

Can Mentoring Promote Self-esteem and School Connectedness? An Evaluation of the Mentor-UP Project

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ABSTRACT

Research in the United States has shown that youth mentoring is a promising strategy for increasing self-esteem and school connectedness in at-risk youth. There has been little confirmation of those findings internationally. The current study evaluates the impact of mentoring by trained university students on children's self-esteem and school connectedness compared to schoolmates not involved in the program. Mentor-UP is a school- and community-based weekly mentoring program implemented in northern Italy over a period of seven months. Participants (209 students – 34 in the experimental group and 175 in the comparison group – aged between 11 and 13, 56% male, 27% immigrants) reported their levels of self-esteem and school connectedness at the beginning and at the end of the program. Results showed a significant increase in mentees' self-esteem compared to the control group, while the difference in school-connectedness was nonsignificant. The findings support the effectiveness of Mentor-UP in nurturing youth's self-esteem.

¿Puede la mentoría fomentar la autoestima y la conexión escolar? Evaluación del proyecto *Mentor-UP*

RESUMEN

La investigación en EE.UU. ha demostrado que la mentoría juvenil es una estrategia prometedora para aumentar la autoestima y la conexión escolar en jóvenes en situación de riesgo. Sin embargo, ha habido escasa confirmación de estos hallazgos a nivel internacional. El estudio actual evalúa el impacto de la mentoría por parte de estudiantes universitarios capacitados en autoestima y conexión escolar de los niños en comparación con los compañeros de escuela que no participaron en el programa. *Mentor-UP* es un programa de mentoría semanal llevado a cabo en la escuela y la comunidad que se implementó en el norte de Italia durante un período de siete meses. Los participantes (209 estudiantes, 34 en el grupo experimental y 175 en el grupo de comparación de edades comprendidas entre 11 y 13 años, 56% hombres, 27% inmigrantes) informaron de su nivel de autoestima y conexión escolar al principio y al final del programa. Los resultados mostraron un aumento significativo en la autoestima de los niños mentorizados en comparación con el grupo de control, mientras que la diferencia en la conexión escolar no fue significativa. Los hallazgos respaldan la efectividad de *Mentor-UP* para fomentar la autoestima de los jóvenes.

Since the 1990s mentoring has become popular as an intervention strategy specifically designed to enhance at-risk youth well-being (Rhodes, Ebert, & Fischer, 1992; Wheeler, Keller, & Dubois, 2010). Research findings showing the positive effects of mentoring programs, along with the increasing number of low-income families, encouraged the proliferation of mentoring programs for disadvantaged youth (Bauldry & Hartman, 2003; Herrera,

Sipe, McClanahan, Arbreton, & Pepper, 2000; Jekielek, Moore, Hair, & Scarupa, 2002). For instance, over 5,000 programs have been developed in the United States to serve about four and half million young people (Bruce & Bridgeland, 2014). However, mentoring programs outside the U.S. are limited and more research is needed in order to evaluate the number and the impact of mentoring in other countries. The aim of the current study is to report on the

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effects of the Italian Mentor-UP program on mentees' self-esteem and school connectedness.

School- and Community-based Mentoring: A Mixed Approach

Briefly, in a typical mentoring program, an adult or elder peer is paired with an at-risk youth with the aim to develop a trusting and supportive relationship, thus improving youth well-being (DuBois, Holloway, Valentine, & Cooper, 2002; DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011) by fostering their resilience, offsetting the negative consequences of risk factors, and nurturing protective factors (Wheeler et al., 2010). Moreover, different types of mentoring programs have been developed over time targeting different age groups, such as high-school mentors paired with elementary or middle school-aged mentees, and college student mentors paired with children or adolescents living in public housing (Karcher, 2009; Meyer & Bouchev, 2010). There are also variations in meeting time, including after-school and in-school mentoring programs (such as the PrimeTime or the Lunch-Buddy programs; Cavell, Elledge, Malcom, Faith, & Hughes, 2009; Hughes, Cavell, Meehan, Zhang, & Collie, 2005; Pryce et al., 2015). The after-school programs can be further categorized based on the main location of mentoring activities in community-based and school or site-based mentoring (Wheeler et al., 2010). Although most of the existing programs can be included in one of these approaches, a few experiences of mixed programs (integrating activities at school and in the community) also exist (Cavell et al., 2009; Hughes et al., 2005; Lee, Kim, Park, & Alcazar-Bejerano, 2015). Even though practitioners and researchers appear to prefer either community- or school-based mentoring projects, mixed programs might integrate the benefits of both settings. On one hand, the school setting might be preferred for safety reasons, such as the proximity to teachers and educators as well as the availability of a structured environment equipped for academic activities. At the same time, school programs are generally associated with fewer, briefer meetings, less frequent contact and shorter relationships; in addition, an overly-academic focus might deter mentees from voluntary participation (Herrera, Sipe, McClanahan, Arbreton, & Pepper, 2000). Community-based programs on the other hand are characterized by greater flexibility and variation in activities and are usually linked to longer and more frequent mentor-mentee meetings and more intimate relationships (Herrera et al., 2000). Mixed programs have the potential to integrate the strengths of the two settings, while compensating for their limitations. In this view, school/community based programs are particularly promising in terms of skills development because of the wider range of activities and settings that youth can experience. Indeed, in these programs mentors and mentees generally engage in both academic and leisure activities and meet with other mentor-mentee pairs, thus having the chance to spend time with peers in a safe environment. Mentors and mentees also have flexibility in deciding how to spend their time: they can choose how much time to spend in the school environment and in the community and integrate activities from both contexts, thus establishing a stronger link between the school and the community. Finding the right balance between school and community activities, and structured and unstructured time, allows a person-centered approach in the program planning and implementing activities based on the characteristics of the specific mentor-mentee pairing. The integration between school and community settings might also provide a strong support to mentees: Cavell et al. (2009) showed that in Prime Time (a mentoring program combining community-based mentoring with child-focused skills training at school and consultation for parents and teachers) mentees reported higher levels of perceived support from mentors as compared to a school-based program (Lunch Buddy). However, the less intensive program

(Lunch Buddy) was found to be more effective in reducing teacher-rated negative outcomes (i.e., externalizing and behavioral and scholastic competence problems) than the more intensive program (Prime Time) in a follow-up, suggesting the need to further explore the mechanism underlying the effectiveness of such interventions.

Mentoring Programs and Positive Development in Adolescence

Mentoring has shown its effectiveness in reducing risky behaviors, such as substance use and antisocial behavior at school (Converse & Lignugaris, 2008; Grossman & Tierney, 1998; Hughes et al., 2005). However, findings about the effectiveness of mentoring programs are mixed and characterized by small effect sizes. Existing evidence shows that mentoring programs also promote a wide variety of positive outcomes, such as self-esteem (Dubois et al., 2011; Karcher, 2008) and social connectedness at school and in the neighborhood (Karcher, 2005; 2008; King, Vidourek, Davis, & McClellan, 2002; Lee & Cramond, 1999; Martinek, Shilling, & Johnson, 2001; Portwood & Ayers, 2005).

However, the role of mentoring in promoting positive youth development has been less analyzed and, thus, needs more study. Indeed, mentoring evaluations tend to focus on behavioral problems and school difficulties, and studies evaluating mentoring programs outside the U.S. are still scant. Given those limitations, the present study focuses on two potential positive outcomes, self-esteem and school connectedness, by evaluating the effectiveness of a mentoring program implemented in Italy over a period of seven months.

The Promotion of Self-esteem

Self-esteem has been defined as "a personal judgment of the worthiness that is expressed in the attitudes the individual holds towards himself" (Coopersmith, 1967, pp. 4-5). Self-esteem is a well-established correlate of positive adjustment and functioning during development (DuBois & Tevendale, 1999; Pope & McHale, & Craighead, 1988). Youths with high levels of personal adjustment report a strong sense of their own power, mastery, efficacy, purpose, worth, and potential. High levels of self-esteem (or, alternatively, the absence of indications of low self-esteem) during childhood and adolescence predict more favorable psychological, social, and occupational outcomes during adulthood (DuBois & Tevendale, 1999). High self-esteem is also associated with happiness, fewer depressive symptoms (Dumont & Provost, 1999), feeling attractive (Karcher, 2005), and meaningful social relationships (Harter, 1999). Conversely, low self-esteem in adolescence is linked to poorer mental and physical health, worse economic prospects, and higher levels of criminal behavior during adulthood (Trzesniewski et al., 2006). According to the Self Psychology Theory (Kohut, 1971, 1977, 1984), Karcher (2005) summarized that self-esteem is promoted when a child is treated with empathy, attention, and praise by idealized others. In this view, mentors achieving the status of significant adults can help youth develop psychological and behavioral skills, resulting in positive self-esteem (DuBois, Neville, Parra, & Pugh-Lilly, 2002; Karcher, 2005). Indeed, it is likely that the positive relationship established between mentor and mentee plays a key role in the development of self-esteem, in terms of social approval, emotional support, and positive modelling (Harter, 1999; Karcher, 2005). Specifically, it could be that mentees experiencing themselves as socially competent in the relationship with their mentors would positively evaluate themselves as worthy and capable. Scholars have argued that mentors may provide attachment-like functions important for mentees' development and self-esteem (such as offering positive feedback and support, being a constant presence in

mentees' lives, giving them the opportunities to discover what they are good at, etc.; Schwartz, Lowe, & Rhodes, 2012).

Several studies highlighted the positive association between mentoring relations and self-esteem (Haney & Durlak, 1998; Karcher, 2008; King et al., 2002; Lee et al., 2015) but the existing evidence is mixed. For example, a meta-analysis of 73 programs found a small effect of mentoring on self-esteem (Dubois et al., 2011), whereas another meta-analysis of three school-based mentoring programs did not find such association (Wheeler et al., 2010). Similarly, a recent meta-analytic study showed that mentoring programs were ineffective for enhancing self-esteem (Baumeister, Campbell, Krueger, & Vohs, 2003; Wood & Mayo-Wilson, 2012). A possible explanation for this result is that merely participating in the mentoring program is not enough to enhance self-esteem and self-efficacy (Ng, Lai, & Chan, 2014) because these psychosocial outcomes are more likely to be influenced by the quality of the relationship between mentors and mentees (Ng et al., 2014). Specifically, it has been suggested that the intensity and the duration of the relationships are crucial variables in explaining the change in self-esteem, with close and enduring relationships positively influencing self-esteem, and irregular and detached relationships negatively influencing self-esteem (Schwartz et al., 2012).

The Promotion of School Connectedness

Mentoring programs have also been associated with the social domain of children's lives. School-based mentoring programs, in particular, include the promotion of school connectedness among its main goals (Herrera et al., 2000). School connectedness reflects students' feelings of belonging to and closeness with others at their school (Resnick et al., 1997), and is generally developed through positive interactions with teachers and peers in the school setting (Karcher, Holcomb, & Zambrano, 2008). Social connectedness in the school environment has an important role in youth adjustment: low levels of school connectedness can contribute to an increase of children's and adolescents' externalizing problems (Loukas, Cancel, & Batanova, 2016), depressive symptoms, and low self-esteem (Way, Reddy, & Rhodes, 2007).

Existing literature shows that school-based mentoring programs can be effective in promoting good relationships at school (Karcher, 2014; Voight & Nation, 2016). Although not all mentoring programs explicitly encourage the development of school connectedness, all the programs somehow involving the school environment have the potential to improve social relationships in the school environment (for example, by supporting mentees with school work and organizing activities with other mentees or classmates in the school setting; Curran & Wexler, 2017). Moreover, it has been found that, similarly to the mechanism involved in the increasing global self-esteem (Schwartz et al., 2012), mentees might also perceive themselves as more capable in the academic context as a result of the social approval and support experienced in the relationship with their mentors (Wheeler et al., 2010). Such a feeling of increased academic abilities may, in turn, positively foster school connectedness by means of positive school achievement and enjoyment.

As in relation to self-esteem, the evidence on the effectiveness of mentoring programs in promoting school connectedness is mixed. For example, a study evaluating a school-based mentoring program found a significant increase in school connectedness in 6th and 7th-grade mentees compared to a control group, while differences were marginally significant or nonsignificant for 9th and 10th-graders (Gordon, Downey, & Bangert, 2008).

The contradictory findings on the effectiveness of mentoring programs might be due to the multiple factors influencing program effectiveness and its evaluation, such as the professional background

of selected mentors, the gender composition of the pairs, the presence of a clear method of monitoring mentoring activities and relationships (Dubois, Halloway et al., 2002; Dubois et al., 2011), and the main setting of the mentoring activities (Wheeler et al., 2010). Moreover, the quality of the mentor-mentee relationship influences the effectiveness of the programs: an adequate mentor-mentee matching (based on common interests), the frequency of meetings, and the duration of the relationship (at least one year; Dewit et al., 2016) have been found to be positively associated with better outcomes, such as school attendance, academic achievement, emotional development, and obesity reduction (Black et al., 2010; Meyer & Bouche, 2010; Wood & Mayo-Wilson, 2012).

Effectiveness of Mentoring Programs in Italy

Empirical studies on the effectiveness of mentoring programs have been mainly conducted in the United States, while mentoring programs are common in many countries, such as Canada, Germany, South Africa, Israel, Ireland, and Italy (Big Brother Big Sister, 2016). However, few studies have been conducted in these countries to examine mentees' well-being (Brady & Curtin, 2012; Ng et al., 2014). In particular, in Italy there is a lack of empirical studies on the effectiveness of mentoring programs.

Evaluating the potential benefits of mentoring might be particularly important in the Italian context, which experienced a rapid growth of immigrants coming from many countries. In recent years, Italian schools registered a significant and unexpected increase in the number of immigrant students. Immigration can be a very stressful experience for youth and can modify classroom climate and relationships when not supported by adequate integration policies. Thus, mentoring programs might be particularly beneficial in the Italian context, where immigrants and native adolescents would potentially benefit from wellness-promotion and preventive or risk-reduction services (Stella, Huang, Schwalberg, Overpeck, & Kogan, 2003).

In order to advance the literature on mentoring, the current study examined the effectiveness of a mentoring program in promoting self-esteem and school connectedness in a sample of youths who attended the program over a seven-month period during the school year 2013-2014 in northern Italy.

The Mentor-UP Program

Mentor-UP was designed in 2008 by LINK laboratory, at the University of Padua in Italy. Since 1997, Lab LINK has offered public and private organizations a consulting service in the design, implementation, and assessment of prevention programs. The mission of the mentoring program is to support schools in the management of at-risk youths, develop stronger connections between young people and the local community, and enhance students' self-esteem and self-worth. Program settings may vary: schools have a central role in the program (e.g., supporting adequate mentor-mentee matching and providing a potential setting for the meetings), but the pair can also meet around the city. Mentor-mentee meetings occur on a weekly basis for a duration of at least two hours per meeting.

At the beginning of the school year mentors and mentees were selected and matched mostly based on their interests (but also taking into account gender, age, and other personal characteristics) gathered by interviewing teachers and mentors. With regard to mentees, eligibility criteria for involvement in the program were the following: absence of severe psychosocial and behavioral disorders requiring professional help and absence of learning disabilities (dyslexia, dysgraphia, dysorthography, dyscalculia; in the Italian context, learning disabilities are evaluated by the National Healthcare System – ULSS – and regulated by a specific law – 170, 2010) and presence

of risk factors (e.g., low socioeconomic status, lack of parenting or coming from a single parent family, few social stimuli, low motivation and self-esteem, school and peer relationship problems).

Before being paired to a mentee, mentors attended a training composed of six hours of class instruction and six hours of practical training (including simulations, role playing) on the following topics: assertiveness, communication, and how to manage mentoring relations. The main goal of the training was to familiarize mentors with potential problems they could face during the forthcoming relationship. Training participation was mandatory to join the mentoring program.

The relations were monitored using online diaries that mentors had to compile every week; in those diaries, mentors wrote down the main activities carried out with mentees and all the episodes that were considered relevant for the relationship development and mentee well-being (e.g., difficulties experienced during the meetings). Mentors were instructed to carry out both school- and community-based activities (such as visiting the museums of the city, going to movie theatres, exploring the community parks, etc.), finding the right balance between the two based on the mentees' needs, preferences, and interests. On average, selected mentors dedicated approximately 40 hours to extracurricular activities in the community and 10 to school-based activities. In addition to this, every three weeks mentors participated in peer group supervision conducted by trained staff managers (with an average duration of three hours), during which mentors reported positive and negative aspects of their relationship and analyzed the problems with other mentors, thus finding together the most effective strategies to solve them. Finally, teachers and mentors met twice during the implementation of the program (halfway through the program and at the end of it) in order to keep them updated on the evolution of the program. At the end of the school year, the Lab Link also organized a final conference to share experiences and results of the project among staff, mentors, schools, and community.

All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional research committee. Also, an informed consent was obtained from parents or guardians for the participation in the program and the survey.

Method

Participants and Procedure

In the 2013/2014 academic year three schools were involved in Mentor-UP. The schools were recommended by the School Office of the District of Padua as they are located in the suburbs of the city where children are more likely to be exposed to economic and environmental adversities (for example, in terms of immigrant status, housing insecurity, criminality, etc.). Two schools (School 1 and 2) are located in the north of Padua, in a neighborhood that is commonly considered one of the poorest in the city, whereas one school (School 3) is located in the south of the city. However, due to the lack of comparison schools, risk factors at the school level were not included in the present study. The program is currently local; it is offered in Padua as an activity promoted by Lab Link. About 11% of the schools in Padua are involved in the program. With regard to the selection of mentees, teachers from the three schools identified students to be involved in the Mentor-UP program, following specific guidelines. They took into account certain risk factors as inclusion criteria: academic failure, behavioral problems, lack of parenting, and immigrant status. Students with two or more of these risk factors were selected as mentees. Within the three schools, 12 mentees were selected from Schools 1 and 3, and 10 mentees from School 2. The mentees included in the program were in 6th, 7th, and 8th grade. Moreover, mentees' classmates took part in the study serving as a control group by completing the same questionnaires completed by the mentee group pre- and post-intervention. It should be noted that in the Italian school system students in schools are nested in classes of about 20 students (thus, the comparison group was larger than the treatment group). Therefore, a convenient method to match the comparison group was applied, based on age, gender, and nationality. A parent or a guardian gave consent for participation in the program and the survey, which was administered at two points in time: at the beginning of the program (October 2013) and at the end of it (May/June 2014). Program mentors were 34 university students from different faculties (Liberal Arts, Psychology, and Science), with 12 of them being interns (gaining academic credits) and 22 volunteers.

Table 1. Sociodemographic Information and Descriptive Statistics of the Variables of Interest

	Mentee group (<i>n</i> = 34)		Control group (<i>n</i> = 175)	
Age – <i>M</i> (<i>SD</i>)	11.88 (0.81)		11.93 (0.79)	
Gender (% female)	35.3		45.7	
First language (% Italian)	55.9		62.3	
Country of birth (% Italy)	70.5		74.3	
Mother working (% Yes)	64.7		57.7	
Father working (% Yes)	58.8		78.9	
Mother educational level (%)				
Primary school	8.8		0	
Middle school	2.9		5.7	
Professional school	8.8		10.3	
High school	17.6		16.6	
University degree	26.5		29.7	
Don't know	29.4		30.3	
Father educational level (%)				
Primary school	0		1.1	
Middle school	8.8		6.3	
Professional school	17.6		4.6	
High school	8.8		22.9	
University degree	26.5		24.0	
Don't know	32.4		33.1	
	T1	T2	T1	T2
Self-esteem – <i>M</i> (<i>SD</i>)	2.85 (0.57)	2.97 (0.43)	3.08 (0.57)	3.01 (0.62)
School connectedness – <i>M</i> (<i>SD</i>)	3.63 (0.89)	3.66 (0.74)	3.66 (0.70)	3.53 (0.80)

Our final sample was composed of 209 youths, 34 in the experimental group (mentees) and 175 as a comparison group, comparable in terms of gender, $\chi^2(1) = 1.254, p = .26$, age, $t(207) = 0.292, p = .77$, and immigrant status, $\chi^2(1) = 0.640, p = .42$. Their ages ranged between 11 and 13 years old ($M = 11.92, SD = 0.789$), 56% were male and 26.8% were immigrants.

Measures

Participants completed a questionnaire assessing students' socio-demographic information, self-esteem, and school connectedness (see Table 1).

Sociodemographic information. Students reported their gender, age, country of birth, first language, parents' work status, and educational level (see Table 1).

Self-esteem. Self-esteem was measured using the Italian version of the Self-Esteem Questionnaire (SEQ; Dubois, Felner, Brand, Phillips, & Lease, 1996; Melotti & Passini, 2002). The Global Self-Esteem subscale includes eight items, such as "I am happy with the way I can do most things" and "I am the kind of person I want to be". Students responded on a 4-point Likert-type scale where 1 = *not at all true* and 4 = *very true*. Single item scores were summed, with higher scores reflecting higher self-esteem (Cronbach's alpha T1 = .75, Cronbach's alpha T2 = .76).

School connectedness. School connectedness was assessed through an adapted version of the Hemingway's Measure of Adolescent Connectedness (Mac 5; Karcher, 2003). The six items concerning school connectedness were selected from the 55-item original scale. "I enjoy being at school" was a sample item. Students responded on a 5-point Likert-type scale (1 = *not all true* and 5 = *very true*). Single-item scores were summed, with higher scores reflecting higher school connectedness (Cronbach's alpha at T1 = .74, Cronbach's alpha at T2 = .83).

Data Analysis

To evaluate the effect of the Mentor-UP program on self-esteem and school-connectedness we used a linear mixed model approach (Pinheiro & Bates, 2000). Models for self-esteem and school-connectedness were separately estimated with the R-package lme4 (Bates & Maechler, 2009). In the first model, the dependent variable was self-esteem whereas time point (T1 = outcome variable at the beginning of the program, T2 = outcome variable at the end of the program), program (0 = no mentoring, 1 = mentoring), age, gender (1 = male, 2 = female) and nationality (0 = Italian, 1 = foreign) were treated as fixed effects. The second model was identical to the first one except for the dependent variable, which was school connectedness. Note that within-subject variability due to the temporal component was modeled by including participants' identification as a random-effect. In both models, the interaction between program and time point was also tested.

Results

Table 2 presents the results of the linear mixed-effects model for self-esteem. Self-esteem decreased as function of time point, $B = -0.07, t(207) = -2.33, p = .02$, and program, $B = -0.25, t(268) = -2.33, p = .02$. The covariate gender was also significant, $B = -0.161, t(204) = 2.12, p = .03$, males (gender = 1) showing lower levels of self-esteem than females (gender = 2). The interaction between time point and program (Figure 1) revealed a significant effect on self-esteem, $B = -0.197, t(204) = 2.42, p = .01$. In particular, there was an increase in self-esteem over time for participants who attended the mentoring program. On the contrary, subjects who did not attend the program showed lower levels of self-esteem at the end of the study.

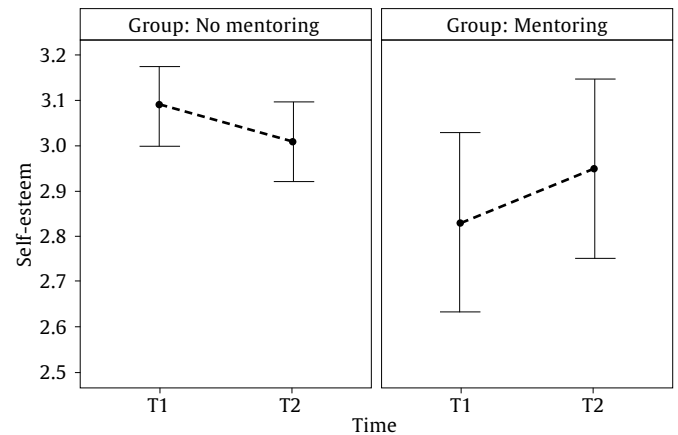


Figure 1. Estimated Means and 95% Confidence Intervals of Self-esteem by Time and Group Controlling for Age, Gender and Nationality (number of observation nobs = 418: nobs_{MENT} = 209, nobs_{NO-MENT} = 209).

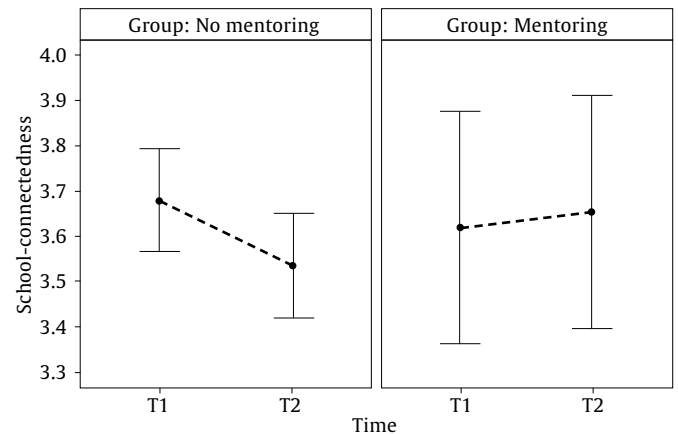


Figure 2. Estimated Means and 95% Confidence Intervals of School-connectedness by Time and Group Controlling for Age, Gender and Nationality (number of observation nobs = 418: nobs_{MENT} = 209, nobs_{NO-MENT} = 209).

Table 2. Results of Linear Mixed-effects Model: Fixed Effects for Time Point, Program, Age, Gender and Nationality on Self-esteem

	<i>B</i> (<i>SE</i>)	<i>t</i>
Baseline	3.516 (0.572)	6.142
Time point		
T1 vs. T2	-0.076 (0.032)	-2.332*
Program		
No mentoring vs. mentoring	-0.255 (0.109)	-2.335*
Gender		
Male vs. female	-0.161 (0.075)	2.125*
Age	-0.030 (0.047)	-0.641
Nationality		
Italian vs. foreign	0.014 (0.084)	0.174
Time point x program	0.197 (0.081)	2.420*

Note. Participants were treated as random effects ($N = 209$); number of observation nobs = 418 (nobs_{MENT} = 209, nobs_{NO-MENT} = 209); degrees of freedom of the model were calculated with the Satterthwaite approximation.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3 reports results for the second linear mixed-effects model. School-connectedness decreased significantly as function of time point, $B = -0.144, t(207) = -3.40, p < .001$) and age, $B = -0.172, t(204) = -2.77, p = .005$. The two-way interaction between time point and

program did not show significant effects (Figure 2). Nonparticipants in the program experienced some decrease in school connectedness while participants increased slightly, but the difference was nonsignificant.

Table 3. Results of Linear Mixed-effects Model: Fixed Effects for Time Point, Program, Age, Gender, and Nationality on School-connectedness

	<i>B (SE)</i>	<i>t</i>
Baseline	5.716 (0.748)	7.462
Time point		
T1 vs. T2	-0.144 (0.042)	-3.408***
Program		
No mentoring vs. mentoring	-0.060 (0.142)	-0.422
Gender		
Male vs. female	-0.004 (0.099)	0.043
Age	-0.172 (0.06)	-2.779**
Nationality		
Italian vs. foreign	0.073 (0.111)	0.666
Time point x program	0.179 (0.105)	1.710

Note. Participants were treated as random effects ($N = 209$); number of observation nobs = 418, degrees of freedom of the model were calculated with the Satterthwaite approximation.

* $p < .05$, ** $p < .01$, *** $p < .001$.

To enhance the interpretability of our results, we calculated and evaluated two measures of effect size, namely the Cohen's d (Cohen, 1988) and the common language effect size statistic (CL; Ruscio, 2018). Specifically, to take into account the multivariate nature of our data, for each dependent variable (i.e., self-esteem and school-connectedness) we proceeded following three steps: 1) the difference between post-treatment and pre-treatment (i.e., Δ_y) was calculated, in which larger values of Δ_y indicate a larger beneficial effect of the mentoring program; 2) in order to partial out the effects of covariates, Δ_y was regressed on age, gender, and nationality; and the associated residuals (i.e., ϵ_{Δ_y}) were retained; 3) in the end, using the method suggested by Cohen (1988) and Ruscio (2008) the Cohen's d and the CL were calculated using ϵ_{Δ_y} as dependent variable and mentoring program as a dichotomous independent variable. The Cohen's d was $d = 0.46$, and the common language was $CL = .62$ (in favor of the mentee group) with regard to self-esteem; whereas the Cohen's d was $d = 0.32$, and the common language was $CL = .58$ (in favor of the mentee group) with regard to school-connectedness. Specifically, the CLs indicate that the probability that a randomly selected participant from the mentee group will show larger beneficial effect of the mentoring program on self-esteem and school-connectedness than a randomly selected participant from the control group is 62% and 58%, respectively. Overall, in line with Cohen's (1998) recommendation, those effect sizes indicate a medium effect of the mentoring program on increasing self-esteem and school-connectedness in the mentee group as compared to the control group. This effect seems to be in line and slightly higher than the commonly observed modest effect sizes in the field of mentoring programs evaluation (e.g., DuBois et al., 2011).

Discussion

The main aim of the current study was to evaluate the effectiveness of a mentoring program in promoting self-esteem and school connectedness in a sample of Italian youths and adolescents. The Mentor-UP program combined elements of school-based mentoring, since the schools were very involved in the project and provided the initial setting for mentor-mentee meetings, and community-based mentoring, since exploring neighborhood opportunities and facilities was one of the main goals of the Mentor-UP program.

Our findings showed that mentees reported higher levels of general self-esteem after seven months, whereas a decrease over time was detected in students not involved in the program. Therefore, in line with previous findings (e.g., Kolar & McBride, 2011; Liang, Lund, Desiliva Mousseau, & Spencer, 2016; Lipman, DeWit, DuBois, Larose, & Erdem, 2018) the results of the present study suggest that the Mentor-UP program was effective in promoting self-esteem in mentees. In other terms, it is more probable to observe an increase in self-esteem among mentees than among the control group. A possible explanation for this result is that some specific features of mentoring programs (such as, mentor engagement, family and school involvement, and community exploration) foster the development of mentees' self-esteem. For example, mentors dedicating ample time and energy to understanding the specific needs and resources of their mentees and accordingly selecting joint activities are more likely to be effective in increasing mentees' general self-esteem (Lee et al., 2015; Lipman et al., 2018). Indeed, when mentors are very flexible and easily accessible to the mentee, they can monitor their progress, give positive feedback, and plan future activities according to their new attitudes and tastes. In this way, mentees can experience themselves as more competent, thus increasing their self-esteem (Schwartz et al., 2012).

Moreover, a strong involvement of mentees' families was one of the core features of the program. Although in the current study this aspect was not measured, mentors were trained to tailor the activities with mentees mostly based on their family background, in order to make the most of the activities shared with mentees. Having frequent contacts with the family allows setting realistic goals and monitoring the impact of other environmental challenges possibly affecting mentees' perception about themselves (Chan et al., 2013).

Furthermore, teachers were also very involved in the mentoring program evaluated in the current study. The role of teachers was fundamental from the very first steps of the program, by identifying the students to be involved and having regular contacts with mentors and research staff during the school year. This might have allowed teachers to notice mentees' progress beyond school achievement and to reflect a more positive image to mentees' themselves.

The strong focus on discovering the opportunities of the local community might have also been partly responsible for the increase in self-esteem reported by students who participated in the Mentor-UP program. It is possible that being aware of city-wide opportunities give them the possibility to explore and recognize their own talents and passions, thus nurturing their self-concept and self-esteem (Youngblade et al., 2007).

Finally, mentors were trained (and regularly supported by supervisory meetings for the whole duration of the program) to develop structured mentoring relationships, characterized by regular meetings and activities. This might have also contributed to the observed increase in self-esteem; generally, when mentors are able to set some form of structure in their activities, mentees can establish trusting relationships and feel more positive about themselves (Lee et al., 2015).

Regarding school connectedness, we did not find a significant difference in the levels of school connectedness in mentees who participated in the Mentor-UP program. A possible explanation is that a seven-month program is not enough to have an impact on school connectedness and longer relationships are needed for promoting more cohesive ties in the school setting (Dubois et al., 2011). Another explanation is that the Mentor-UP program integrates elements of school and community-based mentoring programs (in this program, in particular, mentors dedicated most of the time to extracurricular activities in the community, as compared to school activities, with a ratio of approximately 4:1). This implies that the program was not specifically and explicitly designed for improving school relationships. Although many of the mentor-mentee activities were carried out in the school setting and mentors worked with mentees in order to improve

their social skills, this may not have been enough to change the overall social climate in the school. Interestingly, in mentees' classmates who did not participate in the program there was a decrease in both self-esteem and school connectedness between the beginning of the school year and the end of it. This is consistent with previous literature that found a decrease in self-esteem and school connectedness over time, in particular during the transition between primary and middle school and between middle school and high school (Eccles & Midgley, 1990; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991).

Limitations and Conclusions

A number of limitations must be acknowledged in the current work. First, the very small number of mentees (compared to the control group) limits our ability to generalize the results and to draw conclusions. Indeed, the Mentor-UP program requires replication including a bigger sample size both in terms of number of schools and mentees involved. Second, the comparison group has not been assigned randomly. Considering that the use of random assignment in school-based research may raise ethical issues about denying services to students who need it (Randolph & Johnson, 2008), students were assigned to intervention and comparison group based on key background variables (for example age and immigrant status), following the procedures described by Portwood & Ayers (2005). Consequently no differences were found in terms of gender, age, or immigrant status. In addition, only self-reported measures were used in the study. Future assessments should use a multi-informant approach, for example through parents and teachers' reports, in order to increase the validity of the measures. Finally, although Mentor-UP was not specifically developed to target immigrant-origin youths, more than a third of students attending the Mentor-UP project were immigrants but the size of our sample did not allow us to evaluate the potential role of nationality in moderating the effectiveness of the program. Indeed, as shown in Table 1, about 30% of the mentees (and classmates) were born outside Italy. This percentage is two times bigger than the overall percentage of foreign citizens in Padua as in 2014, indicating that immigrant youths are numerous in the city and they are likely to be selected as mentees (see for example Tuttitalia.it, 2014). We believe that future mentoring programs could be particularly important in Italy, especially for immigrant youths who are more likely to face poverty, traumatic experiences due to war and deaths, separation from the family, disconnection from the school system, etc., thus reflecting the main risk factors usually considered to include a mentee in the Mentor-UP program. Following this line of reasoning, mentoring programs might be particularly effective for immigrant youths, for example by moderating the effects of the immigration experience and supporting integration policies within the schools (Birman & Morland, 2014). Therefore, future research should analyze how immigrant status interacts with program characteristics in promoting positive youth development.

Despite the study limitations, the current study was the first one evaluating the effectiveness of a mentoring program in relation to self-esteem and school connectedness in Italy; moreover, our findings support the effectiveness of a school-and-community-based mentoring program in nurturing mentees' self-esteem. Research should continue to evaluate the effectiveness of these evidence-based strategies to support positive youth development, in order to identify the best practices in mentoring programs (Kupersmidt, Stump, Stelter, & Rhodes, 2017).

Conflict of Interest

The authors of this article declare no conflict of interest.

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