

Assessing young people's political engagement: A critical and systematic literature review of the instruments used to measure political engagement

Abstract

Over the past few decades, there has been an increasing interest in understanding youth political engagement. However, it has been argued that the instruments used to assess the concept often lack adequate validation, and this is important as this practice may result in biased statistical conclusions. Consequently, the main aim of the present study was to systematically review, summarize, and critique the extant research evidence on the development of psychometric instruments that assess young people's political engagement. Following a systematic review of the literature, seven instruments were identified that were both valid and reliable, but none explicitly assessed young people's political engagement. Instead, they considered broad concepts and/or dimensions related to political engagement. Emphasising the lack of statistically robust standardised measurement tools that empirically assess young people's political engagement, the available evidence confirms the pressing need to adopt a robust psychometric approach to assess political engagement in youth.

Key Words: political engagement, civic engagement, assessment, scale, psychometrics, sociometrics, systematic literature review.

Introduction

Over the past few decades, there has been a growing academic interest in political engagement and participation across the established democracies (Li and Marsh, 2008, Sloam, 2014, Barrett and Brunton-Smith, 2014, Albacete, 2014, Henn, 2015, O'Toole, 2015, Bechtel

et al., 2015). Much of this scholarly attention appears to be justified by a concern about declining levels of civic engagement, low electoral turnout, eroding public confidence in the institutions of representative democracy, and other signs of public fatigue with, scepticism of, and lack of trust in politicians and political parties (e.g., Dalton, 2008, Wattenberg, 2002). This has led many authors to conclude that citizens are becoming increasingly disengaged from the formal political process and from democratic institutions (e.g., Henn and Foard, 2012, Norris, 2002, Putnam, 2000).

In Britain, the percentage of the population that are legally registered to vote as well as the actual levels of turnout at elections have each declined substantially since the turn of the new Millennium (House of Commons, 2014). For instance, the 2001 British General Election witnessed the lowest voter turnout rate since 1918 with only 59% of the eligible electorate casting their vote (Henn et al., 2005). Although overall turnout rates have slowly increased at elections since that time, they have failed to reach levels achieved during the post-War period prior to 2001. Importantly, patterns of electoral participation are uneven, and young people are significantly less likely than their older contemporaries to vote. Thus while 70% of those aged 65 years and over voted in 2001, only 39% of 18- to 24-year olds participated in the ballot – a difference of 31% (MORI, 2001). Young people’s turnout rate coupled with generational electoral inequality has persisted at subsequent general elections – most recently at the 2015 contest the turnout gap between these particular age groups was 35% (MORI, 2015). This apparent indifference of British citizens – and young citizens in particular - toward formal political engagement has led to concerns about a developing ‘crisis of democracy’ (Farthing, 2010).

This progressive withdrawal of young people from formal and institutionalised methods of democratic participation is broadly accepted within the researching community. However, there is a lack of consensus regarding how to define democratic engagement and participation.

According to Barrett and Zani (2014), the term political engagement is used to denote the engagement of individuals with political institutions, processes, and decision-making. By way of contrast, civic engagement is used to signify the engagement of individuals with the interests, goals, concerns, and common good of a community (Barrett and Zani, 2014). For McCartney and colleagues (2013), political engagement is a specific type of civic engagement; they posit that while civic engagement is a means of participating in and seeking to influence the life of the community, political engagement refers more explicitly to politically-oriented activities that seek a direct impact on political issues, systems, and structures. Thus, engagement typically involves participatory behaviours that are directed towards either the polity (in the case of political engagement) or a community (civic engagement). Engagement may foster a sense of civic responsibility, creating positive attitudes toward civic involvement (McFadden et al., 2009, Watts and Flanagan, 2007). This involvement may lead to a greater sense of understanding and trust by promoting a collective sense of identity, community, and purpose (Keeter et al., 2002). Most of the time, political and civic engagement involve not only psychological states and processes, but also active participatory behaviours.

In addition to the extant debates regarding youth political engagement, there has been some discussion about the validity and reliability of the instruments used in political participation research. There is, for instance, a group of academic researchers who argue that measures need to be refined to capture the full range and methods of young people's political participation (Henn and Foard, 2012, Albacete, 2014, O'Toole, 2015). Taking into account the observed changes across advanced liberal democracies (e.g., the new forms of participation often characterised by the use of non-institutionalised political behaviour to express political opinions, such as boycotting products or using new technologies for political reasons), Albacete (2014) suggested the need for a systematic revision of the instruments used to assess young people's political engagement. According to Albacete, the instruments deployed by

researchers to measure youth political engagement often lack adequate validation. Consequently, some researchers may end up adopting inconsistent criteria without statistical and/or psychometric validity to assess this particular construct. Furthermore, they may assess the phenomenon via other specific forms of political participation, such as electoral participation, protest activities, or political consumerism, most frequently with single items that ultimately do not completely map onto the construct of youth political engagement (Albacete, 2014). Such practices may result in biased statistical conclusions.

Albacete also contends that answering questions regarding young citizens' political involvement requires coherence between the concept of political engagement – which implies a broader repertoire (than the existing standardized measures) of actions citizens can get involved in – and its measurement. For that reason, Albacete (2014) suggests that for an instrument to adequately assess political engagement, it should comply with several requirements. Firstly, it should allow the measurement of the latent concept of political participation, the broad number of forms it can take, the different levels of intensity and difficulty those activities entail, and its dimensionality. It should also take into account recent developments in citizens' repertoire of political actions. Finally, it should allow the equivalent assessment of political participation in several countries and over time (Albacete, 2014, p.20).

Given this demonstrated need for a systematic revision of the instruments used to assess young people's political engagement, the main aim of the present paper is to systematically review, summarize, and critique the extant research evidence concerning the development of psychometric instruments that assess youth political engagement.

Method

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement for reporting such reviews provides a robust and comprehensive framework to

conduct systematic reviews and objectively assess indicators of quality and risk of biases of included studies, and is adopted throughout this review (Moher et al., 2009).

Eligibility criteria

Due to the scarcity of studies solely focusing on the psychometric validation of political engagement tools, studies were included in the review if they were either: (i) developing a psychometric instrument to assess political engagement as part of a single (i.e., whole) instrument or (ii) as a subscale (i.e., dimension) of other broader related constructs (e.g., political participation and engagement, civic engagement). Conversely, studies were excluded from the review if they: (i) were not published in a peer-reviewed journal, (ii) did not develop a psychometric tool to assess political engagement or another-related instrument that assessed political engagement indirectly (e.g., single dimension), and (iii) were not published in the English language.

Information sources and search

In order to select potential studies to be reviewed, a computer search was conducted in a number of scholarly databases, including EBSCO (i.e., Academic Search Complete, Child Development and Adolescent Studies and ERIC), PsychINFO, and Google Scholar. The search was directed using the following search strategy:

(Political) AND (Engagement) AND (Psych* OR Assessment OR Evaluation OR Measure* OR Test OR Scale OR Inventory).

All searches were limited to full text papers published from 1990 to 2015 as, according to Phelps (2004), British citizens have become less inclined to vote since 1992 (Phelps, 2004, p. 4). In addition, manual searching was also carried out when necessary using the reference lists

of retrieved papers to find additional studies that may have been missed from the review during the online database search.

Study selection and data collection

After performing the initial literature searches, each paper title and abstract was screened for eligibility. Full texts of all potentially relevant studies were then recovered and further examined for eligibility. The PRISMA flow diagram (see Figure 1) provides more detailed information regarding the selection process of studies. As the goal of the present review was to investigate the theoretical, psychometric, and practical aspects of the instruments developed to assess political engagement, a number of key characteristics for each psychometric instrument were assessed for evaluation. For each study, the following information was collated: (i) key characteristics of participants (e.g., gender distribution, sample size, age range, and segment of population assessed), (ii) country in which data were collected, (iii) operationalisation of political engagement, (iv) theoretical basis for each instrument used, (v) factor structure and number of items, (vi) psychometric characteristics of the instruments (e.g., method of analysis and reliability), and (vii) methodological features of the studies (e.g., assessment methods, type of study, design, response option format, main findings and study limitations).

(Insert Figure 1 about here)

Results

Study selection

A total of 15,129 papers (EBSCO n=3596; PsychINFO n=33; Google Scholar n=11,500) were identified after the initial search in the aforementioned electronic databases.

After screening, 15,031 papers were excluded after applying the inclusion/exclusion criteria leaving 113 papers. Of these, 106 studies were excluded for (i) not having objectively assessed (i.e., with a psychometric tool) a political engagement variable (n=97) or (ii) being written in a non-English language (n=9). This left seven eligible empirical studies for review (see Figure 1). More detailed information regarding the essential methodological features and general characteristics of all seven studies can be found in Table 1.

(Insert Table 1 about here)

Country in which data were collected

In regards to the geographic characteristics, three studies were from the United States (Doolittle and Faul, 2013, Droege and Ferrari, 2012, Peterson et al., 2008), three from Italy (Caprara et al., 2009, Vecchione et al., 2014, Chiessi et al., 2010), and one from Canada (Pancer et al., 2007). These results clearly show that research on political engagement lacks diversity in terms of cultural context as all of the studies reviewed were carried out in just three Westernised countries.

Participants

The seven studies comprised a total of 7,960 participants. In terms of gender distribution, the majority of these reviewed studies recruited slightly more female (n=4,115; 51.69%) than male participants (n=3,845; 48.31%). Two of the instruments (Chiessi et al., 2010, Pancer et al., 2007) included adolescent-only samples and four studies included student samples (Doolittle and Faul, 2013, Droege and Ferrari, 2012, Chiessi et al., 2010, Pancer et al., 2007). The age distribution ranged between 15.6 years (SD=0.72) (Chiessi et al., 2010) and 44.71 years (SD=17.59) (Caprara et al., 2009), but the majority of the samples mainly

comprised adults (Doolittle and Faul, 2013, Droege and Ferrari, 2012, Caprara et al., 2009, Vecchione et al., 2014, Peterson et al., 2008).

In terms of education, the lowest level in all samples was elementary education (Chiessi et al., 2010, Caprara et al., 2009, Vecchione et al., 2014) and the highest a postgraduate degree (Peterson et al., 2008, Vecchione et al., 2014). In the studies that referred to racial classification, the majority of participants identified themselves as white (Doolittle and Faul, 2013, Droege and Ferrari, 2012, Peterson et al., 2008). In general, the samples of the seven studies identified were very heterogeneous.

Methodological features of the studies

In regards to key methodological features, all seven studies were quantitative and empirical, although one (Pancer et al., 2007) used a mix methods approach (i.e., quantitative and qualitative). Five of the studies employed cross-sectional design (Doolittle and Faul, 2013, Droege and Ferrari, 2012, Caprara et al., 2009, Peterson et al., 2008, Chiessi et al., 2010), one adopted a cross-cultural design (Vecchione et al., 2014), and one employed a longitudinal design (Pancer et al., 2007). All seven used a self-report questionnaire for collecting data. Additionally, three (Doolittle and Faul, 2013, Chiessi et al., 2010, Pancer et al., 2007) used paper-and-pencil survey methods for assessing their independent and outcome variables while three (Caprara et al., 2009, Vecchione et al., 2014, Peterson et al., 2008) used face-to-face questionnaires to assess participants. One study used a web-based survey (Droege and Ferrari, 2012), and one (Pancer et al., 2007) used face-to-face interviews to complement data collected in the paper-and-pencil survey. In terms of sampling methods, the majority used a non-probability sampling technique to recruit representative samples. More specifically, six studies (Doolittle and Faul, 2013, Droege and Ferrari, 2012, Caprara et al., 2009, Vecchione et al.,

2014, Peterson et al., 2008, Chiessi et al., 2010) used convenience and self-selected sampling, and only one study (Pancer et al., 2007) used a probability stratified sampling method.

Limitations were identified across all seven studies (see Table 1), and can be broadly categorized within three major categories at three different levels: (i) operationalization and measurement issues, (ii) sampling issues, and (iii) reporting issues. Operationalization and measurement issues found within the reviewed studies involved problems related to the assessment of political engagement, such as use of inconsistent definitions, use of non-validated criteria, and a reduced number of dimensions to assess the concept. Sampling issues involved widespread use of non-probability sampling techniques, homogeneous samples, and low sample sizes. Reporting issues limiting the interpretation of the findings mainly comprised omission of key demographic findings related to the sample recruited (such as mean age), as well as non-reporting of important correlation coefficients associated with the main variables assessed.

(Insert Table 2 about here)

Theoretical Basis

As demonstrated in Table 2, the seven psychometric instruments (and their variants) that were developed to assess political engagement have inconsistently drawn their framework upon several different definitions and/or theories. The Civic Engagement Scale (CES) (Doolittle and Faul, 2013) was developed on the basis of Ehrlich's characterisation of civic engagement, defined as the process of believing that individuals can and should make a difference in enhancing their community, and that difference can be expressed through attitudes and/or behaviours (Doolittle and Faul, 2013). Consequently, the CES was devised to assess two specific aspects of political engagement (attitudes and behaviours). Additionally, a

distinction between civic attitudes and civic behaviours was made. Civic attitudes have been defined as the personal beliefs and feelings that individuals have about their own involvement in their community and their perceived ability to make a difference there (Doolittle & Faul, 2013). Civic behaviours have been defined as the actions that people take to attempt to engage and make a difference in their community (Doolittle & Faul, 2013).

The Faith and Civic Engagement Scale (FACE) (Droege and Ferrari, 2012) had a number of theoretical reference points including: (i) the definition of civic engagement as “civic leadership, working with communities, volunteerism, charitable giving, and involvement with alma mater” which may positively impact communities by addressing and assisting with local needs (Astin et al., 2006; p.22); (ii) the notion that engagement may cultivate a sense of civic responsibility, creating positive attitudes toward civic involvement, and that this involvement may lead to a greater sense of understanding and trust by promoting a collective sense of identity, community, and purpose; and (iii) research that demonstrates the positive relationship between one’s faith-based beliefs and behaviour and civic/political engagement. According to Droege and Ferrari (2012), the FACE was designed to assess student perceptions on whether they are responsible citizens concerned with the progress of society.

Caprara et al. (2009) developed the Perceived Political Self-Efficacy Scale (P-PSE) based on the work of Dahl (1998), Pasquino, (1997) and Sartori (2007). P-PSE focuses on the abilities that citizens need in order to take an agentic role in contemporary liberal democracies, particularly the capacities to voice one’s own opinions and preferences, to actively contribute to the success of parties which convey one’s own ideals, and to exert control over the activities of one’s own representatives. In reviewing the literature, Caprara and colleagues (2009) addressed political efficacy within the framework of social cognitive theory and developed a measure of perceived political self-efficacy in accordance with Bandura’s guidelines regarding the development of self-efficacy scales (2006). Additionally, Vecchione and colleagues (2014),

developed a short-form of the P-PSE scale (a 4-item PPSE-S) based on a study of Caprara et al. (2009), where a 10-item P-PSE was developed that conceptualized political efficacy within social cognitive theory, focusing on political self-efficacy beliefs, specifically on judgements people hold about their capacities “to make an agentic role in modern representative democracies” (Caprara et al., 2009, p.3). Special attention was paid regarding the country (i.e., Italy) where the previous study was carried out (Caprara et al., 2009), as this is a country where political turnout is high and ideological affiliations still exert a moderate influence on individuals’ personal and social identities (Vecchione et al., 2014). Vecchione and colleagues (2014) also administered the PPSE-S scale in Spain and in Greece.

There are currently two versions of the Sense of Community Scale (SCS)¹. Peterson et al. (2008) developed a brief version of the instrument (Brief Sense of Community Scale – BSCS) comprising eight items and focused on McMillan and Chavis’s (1986) psychological sense of community model. The other version of this instrument was specifically developed to be administered to adolescents (i.e., Brief Sense of Community in Adolescence Scale – BSCSA) (Chiessi et al., 2010) and also based on the psychological sense of community model. According to this model, four components are identified as crucial for the formation and development of sense of community. These are membership, influence, fulfilment, and shared emotional connection (McMillan and Chavis, 1986). The development of a brief version of the SCS was in accordance with the work of Long and Perkins (2003) who argued that research and evaluation studies of SCS were in need of brief, validated measures of the construct that may be conveniently and efficiently administered in applied community contexts.

Similarly, Chiessi et al. (2010) also based their work on McMillan and Chavis’s (1986) proposed theory and definition for sense of community, as “a feeling that the members of a community have in relation to their belonging to a community, a feeling that members worry about each other and that the group is concerned about them, and a shared faith that the needs

of the members will be satisfied through their commitment of being together” (Chiessi et al., 2010, p.2). Chiessi and colleagues (2010) also highlighted that all of the studies conducted to date to assess SCS in adolescents have used scales developed for adults. This is problematic because the experience of SCS may not be the same for all members of the community (Chiessi et al., 2010). Using the full 36-item version of the SCS for adolescents (Cicognani et al., 2006), Chiessi and colleagues developed a shorter 20-item version.

Finally, the Youth Inventory of Involvement (YII) was developed by Pancer et al. (2007) in an attempt to understand what distinguishes adolescents who were active both in community and political life from those who were not. This instrument was developed without reference to any underlying theoretical framework. Instead, it was specifically developed for their study, noting that in the US and Canada there are wide variations in youth involvement in things such as volunteering and other activities. In addition to the measure of youth involvement, Pancer et al. (2007) also administered several additional measures designed to assess parental and peer influence, identity development, attitudes toward social responsibility, and several variables relating to young people’s social and emotional adjustment.

The findings in this section indicate that across the seven instruments, the basis of their development cannot be considered as based on robust theory, as some of them were constructed without using any specific theory (Doolittle and Faul, 2013, Droege and Ferrari, 2012, Pancer et al., 2007).

Reliability

In order to be considered suitable, all psychometric instruments should be both valid and reliable (Groth-Marnat, 2003). Reliability concerns the internal consistency of a given measure across different circumstances and at different points in time (Howitt and Cramer, 2011). One of the most commonly used types of reliability is the Cronbach’s alpha (CA)

coefficient, which assesses the internal consistency of a scale – how closely related a set of items fit or are related as a group. Another application of the reliability is item-total correlation. This demonstrates the degree of consistency of the individual items in an instrument with the total scale score. On the other hand, the test-retest reliability examines consistency over time by administering the same instrument to the same set of people on two separate occasions and then comparing how stable the scores are. Finally, cross-validation of reliability refers to the administration of the instrument to two independent samples and assessing whether the hypothesized dimensional structure of the scale holds true for both samples (Howitt and Cramer, 2011). According to Cicchetti, a CA coefficient of .70 to .79 may be considered “fair”; a CA of .80 to .89 is “good”; and a CA of .90 or higher is “excellent” (Cicchetti, 1994). However, authors such as Groth-Marnat recommended that reliability estimates should be higher than .70 for research purposes (Groth-Marnat, 2003).

In all seven instruments, instrument reliability was primarily assessed using CA. Although only three studies (i.e., Caprara et al., 2009, Peterson et al., 2008, Pancer et al., 2007) reported the CA coefficients for the whole scale, each of the reviewed studies stated the CA coefficient for the different scale components developed. The CA was found to be excellent for both the BSCS (.92) (Peterson et al., 2008) and for the P-PSE (.91) (Caprara et al., 2009). The CES (Doolittle and Faul, 2013) had an excellent CA for the attitude subscale (.91) and the behaviour subscale (.85), further warranting the scale’s high internal consistency.

All of the five subscales of FACE (Droege and Ferrari, 2012), exhibited good CAs (> .80), with the exception of the faith life sub-scale, which had a fair CA (.74). The CAs for all five subscales were greater than .70 (between .74 and .88) indicating good internal reliability. For the FACE scale, internal consistency and temporal stability (i.e., reliability) were performed on the newly generated subscales identified in the first study. The temporal stability of the five-factor FACE survey (over a one-year period) was assessed with a subsample of

participants and all the scores from the first administration were significantly correlated with the scores from the second administration for each of the five factors. In the second administration of the scale, all the five subscales also showed good CAs (> .80), with the exception of the political importance subscale, which had a fair CA (.79). CAs obtained for all the five subscales in the second administration of the scale expressed good internal reliability. The P-PSE scale (Caprara et al., 2009) showed an excellent CA (.91) for the overall scale, indicating excellent internal consistency.

The reliability of the PPSE-S scale (Vecchione et al., 2014), was examined comparing different versions of the scale (a long version and a short version) and has been assessed in terms of internal consistency and temporal stability, using CA and test-retest reliability, respectively. The CA for the whole scale was .83 at Time 1 and Time 2 for a two-week period, and demonstrated good internal reliability (>.80). For the full-length scale, the CAs were .90 (Time 1) and .91 (Time 2), displaying excellent internal reliability. Based on reliability coefficients for both scale versions, the authors concluded that the short-form has a good degree of internal consistency, and dropped marginally with respect to the original scale. Nevertheless, the stability coefficients (test-retest reliability) values were identical for the scale's two forms (full version of .68 and short version of .67). As a second step, analysis of the PPSE-S to Spain and Greece was extended, and demonstrated fair CA values (.79 and .77 respectively).

CA for the overall BSCS was .92 (Peterson et al., 2008), and demonstrated excellent reliability (> .90). CAs among the subscales were .86 for needs of fulfilment, .94 for group membership, .77 for influence, and .87 for emotional connection. Overall, all CAs of the four subscales indicated an acceptable internal consistency, except the influence subscale (<.80).

In assessing internal consistency of the five subscales of the Brief Sense of Community in Adolescents Scales (BSCSA) (Chiessi et al., 2010), the authors reported that the CAs obtained for all subscales were above acceptable (>.70): sense of belonging (.82), support and

emotional connection in the community (.77), support and emotional connection with peers (.88), satisfaction of needs and opportunities for involvement (.76), and opportunities for influence (.74). All the CA coefficients were between .74 and .88 indicating good internal reliability. Additionally, the two-week test-retest reliability analysis was very high and significant (.99), confirming the instrument has excellent stability over time.

The internal consistency of the YII (Pancer et al., 2007) was also examined using CA coefficients. The values for the overall scale indicated very good internal consistency at Time 1 (.90) and Time 2 (.88). At Time 1, CAs were acceptable (i.e., $>.70$) for all subscales, except the Passive Involvements subscale (.58). At Time 2, CAs were fair for two subscales, namely, political activities (.73) and helping activities (.81), questionable for one subscale (passive involvements=.63), and poor for community activities subscale (.58). The internal consistency of overall subscales was acceptable, with the exception of community activities and passive involvements subscales. The (nearly two-year) test-retest reliability was .58.

Factor structure and validity

An instrument's factor structure relates to the number and nature of the variables reflected in its items (Furr, 2011). Factor analysis provides useful and critical information on the validity of an instrument alongside other relevant psychometric information such as factor loadings (Groth-Marnat, 2003). The factor structure is best assessed using either exploratory data analyses (such as exploratory factor analysis) or a confirmatory approach using structural equation modelling (for instance, confirmatory factor analysis).

Validity is usually defined as the degree to which a test measures what it is intended to measure. Construct validity comprises convergent and discriminant validity (Campbell et al., 1963). To demonstrate convergent validity, an instrument must at least moderately correlate with measures that are theoretically related to the construct. Conversely, discriminant validity

is warranted when an instrument is poorly associated with variables that are intentionally unrelated to the construct being measured (Campbell et al., 1963, DeVellis, 2012). Alternatively, criterion validity assesses how well an instrument correlates with an external criterion for the assessed construct (Barker et al., 2002). Testing whether a measure can predict membership of two separate criterion groups (such as whether a civic engagement scale can distinguish between engaged and disengaged citizens) also indicates concurrent validity (Barker et al., 2002). In short, construct validity evaluates how well the construct in question relates to other constructs and measures, convergent validity measures how strongly the instrument correlates with measures of related constructs, and discriminant validity measures the extent to which items correlate with measures of unrelated constructs (Barker et al., 2002). As indicated by Table 1, all seven instruments assessing political engagement showed great variability in terms of factor structure, with instruments ranging from one factor (Caprara et al., 2009, Vecchione et al., 2014) to five (Droege and Ferrari, 2012, Chiessi et al., 2010).

Each of the seven instruments used different measures and methods in providing evidence regarding the validity of the respective political engagement scales. The CES (Doolittle and Faul, 2013) provided evidence of factorial validity using principal component analysis to examine the scale's factorial structure, resulting in two factors being identified (i.e. attitudes and behaviours). Additionally, Doolittle and Faul (2013) conducted an item-analysis to demonstrate the instrument's content validity and ascertain whether the items significantly contributed to the instrument's total score. With regard to construct validity of the CES, convergent and discriminant validity were tested, with findings providing support for the instrument's discriminant validity at the subscale level of analysis for the CES. To further test the instrument's convergent validity, the attitudes subscale correlated moderately with the normative helping and connectedness subscales. The civic behaviour subscale also indicated

moderate correlation with the intentions subscale. These results showed preliminary evidence for the convergent and construct validity of the CES.

The FACE comprises five factors: civic engagement, faith life, political importance, university influences spiritual growth, and university influences personal growth. Droege and Ferrarri (2012) used confirmatory factor analysis (CFA) to assess the construct validity of the five-factor model of FACE. The chi-square statistic (which assessed whether or not two models from the same data were significantly different) was significant, but knowing that significant chi-squares can result from inflated power imparted by large samples (indicating false positives), the authors used other fit-indices to determine goodness of fit. The authors reported an acceptable fit as assessed by the root mean square error of approximation (RMSEA), normed fit index (NFI), and the adjusted goodness of fit index (GFI). These results provided evidence of the adequacy of this instrument in terms of construct validity and suitability of the proposed five-factor model as it was supported by the overall CFA goodness of fit.

The Perceived Political Self-Efficacy Scale both in its long-form (P-PSE) (Caprara et al., 2009) and short-form (PPSE-S) (Vecchione et al., 2014) assesses only one factor, perceived political self-efficacy. To determine the number of factors to retain in the scale, the authors examined the eigenvalues and a goodness of fit index (standardized root mean square residual [SRMR]). The analysis of the eigenvalues suggested a one-factor solution and through the SRMR value, the authors concluded that the one-factor solution fitted their data well. In a follow-up study (Caprara et al., 2009), CFA was conducted to evaluate the convergent and discriminant validity of the P-PSE scale, with the authors reporting that CFA provided satisfactory results regarding validity. The factor loadings of the P-PSE scale were all reported as high (average of .71), providing further support for the scale's convergent validity. To analyse the criterion validity, Caprara and colleagues (2009) examined correlations between the estimated factor scores of three measures of political efficacy and the continuous indicators

of political interest and participation (controlling for standard socio-demographic characteristics and comparing it with their newly developed measure). To assess the unique contribution of each scale of political efficacy, multiple regression analyses were conducted and semi-partial correlations were obtained. As hypothesized, the P-PSE scale and all other relevant measures used were moderately related.

The psychometric properties of the P-PSE scale (in both long and short forms), were examined by Vecchione and colleagues (2014) across several studies. The authors compared both versions of their scale in terms of reliability, factor structure, and criterion validity. The factor structure of the P-PSE scale was examined through a CFA and the model comprised a single latent factor explaining the co-variation among the four scale items. Furthermore, the results obtained in terms of factor loadings also provided further support to the validity of the scale. Another purpose of Vecchione et al.'s (2014) study was to assess the degree to which the two versions of the P-PSE shared similar psychometric properties by examining the correlation between them, as well as correlations with relevant criteria. Consequently, the authors concluded that there was an adequate overlapping variance between the short-form and long-form of the scale. The criterion validity of the P-PSE scale was also investigated by examining the degree to which individuals' scores on the short-form of the PPSE-S were related to several indicators of political participation in their sample. The authors expected that the short-form would be related to high levels of political engagement, so they compared its criterion validity with the long-form. After analysing the results, the authors concluded that the criterion validity of the P-PSE scale was substantially equivalent (.33 and .33 respectively) for both versions, and correlations tended to be higher with conventional forms of participation (such as voting).

As a second step, Vecchione and colleagues (2014) extended PPSE-S analysis to Spain and Greece, concluding that the one-factor model adequately fitted both countries. They also

tested the cross-cultural equivalence of the PPSE-S using multi-group confirmatory factor analysis, to test the instrument's equivalence across three countries (i.e., Italy, Spain, and Greece) and suggested that the scalar equivalence was not completely acceptable. However, partial scalar invariance was established across the three examined countries. Criterion validity was examined by positing a multi-group structural equation model linking political self-efficacy to the composite index of political participation. The most important finding was that political self-efficacy beliefs predicted political participation in all three countries.

The BSCS (Peterson et al., 2008) comprises four factors: needs fulfilment, group membership, influence, and emotional connection. To test the factor structure of the BSCS and examine its relationship with a set of theoretically relevant variables, two sets of analyses were performed (i.e., CFA and partial correlation analysis). In the CFAs that were conducted, two first-order models were tested – the one-factor BSCS and the four-factor BSCS. Only the second model provided a good fit to the data. Peterson et al. (2008) concluded that the overall BSCS and its subscales correlated as expected with community participation, psychological empowerment, mental health, and depression. These results demonstrated robust empirical support for BSCS validity and its underlying multidimensional theory of sense of community.

To test the factor structure of the BSCSA, a CFA was conducted. The results confirmed the five-factor structure found by the original authors (i.e., Cicognani et al. 2006), further confirming the multi-dimensional nature of the BSCSA. The BSCSA's five factors comprised: sense of belonging, support and emotional connection in the community, support and emotional connection with peers, satisfaction of needs and opportunities for involvement, and opportunities for influence (Chiessi et al., 2010). Regarding the validity of the BSCSA, concurrent validity was assessed by correlational analysis exploring the relationships between the sense of community wellbeing measures - 12 items corresponding to three dimensions of wellbeing (emotional, social, and psychological). Results showed that the sense of community

subscales correlated positively and significantly with wellbeing, demonstrating that the BSCSA has some concurrent validity. Finally, the YII comprises four factors: political activities, community activities, passive involvement, and helping activities (Pancer et al., 2007). The validity of the YII was assessed by correlating the YII total scores with the Youth Social Responsibility Scale. The correlation between both scales was deemed to be satisfactory by the authors.

The findings in this section highlight many different ways that political engagement is operationally defined psychometrically in these instruments. The results obtained regarding the factor structures and validity of instruments illustrate that several sources of validity are used in order to provide evidence of instrument validity, including factorial validity, content validity, convergent/discriminant validity, construct validity, and criterion validity. On the whole, this is a positive aspect of research in this area and highlights the robustness in the analysis conducted in order to investigate the validity of developed measures.

Appropriate measurement of political engagement

For an instrument to be considered appropriate to assess a concept, it should take other principles into account. Koronczi and colleagues (2011) developed a set of psychometric requisites that an instrument should meet to be considered. They noted that such an instrument should have:

- brevity (making surveys as short as possible to help overcome question fatigue);
- comprehensiveness (examining all essential aspects);
- reliability and validity across age groups (e.g., adolescents compared with adults);
- reliability and validity across data collection methods (e.g., online, face-to-face interview, paper-and-pencil);
- cross-cultural reliability and validity;

- clinical validation.

These criteria – mainly used in epidemiology and psychology – are adopted here to help critically evaluate the seven instruments identified. All the criteria are examined, with the exception of clinical validation which is not relevant in assessing political engagement.

When examining the seven instruments with respect to the *brevity* criterion, the number of items within the instruments varies from 8 to 30 items. Only four of the seven measurement instruments are considered brief (BSCS with 8 items, P-PSE and PPSE-S with 10 each, and CES with 14), while FACE and BSCSA each used 20 items, and the YII scale comprised 30 elements. Nevertheless, it is important to note that even if brief scales are appealing, they may also have important psychometric costs - for instance, their psychometric quality might be poor (Furr, 2011). However, this was not the case in any of the seven instruments reviewed.

In terms of *comprehensiveness* of the seven instruments, none of the scales assessed political engagement in its entirety, but only particular dimensions and/or items relating to this concept. Consequently, comprehensiveness was not found to be present in any of the seven instruments.

When considering *reliability and validity across age groups*, the seven instruments can be separated into those adopted for use with the whole population (where there is no distinction between adults and adolescents) and others utilised in studies comprising adolescents only. Of the seven instruments, only two were specifically designed for an adolescent population (BSCSA and YII), and were not tested in an adult population. The five remaining instruments were developed without explaining the target population. Three (P-PSE, PPSE-S, and BSCS) were validated in the general population (including adolescents and adults), and two were validated with university populations (CES and FACE) with wide age ranges. However, even for those designed exclusively for students, a distinction between teenagers and adults was not

evidenced. Therefore, none of the seven instruments were assessed in terms of reliability and validity across different age groups.

Regarding the *reliability and validity across data collection methods* psychometric requisite, only one of the seven studies used two assessment methods (Pancer et al., 2007); the remaining six studies each used only one assessment method. Nevertheless, the intention in the Pancer study was to use them as complementary methods, rather than for assessing the validity or reliability of the scales. Finally, in terms of the *cross-cultural validity and reliability* criterion, only one study assessed these properties in three different countries (Vecchione et al., 2014). In summary, when analysed using Koronczai and colleagues' criteria (2011), none of the seven scales reviewed comprised all of the requirements.

Discussion

The present paper set out to systematically review, summarize, and critique the extant research evidence on the development of psychometric instruments assessing young people's political engagement. Seven instruments were examined in terms of their psychometric properties. It is important to note that, even if the initial objective was to focus on youth political engagement scales, most instruments targeted the whole population irrespective of age (including young people and adults). Of the seven instruments, only one was explicitly developed for adolescents (Chiessi et al., 2010). Regarding the data extracted, attention should be paid to a number of key issues. Firstly, the conceptualisation of political engagement, with respect to the process of development and clarification of the concept. Secondly, the theoretical background – or absence of such – underpinning each of the seven instruments reviewed. Finally, the appropriateness of the instruments constructed for assessment of the concept of political engagement, in terms of the psychometric properties of the instruments (including

factor structure, reliability and validity) and the criteria proposed by Koronczi and colleagues (2011). These issues are considered below.

Conceptualisation of political engagement

For some authors (e.g., Ekman and Amnå, 2012, Adler and Goggin, 2005, Barrett and Brunton-Smith, 2014), there is a lack of consensus when it comes to the conceptualisation of political participation and civic engagement. Earlier in the review, an enumeration of some of the existent definitions of political participation, political engagement, civic participation, and civic engagement was offered, and a variety of definitions were found. That analysis indicated the lack of agreement with respect to the definition of those concepts. Concerning the definition of political engagement itself, there is no definitive and agreed conceptualisation, and political engagement is often considered as civic engagement and/or participation (Barrett and Zani, 2014). Consequently, clear distinctions need to be made between these different concepts to delineate political engagement.

Theoretical background

In terms of the theoretical backgrounds used across the seven studies supporting the development of the instruments, it can be noted that the authors based their work on either: (i) theories (Peterson et al., 2008, Chiessi et al., 2010) (ii) definitions (Doolittle and Faul, 2013, Droege and Ferrari, 2012), (iii) models (Caprara et al., 2009, Vecchione et al., 2014), or (iv) recent surveys (Pancer et al., 2007). These observations highlight the lack of theory used in instrument development, with five of the seven instruments constructed on primarily non-theoretical bases).

Appropriate measurement of political engagement

In assessing political engagement, Albacete (2014) stated that instruments should allow the assessment of the latent concept of political participation, take into account recent developments in citizens' full repertoire of political actions, and allow the equivalent measurement of political engagement in several countries and over time. When comparing Albacete's requirements (that are more theoretical) with the criteria developed by Koronczai and colleagues (that are more psychometric), there is a key overlapping point – the need for instruments to be validated across different countries. Of the seven instruments, only one (Vecchione et al., 2014) assessed the validity of the instrument across different countries.

Of the seven instruments evaluated, only the PPSE-S (Vecchione et al., 2014) takes into account the latent forms of political participation (of Ekman and Amnå's [2012] conceptualisation of manifest and latent forms of political participation) such as displaying a badge, signing a petition, taking part in public demonstrations, and boycotting products. Another study using the P-PSE (Caprara et al., 2009) assessed different forms of *manifest* – but not latent - political participation (such as maintaining personal relationships with representatives of national government authorities, and/or playing a decisive role in the choice of the leaders of political movements to which one belongs). The remaining instruments included latent and manifest forms of only *civic* (but not *political*) participation and engagement. For example, in the CES (Doolittle and Faul, 2013), the items relate with latent forms of civic engagement (such as feeling responsible for the community, participating in discussions that raise issues of social responsibility), whereas in the YII (Pancer et al., 2007) there are some examples of manifest forms of civic participation (including volunteering with a community service organisation) and also latent forms (helping others at school or in the community). In accordance with Albacete (2014), it is concluded there are a lack of instruments

assessing *latent* forms of *political* participation and engagement. Although the seven instruments evaluated in this study are valid and reliable, none of them appropriately assesses the concept of political engagement in its totality. In addition, there is a need for a definitive and agreed conceptualisation of the concept of political engagement that is theoretically-grounded.

Improving measurement of political engagement

The present review identified ways in which the procedures for assessing political engagement might be improved. Given that no single instrument provided a conceptualization of political engagement, the first step would be to carefully differentiate between civic engagement, civic participation, political participation, and political engagement, in order to develop a valid and reliable standardised instrument to assess political engagement. In addition, latent and manifest actions should be taken into account in order to improve the understanding of patterns and levels of political engagement and electoral turnout. Also, in regard to youth political engagement, a specific assessment instrument should be designed since there is a lack of psychometrically validated measures that expressly assess young people's political engagement.

Limitations and future Research Directions

The main limitation of the present review is that there is always a possibility that some studies may have been missed during the literature searches. Consequently, this review should be considered as a starting point for further conceptual development of a political engagement instrument. Several research avenues may lead to improvement in political engagement assessment. Firstly, the development of a valid and reliable measure to assess political engagement, and more specifically youth political engagement. As all seven of the

psychometrically validated instruments were administered in Western countries, it would be useful to test these instruments elsewhere (such as in South East Asia), to see if cultural differences influence young people's political engagement. Secondly, it would be useful to administer a youth political engagement instrument taking into account other ethnic groups (for instance, ethnic minorities), given that the majority of the studies surveyed white people as the main racial classification in their samples. Statistically speaking, future studies should explore additional forms of validity that have not yet been investigated, for example, predictive validity. In other words, the way in which the instrument can predict objective political engagement behaviours such as voting intentions.

Conclusions

The present review adds to the literature of political participation and engagement by identifying and evaluating the instruments assessing people's political engagement. The seven instruments identified in the present review had good psychometric properties, but they did not appropriately assess the core concept of political engagement, and only assessed related concepts (for example, civic engagement) and/or dimensions (such as perceived political self-efficacy, and sense of community). When it comes to the assessment of specifically *youth* political engagement, only two instruments were identified (BSCSA and YII); as a consequence, while there exists a lack of instruments assessing political engagement across the whole population, the scenario is even more of an issue when it comes to youth. It should also be noted that some authors have debated the validity and reliability of the instruments used in political participation research. For instance, there is a group of academic researchers who argue that measures need to be refined to capture the full range and methods of young people's political participation (Henn and Foard, 2012, Albacete, 2014, O'Toole, 2015). Overall, this systematic review highlights the need for the development of a political engagement

assessment instrument that assesses the construct in its totality rather than single dimensions or aspects of it.

Notes

¹The Sense of Community Scale (SCS) was originally developed by Cicognani, Albanesi and Zani (2006). However, it was not included in this systematic literature review as it did not meet one of the selection criteria (that is, it was not written in English).

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Figure 1. PRISMA flow diagram of the study selection process

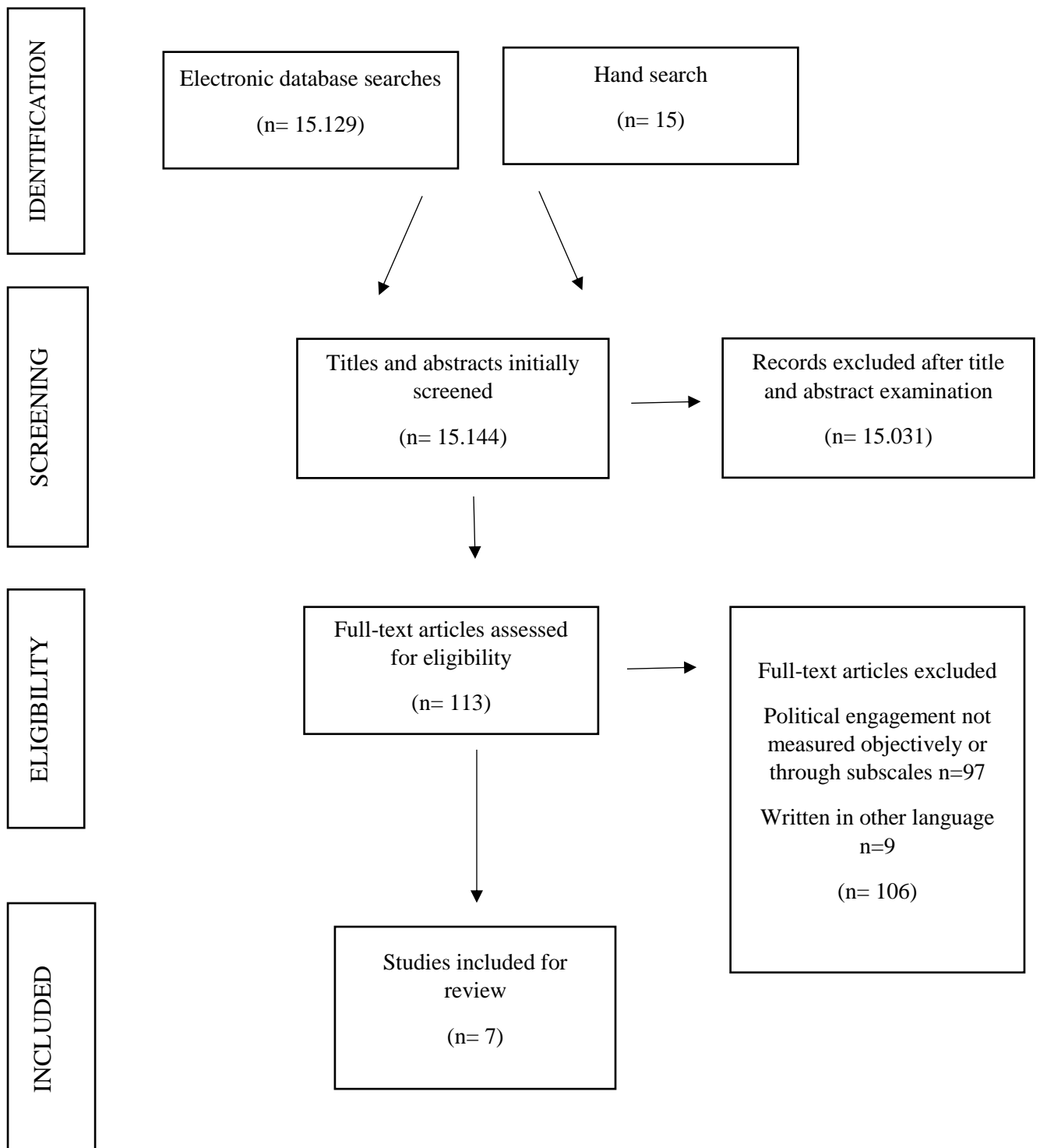


Table 1. Main characteristics of the studies reviewed

Study	Sample size	Gender distribution (%)	Age range (years) and Mean (SD)	Sample characteristics	Operationalisation of political engagement	Main findings	Study limitations
Doolittle and Faul (2013)	354	83.1% females	Range: 17-63	University students	Civic Engagement	<p>The Civic Engagement Scale (CES) consists in two dimensions: attitudes and behaviours.</p> <p>The CES has good reliability and good content validity.</p> <p>The CES can provide useful information about individuals' attitudes and behaviours of engagement in their community.</p>	<p>The sample was fairly homogeneous in that all were college students with similar fields of study.</p> <p>The scale only measures two dimensions of civic engagement.</p> <p>The instrument is a self-report measure.</p> <p>The alpha de Cronbach for the whole scale is not reported in the study.</p>
			$M_{age}: 28.42 (9.58)$				<p>Low response rates by undergraduate students.</p> <p>The participants were not randomly selected.</p> <p>All of the data were collected at a single Roman Catholic university.</p> <p>The alpha de Cronbach for the whole scale is not reported in the study.</p>
Droege & Ferrari (2012)	Study 1: 762	Study 1: 68% females	Study 1 Range: N/R $M_{age}: 23.5 (7.7)$	Undergraduate students	Civic Engagement	<p>The Faith and Civic Engagement Scale (FACE) consists in five dimensions: civic engagement, faith life, political importance, university influences and spiritual growth, and university influences personal growth.</p> <p>The FACE scale is reliable and valid instrument.</p>	<p>Low response rates by undergraduate students.</p> <p>The participants were not randomly selected.</p> <p>All of the data were collected at a single Roman Catholic university.</p> <p>The alpha de Cronbach for the whole scale is not reported in the study.</p>
	Study 2: 955	Study 2: 65% females	Study 2 Range: N/R				<p>Low response rates by undergraduate students.</p> <p>The participants were not randomly selected.</p> <p>All of the data were collected at a single Roman Catholic university.</p> <p>The alpha de Cronbach for the whole scale is not reported in the study.</p>

			M _{age} : 23.5 (7.7)			
Caprara et al. (2009)	Study 1: 1673	54.6% females	Range: N/R M _{age} : 44.71 (17.59)	Subjects	Political Self-Efficacy	<p>The Political Self-Efficacy Scale (P-PSE) is unidimensional and is a valid and reliable instrument.</p> <p>Socio-demographic variables proved to influence perceived political self-efficacy.</p> <p>Perceived political self-efficacy proved to be independent of political orientation.</p> <p>The analysis were performed using convenient samples that did not represent the entire population.</p> <p>All the items of the P-PSE scale are positively worded, raising the possibility of acquiescence response set.</p>
Vecchione et al. (2014)	Italy: 697 Spain: 354 Greece: 270	Italy: 57% females Spain: 63% females Greece: 54% females	Italy Range: N/R M _{age} : 37.6 (14.7) Spain Range: N/R M _{age} : 31.0 (13.3) Greece Range: N/R M _{age} : 38.1 (15.1)	Subjects	Political Self-Efficacy	<p>The short form of the Political Self-efficacy scale (PPSE-S) consists in one dimension.</p> <p>The PPSE-S scale has good psychometric properties. Its validity was examined in a cross-cultural perspective and corroborated the robustness of the construct.</p> <p>The perceived political self-efficacy was positively related with several indicators of political participation, supporting the role of self-efficacy beliefs in sustaining citizens' engagement in politics, as well as the criterion validity of the PPSE-S.</p> <p>The results are based in convenient samples that did not represent the general population.</p> <p>The study focuses on three Southern European Countries, and the findings may not apply to other countries from different geo-political regions that differ in socio-economic and cultural characteristics.</p>

Peterson et al. (2008)	293	57% females	Range: M _{age} : N/R	Community residents	Sense of Community	The measure developed – Brief Sense of Community Scale (BSCS) – is a valid measure. The 4-factor model provided a better fit to the data than the 1-factor model.	The instrument in this study was only applied to Midwestern neighbourhood residents.
Chiessi et al. (2010)	661	53% females	Range: 15-18 M _{age} : 15.6 (0.72)	High school students	Sense of Community	This shortened version of the Sense of Community scale (i.e. SoC-A) has 20 items and a 5 factor structure including: sense of belonging, satisfaction of needs and opportunities for involvement, support and emotional connection with peers, support and emotional connection in the community, and opportunities for influence. The SoC-A is a valid and reliable instrument. Sense of community dimensions are all positively associated with psychological, social, and emotional wellbeing. Male adolescents report experiencing a higher sense of belonging to their local	The dimension of the sample could be larger. The alpha de Cronbach for the whole scale is not reported in the study.

					community, and SoC scores decreased with age.		
Pancer et al. (2007)	Time 1: 890 Time 2: 333	Time 1: NR Time 2: 72% females	Time 1 Range: N/R M _{age} : 17.5 (0.82) Time2 Range: N/R M _{age} : 19.3 (0.79)	Students	Community and Political Involvement	<p>The Youth Inventory of Involvement (YII) proved to be a useful and psychometrically sound measure of young people's involvements.</p> <p>Demonstrates good validity, showing a significant correlation with attitudes toward social responsibility.</p> <p>Youth was divided into four cluster groups, namely: Activists, Helpers, Responders and Uninvolved.</p> <p>Parents and peers play an important role in determining the kinds of activities in which individuals are involved.</p>	<p>The study is not based in a theoretical background.</p> <p>The alpha de Cronbach is not reported for the different factors of the scale.</p> <p>The authors do not report the age ranges.</p>

Table 2. Political Engagement Scales

Supporting research	Instrument	Theoretical basis	Number of items	Factor structure	Psychometric Properties	Assessment method	Type of study and design	Response option format	Country of origin
Doolittle and Faul (2013)	Civic Engagement Scale (CES)	Definition of civic engagement developed by Thomas Ehrlich (1997)	14	1. Attitudes 2. Behaviours	α overall scale (NR) Principal component analysis (PCA)	Paper-and-pencil survey	Quantitative Cross-sectional	7-point Likert type scales	United States
Droege and Ferrari (2012)	Faith and Civic Engagement Scale (FACE)	Definition of civic engagement developed by Astin et al. (2006)	20	1. Civic engagement 2. Faith life 3. Political importance 4. University influences spiritual growth 5. University influences personal growth	α overall scale (NR) Exploratory Factor Analysis (EFA) Confirmatory Factor Analysis (CFA)	Web based survey	Quantitative Cross-sectional	4-point Likert type scales	United States
Caprara et al. (2009)	Perceived Political Self-Efficacy Scale (P-PSE)	Definition of political efficacy by Campbell et al. (1954) Definition of social cognitive theory by	10	1. Perceived political self-efficacy	Study 1: α overall scale = 0.91 Exploratory Factor Analysis (EFA)	Face-to-face questionnaire	Quantitative Cross-sectional	5-point Likert scale	Italy

		Bandura et al. (1997)							
Vecchione et al., (2014)	Perceived Political Self-Efficacy Scale – Short form (PPSE-S)	Based on the 10 items P-PSE scale, developed by Caprara et al. (2009)	10	1. Perceived political self-efficacy	Italy: α overall scale= 0.83 Spain: α overall scale = 0.79 Greece: α overall scale = 0.77	Face-to-face questionnaire	Quantitative Cross-cultural	5-point Likert type Scale	Italy
					Confirmatory Factor Analysis (CFA)				
Peterson et al. (2008)	Brief Sense of Community Scale (BSCS)	McMillan and Chavis psychological sense of community model (1986)	8	1. Needs fulfilment 2. Group membership 3. Influence 4. Emotional connection	A overall scale =0.92 Confirmatory Factor Analysis (CFA)	Face-to-face questionnaire	Quantitative Cross-sectional	5-point Likert type scales	United States
Chiessi et al. (2010)	Brief Sense of Community in	Based on the work of Cicognani et al. (2006) which was based on McMillan and Chavis psychological sense of	20	1. Sense of belonging 2. Support and emotional connection in the community 3. Support and emotional connection with peers	α overall scale (NR)	Paper-and-pencil survey	Quantitative Cross-sectional	5-point Likert type scales	Italy

	Adolescents Scale (BSCSA)	community model (1986)		4. Satisfaction of needs and opportunities for involvement 5. Opportunities for influence						
Pancer et al. (2007)	Youth Inventory of Involvement (YII)	Based on recent surveys in the US and Canada that indicate there are wide variations in youth involvement (Bureau of Labour Statistics, 2003; Hall, McKeown & Roberts, 2004)	30	1. Political activities 2. Community activities 3. Passive involvements 4. Helping activities	NR	α overall scale = 0.90 ^a ; α overall scale = 0.88 ^b	Paper-and-pencil survey Face-to-face interview	Mixed methods approach (qualitative and quantitative) Longitudinal	5-point Likert type scales	Canada

Notes: ^a = α Time 1; ^b = α Time 2. **Abbreviations:** NA= not assessed; NR= not reported.