

Adolescent social capital: An intergenerational resource?

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Abstract

Introduction: There is abundant literature about the benefits of social capital in youth, but less is known of the origins of social capital. This study explores whether adolescents' social capital is shaped by their parents' social capital, their family's socioeconomic status (SES), and the socioeconomic profile of their neighborhood.

Methods: The study uses cross-sectional survey data gathered from 12 to 13-year-old adolescents and their parents ($n = 163$) in Southwest Finland. For the analysis, adolescents' social capital was disaggregated into four dimensions: social networks, social trust, tendency to receive help, and tendency to provide help. Parents' social capital was measured both directly (parents' self-reports) and indirectly (adolescents' perceptions of their parents' sociability). The associations with the hypothesized predictors were analyzed using structural equation modeling.

Results: The results suggest that social capital is not directly intergenerationally transmissible the way some biologically heritable traits are. Yet, parents' social capital shapes youngsters' perception of their sociability, and that, in turn, predicts each dimension of adolescents' social capital. Family SES is positively related to young people's reciprocal tendency, but the pathway flows indirectly through parents' social capital and adolescents' perception of parents' sociability. Conversely, a disadvantaged socioeconomic neighborhood is directly negatively associated with adolescents' social trust and tendency to receive help.

Conclusions: This study suggests that, in the studied Finnish, relatively egalitarian context, social capital is (at least partly) transmissible from parents to children, not directly, but indirectly through the mechanism of social learning.

KEYWORDS

intergenerational transmission, reciprocity, social capital, social networks, socioeconomic status, trust

1 | INTRODUCTION

Social capital is an asset with multiple benefits, including better school performance (Lindfors et al., 2018), enhanced health status (Novak et al., 2018), and higher level of well-being (Ferguson, 2006). Research has focused mainly on the outcomes of social capital while less is known of its origins. According to previous research, social capital tends to accumulate among youth from better-off families (e.g., Lannoo et al., 2012; Verhaeghe et al., 2013), but most of these studies have focused only on one dimension of social capital, namely social networks.

In this study, we use a broader definition of social capital formulated by Putnam (2000), which includes social networks, reciprocity, and trust in other people. We assess, in a Nordic context (see Sivesind & Selle, 2010), whether adolescents "inherit" these characteristics from their parents and to what extent socioeconomic conditions relate to each of these elements. We have gathered survey data from adolescents aged 12–13-years and their parents from Southwest Finland. This is, to our knowledge, one of the few attempts to study social capital at such young age (see also Tuominen & Haanpää, 2022). Early adolescence is, however, an interesting phase to study social capital as it is during this period that relationships expand

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beyond the family circuit (Choudhury et al., 2006), the ability to consider other persons' perspectives strengthens (Fett et al., 2014; Padilla-Walker et al., 2018; Stolle & Hooghe, 2004), and trust, trustworthiness, and prosocial and reciprocal behaviors toward others increase due to intensified intimacy and time spent with friends (Carlo, 2006; in Padilla-Walker et al., 2018).

2 | THEORETICAL FRAMEWORK

2.1 | Social capital and its measurements

Social capital literature is dominated by three theoretical schools. Bourdieu (1986) defines social capital as a resource that yields benefits. It is obtained through networks of friends and acquaintances, and its value is determined by the resources of network members. For Bourdieu and Wacquant (2013), the social world is hierarchical, with an individual's position determined by their economic, cultural, and social capital, and the symbolic value of each. These resources are interrelated, but "economic capital is at the root of all the other types of capital" (Bourdieu, 1986, p. 252).

Although Bourdieu makes no claims about causality, he suggests an individual's behavior is guided by their hierarchical position, which is shaped by their habitus, a durable way of being developed through socialization in childhood (Bourdieu, 2005; Bourdieu & Wacquant, 1992). Similar life experiences create a shared "stylistic affinity" within a social group and establish a norm that guides the group's behavior distinguishing it from other groups (Bourdieu, 1984, p. 173; 1990, pp. 53–59).

Accumulating social capital requires frequent interaction and exchange of favors with network members, which demands time, effort, and ultimately economic capital (Bourdieu, 1986, p. 250). However, people from influential families can effortlessly reproduce social capital. Their company is inherently valued and sought after, without requiring significant investment of their own.

Putnam's (2000) school understands social capital more broadly as the way people relate to others expressed in three forms: social networks, reciprocal behavior, and social trust. The three dimensions are tightly interrelated. Frequent interaction cultivates trust and cherishes help provision toward those who are close to us. Reception of help, on the other hand, builds a moral obligation to also return a favor, which on its turn strengthens further the trust between people. However, in empirical research, these three dimensions of social capital are seldom measured together in one study (e.g., Addae, 2020; Lau & Li, 2011; Lindfors et al., 2018).

Putnam observes social capital is unequally distributed across population groups; informal social relationships are common across social hierarchies, but distant or formal relationships are more common among the better-educated higher-earners (Putnam, 2000, pp. 93–94). While Putnam considers social capital as a generally valuable resource, he claims that children who grow up in family circumstances with low stocks of social capital can gain the most if the volume of their social capital increases.

In Coleman's (1988) (Coleman & Hoffer, 1987) school, social capital is taken as a characteristic of social structures, not of individuals. It is expressed in social norms, sanctions, obligations, expectations, trust, and information flows. The denser the social structure, the more there is social capital that can facilitate the achievement of a common goal. In this sense, a "social closure," where all network members frequently interact with each other, is the most efficient structure.

In this paper, we seek to form an overall understanding of social capital among young adolescents in a Nordic context. We take Putnam's concept of social capital as our main object of research. It can be viewed to encompass Bourdieu's social capital, but it employs a more holistic view on human relationships. We also approach Coleman's perspective of structural social capital as we account for the context of interaction between adolescents and their parents. We understand the context as a frame within which social relationships develop and in which individual level social capital may be transmitted. However, if not otherwise specified, social capital here refers to the Putnamian three-dimensional concept.

The aim of this study is to test for potential intergenerational links of social capital. We also assess whether social capital as a multidimensional asset relates to socioeconomic resources. While we cannot establish causation, we assume that socioeconomic resources predict adolescent social capital, though the reverse may also be true.

A multidimensional approach to social capital is relevant not only for theoretical motives, but also because the different dimensions have found to be correlated (Helliwell & Putnam, 2004; Tuominen & Haanpää, 2022) and yet, they may have different origins. Below, we go through some often-referred mechanisms, which earlier research has associated with the shaping of young people's social relationships, trust, and reciprocal behaviors. However, to our knowledge, this is the first paper considering simultaneously the different dimensions of social capital and several possible origins of each at a young age.

2.2 | Influence of parents

According to social learning theory (Bandura, 1982), social interaction is a practice learned in early childhood through socialization, which is a complex, multidirectional process involving most importantly the family, but also the major institutions and social settings, including neighborhoods and communities (Peterson, 2005; see also Bronfenbrenner, 1986). As part of the socialization process, parents open their networks to their children and pass their values, perspectives, and examples onto them. This happens mainly through role modeling and verbal persuasion (Bandura, 1982), but it is also shaped by meanings, shared experiences, and individual interpretations (e.g., Kuczynski, 2003). Socialization is an important driver of intergenerational transmission, which refers to a process in which parents' characteristics are transferred to their children (Bowles et al., 2009; Liu et al., 2018). Indeed, previous research has extensively shown intergenerational associations regarding, for instance, attitudes, values, behaviors, and social emotions (e.g., Anger, 2012; Barni et al., 2013; Brenning et al., 2012; Meeus, 2016).

Weiss (2012) studied intergenerational transmission of social capital (conceptualized as neighborhood attachment and participation, school attachment, and religious participation) in the US context, and found a significant association between middle- and high-school students' (mean age 16 years) social capital and that of their parents (operationalized as participation in organized social activities). Weiss suggests that the intensity of parents' participation in social activities influences the standard with which adolescents proportionate their own level of social participation.

Specific socialization mechanisms, such as observational learning and rewards, have been linked to children's acquisition of new skills, resources, and behaviors.

However, children's perceptions of their parents' behaviors can be more related to their adjustment than the actual behaviors of their parents (Richaud de Minzi, 2013; Schaefer, 1965). In fact, evidence shows that children's perception of their parents' attitudes and behavior can influence various child-level outcomes (e.g., Dinkelmann & Buff, 2016; Niermann et al., 2022; Wilk et al., 2018). For instance, children's perceptions of parents' behavior can shape their expectations of social relationships in general, which may, in turn, impact how children feel about and behave toward their peers and other people (Gaylord et al., 2003). Furthermore, there is evidence that parents' self-reports may systematically differ from children's reports about parents' attitudes and behavior (Gaylord et al., 2003; Liu et al., 2022; Niermann et al., 2022). This underscores the importance of addressing children's perceptions alongside parents' self-reports (Barr-Anderson et al., 2010; Wilk et al., 2018).

Based on the social learning theory (Bandura, 1982) and the intergenerational transmission proposition (Bowles et al., 2009), we hypothesize that the three dimensions of Putnamian social capital are all intergenerationally transmitted (H1). We approach this from two perspectives. First, we analyze a hypothesized direct relationship between parents and children's social capital (H1-a; Figure 1). Second, based on previous research revealing incongruencies between children's and parents' accounts of parents' behavior, we include children's perceptions of their parents' sociability in the analysis as a mediator between parents and children's social capital (H1-b; Figure 2).

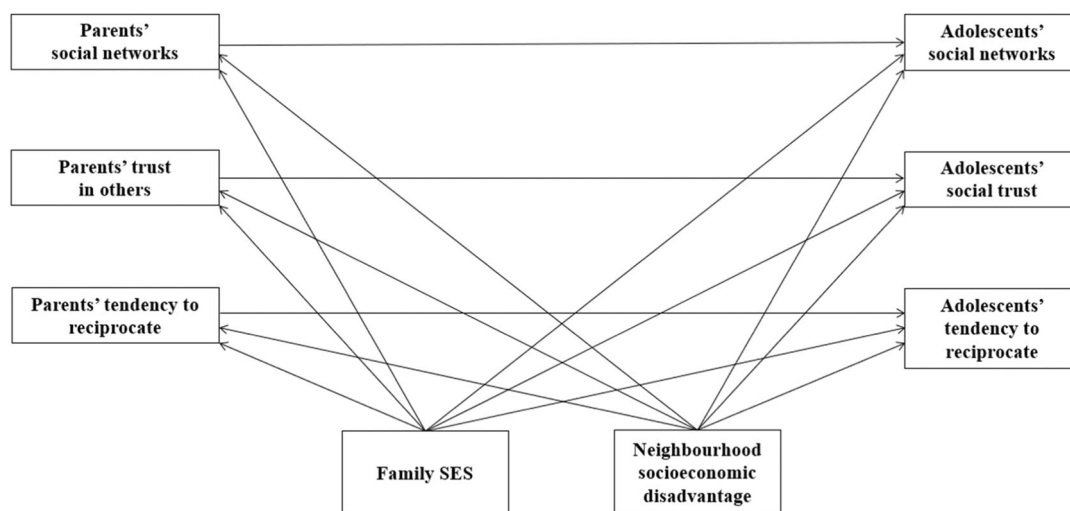


FIGURE 1 Hypothesized model of adolescents' social capital (H1-a, H2, and H3); all associations expected to be positive with the exception of neighborhood socioeconomic disadvantage the associations of which are assumed to be negative.

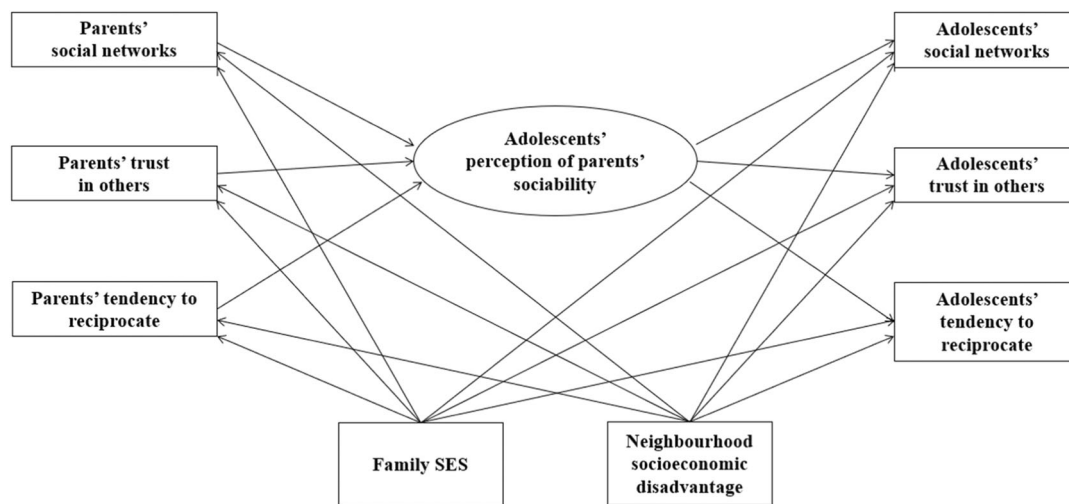


FIGURE 2 Hypothesized model of adolescents' social capital (H1-b, H2, and H3); all associations expected to be positive with the exception of neighborhood socioeconomic disadvantage the associations of which are assumed to be negative.

2.3 | Influence of socioeconomic background

Empirical research suggests families' socioeconomic background may explain the volume of social capital possessed by adolescents (e.g., Addae, 2020; Andersson et al., 2018; Nygård & Behtoui, 2020). The operationalisation of both social capital and socioeconomic background, however, varies between the studies. Moreover, the causal mechanism is not very clear and the direction of the relationships may operate to both directions.

Bourdieu used the term “social class” to refer to family background, which he claimed manifests in one's lifestyle (Bourdieu & Wacquant, 2013). In this paper, we use “socioeconomic status” (SES), which is often taken as a more direct measure of parents' education, income, and occupation, which are associated with various child outcomes (Bradley & Corwyn, 2002).

Typically, youth from higher SES backgrounds report more resourceful networks than their lower SES peers (e.g., Verhaeghe et al., 2013). This is logical due to the principle of social homophily (Lin, 2001). For instance, Papapolydorou (2014) studied teenagers' friendship networks in London and noticed that young people could easily decode each other's socioeconomic origin by the language use, dress code, consumption patterns, and leisure activities. However, contrary to Bourdieu's (1986, pp. 250–251) assertion about the allure of glamorous family background, she found that friendships were mostly developed between “social equals.” Socioeconomic sameness fostered like-mindedness and shared value structures, while a thought of befriending students with different socioeconomic background was mostly rejected. If anything, people with dissimilar backgrounds were distant acquaintances (Papapolydorou, 2014; see also Lin, 2001).

According to Hoff et al. (2002), parental education is the most influential element of family SES as it relates broadly to the development of children's social competences. Parental income plays also an important role. According to the family stress model, economic stress may upset parents' mental health and exacerbate their parenting practices, which can, in turn, deteriorate the well-being of the whole family and impact the child development (Hartas, 2011; Roy et al., 2019). While the effects of parental education and income on children are often indirect (Hartas, 2011; Hjalmarsson & Mood, 2015), they also have a more direct impact through their influence on the neighborhoods in which families live and the respective social surroundings of the children (Bronfenbrenner, 1986; Rakesh et al., 2022).

Childhood economic circumstances may also have a long-lasting influence on the level of social trust. Trust implies investing resources ahead of time and reaping the benefits later. This involves some level of uncertainty about the returns. Life-history theory suggests that a childhood home marked by resource scarcity spawns life strategies that prioritize fast returns of any investment to limit the risk of missing out a reward. Therefore, children in low-income families often exhibit lower levels of social trust (Stamos et al., 2019). Economic stress may also affect prosocial behavior, although the results are inconclusive regarding the direction of the effect. Some authors claim that economic stress reduces the tendency to help others (Davis & Carlo, 2019), while others suggest that people who experience hardships may demonstrate heightened sensitivity toward the hardships of others (McGinley et al., 2010).

The scarcity of literature on the effects of SES on *multidimensional* social capital leaves the discussion open. In the present study, we hypothesize that family SES relates positively to every dimension of adolescents' social capital (H2) but also to those of their parents (Figures 1 and 2).

2.4 | Influence of neighborhood

As mentioned above, neighborhoods are an important social setting influencing the socialization process (Bronfenbrenner, 1986; Peterson, 2005). Positive social relationships require trust that other people are generally well-intentioned (Coleman & Hoffer, 1987; Putnam, 2000; Ross et al., 2001), but mistrust is common in neighborhoods populated by people with fewer resources and where disorder, vandalism, and poor maintenance of public places are widespread (Ross et al., 2001). According to Laurence (2019), in disadvantaged neighborhoods, young people have fewer positive and more frequent negative interactions and lower levels of trust in their neighbors. Social disorganization theory (Sampson & Groves, 1989) posits that structural characteristics, such as residential mobility, ethnic heterogeneity, family disruption, and poverty, reduce social control in a community (Elliott et al., 1996; Sampson, 2012; Valdimarsdóttir & Bernburg, 2015). Reduced social control loosens the connections between people and decreases their involvement in joint activities (Veysey & Messner, 1999, p. 157).

Coleman understands social control as an expression of collective social capital. He asserts that when parents know their children's friends and their parents, it creates an 'intergenerational closure' in the community, which is crucial for maintaining social control. In such closure, parents can jointly agree upon the set of rules they collectively impose on their offspring (Coleman, 1988; Coleman & Hoffer, 1987). Some studies have found evidence supporting Coleman's proposition; for example, in communities where parents know each other, adolescents are less often involved in delinquent behavior (Valdimarsdóttir & Bernburg, 2015).

Most research on neighborhood effects has focused on the highly stratified US society. The social landscape looks rather different in Europe, particularly in the more egalitarian Northern Europe with extensive welfare systems and high levels of social trust (Pichler & Wallace, 2009). Although there are disadvantaged neighborhoods in Northern Europe as well, the differences between the upper and lower ends of the socioeconomic ladder are less extreme, even if the gap has widened over the past decades (Erola, 2010). Therefore, we hypothesize that, in the Nordic context, neighborhoods' socioeconomic profile relates to adolescent social relationships, social trust, and reciprocity (Figures 1 and 2), but the associations are weak (H3).

3 | MATERIALS AND METHODS

As discussed above, this study explores whether adolescents "inherit" social capital from their parents, and to what extent the socioeconomic context may explain social capital accumulation. We hypothesize that all three dimensions of social capital (i.e., social networks, trust, and reciprocal tendencies) are intergenerationally transmitted (H1). We assume the transmission may occur directly like biologically inherited traits (H1-a) or indirectly through social learning (H1-b), or both. Additionally, we hypothesize that both family SES (H2) and neighborhood SES (H3) relate to every dimension of the adolescents' social capital, but the latter does so only weakly in a North-European context. Although the relationship between socioeconomic background and social capital and may be bidirectional, we model the former as a predictor of the latter as this is the dominant assumption in youth-related literature.

3.1 | Participants and procedure

This study uses the cross-sectional survey Social Capital of Children and Adults 2018 (Tuominen 2018). The survey was conducted among sixth-grade comprehensive school students (mean age: 12.47 years) and their parents or legal guardians in Southwest Finland.¹ Of the region's 62 comprehensive schools, 21 (34%) agreed to take part in the study, and of all the 626 sixth graders in these schools, 460 were authorized by their parents and consented themselves to participate in the survey. At the same time, 170 parents responded to a questionnaire addressing them.²

This study utilizes a subsample of 163 students (26% of sixth graders in the participating schools) who met two criteria: their parents participated in the study, and they had studied at the same school for at least the past two school years.³ The latter criterion is important for two reasons. First, schools are vital locations where young people build their social networks, and a change in school may cause a significant disruption in this process. Second, to build an indicator for neighborhood SES, we matched the postal code of the schools with the official postal code area statistics of Statistics Finland, which are from the year 2017 (i.e., from the year preceding our data collection). In Finland, most comprehensive school students attend neighborhood schools (i.e., public schools situated in the areas where they live). Therefore, the area surrounding the school typically equals the students' living area if they have not changed schools.

¹The survey plan was previously reviewed and approved by the Ethical Review Board of the researchers' host institution and by municipal education authorities.

²See more details about the survey sample in the Supporting Information: Appendix I.

³As presented in the Supporting Information: Appendix, the demographic and capital measures of the youngsters in the subsample did not significantly differ from the full sample.

The questionnaires were designed to capture comparable information from the adolescents and their parents regarding their social networks (family, friends, hobby networks, neighbors, and, in the case of adolescents, schoolmates, and school personnel), the level of trust, and the propensity to provide and receive help (i.e., reciprocal behavior). Students completed the questionnaire during school hours with guidance provided by either a teacher or the first author. Parents participated in the study in their own time following the instructions included in the questionnaire.

3.2 | Measures and data analyses

Data on adolescent social capital came directly from the students' survey. Information on parents' social capital came from two sources: directly from the parents' survey and indirectly from the students' survey who reported on their parents' social behavior (sociability) as they perceive it.

The analysis builds on factors measuring: (1) adolescents' social capital, (2) parents' social capital, and (3) adolescents' perception of their parents' sociability, as well as separately calculated factor scores of families' SES and neighborhood socioeconomic disadvantage. Two sets of confirmatory factor analysis (CFA) were conducted to examine the factor structure and validity of the measures of adolescents and parents' social capital. In the CFA models, residual errors were initially assumed to be uncorrelated, and the factors were allowed to correlate. Internal consistencies of the latent factors were further examined using Cronbach's α (Field, 2009). Due to the restriction caused by the ratio of the sample size to the number of free parameters (Kline, 2011), the factor scores of the two CFA models were saved and used as "observed" variables in the structural equation modeling (SEM) model.

The hypothesized connections (H1–H3) were tested using SEM.⁴ As illustrated in Figures 1 and 2, two hypothetical models were used, one with direct paths from parent's self-reported social capital to adolescents' social capital (H1-a), and another one with adolescents' perception of their parents' sociability mediating the paths from parents' self-reported social capital (H1-b). Both models included the two SES factors (H2 and H3).

The analyses were carried out on Mplus 8.4 with a maximum likelihood estimator with robust standard errors (MLR) (Muthén & Muthén, 2006).⁵ Regarding normality, the univariate distributions of the variables were within a reasonable range (skewness ± 2 , kurtosis ± 7) (Curran et al., 1996), except for two variables.⁶

The fit of the CFA and SEM models was evaluated by χ^2 tests (the ratio of the χ^2 value to the degrees of freedom; Byrne, 2012; Hu & Bentler, 1995) and fit indices with the respective cut-off values: root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) values under 0.08 (Hair et al., 2010; Hu & Bentler, 1998), and Tucker–Lewis index (TLI) and comparative fit index (CFI) values close to or greater than 0.90 (Bentler, 1992; Hair et al., 2010).

It is important to highlight that the relationships between the factors are likely much more complex than presented in the models. For instance, the association of parents and adolescents' social capital may well be bidirectional, and social capital can also produce economic returns (e.g., Aguilera, 2002; Drever & Hoffmeister, 2008), thus, impacting SES. Moreover, with a cross-sectional not-representative data, we are not able to verify causal relationships. Nonetheless, our models are informed by earlier research, and test some of the possible mechanisms for social capital transmission. However, the results can, at the best, only reflect correlations between the elements.

3.2.1 | Adolescents' social capital

The data did not fit well with the initially hypothesized three-factor CFA model; therefore, adjustments were made based on the modification indices. The dimension of reciprocity was separated into two factors (providing help and receiving help), one observed item was removed from the model because of strong cross-loadings, and one residual correlation was allowed (.32; SRH_2 and SPH_2).⁷ With these modifications, a good fit to the data was obtained. The latent factor items and standardized factor loadings of the final adolescents' social capital CFA model are presented in Table 1 along with descriptive statistics.

⁴Due to the hierarchical structure of the student data, a multilevel analysis would have been a sensible methodological choice, but the limited number of clusters (21 schools) did not enable this approach (see Maas & Hox, 2005). However, the intra-class correlations (ICC) of all variables related to adolescents' social capital were checked. The only variable with ICC >10% (nr of hobbies the adolescents participate in) was omitted from the analysis, as it would have required multilevel analysis (see Byrne, 2012, p. 354).

⁵There were few missing data on some observed variables (0.6%–3.0% per item), which were dealt with full information maximum likelihood.

⁶These items were "number of [student's] friends" (SSN_1; skewness -3.7 ; kurtosis 13.7), and "how often [student] receives help from family when they have a problem" (SRH_1; -2.3 ; 5.3).

⁷This correlation is likely to results from a higher importance of reciprocity in friendship relationships in comparison to those with family members or classmates.

TABLE 1 Latent factor items, standardized factor loadings, and descriptive statistics of adolescents' social capital.

Item codes	Measurements	Factor loadings	Range	M	SD
	Adolescents' social networks ^a (α .50)				
SSN_1	How many friends do you have	0.28	1–4	3.84	0.51
SSN_2	How often do you meet your friends outside school	0.62	1–4	3.27	0.81
SSN_3	How often do you spend time with other kids outside school	0.65	1–4	3.20	0.87
	Adolescents' trust in others ^b (α .65)				
SST_1	To what extent do you feel you can trust your classmates	0.73	1–5	3.41	0.95
SST_2	To what extent do you feel you can trust your neighbors	0.62	1–5	2.71	1.02
SST_3	To what extent do you feel you can trust Finns in general	0.50	1–5	2.12	1.03
	Adolescents' tendency to receive help ^c (α .64)				
SRH_1	If you encounter problems, your family tends to help you	0.36	1–4	3.75	0.55
SRH_2	If you encounter problems, your friends tend to help you	0.64	1–4	3.38	0.68
SRH_3	If you encounter problems, your classmates tend to help you	0.87	1–4	3.13	0.79
	Adolescents' tendency to provide help (α .78)				
SPH_1	If your family members encounter problems, you try to help	0.73	1–4	3.56	0.65
SPH_2	If your friends encounter problems, you try to help	0.71	1–4	3.65	0.60
SPH_3	If your classmates encounter problems, you try to help	0.78	1–4	3.25	0.69

Note: Higher values indicate higher levels of social capital; correlations between SSN and SST .28*, SSN with SRH .35*, SSN with SPH .32*, SST with STR .64***, SST with SPH .39***, and SRH with SPH .81*** (* $p < .05$; *** $p < .001$).

^aThe questions on adolescents' social networks followed the formulation used previously in the International Survey of Children's Well-being: iscweb.org and School Health Promotion in Finland.

^bQuestions about social trust proved to be absent in all available surveys targeting young people. We used the trust question applied often to adults ("Do you think that people can generally be trusted, or that you cannot be careful in dealing with people?") as the starting point and formulated 12 concrete questions—six positive and six negative—about the level of trust/mistrust in specific people (family, friends, teachers, class mates, neighbors, unknown Finns, unknown foreigners). The best goodness-of-fit measures were obtained when including only the three positive questions (referring to class mates, neighbors, and Finns) even when the negative ones were reversed.

^cThe questions on the tendency of receiving and providing help followed the formulation used previously in the International Survey of Children's Well-being. Although questions about hypothetical situations of obtaining/providing support induce a risk of socially desirable answers (Van Der Gaag & Snijders, 2005), we prioritized question formulations tested and applied in other large-scale surveys.

3.2.2 | Parents' social capital

As mentioned above, two approaches were employed to measure parents' social capital: a direct and an indirect one (see Table 2). For the former, a three-factor CFA model was designed. After allowing a residual correlation (.25) between two variables (PSN_5 and PSN_6), the model fitted the data well. For the latter, the survey included three items that were added to the second SEM model directly, as it was not possible to separately test the factor structure without saturating the model.

3.2.3 | SES of family

Three variables were used to measure families' SES: parents' highest achieved level of education, parents' own subjective assessment of the adequacy of household income, and net monthly income equalised to household size (see Table 3).⁸ The original level of household income was given using 10 income brackets following the practice applied in, for example, the European Social Survey (ESS Round 6). The obtained values for income were divided by the squared number of household members to obtain the equivalent income level that is sensitive to household size and composition, following a practice also used, for instance, by the Organization for Economic Co-Operation and Development OECD (2019).

⁸Originally, parents' occupation was also included in the model but it was dropped to improve the model fit.

TABLE 2 Items of latent factors of parental social capital (with standardized factor loadings), α values, and descriptive statistics.

Item	Measurements	Factor	Range	<i>M</i>	<i>SD</i>
	Parents' social capital (α .70)				
	Parents' social networks (α .61)				
PSN_1	How often do you participate in hobbies	0.56	1–6	4.43	1.77
PSN_2	How often do you participate in voluntary work	0.46	1–6	2.22	1.55
PSN_3	How often do you participate in associations' activities	0.43	1–6	2.48	1.56
PSN_4	How often do you take part in courses outside work	0.52	1–6	2.99	1.42
PSN_5	How often do you meet your friends	0.36	1–7	4.36	1.36
PSN_6	How many close, trusting relationships do you have	0.33	1–7	3.91	1.36
	Parents' level of trust in others (α .83)				
PST_1	To what extent do you find people trustworthy	0.78	1–10	7.23	1.76
PST_2	To what extent do you find people fair	0.79	1–10	7.69	1.76
PST_3	To what extent do you find people helpful	0.80	1–10	7.07	1.62
	Parents' tendency to reciprocate (α .70)				
PRB_1	How often do you offer help to people who are close to you	0.64	0–6	4.98	0.84
PRB_2	How often do people who are close to you offer to help you	0.87	0–6	4.74	1.08
	Parents' perceived sociability ^a (α .60)				
PPS_1	How often do you chat with your parents about your school day	0.65	1–3	2.42	0.65
PPS_2	How often do your parents chat with your friends	0.66	1–3	2.31	0.67
PPS_3	How often do your parents chat with your friends' parents	0.46	1–3	1.91	0.73

Note: Correlations between parental social capital factors PSN with PST .40***, PSN with PRB .19, PST with PRB .20 (***) $p < .001$.

^aBased on the student data.

TABLE 3 Items of sum scores measuring family SES and neighborhood socioeconomic profile, α values of the sum scores, and descriptive statistics per item.

Item codes	Measurements	Range	<i>M</i>	<i>SD</i>
	Family socioeconomic status (α .71)			
SES_1	Respondents' highest achieved education level	1–14	7.36	2.94
SES_2	Subjective assessment of the household income level	1–4	3.01	0.77
SES_3	Equivalised per person gross monthly income (based on household gross monthly income)	451–3791	1880.07	657.37
	Neighborhood socioeconomic profile ^a (α .92)			
NSP_1	% of adult population (18+ years) in the postal code area whose annual income is within two lowest income deciles (max. 13,287 €/year)	12.28–32.38	20.28	6.26
NSP_2	% of adult population (18+ years) in the postal code area whose annual income is within two highest income deciles (more than 31,874 €/year) (reversed)	9.36–29.23	18.63	6.14
NSP_3	% of adult population (18+ years) who were unemployed on the last working day of the year	5.02–24.03	11.97	5.80

Abbreviation: SES, socioeconomic status.

^aHigher values indicate higher levels of socioeconomic disadvantage.

3.2.4 | Socioeconomic disadvantage of neighborhood

Publicly available postal code area statistics were used to define the SES of the neighborhoods where the participating schools were located. For this purpose, three variables were used: proportion of adult residents in the two lowest income deciles, proportion of adult residents in the two highest income deciles (reverse-coded), and the proportion of adult residents who

were unemployed (see Table 3). Jointly, the three variables measure the level of socioeconomic disadvantage of the neighborhood.

4 | RESULTS

As presented in Table 1, the mean values of adolescents' and their parents' social capital were high for nearly all social capital variables. Apart from the gender bias among both adults and adolescents (see Table 4), we find no other indication of significant selection bias in the sample. Compared to the national data (Table 4), our sample appears comprising Finnish mid-range SES households with somewhat better educated but slightly lower earning parents than the country's average.

We had two alternative hypotheses for the intergenerational transmission of social capital, assuming either a direct relationship between parents' self-reported social capital and adolescents' social capital (H1-a), or an indirect relationship mediated through adolescents' perception of their parents' sociability (H1-b). Family's SES (H2) and the degree of socioeconomic disadvantage in the neighborhoods (H3) were assumed to relate to adolescents' social capital both directly and through parental social capital. All associations were hypothesized to be positive apart from neighborhood's socioeconomic disadvantage, which was assumed to contribute negatively to both adolescents and parents' social capital.

As illustrated in Figure 3, hypothesis H1-a was not supported by our results. Although a relatively good fit was reached between the model and the data ($\chi^2(97)$: 129.14, p : .02; RMSEA: 0.05; SRMR: 0.06; CFI: 0.91; TLI: 0.94), no statistically significant direct associations were found between the social capital dimensions of the parents and adolescent.

The alternative hypothesis, H1-b, obtained partial support (Figure 4). According to the model fit indices, it was necessary to add an un-hypothesized path from parent's trust to parent's social networks to attain a good fit: $\chi^2(34)$: 40.01, p : .22; RMSEA: 0.03; SRMR: 0.05; CFI: 0.98; TLI: 0.96. Parent's social networks and trust in others were positively associated with adolescents' perception of parents' sociability, which, in turn, was connected to all the four dimensions of adolescent's social capital. However, there was no significant path from parent's self-reported reciprocal behavior to the adolescents' perception of their sociability. It is possible that such acts as exchange of favors are less perceptible to the adolescents in comparison to the more directly interlinked social networks and trust.

Family's SES was directly associated with parents' trust and reciprocity behavior, and indirectly with parent's social networks through social trust. Contrary to the hypothesis (H2), family SES had no direct associations with adolescent social capital. However, one statistically significant indirect association through parental social capital and adolescents' perception of their sociability was detected with adolescent's tendency to providing help to others (0.04; p = .03).

TABLE 4 Descriptive statistics on sample versus overall population.

Demographics	Survey sample (n : 163)	National population (2018) ^a
Students		
Girls (%)	54.6	
Age (mean)	12.5 years	
Parents		
Women (%)	85.3	
Age (mean)	43.6 years	
Basic education (%)	1.9	13.5
Higher education (%)	44.4	43.1
Equivalised net yearly income (median)	23,787.0 euros/person	24,752.0 euros/person
Postal code area statistics	Areas around sample schools (2017)^a	All postal code areas in the country (2017)^a
% of adult population (18+ years) in the postal code area whose annual income is within two lowest income deciles (max. 13,287 €/year)	20.3	20.4
% of adult population (18+ years) in the postal code area whose annual income is within two highest income deciles (more than 31,874 €/year)	18.6	19.8
% of adult population (18+ years) who were unemployed on the last working day of the year	12	11.3

^aSource: Official Statistics of Finland (2017, 2018a, 2018b).

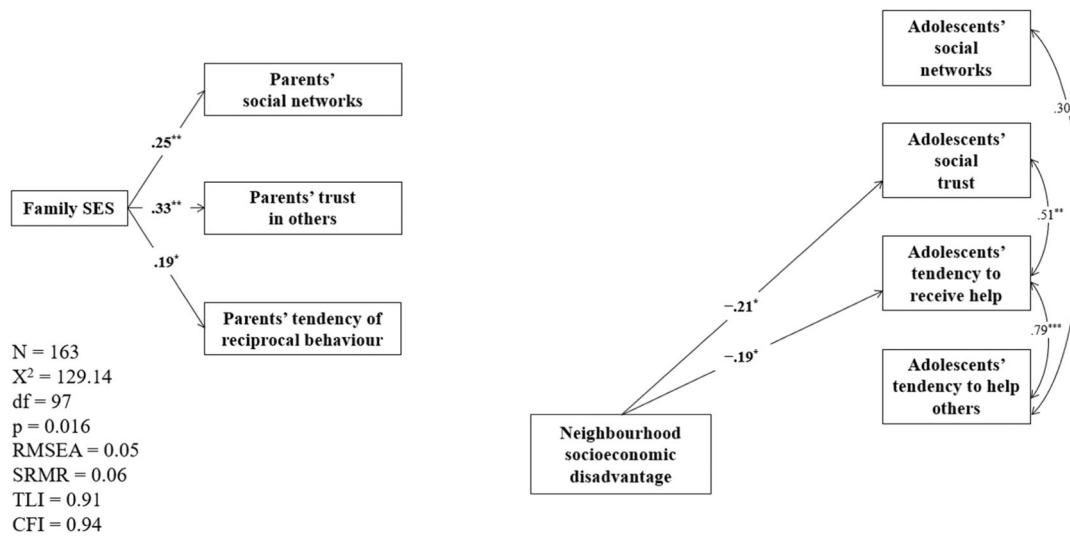


FIGURE 3 Structural model of adolescents' social capital (H1-a, H2, and H3) with standardized coefficients and R^2 values Only statistically significant paths depicted; * $p < .05$; ** $p < .01$; *** $p < .001$.

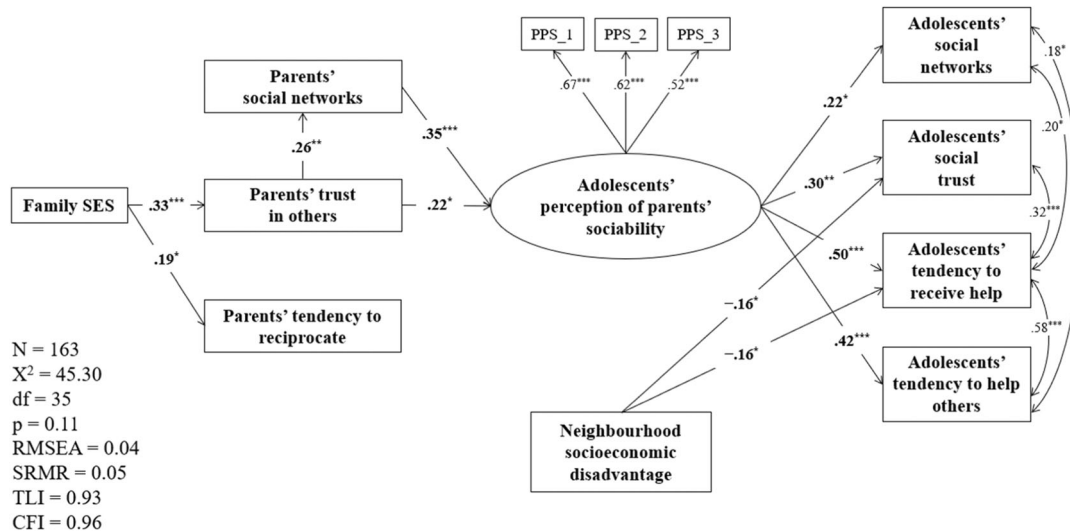


FIGURE 4 Structural model of adolescents' social capital (H1-b, H2, and H3) with standardized coefficients and R^2 values. Only statistically significant paths depicted; * $p < .05$; ** $p < .01$; *** $p < .001$.

Lastly, as hypothesized (H3), the neighborhood's socioeconomic disadvantage was found to be weakly negatively associated with adolescents' social trust and their tendency to receive help from others, but no relationship was found with their social networks or tendency to help others. No associations were detected with parents' social capital (self-reported or the one reported by adolescents).

To sum up, according to these results, all adolescent social capital dimensions relate to their perception of their parents' sociability. Their tendency to provide help relates indirectly to their family SES, and their trust and tendency to receive help relates to the neighborhood SES. Detailed results with all coefficients are presented in Supporting Information: Appendix II.

5 | DISCUSSION

This study delved into the origins of adolescent social capital and assessed the extent to which it is transmitted intergenerationally by parents, and associated with the SES of their families and the SES of their neighborhoods. Regarding the intergenerational transmission, two potential pathways were considered, a direct and an indirect one. The former refers to direct heritability while the latter builds on the assumption of a cognitive process where children are influenced by their

perception of the parents' behavior, which may differ from the parents' actual conduct, particularly if their respective social circuits are disconnected (Gaylord et al., 2003; Liu et al., 2022; Niermann et al., 2022).

To our knowledge there is only one earlier study on intergenerational transmission of social capital that focuses on US adolescents (mean age: 16 years). Weiss (2012) observed a direct correlation between adolescents and their parents' social capital even though he operationalised social capital differently for the two generations.

Our data was collected among early adolescents (mean age: 12–13 years) in Finland, a Nordic universalistic welfare state with more moderate social stratification. We conceptualized social capital in line with Putnam (2000) as networks, trust, and reciprocity, and measured these dimensions in a similar way among adolescents and their parents.

In our sample, both generations exhibited a high average level of social capital. This is not surprising as several earlier studies have observed that the volume of social capital is significantly higher in the Nordic countries than in most other parts of the world (e.g., Bjørnskov, 2003; Ferragina, 2017). Contrary to Weiss (2012), we found no significant direct relationships between parents' social capital as they reported it and their children's social capital. Nonetheless, we observed that the parents' reported social capital was strongly related to the perception that the children formed of their sociability, and that in turn related to each dimension of the children's own social capital. Deemed by the magnitude of coefficients, providing and receiving help appear to be the dimensions most sensitive to the parental influence.

These findings are interesting also from a theoretical point of view. The indicators used to assess adolescents' perception of parents' sociability approximate a measure of an intergenerational closure that Coleman wrote about. Our results suggest that in contexts where the parents know each other and each other's children, young people develop more extensive social ties, higher levels of social trust, and more intense reciprocal tendencies. In other words, intergenerational closure provides a favorable structure for the development of individual level social capital. This is logical; in intergenerational closures, relationships between parents and children likely grow more intense, and adolescents' exposure to their parents' example of social behavior is likely to be greater. By contrast, in contexts where parents and their children engage with separate social circuits, parents' role modeling probably remains vaguer, and their respective social practices develop more independently.

We are herewith inclined to draw two conclusions. First, parents' social conduct, which remains unseen or unperceived by their children, does not influence their offspring. This suggests social capital is not directly transmissible from parents to children the way some biologically heritable traits are. Second, and notwithstanding previous point, parents' social behavior that is perceived by their children predicts the volume of social capital accumulated by the youngsters. A shared social context enables the younger generation to learn from the parental example. Therefore, we conclude that social capital is (at least partly) transmissible from parents to children, not directly, but indirectly through the mechanism of social learning. Parents are critical role models for their adolescent children (see also Weiss, 2012; Wu, 2022).

Contrary to our hypothesis and some earlier research (Andersson et al., 2018; Nygård & Behtoui, 2020; Verhaeghe et al., 2013; Verhaeghe et al., 2015), we found no evidence of a direct association between families' SES and adolescents' social capital. It should be noted, though, that these earlier studies have defined social capital through the socioeconomic position of network members, which explains the intrinsic relationship between SES and social capital. Moreover, these studies have focused on older adolescents, who are likely more affected by socioeconomic differences, and on societies that are more socially stratified than Finland and the Nordic countries.

We conceptualized social capital in line with Putnam as an overall approach to other people. Such a qualitative perspective on social relationships appears to be less associated with family SES among early adolescents. This is in line with Hjalmarsson and Mood (2015), who found no significant relationship between family income and adolescent friend nominations.

Nevertheless, our findings suggest that, in the studied context, family SES is associated with parents' social capital and—through that and adolescents' perception of their sociability—it relates indirectly to young people's tendency to reciprocate with others. It is possible that the association of social capital with family SES intensifies as the adolescents grow older. The absence of a direct association between SES and adolescents' social capital may also be a consequence of the fact that the sample was dominated by families with mid-range SES in a rather egalitarian Nordic context. Moreover, our data did not include information on the availability of adolescents' own money, which could be more relevant than family SES (Hjalmarsson & Mood, 2015). Further research is needed to shed more light to the relationship between family SES and adolescents' social capital.

Our results showed that a disadvantaged socioeconomic context marked by a high level of unemployment and low average level of income is associated with a lower level of social trust and less frequent reception of help. Contrary to the findings of Laurence (2019), the present study did not find a relationship between neighborhoods' socioeconomic disadvantage and young people's social networks. However, Laurence did not consider parents' social capital as a predictor. Besides, his research focused on older youth (16–17 years old), who undoubtedly spend more time in their neighborhood and, consequently, may be more influenced by the surrounding environment than younger adolescents.

Previous research has shown that, already in early adolescence, social capital may contribute significantly to subjective well-being, overall health, and academic performance. The present study suggests that social capital is at least to a certain

extent a learned resource, parents providing a powerful example. To support young people's well-being and positive development, home and school education should systematically strengthen young people's social networks, encourage their trust in other people, and accustom them in reciprocal practices. Schools may play a particularly vital role vis-à-vis children and adolescents, who acquire meager stocks of social capital at home. Some dimensions, such as social trust, are largely consolidated during the adolescent years (Stolle & Hooghe, 2004). Therefore, early and systematic investment in social capital is likely to yield valuable development results later in life.

5.1 | Limitations

Our study is among the first ones to explore how the multidimensional social capital may transmit during early adolescence. However, there are several limitations to our study. The sample size ($n = 163$) was relatively small and cross-sectional, collected only in Southwest Finland. Although we found no significant selection bias regarding parental education or income levels compared to the overall population, it is essential to note that the sample was not randomly selected and is not representative.

The schools that agreed to participate in the study may have some unique characteristics that distinguish them from other schools. Furthermore, it is possible the school personnel chose the participating classes based on specific criteria. However, as explained in the Supporting Information: Appendix, the sample is diverse in terms of school/class size, language of education, and the percentage of migrant students, and there was no indication of a selection bias.

Often, individuals with higher education and better socioeconomic position are over-represented in survey data (c.f., Cheung et al., 2017). This was also the case in the present study. Additionally, those with high levels of social capital, particularly social trust, may be more likely to participate in surveys. Although such challenges are common in this type of study, they, nevertheless, impact the external validity of the study. It is also possible that the relationship between parents and children's social capital may differ based on the amount of parental social capital. Therefore, the relatively low variance related to socioeconomic background and social capital in our sample may limit further the external validity of our results. In any event, our findings are not generalizable at the national level, and even at the regional level the generalizability can be questioned.

While some of our solutions for the SEM models alleviate these problems to an extent, the relatively complex model requires statistical power that our sample might not fully satisfy. This in turn heightens the risk of type two error. Also, the sample was not sufficiently large for exploring the extent to which abundant parental social capital could compensate for the negative impact of the growth environment, or vice versa. Although demanding from the data perspective, these details would be important topics for future research.

Lastly, adolescents' social capital factors in our models focus almost exclusively on their close social circle. However, according to literature, more distant, heterogeneous social relationships are the ones that mostly relate to SES (Putnam, 2000). Possibly, with a broader scope of social capital factors, more direct associations between adolescents' social capital and SES would have been identified.

While all these limitations should be kept in mind, our study is to our knowledge the only one, thus far, to explore potential intergenerational linkages between children's and parents' social capital covering simultaneously the dimensions of social networks, trust, and reciprocity with similar measures in both generations. We hope to inspire other researchers to test our results with larger representative samples that are followed over a longer period.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available through the Finnish Social Science Data Archive for research, teaching, and study at: https://services.fsd.tuni.fi/catalogue/FSD3594?study_language=fi&lang=en

ETHICS STATEMENT

All procedures performed in the survey Social capital of children and adults 2018 were approved by the Ethical Board of the University of Turku, Finland (14/2018). Informed consent was obtained from all individual participants included in the study. Study participants' rights are protected.

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