



How Do We Assess How Agentic We Are? A Literature Review of Existing Instruments to Evaluate and Measure Individuals' Agency

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Accepted: 26 August 2021 / Published online: 4 September 2021
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Abstract

The importance and centrality of the construct of agency is wellknown amongst social scientists. Yet, there is still little agreement on how this construct should be understood and defined, as demonstrated by the diversity of instruments that are used to investigate it. Indeed, there is no current consensus or standardized methodology to assess agency. This paper provides a synthetic overview of the studies that have evaluated and measured individuals' agency. More specifically, the purpose is to review research that quantitatively investigates the agency of adults, as well as children and youth, across different social contexts. In the process, it offers recommendations to inform future research, practice, and policy. We identified published peer-reviewed studies relating to the assessment of agency across countries and across age through a narrative literature review. The findings were grouped according to whether agency was measured in its most comprehensive conception or in a precise single domain or dimension, which was then discussed separately for children, adults, and women. Of the 3879 studies identified from online searches of the literature and the five additional sources gathered through bibliography mining, 106 qualified for full review, with 34 studies included in the final synthesis. Multiple different instruments were found to be currently adopted or developed to assess agency. The present review offers an exhaustive overview of the different conceptualizations of agency and of the available instruments to assess it, providing critical information for researchers and policymakers to improve intervention and empowerment programs.

Keywords Agency · Instrument · Agentic strategies · Structures · Measurement · Review

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1 Introduction

As stated by Martin and colleagues (2003:1), ‘probably no concept is as central to psychology and its aspirations, yet as poorly articulated, as that on human agency’. Within the social sciences the construct of agency has become so pivotal that it is among the most important theoretical contributions of recent decades (Oswell, 2013; Robson et al., 2007; Spyrou, 2018). From Albert Bandura’s (1989, 1999) early studies in the field of social-cognitive psychology to more recent contributions amongst psychology, sociology, and social geography (Abebe, 2019; Cavazzoni et al., 2021; Steckermeier, 2019; Veronese et al., 2018), the concept of agency defined as ‘people’s ability to exert control over one’s life and pursue goals’ has been explored and investigated within different contexts, countries, and populations. So far, several contributions have documented agency in people living in areas of conflict, poverty or marginalization (Gigengack, 2014; Klocker, 2007; Veronese et al., 2019a, 2019b) or among women across the globe (James-Hawkins et al., 2018; Kabeer, 1999; Martin & Phillips, 2017; Veronese et al., 2019a), highlighting participants’ actions and reactions concerning situations of oppression or structural violations experienced in everyday life. Moreover, most recently, a major focus of agency also occurs within New Studies on Childhood (Prout & James, 1997), which have come to highlight children’s abilities to give meaning to their life contexts and mobilize resources and survival skills to protect their well-being (Abebe, 2019; Cavazzoni et al., 2020; Edmonds, 2019; Tisdall & Punch, 2012). Within this multifaceted literature, agency has been associated with personal skills and competencies (e.g., cognitive competencies, optimism, self-esteem) as well as with social and community resources. It has also been documented as occurring within families, social structures, and the broader environment, highlighting its multi-dimensionality (Abebe, 2019; Cavazzoni et al., 2020; Spyrou, 2018).

However, despite its popularity within the social sciences, there has yet to be a clear consensus in the literature with respect to how agency should be understood, defined, and especially operationalized (Eteläpelto, et al., 2013; Ibrahim & Alkire, 2007; Spyrou, 2018). On the one hand, the controversy arose from the fact that many terms are interchangeably used with that of agency, including terms such as "self-efficacy" (Bandura, 2018; Gecas, 1989), "personal autonomy" (Seeman & Seeman, 1983), "design competence" (Clausen, 1995), or "internal locus of control" (Rotter, 1966). Depending on the corresponding construct chosen, attempts to assess agency have been made through instruments such as the General Self Efficacy Scale (Chen et al., 2001) or the Situation-Cognitive Interaction Style Locus of Control Scale (Rotter, 1966). On the other hand, for those who approach agency as a construct in its own right, the presence of different definitions in the literature is a source of confusion. At times it is defined in a general and inclusive way as ‘the socio-culturally mediated capacity to act’ (Ahearn, 2001, p.122) or as ‘the ability to define one’s goals and act upon them’ (Kabeer, 1999, p.438), while others emphasize its strong interconnections with contextual, temporal, and structural aspects (Abebe, 2019; Hitlin & Elder, 2006; Veronese et al., 2019a). This lack of a clear and shared definition is also reflected in the paucity and diversity of attempts at its assessment and by the correspondingly poor development of psychometric measures to do so (Hitlin & Elder, 2006; Kristiansen, 2014; Settersen & Gannon, 2005). Depending on its conceptualization, the assessment of agency must include indicators that refer to its internal qualities, its unique social or cultural context, or to externally observable characteristics, such as the freedom to move from place to place (Pedaste & Leijen, 2020; Richardson, 2018). Accordingly, there is an evident need for an in-depth analysis of the literature that highlights and

summarizes, in an organized way, the various instruments that have been used or developed to measure this construct.

Thus, this article aims to provide a comprehensive review of published peer-reviewed studies that have quantitatively explored and assessed the agency of adults, children, and youth across various contexts. Our review's primary objective is to provide a synthetic combination of the relevant studies that have attempted to quantitatively measure agency and offer recommendations for research, practice, and policy. A comprehensive literature review can help researchers and practitioners develop a more in-depth knowledge of the instruments used or developed to assess and measure agency—across different contexts and using multiple samples. This is an important outcome since, as previously outlined, the construct of agency is central in psychology and the human sciences, especially in the last two decades. Observing and evaluating people's agentic behaviors and practices (of women, men, children) allows for greater insight into the various modes of negotiating their life contexts, navigating difficulties, and utilizing the resources (personal, local, relational, community) present in their environment (Cavazzoni et al., 2020; Eteläpelto et al., 2013; Spyrou, 2018; Sutterlüty & Tisdall, 2019; Veronese et al., 2019a, 2019b). Moreover, as the literature points out, investigating people's agency informs us about their well-being, their resilience, and their daily actions with respect to the structures in which their lives are embedded. Measuring agency might help in shedding light on human functioning processes as well as the capability to overcome hardships as an alternative—or complement—to already well-established theories such as the ones of coping strategies, appraisal, and locus of control (Oswell, 2013; Spyrou, 2018). Accordingly, in the psychological field there is a lack of systematicity and depth in organizing instruments capable to detect human agency and support the need of measuring such an important individuals' capability. Therefore, we believe it is necessary to continue and deepen the work in this area by enabling a comprehensive glance at the tools used to assess these agentic practices, especially in relation to the different ages and contexts in which they have been used and validated. Moreover, an exhaustive review of the literature will provide critical information and tools for policy makers to improve intervention and empowerment programs. Indeed, research has shown that agency is an important part of the empowerment process and a focus on the resources and strategies adopted by people to cope with situations of oppression or fragility enables the design of interventions aimed at strengthening them (Brown et al., 2015; Kabeer, 1999, 2001).

To this end, we will provide an in depth overview of the different definitions of agency adopted in the reviewed studies. We expect that a more straightforward definition of agency, combined with specific recommendations for its measurement, will help academic and programmatic communities by providing them with more robust assessment tools to guide their research and design policy interventions.

To the authors' knowledge, there is no review of the literature that provides a clear and comprehensive listing of the tools used to measure and assess agency, as well as the various definitions. Thus, this work fills a critical conceptual, empirical, and policy-relevant gap in the literature.

2 Method

The research papers were reviewed narratively. In the absence of common guidelines for narrative reviews, the quality of this review was improved by adopting methodologies from systematic reviews (Preferred Reporting Items for Systematic Reviews and Meta-Analyses

criteria—PRISMA). Indeed, by following some of the PRISMA criteria (e.g., the flow diagram, eligibility criteria, information sources, study selection), the bias in the articles' selection was reduced (Cavazzoni et al., 2020; Ferrari, 2015; Omaleki & Reed, 2019). Hence, the review is a systematic mapping of current findings and an attempt to highlight ideas for future research and interventions (Marriott et al., 2014).

2.1 Search Strategy

A structured search in the PsycInfo, PsycArticles, Pubmed (Medline) and Google Scholar databases was performed for all peer-reviewed publications dating from 2000 to 2020 (December), using the following search key terms: (1) *agency* (or *agentic*), combined with (2) *scale(s)*, *measurement(s)*, *instrument(s)*, *tool(s)*, OR *assessment*. The search results were limited to those that contained keywords within a matrix of relevant terminology identified in either the study title or abstract. Additional search terms (i.e., *agency questionnaires*; *agency survey*; *agency inventory*) have been used as verification of the search results. Finally, search sensitivity was refined by using key words as well as bibliographies of the eligible studies identified in the early stages of the search. These studies were selected according to the criteria underlined below.

2.2 Eligibility Criteria

As previously introduced, the interest on this subject within the hard sciences is quite recent. By looking at scholars' contributions over the last twenty years, it is therefore possible to cover the entire span of this construct within quantitative psychology. Thus, articles that were published from the year 2000 to 2020 were included to provide a comprehensive summary of the subject. Only quantitative and mixed method studies were included, while qualitative assessments of agency were excluded since they did not pertain to the research objective. Similarly, laboratory studies as well as narrative and systematic reviews were excluded. In addition, articles subjected to full review were those that adhered to the following criteria: (1) the publication must have quantitatively explored or assessed the construct of agency; (2) only papers that included the scale items, questions, or indicators used or developed, or for which these were available separately, were included (3) the article must have addressed general population (studies were excluded if the sample consisted only of psychiatric patients or people with chronic physical disease, because the measurements presented were constructed in relation to the particular difficulty presented by the person), and (4) the studies were available in English, peer-reviewed, and published (unpublished or non-peer-reviewed materials were excluded). Articles were also excluded if they came from book chapters, dissertations, conference proceedings, conference abstracts, or workshops. To limit the interferences created by the use of the term 'agency' among journals focusing on the actions of government agencies, the exclusionary criteria NOR 'agencies' NOR 'inter-agency' was included. Besides, articles that were referring to 'self-care agency' or 'therapeutic agency' (intended as a patient's intentional influence over the process of psychotherapeutic change, Huber et al., 2018) as well as 'reproductive agency' were excluded from the review. Finally, studies implemented with both machines and humans together were excluded (e.g. robotic hands, illusions).

The extensive search yielded 3879 unique studies. Records identified through databases were exported into Endnote software version X7 (Thomson Reuters), and duplicate papers were identified and excluded. The specific inclusion and exclusion criteria were

used by two of this article's authors to independently screen the abstracts and titles of all the identified records. Articles meeting the inclusion criteria were selected for full-text review. References of selected articles were scanned and, if suitable, included ($n=5$). Both reviewers agreed on the inclusion of the specific articles. In cases of disagreement, a third reviewer intervened to determine inclusion or exclusion, and a consensus agreement was reached throughout discussion. At the end of this process, 106 full-text articles were further assessed for eligibility. After the final screening process of the 106 articles, a total of 34 studies met the inclusion criteria, while 72 were excluded for failing to meet the study criteria (see Fig. 1).

Once the articles to be reviewed were identified, characteristics such as year of publication, target population and context, the authors' definition of agency, and the instrument chosen in the agency assessment were highlighted. In this process, one author worked independently, and a second author then double-checked the selected information to check for omissions or gaps.

3 Findings

27 of the 34 included studies were published in or after 2014, while the remaining 7 were published between 2000 and 2011. Twenty-five studies (74%) encompassed a cross-sectional method and the remaining nine studies (26%) a longitudinal one. Studies were geographically scattered: twelve-studies (35%) were conducted within the United States, five (15%) in Egypt, three in Palestine (9%), and 2 (6%) in India. Of the remaining, one study was implemented in each of these countries: Bangladesh, Belgium, Croatia, Ethiopia, Finland, Mozambique, Spain, Sweden, and Taiwan. Finally, two studies were multi-countries analyses. Sixteen studies addressed and measured agency in the youth population (47%), twelve (35%) were focused on women's agency and six (18%) addressed agency in

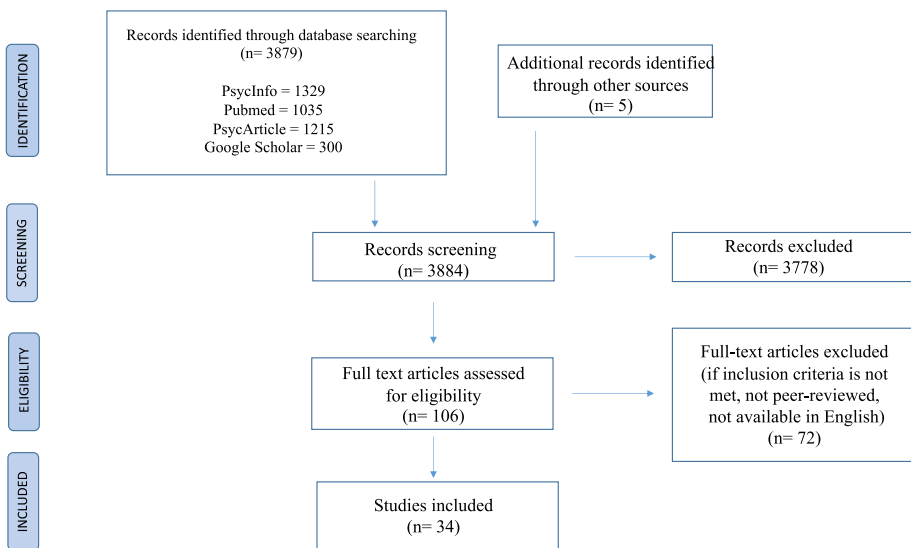


Fig. 1 Flow of information through the different phases of the review

the general adult population. For more information about these studies, including details of the study locations, the descriptions of the sample, the dimensions explored, and the indicator(s) used, see Table 1.

A first glance at the tools and scales used by the studies reviewed immediately reveals a lack of consensus on how agency should be measured and operationalized. Indeed, almost every study adopted a different instrument (only the Children Hope Scale appeared in three studies, two of which were conducted by the same author). Some researchers employed a previously validated instrument related to a similar construct (e.g., Adolescent Autonomy Questionnaire, Pearlin Mastery Scale, Children's Hope Scale), while others developed a new one (e.g., ATPA-22). On the contrary, there was more correspondence in the tools used for assessing agency within the contributions dedicated to women only. Indeed, in addition to the development of two validated instruments (i.e., WAS and WAS 61), the indicators through which to evaluate agency were shared within the studies. More specifically, *household decision-making*, *freedom of movement* and *gender attitudes and perceptions* were assessed in most of the reviewed studies measuring women's agency, with the addition of dimensions related to *financial autonomy* or *participation in the community* sometimes included.

The variety of measurements used was closely related to the dissimilar definitions of agency adopted within the reviewed studies. As previously discussed, due to the absence of a shared definition, the concept of agency is a slippery term within the literature, which therefore leads to a lack of agreement on its operationalization. Indeed, definitions of agency varied across studies (see Table 2). For instance, while authors mostly agree with a broad definition of agency as the 'ability to exert control over one's life and pursue goals in general' (e.g., Beyers et al., 2003; Poteat et al., 2018; among others), divergence emerges when attempting to better specify its characteristics. No consensus has been found concerning its connections to notions such as the ones of autonomy, internal locus of control, and competence (Beyers et al., 2003; Steckermeier, 2019; Williams & Merten, 2014). Indeed, some emphasize aspects of agency such as independence, freedom, and autonomy (Lautamo et al., 2021; Smith et al., 2000), while others stress its correlation to the individual's perception of control over their environment (Bentley-Edwards, 2016; Bryan et al., 2014). Similarly, there is a lack of agreement regarding the importance of 'structural opportunities' in which the person lives (Hitlin & Elder, 2006; Zimmerman et al., 2019), the constraints of social and historical contexts (Lautamo et al., 2021), and their influence on a person's ability to act upon them (Steckermeier, 2019; Veronese et al., 2019a, 2019b, 2020a, 2020b) (see Table 2 for a comprehensive list of the various agency definitions found).

On the contrary, within the studies that have dealt with exclusively with women there was more of a consensus on what is meant by agency and on how it should be measured. The definition of the concept essentially broadened in terms of the ability to identify ones' goals and act upon them with an 'attention to historically evolving constraints', which refers to Kabeer's studies (1999) and is shared across the studies reviewed. The presence of this common understanding is reflected in the instruments adopted to measure agency, which are, as previously mentioned, very similar amongst the various studies.

Moreover, the choice of measurement adopted also depends on whether the study aimed to measure agency within a specific life-sector or dimension (e.g., sexual agency, agency in education) or whether the attempt was to capture it in its multi-dimensionality. Indeed, out of all the articles reviewed, more than half defined and investigated agency in its multi-dimensionality (twenty-two articles out of thirty-four, eleven of which referred to girls' and women's agency). The remaining articles instead explored agency in single facets: *critical*

Table 1 Summary of studies, study method, locations, sample, dimension explored, and agency measure adopted

Author(s), Year	Study Characteristic	Study Location	Sample	Aim/dimension explored	Agency Measure
Bentley-Edwards (2016)	Cross-sectional study	USA	Black students 18–30 years old	Explore the intersection of racial identity, common fate destiny and socio-political agency	Racial Cohesion Questionnaire (RCQ)
Berhane et al. (2019)	Cross-sectional study	Ethiopia	Adolescents–Female (13–17 years old)	Relationships between girls’ agency and prevailing social norms	Agency Scale; 5 domains of girls empowerment
Beyers et al. (2003)	Cross-sectional study	Belgium	Adolescents mean age = 16 years	Agency as constituted by attitudinal, emotional and functional aspects of autonomy	Adolescent Autonomy Questionnaire (AQQ)
Black (2016)	Cross-sectional study	USA	Study 1: Mean age: 31 Study 2: 18–22	Develop psychometric measure of moral agency	MAS – Moral agency Scale
Bryan et al. (2014)	Cross-sectional study	USA	Mean age: 26	Explore association of agency within suicidal ideation	Paulhus Deception Scales
Burger & Walk (2016)	Cross-sectional study	Spain	Adolescents (mean age = 15 year)	Relationships between agency and educational performance and inter-generational transmission of educational (dis-) advantage	Three indicators of agency (child’s perceived control, sense of self-efficacy, work ethic)
Cadenas et al. (2020)	Cross-sectional study	USA	18–36 years old	Explore the role of critical agency and vocational outcome expectations as coping mechanisms in the link between everyday discrimination and anxiety	Critical Agency Sub-scale
Cheong et al. (2017)	Longitudinal study	Egypt	Women 15–43 years old	Investigate Women’s Agency Scale (WAS)	Women’s Agency Scale

Table 1 (continued)

Author(s), Year	Study Characteristic	Study Location	Sample	Aim/dimension explored	Agency Measure
Grower & Ward (2018)	Cross-sectional study	USA	Women, 18–40 years old	Examining association between body appreciation and sexual agency	Two measures: Body Self-consciousness during intimacy; Condom use self-efficacy
Habashi & Worley (2009)	Cross-sectional study	Palestine (WB)	Children (from 10 to 14 years old)	Developing and testing a new measure of political socialization	Political socialization measure
Hitlin & Elder (2007)	Cross-sectional study	USA	Youth (from 13 to 18 years old)	Develop a measurement model of youth agency	Agency Measurement Model
Klein et al. (2018)	Longitudinal	Croatia	Women, mean age: 16	Explore if parental support, knowledge and communication about sexuality during late adolescents contributes to an enhancement of sexual agency	Sexual self-efficacy scale of the Female Sexual Subjectivity Inventory
Lautamo et al. (2020)	Cross-sectional study	Finland	18–34	Evaluatapsychometric priorities of ATPA-22	ATPA-22: Assessment Tool for Perceived Agency
McWhirter & McWhirter (2016)	Cross-sectional study	USA (Latina/latino students)	Youth (from 13 to 20 years old)	Developing and testing a new measure of critical consciousness	Critical Consciousness Measure
Moore et al. (2016)	Cross-sectional study	USA	Youth (18–24 years old)	Test the relationships between sense of agency and system worldview and 2 forms of civic engagement: political involvement and community service	Sociopolitical Control Scale and Beliefs about Individual Action Scale
Nestadt et al. (2020)	Cross-sectional study	USA	Women 18 or older	Identify patterns of various threats to perceived agency	Pearlin Mastery Scale

Table 1 (continued)

Author(s), Year	Study Characteristic	Study Location	Sample	Aim/dimension explored	Agency Measure
Potat et al. (2018)	Cross-sectional study	USA	Youth (mean age 16 years old)	Examine the association between GSA (Gay-Straight Alliance) involvement level and these forms of civic engagement is partially mediated through youth feeling a greater sense of agency	Snyder's Children Hope Scale (CHS)
Reeve & Tseng (2011)	Cross-sectional study	Taiwan	Youth (10–12 grade)	Validate a measure of agentic engagement	5 items to assess agentic engagement
Richardson et al. (2019a, 2019b)	Longitudinal study	India	Women, Mean age: 31.3	Explore association between agency and mental distress	4 domains (Household decision-making; Freedom of movement; Participation in the community; Attitudes and perceptions)
Richardson, (2018)	Cross-sectional study	India	Women, Mean age: 31.3	Develop a theory-based tool of women's agency in one lower-income context with pronounced gender inequalities	4 domains (Household decision-making; Freedom of movement; Participation in the community; Attitudes and perceptions)
Salem et al. (2020)	Longitudinal study	Egypt	Women, 22–65 years old	Construct and validate a multi-dimensional and context specific scale of women's agency	3 domains: Decision Making, Freedom of movement; Gender attitudes
Samari (2017)	Longitudinal	Egypt	Women, 15–49 years old	Examine relationships between women's agency and fertility	27 Items, 4 dimensions: household DM, mobility, financial autonomy, gender role attitudes

Table 1 (continued)

Author(s), Year	Study Characteristic	Study Location	Sample	Aim/dimension explored	Agency Measure
Samari (2019)	Longitudinal	Egypt	Women, 15–49 years old	Whether women's empowerment explains relations between education and number of births	household DM, mobility, financial autonomy, gender role attitudes
Smith et al. (2000)	Cross-sectional study	USA	18–93 years old, mean age: 48.7	How normative age-related changes alter control beliefs	Personal Agency Scale and Interpersonal Agency Scale
Stattin et al. (2017)	Longitudinal Study	Sweden	Youth (10–30 years old)	Longitudinal investigation of the development of young people's civic interest and engagement from 10 to 30 years old	Political agency measure
Steckermeier (2019)	Cross-sectional study	16 countries (Algeria, Colombia, England, Estonia, Ethiopia, Germany, Israel, Malta, Nepal, Norway, Poland, Romania, SA, South Korea, Spain, Turkey)	Children (mean age = 8 years old)	Relationship between children's agency and their SWB and how agency and safety interact in influencing SWB	Single item Satisfaction with agency
Veronese et al. (2019a, 2019b)	Cross-sectional study	Palestine (WB)	Children (from 7 to 16 years old)	Association between agency and life satisfaction and its bearing on trauma symptoms and negative emotions	Snyder's Children Hope Scale (CHS)
Veronese et al. (2020a, 2020b)	Longitudinal study	Palestine (WB)	Children (from 7 to 16 years old)	Longitudinally test the contribution of agency to predicting life satisfaction and the power of life satisfaction to mitigate traumatic stress	Snyder's Children Hope Scale (CHS)

Table 1 (continued)

Author(s), Year	Study Characteristic	Study Location	Sample	Aim/dimension explored	Agency Measure
Victor et al. (2013)	Cross-sectional study	Mozambique	Women, Mean age: 41 years old	In context where level of resources is severely limited (frustrated freedom), high levels of agency beliefs may be associated with decreases in SWB	Measure to assess agency beliefs
Ward et al. (2018)	Cross-sectional study	USA	Adolescents—Female (16–23 years old)	Test connection between exposure to 3 media genres, self-sexualization and 4 dimensions of sexual agency	Instrument to assess Sexual agency, 4 dimensions (sexual assertiveness; condom-self-efficacy; Sexual affect; sexual motivations for alcohol)
Williams & Merten (2014)	Longitudinal study	USA	Youth (from 12 to 18 years old)	Agency during adolescence as a significant promotive factor mediating relationships between community, parenting, and mental health	Agency Measurement model
Yount et al. (2016)	Cross-sectional study	Egypt	Women, 16–49 years old	Test the factor structure of women's agency Scale	15 items, 3 domains: Decision Making, Freedom of movement; Gender attitudes
Yount et al. (2020)	Cross-sectional study	Bangladesh	Women, 15–49 years old	Develop and validated Women's Agency Scale	Women's Agency Scale (WAS 61)

Table 1 (continued)

Author(s), Year	Study Characteristic	Study Location	Sample	Aim/dimension explored	Agency Measure
Zimmerman et al. (2019)	Cross-sectional study	14 countries: Belgium, Bolivia, Burkina Faso, China, Denmark, Ecuador, Egypt, Kenya, Malawi, Nigeria, Scotland, United States, Vietnam, India	Children (from 10 to 14 years old)	Demonstrate that the concept of agency (defined by voice, freedom of movement and decision making) is measurable amongst adolescents	New measure: 3 domains (voice, freedom of movement; behavioral control and decision making)

Table 2 Agency definitions

Agency dimension explored	Children and youths	Agency definition
Multi-dimensional agency		<p>Agency as the ability to exercise control over one's life, connected with notions like autonomy, nonconformity, internal locus of control, resistance to persuasion by parents or peers, self-determination and competence. (Beyers et al., 2003)</p> <p>Agency as a global belief in one's ability to make and attain goals in general (Berhane et al., 2019; Poate et al., 2018)</p> <p>Agency as individuals' capacity to gain control over their lives (Burger & Walk, 2016)</p> <p>Agency is conceptualized as individuals' control over their environment (Krauss et al., 2014)</p> <p>Agency as the ability to act independently from others and the ability to choose from different opportunities (Steckermeier, 2019)</p> <p>Agency refers to the sense of having the capacity for meaningful and successful action, something related but of equivalent, to the perception of having structural opportunities to exercise such capacities" "is the self-reflective belief about one's capacity to achieve life course goals, influencing perseverance across difficult life course situations (Hitlin & Elder, 2007)</p> <p>Agency is more than independence or autonomy: it refers to a person's capacity, willingness and ability to actively construct their life course (Williams & Merten, 2014)</p> <p>Agency as the capacity to make purposeful choices as well as external factors, or opportunity structures that create the enabling environment within which individuals pursue their interest (Zimmerman et al., 2019)</p> <p>Agency as the capacity to act positively across space and time with respect to oppressive structure in one's environment (Veronese et al., 2019a, 2019b, 2020a, 2020b)</p>
Women		<p>Agency is the ability to define one's goals and act upon them (Cheong et al., 2017; Richardson, 2018; Richardson et al., 2019a, b; Victor et al., 2013)</p> <p>Agency as the ability to define one's goals and take action to realize them. The ability to make choices and act in accordance with what one desires to do without impediment. (Nestadt et al., 2020)</p> <p>Agency as the ability to define their own life-choices and to pursue their own goals, even in the face of opposition from others (Salem et al., 2020)</p> <p>Agency refers to women's ability to make strategic life choices under historically evolving constraints (Samari, 2017, 2019; Yount et al., 2016)</p> <p>Agency is a multidimensional construct that involves internal states of being, ways of acting, and ways of being jointly with others (Yount et al., 2020)</p>

Table 2 (continued)

Agency dimension explored	Agency definition
Adults	<p>Agency as the perceptions of what one is able to do to control their environment or circumstances (Bentley-Edwards, 2016)</p> <p>Agency conceptualized as the sense that one is in control of one's life and is the initiator of one's own actions (Bryan et al., 2014)</p> <p>Agency refers to specific acted that are performed intentionally to achieve desired ends (Smith et al., 2000)</p> <p>Agency as the capacity of individuals to act independently and to make their own free choices. It is a dynamic process that in its transactions with social and cultural contexts, alters throughout the life-span. (Lautamo et al., 2020)</p>
Critical agency	<p>Critical agency combines commitment to and efficacy for taking action against racism and discrimination (McWhirter & McWhirter, 2016)</p> <p>Critical agency conceptualized as a component of critical consciousness that combines motivation and beliefs of self-efficacy to address societal injustices or it is identified as ones perceived ability to make a difference of social change (Cadenas et al., 2020)</p>
Political agency	<p>Child's agency should be recognized as an emergence of the cultural and political discourse. Agents are actors within the parameters of the resources made available to them as a result of the global/local discourse (Habashi & Worley, 2009)</p> <p>Political agency the beliefs in one's ability to affect change (Moore et al., 2016)</p> <p>Political agency defined as a person's intentional attempts to affect other people's minds about political and issues (Stattin et al., 2017)</p>
Moral agency	<p>Moral agency refers to people's ability to determine their behavior when it affects others well-being. Thus the perceived ability to avoid doing harm to other people (Black, 2016)</p>
Sexual agency	<p>Sexual agency as the ability to make decision and assertions related to one's own sexuality (Klein et al., 2018)</p> <p>Sexual agency includes the acknowledgment of self as a sexual being; the ability to identify, communicate, and negotiate one's sexual needs; and the successful initiation of behaviors that allow for the satisfaction of these desires (Ward et al., 2018)</p> <p>Sexual agency highlights women's ability to reflect upon, communicate and negotiate the fulfillment of their sexual desires (Grower & Ward, 2018)</p>
Agency in education	<p>Agency in education as students' constructive contribution into the flow of the instruction they receive. (Burger & Walk, 2016; Reeve & Tseng, 2011)</p>

agency (Cadenas et al., 2020; McWhirter & McWhirter, 2016); *socio-political agency* (Bentley-Edwards, 2016; Habashi & Worley, 2009; Moore et al., 2016; Stattin et al., 2017); *sexual agency* (Grower & Ward, 2018; Klein et al., 2018; Ward et al., 2018); *moral agency* (Black, 2016) and agency related to education (Burger & Walk, 2016; Reeve & Tseng, 2011).

Therefore, comparing and summarizing these studies is challenging due to the wide variation in the measurements and approaches adopted, including single or multiple indicators. Over the next section, we will provide a narrative synthesis for the studies reviewed to advance knowledge about agency and its operationalization. To do so, the findings are grouped according to whether agency is measured more broadly or in a single dimension and it is discussed separately for children, adults, and women. More specifically, the first section (i.e., *multidimensional assessment of agency*) examines the instruments that measure agency in its multi-dimensionality, which is both more holistic and comprehensive. Within this section, the measurements adopted are presented in order of complexity (from those who used a single indicator to those who used more than one). The second section (i.e., *unidimensional assessment of agency*) summarizes the instruments that measured agency in a single specific domain (e.g., political agency, agency in education). Moreover, within these two macro-categories, the different instruments are presented separately if they were dedicated to assessing agency in adults, children, or women, since the characteristics of the population were considered fundamental in the choice or development of the relative measurement instrument (see Table 3 for an overview).

3.1 Multidimensional Assessment of Agency

Twenty-two studies (of the thirty-four total) have measured individuals' agency in its most comprehensive conception, without specifying a precise domain or dimension in which it was explored. Of these, eight focused on a population of children, youth, or adolescents in different countries: three in the United States (Hitlin & Elder, 2006; Poteat et al., 2018; Williams & Merten, 2014), two in Palestine (Veronese et al., 2019a, 2019b, 2020a, 2020b), one in Belgium (Beyers et al., 2003), and in the last two the data were coming from several countries (Steckermeier, 2019; Zimmerman et al., 2019). In contrast, three targeted the general adult population, both female and male, with two studies conducted in the United States (Bryan et al., 2014; Smith et al., 2000) and one in Finland (Lautamo et al., 2021). Finally, the remaining eleven studies explored agency within exclusively female samples. One targeted adolescent girls in Ethiopia (Berhane et al., 2019), and the remaining were conducted amongst women coming from different countries, including Egypt (Cheong et al., 2017; Salem et al., 2020; Samari, 2017, 2019; Yount, et al., 2016), India (Richardson, 2018; Richardson et al., 2019a, b), the United States (Nestadt et al., 2020), Mozambique (Victor et al., 2013), and Bangladesh (Yount et al., 2020). We will first examine the various instruments used or developed to measure agency in the younger group and then move on to the general population and women.

3.1.1 Children and Youth

The age of the participants included in this group ranged from 8 to 16 years old. More specifically, the mean average age of participants was 8 years old in the study by Steckermeier (2019), 12 in the two by Veronese and colleagues (2019b, 2020a) and

Table 3 Critical Findings in the assessed articles classified by gender, developmental and dimensional categories

 Multidimensional assessment of agency

Children and youth

Satisfaction with agency: single item measure asking how happy children feel with the freedom they have. 5 point Emoticon Scale

Agency assessed via 15 items related to the ability to exercise control over one's life (from the Adolescent Autonomy Questionnaire). Three dimensions: *attitudinal autonomy*; *emotional autonomy*; *functional autonomy*

Agency assessed via the Children Hope Scale (CHS): *agentic thoughts*; *thinking about pathways*. 5 point Likert Scale

Measurement model of youth agency. Three dimensions assessed: *planfulness*; *optimism*; *self-efficacy*

Measurement model of agency. Three dimensions assessed: *voice*, *freedom of movement*, *decision making*

Adult

Agency assessed via 20 items from the Paulhus Deception Scales (PDS; Paulhus, 1998) to evaluate *self-efficacy* and *perceived competence*

Agency assessed via two dimensions: *Personal agency Scale*, *Interpersonal agency scale*

ATPA-22: Assessment Tool for Perceived Agency. Three dimensions assessed: *competence*, *resilience*, *balance*

Women

Agency assessed via 5 items from the Pearlin Mastery Scale (Pearlin & Schooler, 1978)

Agency assessed via 5 domains of girls' empowerment: belief in women's right to refuse sex (1 item), opposition to traditional male dominance (11 items), belief in women's health rights (5 items), self-efficacy to negotiate and communicate (2 items), and girls' ability to decide whom and when to marry (2 items)

Agency assessed via two items to assess agency beliefs: (1) Some people believe that they can decide their own destiny, while others think they don't have control over it. To what extent do you believe you can decide your own destiny? (nothing, a little, enough, a lot); (2) Do you think you can make decision by yourself freely, without consulting your husband? (never, sometimes, almost always, always)

Agency assessed via three dimensions: *Decision Making* (on purchases, social visits, health care..) *Freedom of Movement*;

Gender attitudes

Agency assessed via four dimensions: *Household Decision Making*; *Freedom of Movement*; *Participation in the Community*; *Attitudes and perceptions*

Agency assessed via four dimensions: *Household Decision Making*; *Mobility*; *Financial autonomy*; *Gender role attitudes*

WAS-61: measure of women's multidimensional agency. Three dimensions assessed: *Intrinsic agency*; *Instrumental agency*; *Collective agency*

Unidimensional Assessment of Agency

Political or geo-political agency

Political agency assessed via 2 items: (1) Are you trying to get your parents to become more aware of what is going on in the world? (2) Are you trying to get your parents to become more aware of environmental issues? 5 point Likert Scale

Socio-political beliefs assessed via 2 scale: *Policy Control subscale* of Zimmerman & Zanhiser's Sociopolitical Control Scale (1991) and *Beliefs about Individual Action Scale* (Gurin et al., 2013). 5 point Likert Scale

Political-socialization Measure consisted in 4 domains: *Historical Political Knowledge*; *Response to local/global discourse*;

Formal political socialization; *Informal political socialization*

Racial agency subscale (8 items) from the Racial Cohesion Questionnaire (RCQ)

Critical agency

Critical agency sub-scale (7 items) from the Critical Consciousness Measure (McWhirter & McWhirter, 2016)

Moral agency

Moral Agency Scale (MAS), 3 dimensions: *responsibility*, *external attribution*, *group pressure*. 5 point Likert Scale

Table 3 (continued)

Multidimensional assessment of agency

Sexual agency

Sexual agency assessed via the *Sexual Self-efficacy Scale* (3 items) of the Female Sexual Subjectivity Inventory (Horne & Zimmer-Gembeck, 2006), 5 point Likert Scale

Sexual agency assessed via two dimensions: *Body self-consciousness during intimacy* and *Condom Use Self-efficacy*

Sexual agency assessed via 4 dimension: *Sexual assertiveness*, *Condom Use Self-efficacy*, *Sexual affect*, and *Sexual motivations for alcohol*

Agency in Education

Agency assessed via 3 indicators: *perceived control*, *self-efficacy* and *work-ethic*

Agentic engagement measure. Self-report scale assessing agentic engagement via 5 items; (1) during the class, I ask

questions; (2) I tell the teacher what I like and what I don't like; (3) I let my teacher know what I'm interested in; (4) During class, I express my preferences and opinions; (5) I offer suggestions about how to make the class better

Zimmerman (2019), and 16 in the remaining four (Beyers et al., 2003, Hitlin & Elder, 2006, Poteat et al., 2018; and Williams & Merten, 2014).

Only one measurement consisted of a single-item designed to assess how happy children felt with the freedom they experienced, and it was rated on a 5-point emoticon scales. Acknowledging agency as the ability to act independently from others and to choose from different options, this measure assessed children's level of agency in relation to the satisfaction with their freedom to act and behave (Steckermeier, 2019).

Among other studies, multi-indicator instruments were available for measurement and evaluation of participants' agency. For instance, starting from a conceptualization of agency as closely related to constructs such as autonomy, internal locus of control, and competence, 15 items were selected from the Adolescent Autonomy Questionnaire (AQA, Noom, 1999) to assess adolescents' ability to exercise control over their lives (Beyers et al., 2003). The measurement, rated on a 4 point Likert Scale (strongly unfavorable response—strongly favorable response) consists of three categories through which to assess this agency: *attitudinal autonomy* (e.g., I can make choices easily), *emotional autonomy* (e.g., I have a strong tendency to comply with the wishes of others), and *functional autonomy* (e.g., I go straight for my goal).

Also consisting of several items, the Children's Hope Scale emerged as an instrument employed to assess young people's agency (Poteat et al., 2018; Veronese et al., 2019a, 2019b, 2020a, 2020b). This scale derived from Snyder's conceptualization and operationalization of Hope (Snyder et al., 1997). Hope is defined as a positive mental state resulting from a belief in one's own capacity to initiate and sustain actions for achieving goals (agency) and one's self-perceived ability to generate ways of achieving one's goals (pathways). Consisting of two subscales, this measure includes three items assessing children's agentic thoughts (e.g., 'I think I'm doing pretty well) and three items evaluating their thinking about pathways (e.g., "I can think of many ways to get the things in life that are most important to me"). In the three studies reviewed, agency is considered as a combined measure of the two subscales of agency and pathways (Poteat et al., 2018; Veronese et al., 2019a, 2019b, 2020a, 2020b). Indeed, higher average scale scores represented a greater sense of participants' agency, assessed on a 5-point scale (none of the time/always).

An ulterior instrument adopted to assess agency is the one developed in the United States by Hitlin and Elder (2006) and directed at adolescents with an average age of 16 years old. Given the complexity of the construct itself, and the many different operationalizations of it, these authors developed a new multidimensional measure of youths' agency. Accordingly, if agency is understood as the 'analytic decision making, belief in one's ability and capacity for action, and positive outlooks for the future' (Williams & Merten, 2014), it is required that indicators such as optimism, self-efficacy (as effect indicators), and planfulness (as causal indicator) are included for its measurement. Hence, the presented model includes items designed to investigate *planfulness skills* (e.g., when you have a problem to solve, one of the first things you do is get as many facts about the problem as possible), *optimism* (e.g., how likely is it that you will go to college?), and *self-efficacy* (e.g., you have a lot of energy; you seldom get sick).

Finally, a last agency measurement within this age span was developed using data from 14 different countries (Belgium, Bolivia, Burkina Faso, China, Denmark, Ecuador, Egypt, Kenya, Malawi, Nigeria, Scotland, United States, Vietnam, India) (Zimmerman et al., 2019). Highlighting the lack of a shared measurement scale for this construct, the authors set out to develop and statistically validate a new instrument to assess agency via three indicators: *voice*, *freedom of movement*, and *decision-making*. More specifically, *voice* assessed youth's ability to articulate choices and opinions (e.g., my parents or guardians ask for my opinion on things), *freedom of movement* evaluated their ability to move freely within the environment (e.g., go to after school activities), and *decision making* valued their ability to make decisions without adult supervision or approval (e.g., what to do in your free time). Scoring was done using a 3-point frequency scale (never, sometimes, often).

3.1.2 Adults

Of the studies reviewed, three were aimed at measuring agency in the adult population, ranging from 18 to 93 years old (Bryan et al., 2014; Lautamo et al., 2021; Smith et al., 2000). As with children and youth, we find the construct is conceptualized in a variety of ways. There is also a similar diversity in the methods used to assess it.

A first example is its measurement through a subscale of the Paulhus Deception Scales (PDS; Paulhus, 1998), a self-report instrument aimed at identifying individuals who, when responding to assessments and rating scales, distort their responses (see Paulhus, 1998). Twenty items were selected and employed to assess participants' agency by evaluating their self-efficacy and perceived competence (e.g., 'I am fully in control of my own fate'; 'The reason I vote is because my vote can make a difference'; 'I am a completely rational person' or 'I am very confident of my judgments'). On a 5-point scale, agency was evaluated in terms of how much control the person feels over their actions and living environment (Bryan et al., 2014), and thus associated with greater perceptions of control and higher self-esteem.

Expanding the conceptualization of agency by considering it both in its personal and interpersonal dimensions (intended as the ability to achieve positive ends through interaction with others), Smith & colleagues (2000) presented a new model that is composed of two subscales. Indeed, agency is evaluated via indicators of *personal agency*, intended as the ability to achieve desired outcomes on one's own behalf (e.g., I get what I want or need by relying on my efforts and ability), and indicators of *interpersonal agency*, as by expressing needs or behaving cooperatively (e.g., I achieve my goals by knowing when to ask others for help), rated on a 4-point Likert scale (never/often).

Finally, a somewhat more comprehensive approach is attempted in the development of the Assessment Tool for Perceived Agency (ATPA-22) (Luautamo et al., 2020). To assess individual's experienced features of agency, this instrument is composed of three transactional elements of perceived agency, which are competence, resilience, and balance. Indicators related to the construct of *competence* evaluated the participant's personal experience of the relationship between their abilities and resources and the tasks they need or want to accomplish. The construct of *resilience* is then investigated in terms of the person's ability to adapt one's activities and create variation in one's routines and environments (e.g., "if necessary, I can flexibly and fluently adapt my performance and routines"). Finally, indicators of *balance* assessed the extent to which one's tasks are congruent with one's values and personal meaning (Luautamo et al., 2020).

3.1.3 Women

Of the eleven studies assessing women's agency, one focused on a sample of adolescent girls (Berhane et al., 2019), while the others have more variable age samples, with participants ranging from 15 to 65 years, with an average age around 30. Differentiating these studies from the more general category of 'adult' was crucial since it enables a strong determination to delineate women's agency in its own characteristics and, thus, to develop gender-specific instruments to assess it. Indeed, within the literature, women and girls are generally believed to have lower agency than boys (Richardson et al., 2019a, b; Salem et al., 2020). On the one hand, many societies manifest severe gender inequalities, leading to an unequal distribution of resources and opportunities that women and men can access (Cavazzoni et al., 2021; Kabeer, 2016; Omaleki & Reed, 2019). For instance, a greater restriction on one's freedom of personal mobility, as well as less access to education or employment, are all factors that can constrain and limit the person's ability to exert their agency (Kabeer, 1999, 2016). On the other hand, the most commonly available tools to assess agency are often neither context, cultural, nor gender specific, thus often leading to higher values for male samples. Instead, in this group of studies, dimensions, and indicators to assess agency are closely related to gender-related attitudes, perceptions, and beliefs. For example, in the study targeting adolescent girls (Berhane et al., 2019), their agency is measured through 5 domains of their empowerment. These include belief in women's right to refuse sex (one item), opposition to traditional male dominance (11 items), belief in women's health rights (five items), self-efficacy to negotiate and communicate (two items), and girls' ability to decide whom and when to marry (two items). Similarly, in their study in Mozambique, Victor, and colleagues (2013) measure participants' agency through an instrument constructed from two items related to the possibility of exercising a certain degree of independence, freedom, and autonomy in relation to one's social or family context. The first item consists of a question referring to the perception of having control over one's own life and destiny, while the second specifically refers to the extent to which the person feels free to make decisions without having to consult her husband (or any male family member).

Moreover, the studies within this group moved from a shared conceptualization of women's agency as 'the capacity to take purposeful action and pursue goals,' to be understood in close connection with the social, cultural, and political environment within which the person lives and from which she is conditioned. Except for the study by Nestadt & colleagues (2020) where agency is measured through a modified version of the Pearlin Mastery Scale (Pearlin & Schooler, 1978) and which therefore provides

a measure of how much an individual perceives their life as being under their own control, there is a concordance between indicators and dimensions used in the measurement of women's agency.

The first one includes the women's ability to make their own decisions. This dimension was assessed in most of the studies included (Cheong et al., 2017; Richardson, 2018; Richardson et al., 2019a, b; Salem et al., 2020; Samari, 2017, 2019; Yount, et al., 2016; Yount et al., 2020). *Decision-making* (DM)—or alternatively *household decision-making*—is an indicator that assesses women's influence and involvement in family or economic decisions regarding household purchases, social visits, choice of clothes or food for daily meals, medical issues, or child-rearing. The indicator consists of questions such as 'who in your family usually has the final say on...' and addresses the different life-areas listed above. Along with this dimension, to offer a more comprehensive and sensitive measure indicators assessed both internal qualities (e.g., views about intimate partner violence) and externally observable characteristics, such is freedom of mobility. Women's freedom of mobility was indeed included and assessed in all eight studies (Cheong et al., 2017; Richardson et al., 2019a, b; Salem et al., 2020; Samari, 2017, 2019; Yount et al., 2016; Yount et al., 2020). Being able to move freely is a necessary precondition to obtain and reach desired outcomes. Thus, *freedom of movement* (FM) indicators evaluated participants' freedom to move to certain places (e.g., market) or for reasons (e.g., health reasons or visiting friends) without necessarily having to acquire family permission. Finally, in seven out of eight studies, the adopted measure also included an indicator related to participants' perceptions of gender roles and awareness of women's rights. The so-called *gender attitudes* indicator—alternatively defined as *attitudes and perceptions towards gender* (Zimmerman et al., 2018, 2019) or *gender role attitudes* (Samari et al.,)—assessed women's views on issues related to gender differences, gender-based violence, or with respect to personal opinions about themselves (e.g., 'in your opinion is a husband justifying in hitting his wife in the following situations?' or 'what do you think about statements such as—a woman who has a full time job cannot be a good mother'). In addition to these three main dimensions, some studies also evaluated women's *participation in the community* (e.g., participation in political activities, reading the newspaper; Zimmerman et al., 2018, 2019) or women's *financial autonomy*, referring to the ability to access economic resources (Samari, 2017, 2019).

The development of an inclusive measure of all these indicators comes from the recent study by Yount & Colleagues (2020). The authors have developed what appears to be the first comprehensive and multidimensional measure of women's agency in the literature: the WAS 61 (Women's Agency Scale). This instrument captures women's agency in its various dimensions of *intrinsic agency*, *instrumental agency*, and *collective agency*. The first dimension assesses women' critical awareness of their rights and aspirations, confidence in their capabilities, and motivations to pursue self-defined goals. Through twenty-nine items, the aim is to capture women's awareness (also understood in terms of non-justification of wife beating, gender-equitable attitudes) and their confidence in their capabilities (in terms of comfort expressing opinion and going places outside home). As for *instrumental agency*, this assesses the creative power to exercise one's capabilities; make one's own strategic choices; pursue one's rights, goals, and aspirations; and affect desired change in one's life. Twenty-seven items are used to measure women's access of economic resources, their ability to express themselves with their husbands, and their mobility outside the home. Finally, the *collective agency* dimension aims at capturing instrumental and action-oriented aspects of agency (i.e., women's engagement in groups or networks with shared goals; women's confidence in the group's ability to act on shared goals; the influential joint actions in pursuit of shared goals). Therefore, agency is viewed as a multidimensional construct, that

involves internal states of being, ways of acting, and ways of being and acting jointly with others (Yount, Khan et al., 2020).

3.2 Unidimensional Assessment of Agency

As previously introduced, this category includes those studies that have assessed agency in a singular dimension or facet. Consequently, they are not presented according to the age of the sample investigated (children and youth, women, or adults), but they have been summarized and discussed starting from the peculiar facet of agency that they investigated.

3.2.1 Political or Geo-Political Agency

Within this group are included the studies that explored and assessed participants' agency in terms of their civic and political engagement (Bentley-Edwards, 2016; Habashi & Worley, 2009; Moore et al., 2016; Stattin et al., 2017). Indeed, referring to individuals' political agency, these works highlight the extent to which children and young adults can be aware of the circumstances that are affecting their lives and act upon them. All the included studies targeted a population of youth and young adults (10–30 years old), in three different contexts (Sweden, the United States and Palestine) and introduced four different instruments.

Starting from the most basic tool (in terms of number of items utilized; $N=2$), we notice how it is closely connected to the authors' conceptualization of this form of agency (Stattin et al., 2017). Indeed, according to these scholars, the term *political agency* should be quite distinct from that of *political self-efficacy*, which refers to all domain-specific efficacies in one's own actions to change society. Political agency is instead described as a person's intentional attempts to change other people's minds about politics and social issues (Stattin et al., 2017), which are then measured via two distinct items on a 5-point scale (almost never/almost always). This instrument addressed whether the young person (10–30 years old) is active in attempting to make their parents more attentive and aware of what is happening in the world (item 1) or regarding environmental issues (item 2).

In contrast, the measurement reported in Moore & colleagues' (2016) study, where the concept of agency is instead lumped together with the one of political self-efficacy and, thus, understood as the individuals' positive beliefs about their abilities to influence social change. Accordingly, agency is assessed through an 8-item scale that includes two subscales: Zimmerman & Zahniser's (1991) *Socio-Political Control Scale* (e.g., 'there are plenty of ways for me to have a say in what our community does' or 'most community leaders would listen time') and the *Beliefs about Individual Action Scale* (Gurin et al., 2013), which reflects individuals' beliefs about their ability to act upon the world.

Within a similar perspective, the Political Socialization Measure was developed to evaluate geo-political agency in a younger population (children from 10 to 14 years) in Palestine. Recognizing the influence of the cultural and political environment that children inhabit, their agency is considered to be strongly related to the political context and discourse in which they grow up. Therefore, the Political Socialization Measure is strictly context-specific and aimed at capturing the Palestinian reality. It consists of four main domains rated on a 4-point Likert scale (strongly disagree—strongly agree). The first domain—named *Historical Political Knowledge*—is aimed at assessing participants' national identity and awareness of one's political social history (e.g., a Palestinian refugee whose grandparents were evacuated in 1948). There is also the one named *Response*

to local/global discourse, which assesses children's perceived influence and participation in resistance demonstrations. Finally, the third and the fourth domains referred to participants' political socialization: one assessing the extent to which children experience formal political socialization in school (*Formal political socialization*) and the other assessing the extent to which children are socialized politically in an informal environmental context (*Informal political socialization*). Hence, processes of political socialization are part of the concept of agency, as they empower children to both build and reconstruct political understanding that thereby directs and guides their action.

Finally, not far from these conceptualizations of agency, we find the measurement adopted to assess Racial agency by Bentley-Edwards (2016), which was developed amongst Black students in the United States. Considering that racial agency symbolizes a sense of socio-political agency in the Black community, it has been measured by the *Racial Agency Scale* of the Racial Cohesion Questionnaire (RCQ) (Bentley-Edwards, 2016). This scale evaluated the desire for positive things to happen to the Black community through actions that promote racial uplift (e.g., "I participate in activities that help Black people in need"; "I use services in the black community"). Next to this scale, the questionnaire includes a list of items to assess the community's *psychological cohesion*, which reflects aspects of emotional connection, empathy and interdependence, such as "I feel like I am only doing well if Blacks as a whole are doing well"). Hence, the RCQ questionnaire is intended as a measure of racial cohesion that assesses the behaviors and attitudes that are oriented toward enhancing or distancing an individual from the Black community. Each item represents how Black people feel (psychological cohesion) or what Black people may do (racial agency) in relation to members of their own race (Bentley-Edwards, 2016, p.82).

3.2.2 Critical Agency

The concept of critical agency combines aspects related to commitment and ability to take action against racism and discrimination. Within the present review, a unique instrument has been used to assess agency in this aspect, both amongst youth (from 13 to 20 years old) (McWhirter & McWhirter, 2016) and adults (18–36 years old) (Cadenas et al., 2020). Critical agency is defined as a component of critical consciousness that combines motivation and beliefs of self-efficacy to address societal injustices. It is identified as one's perceived ability to make social change (Cadenas et al., 2020). The developed and validated instrument aimed at its assessment is a subscale of the Critical Consciousness Measure (CCM), developed with a group of Latinx students in the United States by McWhirter and McWhirter (2016). The CCM includes two scales. The first is aimed at assessing critical agency, with 7 items designed to measure motivation and agency (e.g., 'there are ways that I can contribute to my community' or 'I am motivated to try to end racism and discriminations'). The second scale is focused on participants' *Critical Behavior*, and therefore reflects the action component of critical consciousness and can be described as actions to promote justice and end racism (e.g., 'I am involved in activities or groups that promote equality and justice' or 'I have participated in demonstrations or signed petitions about justice issues'). In both studies, the critical agency measure, assessed on a 4-point scale (strongly disagree—strongly agree) is considered more consistent in the evaluation of participants' agency since it focused on future intentions to act, rather than merely current behaviors (Cadenas et al., 2020). This is particularly important in the assessment of youth and adolescents considering that participation in demonstrations or in groups aimed at reducing racism can be subject to practical constraints.

3.2.3 Moral Agency

Another specific instrument constructed to assess a distinct aspect of agency is the Moral Agency Scale (MAS, Black, 2016). Defining moral agency as a person's ability to determine their behaviors when it affects others well-being and, thus, the ability to avoid doing harm to others, the MAS tool was developed to assess the extent to which participants felt control over their moral choices (Black, 2016). Developed on an adult sample (mean age = 31), and rated on a 5-point scale (strongly disagree—strongly agree), the instrument assessed moral agency via three distinct dimensions: *responsibility* (to measure the denial of moral responsibility for acts that could harm one's self or others, e.g., if I get into trouble, it is my own fault even if someone else told me to do it), *external attribution* (to assess when moral agency is subjected to external influence, e.g., sometimes it seems like fate determines whether my actions are good or bad), and *group pressure* (to assess when the individual's actions are based on what other people decide, e.g., If I feel pressured into doing something, I'm not as responsible as when I decide on my own). To the best of our knowledge, this is the first attempt to measure perceived moral agency.

3.2.4 Sexual Agency

Sexual agency is defined as the individual's ability to make decisions and assertions related to one's own sexuality (Klein et al., 2018). It includes the acknowledgment of the self as a sexual being, therefore highlighting a person's ability to reflect upon, communicate, and negotiate one's sexual need (Grower & Ward, 2018) and initiate behaviors that allow for their satisfaction (Ward et al., 2018). Among the included studies, sexual agency was assessed solely within the female population (from 16 to 40 years old) in the United States (Grower & Ward, 2018; Ward et al., 2018) and Croatia (Klein et al., 2018). In the attempt to assess sexual agency during late adolescence the *Sexual Self-efficacy Scale* of the Female Sexual Subjectivity Inventory was used (Horne & SimmerGembeck, 2006) (Klein et al., 2018). This scale consisted of three items (i.e., 'I would not hesitate to ask for what I want sexually from a romantic partner'; 'if I were to have sex with someone, I'd show my partner what I want'; and 'I am able to ask a partner to provide the sexual stimulation I need'), which are rated on a 5-point scale, ranging from strongly disagree to strongly agree.

More extensive were the other two remaining retrieved instruments (Grower & Ward, 2018; Ward et al., 2018). They both included the evaluation of the construct of *Condom Use Self-efficacy* (5 items from the Precautions Subscale of the Sexuality Efficacy Scale, by Rosenthal et al., 1991), aimed at assessing participants' level of confidence in their ability to protect themselves. Alongside this dimension, Grower and Ward included the evaluation of the construct of *Body self-consciousness during intimacy*. This construct was assessed via 15 items from the Body Image Self-Consciousness Scale (Wiederman, 2000). Higher scores in this scale indicated a greater level of body self-consciousness during intimacy (e.g., the idea of having sex without any covers over my body causes me anxiety), which enhance the individual's sexual agency. Differently, Ward & Colleagues (2018) captured adolescents' sexual agency (16–23 years old) adding three measures to the *Condom Use Self-efficacy* scale. The second construct, *Sexual assertiveness*, was measured by the Hurlbert Index of Sexual Assertiveness (SASS, Hurlbert, 1998) and it reflected the ability to identify one's own sexual needs and desires and communicate them to the partner (e.g., 'when a technique does not feel good, I tell my partner'). The remaining two constructs

included were the *Sexual affect*, which assessed the perception of participants' own emotions with respect to their sexual experiences (e.g., positive feelings or shame) via the Fletcher Scale (Fletcher et al., 2015), and the *Sexual motivations for alcohol* via the Sexual Use of the Alcohol Expectancies Questionnaire (AEQ) established by Brown et al., (1987). This construct focused specifically on participants' use of alcohol to feel sexual (e.g., 'I often fell sexier after I've had a few drinks').

3.2.5 Agency in Education

Two studies were specifically focused on investigating and assessing youths' agency in relation to education (Burger & Walk, 2016; Reeve & Tseng, 2011). The first measurement consisted of three indicators to assess this dimension of agency with a group of Belgian adolescents (mean age = 15 years old) (Burger & Walk, 2016). The first dimension assessed the person's perceived control with respect to the ability to learn and increase education (e.g., 'doing well in education is completely up to me'). The second one was related to the construct of *self-efficacy*, and thus aimed at assessing participants' perception of being able to succeed in education thanks to their own effort, while the third one, *work ethic*, assessed the modes of engagement and study.

The second instrument retrieved was a recently developed and validated measure of *Agentic Engagement* in the education process (Reeve & Tseng, 2011). This self-report scale aimed at assessing participant's agentic engagement via 5 items: (1) during the class, I ask questions; (2) I tell the teacher what I like and what I don't like; (3) I let my teacher know what I'm interested in; (4) During class, I express my preferences and opinions; (5) I offer suggestions about how to make the class better.

4 Discussion, Limitations, and Implication for Practices

From this comprehensive analysis of the literature arises an absence of any singular agreement on how agency should be understood, observed, and measured. The lack of a clear and distinctive definition and a shared tool for its evaluation reflects the urgent need to work towards a more critical and comprehensive understanding of the construct.

This work provides a description and exploration of the instruments currently available for assessing agency in adult and younger populations across several countries. We see how differences and methodological issues in selecting indicators of agency relate to the decision to measure aspects that are more intrinsic or instrumental, more context-specific or more universal, individual or collective. Indeed, some studies attempted to identify indicators that can be compared across contexts or over time, while others questioned whether comparable indicators can be made transposable across international socio-cultural or political environments (Richardson 2018; Veronese et al., 2019a, 2019b, 2020a, 2020b; Williams & Merten, 2014; Zimmerman et al., 2019). Similarly, some of the studies reviewed went on to develop instruments to assess agency in a multidimensional manner, while others focused on developing more exhaustive instruments that are both context- and dimension-specific.

Despite the variety of instruments summarized in this work, it is possible to capture some shared directions and indications regarding the development of new research in this field and the implications for clinical practice.

First, the core component of agency concerns how people can activate the resources that exist in their social and physical environment, demonstrating that any discussion of agency must take into account the broader social and cultural contexts that shape, enable, or constrain people's ability to exercise it. Thus, there is a shared agreement on the need for a more critical understanding of the construct, which has to explore the interplay between agency and opportunity structures (Hitlin & Elder, 2006). Indeed, many of the included authors pointed out that the context within which agency is investigated is highly crucial: access to resources, family and community dynamics, and cultural norms are all factors that influence how agency can be exercised and measured (Zimmerman et al., 2019). For instance, the freedom of movement and travel can be referred to as a standard indicator of agency. Nevertheless, in some contexts, this indicator can be tied to aspects of social and contextual norms, which, if not taken into account, can lead to misleading findings (Richardson Schimtz et al., 2019b). Hence, the direction that emerges from the studies' reviewed concerns the need to develop empirical studies and tools with indicators directed at assessing setting-specific and cultural-specific dimensions of agency to emphasize the relevance of environmental and contextual factors (Berhane et al., 2019; Burger & Walk, 2016; Habashi & Worley, 2009; Richardson 2018; Veronese et al., 2019a, 2019b, 2020a, 2020b; Williams & Merten, 2014; Zimmerman et al., 2019).

Secondly, most authors agree on the need to investigate and measure agency in consideration of gender differences. Indeed, inclusive studies of both women and men that are attentive to different skills or restrictions are urgently required (Bentley-Edwards, 2016; Black, 2016; McWhirter & McWhirter, 2016; Zimmerman et al., 2019). Similarly, in Williams and Merten's (2014) comparative study, agency emerges as a factor that promotes long-term mental health outcomes only among the sample of white men, which highlights the need to increase minority-focused investigations of the construct by exploring the relationship between social advantage and agency (Hitlin & Elder, 2006; Salem et al., 2020).

Finally, there is an emerging consensus on the need to develop quantitative longitudinal studies (Burger & Walk, 2016; Cadenas et al., 2020; Grower & Ward, 2018; Hitlin & Elder, 2006; Nestadt et al., 2020; Poteat et al., 2018; Veronese et al., 2019a, 2019b). Indeed, within this review, among the 34 studies included, 74% (25 studies) were cross-sectional and the question of how indicators and factors can measure or influence agency over time was left unresolved.

To conclude, some limitations of our work should be acknowledged and discussed. First, as widely discussed in this study, due to the lack of a clear definition of this construct within the literature, many terms are interchangeably used with agency (e.g., locus of control, self-efficacy). Within this review, we selected and included only those articles that specifically mentioned the term 'agency,' which therefore excluded similar research that referred to the same construct using alternative terms. Furthermore, given the purpose of this review, we included only articles that contained a description of the instrument utilized to assess agency. Finally, having conducted our search in December 2020, new studies meeting the inclusion criteria may have been published since then.

Despite these limitations, we believe that this work may help enhance the understanding of the construct of agency and its possible operationalization, which is crucial for the development of clinical interventions and policy development. For researchers, clinicians, and policy makers, we suggest that a better comprehension of the variables and indicators composing agency is fundamental to the development of programs that improve and protect people's ability to make decisions and act upon them. Hence, we propose that a consensus in the academic community around the definition, application, and operationalization of agency would improve the recognition of the influence that adults, women and

children hold within their lives, so as to inform paths to enhance it as well as to recognize the structural factors that influence and constrain it. In doing so, we emphasize scholars and policy-makers' responsibility to act upon the paths of agency and also recognize the structural barriers to its operationalization.

Funding Open access funding provided by Università degli Studi di Milano - Bicocca within the CRUI-CARE Agreement. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declarations

Conflict of interest The authors have declared that they have no competing or potential conflicts of interest.

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