community development. *American Journal of Community Psychology, 18*(1), 55–81.
- Chiessi, M., Cicognani, E., & Sonn, C. (2010). Assessing Sense of Community on adolescents: Validating the brief scale of Sense of Community in adolescents (SOC-A). *Journal of Community Psychology, 38*(3), 276–292.
- Chipuer, H. M., & Pretty, G. M. (1999). A review of the sense of community index: Current uses, factor structure, reliability, and further development. *Journal of Community Psychology, 27*(6), 643–658.
- Chipuer, H. M., Pretty, G. H., Delorey, E., Miller, M., Powers, T., Rumstein, O., et al. (1999). The neighbourhood youth inventory: Development and validation. *Journal of Community and Applied Social Psychology, 9*, 355–368.
- Cicognani, E., Klimstra, T., & Goossens, L. (2014). Sense of community, identity statuses, and loneliness in adolescence: A crossnational study on Italian and Belgian youth. *Journal of Community Psychology, .* doi:10.1002/jcop.21618.
- Cicognani, E., Menezes, I., & Nata, G. (2011). University students’ sense of belonging to the home town: The role of residential mobility. *Social Indicators Research, 104*(1), 33–45.
- Cicognani, E., Zani, B., Fournier, B., Gavray, C., & Born, M. (2012). Gender differences in youths’ political engagement and participation: The role of parents and of adolescents’ social and civic participation. *Journal of Adolescence, 35*(3), 561–576.
- Davidson, W. B., & Cotter, P. R. (1991). The relationship between sense of community and subjective well-being: A first look. *Journal of Community Psychology, 19*(3), 246–253.
- Evans, S. D. (2007). Youth sense of community: Voice and power in community contexts. *Journal of Community Psychology, 35*(6), 693–709.
- Fassio, O., Rollero, C., & De Piccoli, N. (2013). Health, quality of life and population density: A preliminary study on “contextualized” quality of life. *Social Indicators Research, 110*, 479–488.
- Fisher, A. T., Sonn, C. C., & Bishop, B. J. (2002). *Psychological sense of community: Research, applications, and implications*. New York: Kluwer Academic.
- Francis, J., Giles-Corti, B., Wood, L., & Knuiiman, M. (2012). Creating sense of community: The role of public space. *Journal of Environmental Psychology, 32*, 401–409.
- Gordon, H. R. (2008). Gendered paths to teenage political participation: Parental power, civic mobility, and youth activism. *Gender and Society, 22*, 31–55.
- Gusfield, J. R. (1975). *The community: A critical response*. New York: Harper Colophon.
- Hill, J. L. (1996). Psychological sense of community: Suggestions for future research. *Journal of Community Psychology, 24*(4), 431–438.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55.

- Hummon, D. M. (1992). Community attachment: Local sentiment and sense of place. In I. Altman & S. Low (Eds.), *Place attachment*. New York: Plenum.
- Kitchen, P., Williams, A., & Chowhan, J. (2012a). Sense of community belonging and health in Canada: A regional analysis. *Social Indicators Research*, *107*(1), 103–126.
- Kitchen, P., Williams, A., & Chowhan, J. (2012b). Sense of belonging and mental health in Hamilton, Ontario: An intra-urban analysis. *Social Indicators Research*, *108*(2), 277–297.
- Long, D. A., & Perkins, D. D. (2007). Community social and place predictors of sense of community: A multilevel and longitudinal analysis. *Journal of Community Psychology*, *35*(5), 563–581.
- Mîndriiă, D. (2010). Maximum likelihood (ML) and diagonally weighted least squares (DWLS) estimation procedures: A comparison of estimation bias with ordinal and multivariate non-normal data. *International Journal of Digital Society*, *1*(1), 60–66.
- Norman, G. (2010). Likert scales, levels of measurement and the “laws” of statistics. *Advances in Health Sciences Education*, *15*, 625–632.
- Perkins, D. D., Florin, P., Rich, R. C., Wandersman, A., & Chavis, D. M. (1990). Participation and the social and physical environment of residential blocks: Crime and community context. *American Journal of Community Psychology*, *18*(1), 83–115.
- Pretty, G. M. (2002). Young people’s development of the community-minded self. In A. T. Fisher, C. C. Sonn, & B. J. Bishop (Eds.), *Psychological sense of community: Research, applications, and implications* (pp. 183–204). New York: Kluwer Academic Press.
- Pretty, G. M., Andrews, L., & Collett, C. (1994). Exploring adolescents’ sense of community and its relationship to loneliness. *Journal of Community Psychology*, *22*(4), 346–358.
- Pretty, G. H., Chipuer, H. M., & Bramston, P. (2003). Sense of place amongst adolescents and adults in two rural Australian towns: The discriminating features of place attachment, sense of community and place dependence in relation to place identity. *Journal of Environmental Psychology*, *23*(3), 273–287.
- Pretty, G. M., Conroy, C., Dugay, J., Fowler, K., & Williams, D. (1996). Sense of community and its relevance to adolescents of all ages. *Journal of Community Psychology*, *24*(4), 365–379.
- Prezza, M., Amici, M., Roberti, T., & Tedeschi, G. (2001). Sense of community referred to the whole town: Its relations with neighboring, loneliness, life satisfaction, and area of residence. *Journal of Community Psychology*, *29*(1), 29–52.
- Prezza, M., & Pacilli, M. G. (2007). Current fear of crime, sense of community, and loneliness in Italian adolescents: The role of autonomous mobility and play during childhood. *Journal of Community Psychology*, *35*(2), 151–170.
- Prezza, M., Pacilli, M. G., Barbaranelli, C., & Zampatti, E. (2009). The MTSOCS: A multidimensional sense of community scale for local communities. *Journal of Community Psychology*, *37*(3), 305–326.
- Rollero, C., & De Piccoli, N. (2010). Does place attachment affect social well-being? *European Review of Applied Psychology*, *60*, 233–238.
- Rollero, C., Gattino, S., De Piccoli, N. (in press). A gender lens on quality of life: The role of sense of community, perceived social support, self-reported health and income. *Social Indicators Research*. doi [10.1007/s11205-013-0316-9](https://doi.org/10.1007/s11205-013-0316-9).
- Stafford, M., Cummins, S., Macintyre, S., Ellaway, A., & Marmot, M. (2005). Gender differences in the associations between health and neighbourhood environment. *Social Science and Medicine*, *60*(8), 1681–1692.
- Wood, L., Giles-Corti, B., Zubrick, S. R., & Bulsara, M. K. (2013). “Through the kids ... we connected with our community”: Children as catalysts of social capital. *Environment and Behavior*, *45*, 344–368.
- Zani, B., Cicognani, E., & Albanesi, C. (2001). Adolescents’ sense of community and feeling of unsafety in the urban environment. *Journal of Community and Applied Social Psychology*, *11*(6), 475–489.