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Civic Engagement and Civic Competences in Adolescence: A Gender-Based Perspective

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Supplementary Materials: Data [see [Index of Supplementary Materials](#)]



Abstract

As outlined by the Council of Europe's Reference Framework of Competences for Democratic Culture (RFCDC), civic competences are core elements for active participation in a democratic society. This study aimed to examine the linkages between four civic competences (empathy, respect, responsibility, and cooperation) and civic engagement (attitudes and behaviors) during adolescence, as well as test the potential role played by gender, both as a covariate and a moderator. We recruited a sample of 446 adolescents (70% females; $M_{\text{age}} = 16.51$, $SD = 1.35$) from a high school in Southern Italy and administered a set of online self-report scales: civic attitudes and behaviors were evaluated through the Civic Engagement Scale; empathy was assessed through the Empathic Concern subscale of the Brief Interpersonal Reactivity Index; cooperation was assessed through the Cooperation Scale; responsibility and respect were measured through a set of descriptors provided by the RFCDC. A Structural Equation Model (SEM) was run to test the hypothesized associations, and a series of multiple group SEM was performed to evaluate the moderating role of gender on the relations between civic competences and civic engagement. Our findings showed only empathy and cooperation were positively and significantly related to civic attitudes and civic behaviors. Gender differences were found for empathy, cooperation, and



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respect, with girls reporting higher levels than boys. Adolescents' gender was also found to be a significant moderator of relations linking empathy, cooperation and respect with civic engagement. Limitations and implications are discussed.

Keywords

civic engagement, civic competences, adolescence, empathy, cooperation, gender

Highlights

- The study analyzes the relationship between civic engagement and civic competences during adolescence, examining the potential role of gender as both a covariate and a moderator.
- Empathy and cooperation were positively and significantly related to civic attitudes and civic behaviors.
- Gender differences were found in empathy, cooperation, and respect, with girls reporting higher levels than boys.
- Adolescents' gender also significantly moderated the relationships linking empathy, cooperation, and respect with civic engagement.

Contemporary society is characterized by uncertainty, complexity, and ambiguity, alongside several political, economic, and social changes that can lead to a decline in young people's active participation (Ekman & Amnå, 2012; Flanagan & Christens, 2011). Because active participation in societal issues is a core element for safeguarding democracy, as well as for the personal development of young people, understanding and identifying the underlying mechanisms of youth civic engagement have gained relevance in research, policy, and practice (Flanagan & Levine, 2010; Shaw et al., 2014). Consistent with Barrett (2020), an adequate functioning democracy requires not only democratic institutions but also citizens to be committed to democratic processes, willing to express their own opinions whilst listening to those of others, involved in decision-making processes, and willing to defend minorities' rights. Thus, it is fundamental to promote and enhance these propensities for civic engagement among young people to uphold democratic values. The present study examined the linkages between four civic competences and civic engagement during adolescence, and the potential role played by gender.

Defining Civic Competences: The Reference Framework of Competences for Democratic Culture (RFCDC)

The Council of Europe has developed a Reference Framework of Competences for Democratic Culture (RFCDC; Barrett et al., 2018a), offering a shared language about the competences that are required to be an active member of a democratic culture within any social group. In particular, the RFCDC has identified 20 competences subdivided

into values, attitudes, skills, as well as knowledge and critical understanding. *Values* are meant as general beliefs that drive and motivate individuals to act, also providing criteria for evaluating actions, as well as a normative quality. Those included in the RFCDC refer to: a) human dignity and human rights, b) cultural diversity, and c) democracy, justice, fairness, equality and the rule of law. *Attitudes* are the general mental orientations adopted by individuals towards someone or something. Those included in the RFCDC are: a) openness to cultural otherness and to other beliefs, world views and practices, b) respect, c) civic-mindedness, d) responsibility, e) self-efficacy, and f) tolerance of ambiguity. *Skills* are interpreted as the capacity for carrying out well-organized patterns of thinking and behavior in an adaptive manner with the aim of achieving a specific goal. Those included in the RFCDC are: a) autonomous learning, b) analytical and critical thinking, c) listening and observing, d) empathy, e) flexibility and adaptability, f) linguistic, communicative and plurilingual skills, g) cooperation, and h) conflict-resolution. *Knowledge* is the set of information that a person has, whereas *understanding* is the comprehension and appreciation of meanings; in particular, the RFCDC refers to a “critical understanding” which, differently from an automatic evaluation, involves an active and critical evaluation of what is being understood and interpreted. Knowledge and critical understanding included in the RFCDC refer to: a) the self; b) language and communication, and c) the world.

According to this framework, the term “competence” should not be used interchangeably with “ability”; it rather refers to the psychological resources that should be activated and deployed to meet the demands and challenges of democratic and intercultural situations. This model suggests that, within the context of democratic culture and intercultural dialogue, people are competent when they act appropriately and effectively by mobilizing and implementing some or all of these competences to meet their own needs and the demands presented by these situations.

Linkages Between Civic Competences and Civic Engagement

Research on the contribution of adolescents’ civic competences on their civic engagement is still underdeveloped. Thus, understanding their intersection represents a significant aspect that needs further investigation. Our reflection started from two fundamental ideas about civic engagement. First, it is a specific type of prosocial behavior (Sherrod et al., 2010), which promotes the connection between individual and collective interests (Hylton, 2018; Ingoglia et al., 2022), and at the same time it improves social relationships and fosters a sense of belonging and responsible togetherness (Procentese et al., 2019). Second, following Amnå’s (2012) suggestion, civic engagement is basically related to “a person’s ‘outward looking’, which is rooted in a fundamental orientation toward reciprocity. Something outside (one’s) own, private sphere catches (one’s) attention and attracts (one’s) interest” (p. 613).

Based on these considerations, we focused our attention on the unique and specific role of some civic competences defined by the RFCDC—that is, empathy, respect, and cooperation—each of which may be conceived as a peculiar facet of the way in which adolescents regulate self-other boundaries, that is, the complex process that determines not only where *I* ends and *You* begins, but also the space between *Us* (Ingoglia et al., 2011). *Empathy* is the capacity to understand and relate to other people's thoughts, beliefs, and feelings, to see the world from others' point of view and vicariously experience their emotional states (Davis, 1983, 1996; Hoffman, 2008). It is better understood as a set of both cognitive and affective components (Barrett et al., 2018b; Davis, 1983); in this study, we focused on the affective dimension of empathic concern, that is, the ability to experience feelings of compassion and concern for other people based on the understanding and comprehension of their cognitive or affective state, or their specific situations. *Respect* is an attitude towards someone or something where the object of that attitude is judged to be important, worthy, or valuable and deserving of positive regard and esteem for that reason. One type of respect which is particularly important in the context of a culture of democracy is the respect towards other people who are perceived to have different cultural affiliations or different beliefs, opinions, or practices from one's own. Such a respect assumes the acknowledgement of the dignity and the right of the other person to hold those affiliations, beliefs, opinions, or practices, while recognizing and valuing the existing differences between the self and the other. In short, respect involves positive consideration and esteem for other people as equal human beings, with the same human rights and freedoms, regardless of the specific cultural affiliations, beliefs, opinions, habits, or practices. *Cooperation* includes the abilities required to participate successfully with other people in shared activities. It comprises multiple skills, such as the ability to express one's own opinions while working in groups, to adapt one's own behavior and encourage group members to cooperate in order to accomplish the group goals, to handle and solve conflicts in the group in a specific manner, through dialogue. We also examined the role played by adolescents' personal *responsibility*. It is an attitude towards one's own actions which arises when people must act in a particular way and deserve admiration or blame for either performing that act or failing to act in that way. Therefore, it implies the use of a thoughtful approach towards one's own actions and towards their consequences, together with a process of decision making about the appropriate actions to be made in specific circumstances, as well as a willingness to evaluate and judge the self. Responsibility—for themselves and for the surrounding people—is one of the prerequisites for youth civic participation and its centrality is enshrined in the article 29 of the Universal Declaration of Human Rights: "Everyone has duties to the community in which alone the free and full development of his personality is possible".

Some studies to date have investigated associations between these civic competences and youth civic engagement. For example, some authors (Berger et al., 2015; Carlo et al., 2015; Van der Graaff et al., 2018) evidenced positive associations between empathic

concern and prosocial behaviors, highlighting that feeling concern for others may facilitate and promote other-oriented actions. Further, Ingoglia et al. (2022) have recently reported positive associations between a set of civic competences—as defined by the RFCDC—and civic behaviors in emerging adults, suggesting that individuals with greater levels of personal resources, such as empathy, cooperation, respect, and responsibility, were more likely to show a higher interest in collective issues, as well as higher active participation. Similar results were also reported in other studies (Metzger et al., 2018; Soto et al., 2024), in which it was emphasized that these competences—and, specifically, empathy and cooperation—significantly predicted different forms of civic engagement, such as informal helping, volunteering, environmental behavior, and voting intentions. In the same vein, LeCompte et al. (2020) pointed out that working with others and respecting others' perspectives, points of view, as well as values and opinions, are key competences for the occurrence of civic engagement.

Civic Attitudes Revisited

In addition to the attitudes of respect and responsibility, the present study also examined civic attitudes, which, as we noted above, are the personal beliefs and feelings that people have regarding their commitment to their own community. These therefore include attitudes towards serving in the community, being informed about community issues, volunteering in the community, and financially supporting charitable organizations in the community.

Because these attitudes consist of orientations towards undertaking actions within the community, they differ from the attitudes of respect and responsibility. As noted above, respect is an attitude towards someone or something where the object of that attitude is judged to be important, worthy, or valuable and is deserving of positive regard and esteem. As such, respect does not necessarily entail concrete actions in the community. The same applies to responsibility which, as an attitude towards one's own actions, is self-focused rather than community-focused. It is for this reason that the present study examined not only the attitudes of respect and responsibility but also civic attitudes that are more directly focused on taking action within the community.

The Role of Gender

Previous research has pointed out gender-specific patterns in civic competences and civic engagement. Regarding civic competences, a large body of research suggests that girls tend to exhibit higher levels of empathy (Van der Graaff et al., 2014; Ingoglia et al., 2016), respect (Oosterhoff et al., 2021) and responsibility than boys (Lee, 2009; Metzger et al., 2018), while results about cooperative interactions are mixed, with some studies reporting no differences between males and females (House et al., 2023; Lemmers-Jansen et al., 2019), and others suggesting that girls tend to be more cooperative than boys

(Molina et al., 2013). Regarding civic engagement, an abundance of literature has found distinct gender-based patterns in youth civic activity (Cicognani et al., 2012; Flanagan et al., 1998; Oesterle et al., 2004; Wray-Lake & Shubert, 2019). Most studies have found that girls tend to show greater future civic intention, prosocial behavior, and civic attitudes than boys (Miles & Naumann, 2023; Oosterhoff et al., 2021; Stefani et al., 2021; Van der Graaff et al., 2014, 2018), and regard community service as more important (Metzger et al., 2018; Stefani et al., 2021). Studies have also found that boys prioritize standard political forms of involvement, such as voting in political elections, protesting for causes, and membership in civic or community clubs (Metzger & Ferris, 2013; Metzger & Smetana, 2009; Stefani et al., 2021). Notwithstanding, some studies have found no significant gender differences in civic engagement (Wium et al., 2023).

Some authors have proposed that all these gender differences might be mainly associated with cultural expectations about gender roles (Christov-Moore et al., 2014). According to gender socialization theorists, girls are socialized to exhibit nurturance and caring (Carlo et al., 2015; Gilligan, 1982; Van der Graaff et al., 2018) and are more likely than boys to feel guilty when they have not been compassionate (Flanagan & Stout, 2010). In contrast, boys are socialized to inhibit these forms of prosocial behaviors and are more inclined towards an ethic of justice (Eisenberg et al., 2005; Jaffee & Hyde, 2000). Gender stereotypes and gender-specific socialization practices tend to be stronger during adolescence, and at this age both boys and girls are more inclined to adhere to gender roles which, in turn, may result in gender-specific patterns of both civic engagement and civic competences.

Based on these considerations, it is reasonable to hypothesize that gender not only affects the levels of civic competences and civic engagement, but also their linkages. For instance, we could suppose that a competence such as empathy might be more influential on civic engagement for girls than for boys. Notwithstanding, research (Van der Graaff et al., 2018) has not adequately explored the potential moderating effects of gender in these domains. The present study aimed to fill this gap.

The Current Study

The general goal of the present study was to offer a further contribution to the existing literature on civic engagement in adolescence, providing additional knowledge about its association with some civic competences. Based on the theoretical premises and empirical studies reported previously, we examined the relations between four different competences—empathy, cooperation, respect, and responsibility—and civic engagement (conceptualized as civic attitudes and behaviors). We aimed to investigate the extent to which these four competences predicted civic attitudes and behaviors, and we hypothesized that each of them would be positively associated with both facets of civic engagement (H1).

We also examined the potential role played by adolescents' gender. We firstly evaluated the role of gender as a covariate, and we hypothesized that girls would score higher than boys in empathy, respect and responsibility (H2); no specific hypothesis was formulated about cooperation, civic attitudes and behaviors due to mixed results in the literature. Successively, we examined the role of gender as a moderator, and we hypothesized that the relations of empathy, respect and responsibility with civic attitudes and civic behaviors would be stronger for girls than for boys (H3); no specific hypothesis was formulated about cooperation. In all analyses, adolescents' age was specified as a covariate.

Method

Participants and Procedure

We recruited a convenience sample of 446 adolescents (70% female), ranging in age from 14 to 19 years ($M_{\text{age}} = 16.51$, $SD = 1.35$) and attending a public high school in Southern Italy (Palermo). We calculated the minimum required sample size a priori, using Soper's calculator (Soper, 2022). For a medium effect size (i.e., .3), a desired statistical power level of 80%, and a confidence interval of 95% for the hypothesized model (i.e., 30 observed variables and 6 latent factors), the recommended minimum sample size was 161. Thus, the number of participants involved in the study was adequate for the following analyses.

Participants enrolled in the first year were 15%, in the second year were 14%, in the third year were 22%, in the fourth year were 28%, and in the fifth year were 21%. Regarding parents' occupational status, 91% of fathers were employed, 6% were unemployed, and 3% were retired; 64% of mothers were employed, 35% were unemployed, and 1% were retired. Regarding parents' marital status, 88% of parents were married, 11% were separated or divorced, and 1% were cohabiting partners.

We collected data through an online survey conducted in a high school in Palermo, after receiving the consent of the school. As the inclusion criterion, participants needed to be between 14 and 18 years. All procedures were performed in compliance with the Declaration of Helsinki regarding research on human participants and approved by the Internal Ethics Committee of the University of Palermo. We obtained written informed consent from all adolescents or from minors' parents.

Measures

Sociodemographic Variables

The first section of the questionnaire contained a set of questions asking the respondents to provide information about sociodemographic variables like gender, age, year of enrolment at school, parents' education level, occupation, as well as marital status.

Civic Engagement

We used the Civic Engagement Scale (CES; Doolittle & Faul, 2013). It is composed of 14 items aimed at measuring Civic Attitudes (8 items, e.g., “I feel responsible for my community”) and Civic Behaviors (6 items, e.g., “I help members of my community”). Items are rated on a 5-point Likert scale ranging from 1 (*Completely disagree*) to 5 (*Completely agree*) for the Civic Attitudes subscale, and from 1 (*Never*) to 5 (*Always*) for the Civic Behaviors subscale. With the aim of defining Civic Attitudes and Civic Behaviors as latent variables, we used the technique of parceling to originate a smaller number of observed indicators. Both factors were measured by three parcels computed as the mean score of two or three items. To test the factorial validity of the scale, we conducted a Confirmatory Factor Analysis (CFA) based on Robust Maximum Likelihood (MLR) estimation method, and we relied on common goodness-of-fit indices: the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). Following the typical interpretation guidelines (Hu & Bentler, 1999; Marsh et al., 2004, 2005), values greater than .90 and .95 for the CFI are indicative of adequate and excellent fit to the data, respectively, whereas RMSEA values smaller than .08 or .05 indicate acceptable and excellent model fit, respectively. Our results supported a 2-factor correlated model, $\chi^2(8) = 23.54$, $p < .01$, CFI = .970, RMSEA = .066, 90% CI [.036, .098]. The internal consistency in the current study was good (Cronbach's $\alpha = .75$ for the Civic Attitudes subscale; $\alpha = .78$ for the Civic Behaviors subscale).

Civic Competences

To assess civic competences, we took into account empathy, respect, responsibility, and cooperation. Specifically, to evaluate empathy, we adopted the Empathic Concern subscale from the Brief Interpersonal Reactivity Index (B-IRI; Davis, 1980; Ingoglia et al., 2016). The subscale consists of 4 items (e.g., “I often have tender, concerned feelings for people less fortunate than me”) rated on a 5-point Likert scale (from 1 = *Never* to 5 = *Always*). The internal consistency in the current study was good (Cronbach's $\alpha = .85$). To assess cooperation, we used the scale proposed by Stepanov et al. (2019), which evaluates different behavioral patterns when working in groups. It consists of 6 items (e.g., “When I work in group, I create positive relationships with the other people”) and uses a 5-point Likert scale (from 1 = *Strongly Disagree* to 5 = *Strongly Agree*). The internal consistency in the current study was good (Cronbach's $\alpha = .82$). To assess respect, we used 3 items (e.g., “I respect opinions, worldviews and lifestyles that differ from my own”) derived from the RFCDC descriptors (Barrett et al., 2018b) and adapted from Ingoglia et al.'s (2022) work. Items were rated on a 5-point Likert scale ranging from 1 (*Not at all*) to 5 (*Very Much*). The internal consistency in the current study was (Cronbach's $\alpha = .80$). To assess responsibility, we used 3 items (e.g., “I take responsibility for my mistakes”) derived from the RFCDC (Barrett et al., 2018b) and adapted from Ingoglia et al.'s (2022) work. Items were rated on a 5-point Likert scale ranging from 1 (*Not at all*) to 5 (*Very Much*). The

internal consistency in the present study was good (Cronbach's $\alpha = .85$). In order to test the factorial validity of the measurement model regarding civic competences, we tested a 4-factor correlated model in which Empathy, Respect, Responsibility and Cooperation were defined as latent variables; we used the technique of parcelling to originate a smaller number of observed indicators for Cooperation, which was measured by three parcels computed as the mean score of two items. The results of CFA model provided excellent fit-indices: $\chi^2(59) = 96.17, p = .002, CFI = .977, RMSEA = .038, 90\% CI [.023, .051]$.

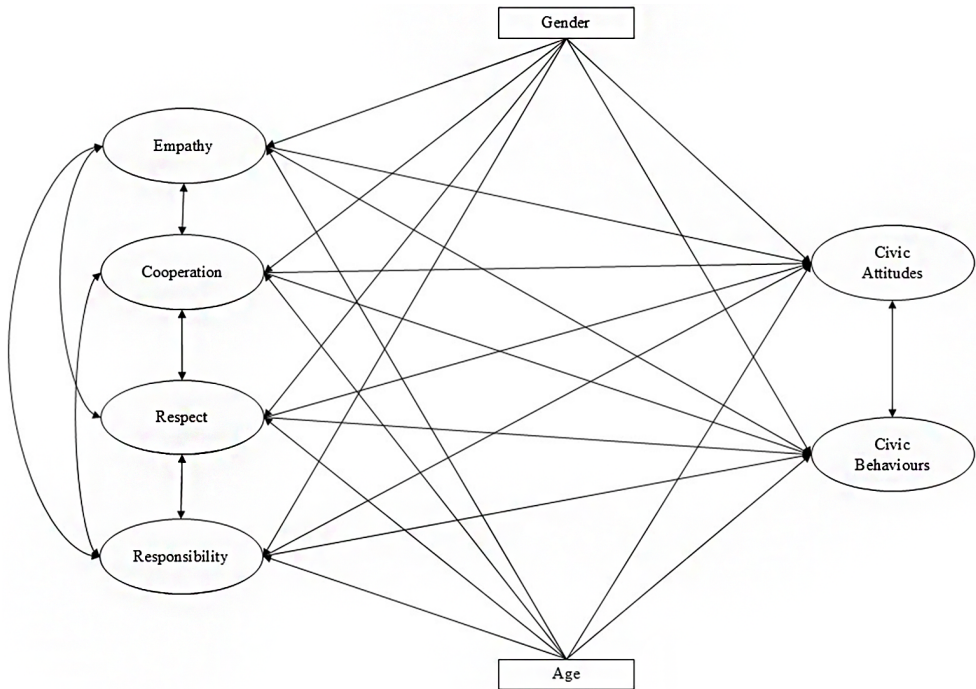
Data Analyses

As a preliminary step, we computed means, standard deviations, skewness and kurtosis, and Pearson correlation coefficients of study variables, separately for males and females. As a next step, we performed a series of multiple group CFA (MGCFA) for both civic engagement and civic competences measurement models to examine the extent to which the measures were invariant for males and females. Measurement invariance was investigated by contrasting several nested models with different degrees of parameter constraints. Specifically, configural, metric, and scalar invariance was tested. Firstly, the configural invariance model (MGCFA M0) was tested to evaluate the dimensional stability across gender; it is an unconstrained model, in which parameters to be estimated are allowed to vary freely across groups, and it provides the basis for comparisons with all subsequent models in the invariance hierarchy. Following the approach suggested by Widaman and Olivera-Aguilar (2023), to make nesting relations more explicit, we selected males as a reference group, and for the reference group, we (1) fixed the mean of each latent variable to 0 and the variance of each latent variable to 1; (2) chose one observed variable for each latent variable, constraining its factor loading and intercept invariant across groups; and (3) estimated freely the mean and variance of latent variables in the female group. The metric invariance model (MGCFA M1) was obtained by adding equality constraints on the factor loadings to MGCFA M0, assessing whether the relations between factors and indicators were invariant across gender. The scalar invariance model (MGCFA M2) was obtained by adding equality constraints on the intercepts to MGCFA M1, assessing whether the intercepts of indicators were invariant across gender. In order to examine measurement invariance, we used ΔCFI between the two competing models lower than $-.010$, as well as $\Delta RMSEA < .015$ as useful indicators of invariance achievement (Chen, 2007; Cheung & Rensvold, 2002).

Subsequently, to test our proposed model (see Figure 1), we ran a Structural Equation Model (SEM) by applying the MLR estimation method which provides standard errors and tests of model fit that are robust to the non-normality of data (Mardia's coefficient was 78.24). Adolescents' gender (coded as 1 = male; 2 = female) and age were entered as covariates into the model. The overall fit of the model was tested using several goodness-of-fit statistics as reported above.

Figure 1

Hypothesized Model of the Associations Between Civic Competences and Civic Engagement



Note. For clarity purposes, observed variables and residuals are not reported.

Finally, to test the hypothesis of the moderating role of adolescents' gender on the relations between civic competences and civic engagement, a series of multiple group SEM (MGSEM) was performed. We first tested a model (MGSEM M0) in which only factor loadings and intercepts of observed indicators were held equal across groups, while factor covariances and path coefficients were freely estimated across groups. Next, we tested a more constrained model (MGSEM M1) in which factor covariances were held equal across groups, and path coefficients were freely estimated. Finally, we tested a more constrained model (MGSEM M2) in which path coefficients were held equal across groups. We compared the nested models by inspecting ΔCFI and ΔRMSEA , and we used the following rules of thumbs as indicators of potential moderation of gender: $\Delta\text{CFI} \geq -.010$, and $\Delta\text{RMSEA} \geq .015$ (Chen, 2007; Cheung & Rensvold, 2002). All analyses were performed using MPlus 7 (Muthén & Muthén, 2012).

Results

Descriptive Statistics and Bivariate Correlations Between Study Variables

Tables 1 and 2 depict the descriptive statistics and Pearson correlation coefficients of study variables, computed separately for males and females. With the exception of a civic attitudes parcel and respect item, the observed values of skewness and kurtosis were approximately in the range -1.00 $+1.00$, suggesting that variables were normally distributed (Kline, 2023). Globally, civic attitudes and civic behaviors were positively and significantly associated with each other and with civic competences, for both male and female participants.

Table 1

Descriptive Statistics of Study Variables (Items or Parcels) for Boys (n = 134) and Girls (n = 312)

Variable	Boys				Girls			
	<i>M</i>	<i>SD</i>	<i>S</i>	<i>K</i>	<i>M</i>	<i>SD</i>	<i>S</i>	<i>K</i>
CA_P1	3.53	0.64	-0.30	-0.46	3.79	0.51	-0.57	2.35
CA_P2	3.91	0.67	-1.45	3.75	4.10	0.53	-1.12	3.85
CA_P3	3.57	0.78	-0.60	0.91	3.90	0.64	-0.62	2.03
CB_P1	2.24	0.89	0.80	0.49	2.48	0.89	0.45	0.08
CB_P2	3.33	1.02	-0.43	-0.29	3.44	0.87	-0.31	-0.26
CB_P3	2.56	1.02	0.15	-0.66	2.66	0.97	0.32	-0.30
EMP1	3.70	0.93	-0.27	-0.52	4.29	0.85	-1.22	1.64
EMP2	3.74	1.06	-0.68	-0.04	4.31	0.84	-1.20	1.39
EMP3	4.01	0.97	-0.87	0.51	4.36	0.83	-1.51	2.69
EMP4	3.69	1.10	-0.44	-0.60	4.09	0.97	-0.93	0.46
RESPO1	4.01	0.86	-0.80	0.92	4.12	0.84	-1.01	1.55
RESPO2	4.04	0.86	-0.64	-0.19	4.16	0.88	-1.23	1.96
RESPO3	4.08	0.86	-0.81	0.53	4.24	0.82	-1.21	1.97
RESPE1	3.93	0.92	-0.87	1.19	4.10	0.88	-0.96	1.07
RESPE2	3.93	1.00	-0.90	0.58	4.39	0.77	-1.63	3.95
RESPE3	4.09	0.89	-1.16	1.87	4.53	0.74	-2.05	5.66
COO_P1	4.01	0.76	-0.99	2.15	4.26	0.64	-1.28	3.48
COO_P2	3.79	0.81	-0.96	1.53	3.99	0.68	-0.66	1.76
COO_P3	3.81	0.82	-0.64	0.64	4.01	0.69	-1.02	2.51
Age	16.51	1.39	-0.47	-1.04	16.51	1.34	-0.57	-0.83

Note. *M* = Mean; *SD* = Standard deviation; *S* = Skewness; *K* = Kurtosis; CA_P = Civic Attitudes parcels; CB = Civic Behaviors parcels; EMP = Empathy items; RESPO = Responsibility items; RESPE = Respect items; COO_P = Cooperation parcels.

Table 2

Pearson Correlation Coefficients Between Study Variables (Items or Parcels) for Boys (Below the Diagonal, n = 134) and Girls (Above the Diagonal, n = 312)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. CA_P1	—	.50	.32	.29	.30	.32	.34	.35	.24	.26	.17	.19	.15	.15	.13	.18	.28	.24	.34	.08
2. CA_P2	.44	—	.34	.20	.31	.18	.33	.28	.30	.14	.24	.24	.22	.28	.24	.25	.42	.35	.35	-.01
3. CA_P3	.41	.49	—	.18	.08	.24	.35	.31	.21	.27	.09	.14	.13	.15	.07	.17	.20	.25	.24	.10
4. CB_P1	.28	.29	.30	—	.43	.53	.18	.16	.14	.22	.11	.09	.08	.14	.08	.07	.15	.22	.28	.17
5. CB_P2	.40	.39	.29	.51	—	.51	.24	.23	.20	.25	.27	.32	.21	.23	.21	.20	.20	.26	.27	-.06
6. CB_P3	.34	.34	.39	.58	.51	—	.20	.19	.16	.21	.08	.09	.06	.11	.09	.11	.10	.19	.30	-.06
7. EMP1	.24	.25	.40	.24	.27	.34	—	.70	.64	.50	.34	.41	.40	.29	.31	.45	.39	.32	.35	.12
8. EMP2	.31	.19	.38	.22	.45	.33	.60	—	.67	.54	.30	.31	.34	.25	.25	.39	.39	.32	.33	.01
9. EMP3	.14	.31	.34	.14	.29	.24	.54	.60	—	.48	.31	.39	.41	.25	.38	.42	.34	.17	.25	.02
10. EMP4	.16	.17	.30	.19	.20	.22	.52	.49	.47	—	.29	.30	.29	.26	.26	.32	.36	.31	.35	.08
11. RESPO1	.20	.25	.13	.12	.30	.13	.25	.43	.18	.26	—	.71	.60	.34	.29	.38	.34	.27	.30	.10
12. RESPO2	.20	.24	.13	.09	.25	.20	.32	.46	.25	.28	.75	—	.63	.38	.34	.47	.30	.18	.28	.09
13. RESPO3	.23	.30	.27	-.01	.21	.20	.33	.36	.29	.23	.61	.64	—	.38	.36	.50	.30	.17	.30	.13
14. RESPE1	.23	.31	.28	.27	.35	.40	.32	.27	.29	.17	.32	.24	.27	—	.51	.49	.31	.24	.38	.10
15. RESPE2	.28	.48	.35	.19	.34	.17	.35	.34	.43	.30	.47	.40	.42	.55	—	.64	.39	.20	.30	.04
16. RESPE3	.42	.45	.40	.12	.33	.27	.22	.34	.33	.24	.45	.43	.54	.54	.69	—	.34	.16	.31	-.02
17. CO_P1	.33	.32	.33	.07	.24	.17	.33	.46	.34	.31	.48	.46	.37	.26	.39	.47	—	.55	.54	.02
18. CO_P2	.36	.28	.34	.27	.28	.36	.43	.42	.34	.26	.26	.29	.46	.35	.21	.28	.53	—	.57	.02
19. CO_P3	.28	.34	.30	.20	.22	.21	.32	.35	.27	.32	.45	.43	.45	.32	.40	.44	.57	.63	—	.04
20. Age	.01	-.08	-.09	.15	-.06	.04	.01	.04	-.07	.06	.09	.15	.03	.00	.02	-.08	.03	.01	-.03	—

Note. CA_P = Civic Attitudes parcels; CB = Civic Behaviors parcels; EMP = Empathy items; RESPO = Responsibility items; RESPE = Respect items; COO_P = Cooperation parcels. All coefficients $\geq |.15|$ are significant at $p < .05$.

Measurement Invariance of Study Variables

Goodness of fit indexes are reported in Table 3. When testing the measurement invariance across gender, results provided evidence that for both civic engagement and civic competences models, metric invariance was accomplished. Specifically, the comparison between MGCFA M1 and MGCFA M0 did not report a decrement in fit indices greater than the suggested thresholds, indicating that no meaningful differences for factor loadings were shown. It means that the underlying factor structure is the same across groups, and the relationships between latent constructs and observed variables are equivalent. Results also provided evidence that for both civic engagement and civic competences models, scalar invariance was accomplished. Specifically, the comparison between MGCFA M2 and MGCFA M1 did not report a decrement in fit indices greater than the suggested thresholds, indicating that no meaningful differences for intercepts were shown. It means that differences in the mean levels of the indicators are adequately captured as differences in the underlying means of the latent constructs.

Table 3
Goodness of Fit Indexes of Models Testing for Measurement Invariance of Civic Engagement and Civic Competences across Gender (Boys = 134, Girls = 312)

Variable	Model	χ^2	df	CFI	RMSEA	RMSEA 90% CI	Model Comparison	$\Delta\chi^2$	Δdf	ΔCFI	$\Delta RMSEA$
Civic Engagement	MGCF A M0	31.39*	16	.970	.066	.030 - .100	—	—	—	—	—
	MGCF A M1	36.08*	20	.968	.060	.026 - .091	M1 - M0	5.00	4	.002	.006
	MGCF A M2	43.71*	24	.961	.061	.031 - .089	M2 - M1	7.31	4	.007	.001
Civic Competences	MGCF A M0	192.07***	118	.957	.053	.039 - .066	—	—	—	—	—
	MGCF A M1	196.18***	127	.959	.049	.035 - .063	M1 - M0	5.03	9	.002	.004
	MGCF A M2	211.97***	136	.955	.050	.037 - .063	M2 - M1	16.67	9	.004	.001

Note. MGCF A M0 = Configural model; MGCF A M1 = Metric model; MGCF A M2 = Scalar model; MGCFA M2 = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.

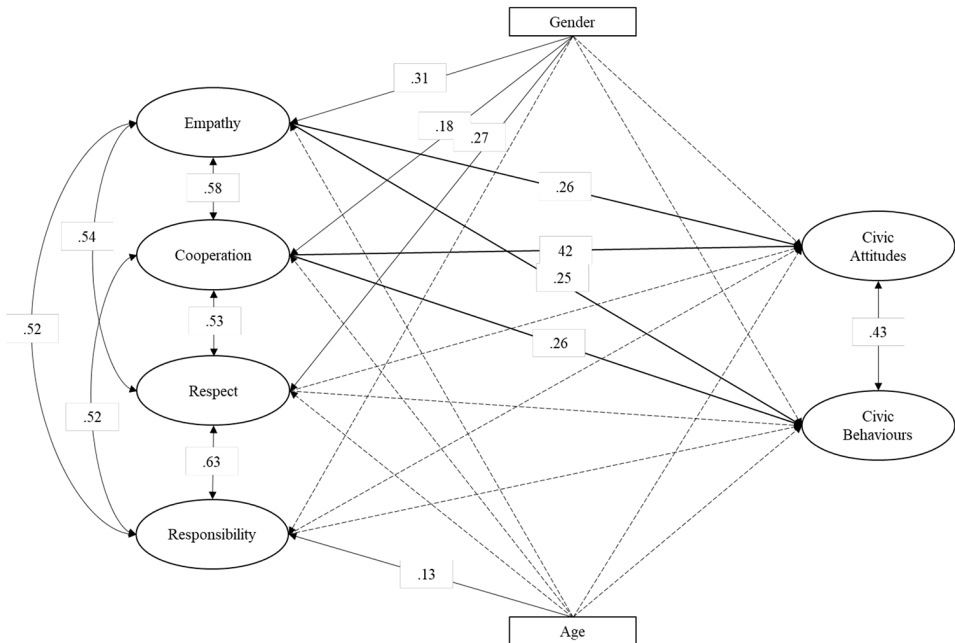
* $p < .05$. *** $p < .001$.

Relations Between Civic Competences and Civic Engagement

The hypothesized model showed an acceptable fit to the data, $\chi^2(163) = 321.57, p < .001$, CFI = .943, RMSEA = .047, 90% CI [.039, .054]. The standardized solution is reported in Figure 2. The four civic competences were positively and significantly correlated with each other; similarly, the two dimensions of civic engagement were positively and significantly correlated with each other. Only empathy and cooperation were positively and significantly related to both civic attitudes and civic behaviors. Moreover, gender was positively and significantly related to empathy, cooperation, and respect, with females reporting higher levels than males. Finally, age was positively and significantly related only with responsibility.

Figure 2

Standardized Solution for the Associations Between Civic Competences and Civic Engagement (Whole Sample, $n = 446$)



Note. For clarity purposes, observed variables and residuals are not reported, and only significant ($p < .05$) parameter estimates are shown. Gender was coded as 1 = boy, 2 = girl.

The Moderating Role of Gender on the Relations Between Civic Competences and Civic Engagement

A series of multiple group SEM was run to test the potential moderating role of gender in the relations between civic competences and civic engagement. Goodness of fit indexes are reported in Table 4. The comparison between the model with equality constraints imposed on factor loadings, observed indicators intercepts, and factor covariances (MGSEM M1) and the model with equality constraints also imposed on path coefficients (MGSEM M2) resulted in a significant worsening of fit, since ΔCFI and $\Delta RMSEA$ exceeded the suggested thresholds. Modification indices suggested to release the constraints imposed on path coefficients linking empathy and cooperation with civic attitudes and civic behaviors, respect with civic attitudes, and age with all civic competences. Therefore, the model MGSEM M2 was modified releasing these constraints (MGSEM M2a). The comparison between MGSEM M2a and MGSEM M1 did not report a decrement in fit indices greater than the suggested thresholds, indicating that no meaningful differences for other path coefficients were found. The standardized solution is reported in Figure 3. Results showed that empathy was positively and significantly related to civic attitudes for girls but not for boys, and it was positively and significantly related to civic behaviors for boys but not for girls; cooperation was positively and significantly related to civic attitudes and civic behaviors for girls but not for boys; respect was positively and significantly related to civic attitudes for boys but not for girls; and age was positively and significantly related to all civic competences for boys but not for girls.

Table 4

Goodness of Fit Indexes of Models Testing for the Moderating Role of Gender of the Relations Between Civic Engagement and Civic Competences (Boys = 134, Girls = 312)

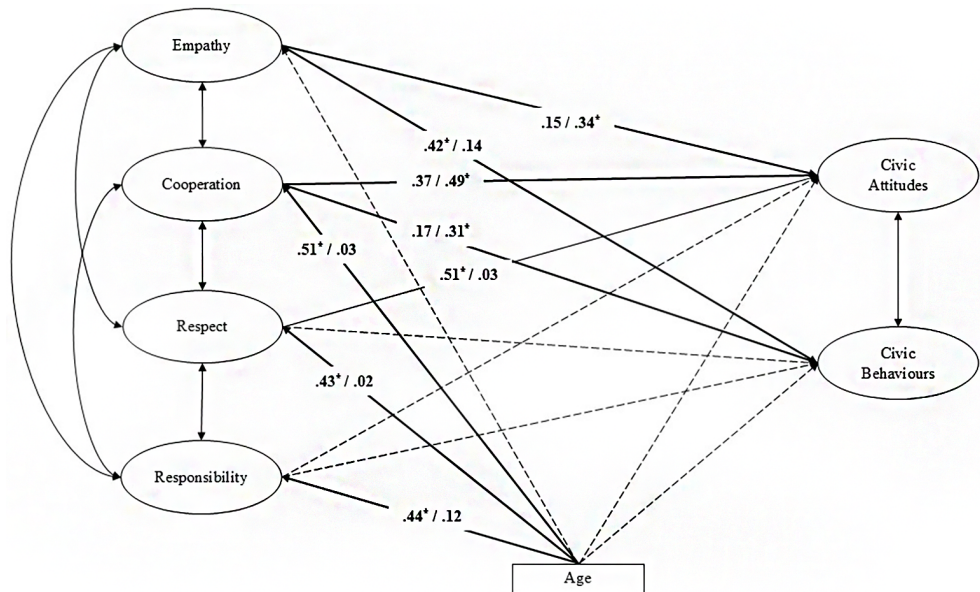
Model	χ^2	df	CFI	RMSEA	RMSEA		Model Comparison	$\Delta\chi^2$	Δdf	ΔCFI	$\Delta RMSEA$
					90% CI	90% CI					
MGSEM M0	567.13***	326	.913	.058	.050	.066	—	—	—	—	—
MGSEM M1	584.43***	333	.909	.058	.050	.066	M1 – M0	13.20	7	.004	0
MGSEM M2	691.23***	347	.876	.067	.059	.074	M2 – M1	56.38***	14	.037	.009
MGSEM M2a	590.86***	338	.909	.058	.050	.066	M2 – M1	9.28	5	.004	0

Note. MGSEM M0 = Unconstrained model; MGSEM M1 = Model with constraints on factor covariances; MGSEM M2 = Model with constraints on path coefficients; MGSEM M2a = Model with no constraints imposed on path coefficients linking empathy and cooperation with civic attitudes and civic behaviors, respect with civic attitudes, and age with all civic competences; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.

*** $p < .001$.

Figure 3

Standardized Solution of the Multiple Group SEM (MGSEM M2a) Testing Relations Between Civic Competences and Civic Engagement Across Gender (Boys = 134, Girls = 312)



Note. For clarity purposes, observed variables and errors are not reported. Not significant path coefficients are represented by dashed lines. Not invariant path coefficients are represented by bold continuous lines.

* $p < .05$.

Discussion

The overall goal of this study was to examine the relations between some civic competences (specifically, empathy, cooperation, respect, and responsibility) and civic engagement (conceptualized as civic attitudes and behaviors) in adolescence, as well as to provide a gender-based perspective on these issues, examining the potential role of teens' gender, both as a covariate and a moderator. Although the literature on this topic is extensive, such associations have been poorly investigated. The present study aimed to fill this gap.

Our first hypothesis (H1) was only partially supported. We found that only empathy and cooperation were positively and significantly related to both civic attitudes and civic behaviors, while respect and responsibility were not significantly related to dimensions of civic engagement. As outlined below, these findings can be better interpreted when read through the lens of adolescents' gender.

Regarding the role of gender as a covariate, our second hypothesis (H2) was only partially supported. Results evidenced gender differences in empathy, cooperation and respect, with girls reporting higher levels than boys, while differently than hypothesized, no significant gender differences were found for responsibility. No significant gender differences were found for civic attitudes and civic behaviors, suggesting that girls and boys tend to show similar attitudes and behaviors in relation to the issues of their own community.

Finally, regarding the role of gender as a moderator of the linkages between civic competences and civic engagement, our third hypothesis (H3) was only partly supported. As hypothesized, empathy was positively and significantly related to civic attitudes for girls but not for boys, but differently than hypothesized, it was positively and significantly related to civic behaviors for boys but not for girls. Again, contrary to our hypothesis, respect was positively and significantly related to civic attitudes for boys but not for girls. Cooperation was positively and significantly related to civic attitudes and civic behaviors for girls but not for boys. Further, we found that age was positively and significantly related to all civic competences for boys but not for girls, with older boys reporting higher levels of empathy, cooperation, respect, and responsibility than younger boys.

All these results offer important food for thought and in order to better understand them we need to offer an integrated reading of the observed phenomena. First, these results are consistent with the literature regarding gender differences, confirming that during adolescence, girls are more empathic, cooperative and respectful than boys (Molina et al., 2013; Oosterhoff et al., 2021; Van der Graaff et al., 2018). Second, these results are consistent with the literature regarding gender differences in the developmental patterns of civic competences, confirming that during adolescence, there seems to be greater stability for females than for males who instead undergo variations between early and late adolescence (see, for instance, Allemand et al., 2015; Van der Graaff et al., 2014). Third, the development of diverse civic competences could contribute differently to the development of civic engagement of males and females during adolescence. On the one hand, civic attitudes are related to a greater respect for boys, and with greater empathic and cooperative capacities for girls. The key element that makes teenagers more sensitive regarding commitment to their own community and more prone to make a difference in it, for boys is a more positive consideration and esteem for other people as equal human beings, and for girls are greater capacities to share and understand others' thoughts and feelings, and to participate successfully with other people in shared activities. On the other hand, civic behaviors are related to a greater empathic capacity for boys, and with higher levels of cooperation, for girls. The key element that makes teenagers more prone to taking concrete actions to make a difference in their community for boys is the capacity to vicariously feel emotions that the other person is experiencing, and for girls is the capacity to cooperate with other people.

As outlined by Amnå (2012), civic engagement is basically related to “a person’s ‘outward looking’, which is rooted in a fundamental orientation toward reciprocity” (p. 613). Altogether, the results of the present study confirm this idea. Empathy, respect, and cooperation may be conceived as a peculiar facet of the way in which adolescents regulate self-other boundaries, and all of them showed to be related to civic engagement. They are powerful driving forces of individuals’ attitudinal and behavioral patterns. Higher levels of empathy, cooperation, and respect may not only function as meaningful motivators in modifying the way adolescents perceive their surrounding reality, in terms of greater sensitivity to others’ thoughts, beliefs, and feelings, but they may also represent significant antecedents of their actual actions. The ability to experience feelings of compassion and concern for others may lead teens to develop the duty to act and not to be passive in such circumstances. In these cases, personal goals and interests are set aside, whereas collective goods are pursued. Similarly, cooperation, referring to the ability to participate successfully with other people on shared activities, implies that group goals are considered of fundamental importance. Being respectful towards others, their points of view and/or their cultural background is fundamental for living together peacefully, without conflict and hostile interactions and it appears to be necessary for leading boys to be interested in pursuing the common good. Thus, adolescents’ empathy, cooperation, and respect represent meaningful competences for the occurrence of both civic attitudes and civic behaviors, since civic engagement is based on the individual commitment to concerns, interests, and common good for a community (Barrett & Pachi, 2019).

Adolescents’ responsibility did not predict their civic engagement. These results are in contrast with our expectations and previous research (Ingoglia et al., 2022; LeCompte et al., 2020). As an explanation, being responsible for one’s own actions and mistakes is relevant for enhancing adolescents’ harmonious relationships, but it may not necessarily imply the development of interests for community issues. In other words, these findings could suggest that responsibility is a civic competence in which the focus on collective interests seems to be less prominent.

Limitations and Suggestions for Future Research

Some limitations to the present study can be mentioned. First, due to the participants’ characteristics, generalization of our results should be made with caution. Second, all participants were from a high school in Southern Italy, representing another limit to our findings’ generalization. Future studies are needed to provide a more comprehensive overview of the hypothesized relationships among the selected variables, involving a larger and more representative sample, balanced across gender. Additionally, we recommend that future studies should investigate a broader set of civic competences, as included in the RFCDC, to offer a deeper understanding of the relevance of this framework to civic engagement during adolescence. As a further concern, we adopted a cross-sectional

design, which does not provide evidence of any causal relationships among the study variables. Longitudinal studies are required to better understand the relations between adolescents' civic competences and civic engagement and to evaluate the possibility of interrelationships over time. As reported in previous studies (Chan et al., 2014; LeCompte et al., 2020), civic engagement may be a significant predictor of civic outcomes in adolescence and emerging adulthood, and it may foster the development of civic competences. Future studies should also investigate how personal resources such as civic competences may be deployed in specific social circumstances and how they may interact with social resources.

Conclusions and Implications

In summary, this work aimed to deepen knowledge on the potential predictors of civic engagement among adolescents, based on the Council of Europe's RFCDC. Among the selected competences, empathy, cooperation, and respect showed positive and significant associations with both civic attitudes and behaviors, differently for boys and girls. Adolescence is a key period in the life cycle for individuals to develop and exercise civic competencies that will help them to become active citizens. As outlined by Nussbaum (2010), democracy is based on respect and concern for others and these are in turn based on the ability to see other people as human beings, not simply as objects. To create a world worth living in, we need people who can see other human beings as whole people, with thoughts and feelings of their own who deserve respect and empathy, with whom we can collaborate to achieve a common good. Another important contribution of this study is to have highlighted the relevance of exploring these domains taking into account the role of gender as a fundamental stratifying attribute, a "developmental niche" (Torney-Purta & Amadeo, 2011) which can help define social roles, resources, socialization and experiences a person has throughout their life (Scott-Lennox & Lennox, 1995).

While a correlational cross-sectional study such as ours cannot definitively establish causality, a possible implication of the study is that strengthening young people's empathy, cooperation, and respect (through either formal or non-formal education) might be a route to strengthening their commitment to collective civic goals. Future research will be able to clarify whether fostering empathy, respect and cooperation may lead to greater civic engagement in young people.

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Author Contributions: *Sonia Ingoglia*—Idea, conceptualization | Design planning | Data analysis | Writing | Feedback, revisions | Project coordination, administration | Funding to conduct the work | Supervision, mentoring. *Nicolò Maria Iannello*—Feedback, revisions. *Maria Valentina Cavarretta*—Writing. *Cristiano Inguglia*—Feedback, revisions. *Martyn Barrett*—Feedback, revisions | Supervision, mentoring. *Harriet Tenenbaum*—Supervision, mentoring. *Nora Wiium*—Supervision, mentoring. *Costanza Baviera*—Data collection | Data management (storage, curation, processing, etc.) | Feedback, revisions. *Nicla Cucinella*—Data collection | Data management (storage, curation, processing, etc.) | Feedback, revisions. *Alida Lo Coco*—Supervision, mentoring.

Ethics Statement: Research has been approved by the Internal Ethic Committee of the University of Palermo, Italy. Informed consent has been obtained from all respondents prior to their participation in the study.

Data Availability: For this article, data is freely available (see [Ingoglia et al., 2025](#)).

Supplementary Materials

For this article, the following Supplementary Materials are available (see [Ingoglia et al., 2025](#)):

- Codebook
- Dataset (in .dat, .sav and .xlsx format)
- Mplus models

Index of Supplementary Materials

Ingoglia, S., Iannello, N. M., Cavarretta, M. V., Inguglia, C., Barrett, M., Tenenbaum, H., Wiium, N., Baviera, C., Cucinella, N., & Lo Coco, A. (2025). *Supplementary materials to "Civic engagement and civic competences in adolescence: A gender-based perspective"* [Data, codebook, Mplus models]. PsychOpen GOLD. <https://doi.org/10.23668/psycharchives.15962>

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