Adolescent Res Rev (2017) 2:255–292
DOI 10.1007/s40894-016-0052-x

SYSTEMATIC REVIEW

Emerging Adults' Financial Well-being: A Scoping Review

Angela Sorgente[1] · **Margherita Lanz**[1]

Received: 10 November 2016 / Accepted: 31 December 2016 / Published online: 23 January 2017

Abstract The financial crisis of 2008 has led to an increase in the number of studies on the financial condition of the younger generations. The current review maps the literature on the financial well-being of emerging adults in different disciplines (i.e., Economics, Sociology, Psychology) to systematically summarize and organize the scientific knowledge about their financial well-being by identifying this construct's definition, components, predictors, and outcomes. Electronic databases were searched for English-language studies that measured the financial well-being (or its synonyms) variable and referred to emerging adults (18–29 years). A total of 44 records were found eligible. The mapping of the coded data was organized into five sections: (1) publication, (2) research aim, (3) the financial well-being construct, (4) data collection, and (5) the relationships among variables. The collected information revealed that financial well-being is a complex and multidimensional construct, as emphasized in financial well-being's definition and components. The hierarchical relationship between financial well-being, financial wellness, financial health, financial satisfaction, and income satisfaction was clarified. The predictors of financial well-being were organized into 10 different categories and located in 4 quadrants generated by two axes: level (individual vs contextual) and domain (financial vs non-financial). Finally, research gaps and future research directions were described.

Electronic supplementary material The online version of this article (doi:10.1007/s40894-016-0052-x) contains supplementary material, which is available to authorized users.

✉ Angela Sorgente
angela.sorgente@unicatt.it

[1] Department of Psychology, Università Cattolica del Sacro Cuore, Largo Gemelli, 1, 20123 Milan, Italy

Keywords Financial well-being · Economic well-being · Financial wellness · Financial health · Financial satisfaction · Emerging adulthood

Introduction

In the last decades, financial well-being has become a new focus of research and stimulated social and political attention. Before the Easterlin paradox (1974), which suggests that happiness does not increase as a country's income rises, financial well-being was synonymous with income, as it was considered as an adequate financial factor to make people happy. People nowadays hold the notion that a positive financial condition is something different, something that goes beyond a high income. The first problem then becomes defining what financial well-being is in order to help people achieve it (CFPB 2015). Specifically, the complexity increases when the financial well-being of young people is considered, given that their financial condition is recognized as critical (Verick 2009). Indeed, in this case, the life challenges stemming from the specificity of their stage of life and their financial environment need to be considered (Van Campen et al. 2010). Many researchers as well as financial educators, coaches, and other practitioners are working toward understanding specifically how the youth can achieve a better state of financial well-being (Drever et al. 2015; Shim et al. 2009).

In order to build a systematic understanding of financial well-being and its specific characteristics and influences during youth, the present study maps the literature related to the financial well-being of emerging adults. It collected and synthetized studies that investigated financial well-being during emerging adulthood (people aged between 18 and 29; Jensen and Arnett 2012). Studying financial well-being during this stage of life is an important issue for two main reasons. First, the financial well-being of emerging adults cannot be considered to be the same as that of either adolescents or adults. Adolescents (10–18 years old; Jensen and Arnett 2012) generally are not very concerned about their own financial well-being, as social norms do not require adolescents to be economically independent from their family of origin. In contrast, it is a major concern for adults because economic independence is among the characteristics of adulthood (Arnett 1998). For emerging adults, the matter is more complex, because they are in-between adolescence and adulthood (Arnett 2004). Emerging adults can spend their years being students or student-workers, workers, or at times, being neither students nor workers (NEET, Not in Education, Employment, or Training; Bynner and Parsons 2002). Further, they can live at or outside their parental house. Overall, their financial well-being can depend on their parents in different ways and to different degrees. This specific *in-between* condition requires an examination using methodologies and variables that can detect the specificities of the developmental phase (e.g., Does the emerging adult receive money from parents? How do emerging adults manage the first contact with the bank?). The second reason to study financial well-being specifically during emerging adulthood is that several emerging adults have been strongly hurt by the economic crisis of 2008 (Shim and Serido 2010), as reflected by rising unemployment rates. Consequently, present-day policymakers should be interested in factors enhancing emerging adults' financial well-being (Verick 2009). In order to identify these factors, financial well-being and its specific characteristics during emerging adulthood have to be identified and defined.

The scientific community usually defines financial (or economic) well-being as a construct that has an objective and a subjective side (Xiao et al. 2009). The objective side is the total of the subject's material resources, while the subjective side is a self-report evaluation of one's financial condition (Arber et al. 2014). However, a clear and univocal definition continues to be missing. Lack of clarity partially stems from concepts similar, or near-synonymous, to financial well-being: financial (or income) satisfaction, and financial wellness (or health). Financial satisfaction corresponds to the subjective sub-dimension of financial well-being (Xiao et al. 2009). Financial wellness is a multidimensional concept involving financial satisfaction, objective status of financial situation, financial attitudes, and behavior (Joo 2008). In the existing literature on the topic, there are cases where these labels (financial well-being, financial satisfaction, financial wellness) are used synonymously (e.g., Gutter and Copur 2011; Joo and Grable 2004).We argue that, even if these three constructs overlap, they do not coincide. Through this review, we aim to identify the specificity of financial well-being, and clarify the boundaries of associated terms with similar and partial overlapping constructs. This clarification of the financial well-being construct is relevant for both academics and practitioners. Having a common language will help to share knowledge, as well as to develop multidisciplinary interventions to improve emerging adults' financial well-being.

The Current Study

This study aims to perform a multidisciplinary systematic review of the studies on emerging adults' financial well-being, as this is a topic of interest for different disciplines, particularly economics, psychology, and sociology. Collecting records from different disciplines is required for an exhaustive and complete mapping of literature, and eventually, to design multi-disciplinary interventions. This systematic review results in a cross-disciplinary definition of financial well-being, identification of its components, and listing of its potential predictors (i.e., what affects financial well-being) and outcomes (i.e., what is affected by financial well-being). Such identification of predictors allows policymakers and financial educators to detect ways to improve the financial well-being of emerging adults, whereas financial well-being's outcomes (i.e., consequences) are useful to emphasize ways to improve it. Specifically, knowing the consequences of financial well-being will enable us to figure out the indirect effects that can intervene in improving financial well-being. Creating a complete map of the literature on emerging adults' financial well-being allows to organize what was done, to clarify what seemed unclear and confusing, as well as to detect the research gaps in the existing literature and outline the future directions that research on this topic must take.

The Scoping Review

Among the different kinds of knowledge synthesis methodologies (Grant and Booth 2009; Whittemore et al. 2014), the one that best suits the aims of this study is the *scoping methodology*. The *scoping review* (or *scoping study*) is a form of knowledge synthesis that addresses an exploratory research question aimed at mapping key concepts, types of evidence, and gaps in research related to a defined area or field by systematic searching, selecting, and synthesizing of existing knowledge (Colquhoun et al. 2014). Its strength is its adaptability to different topics and highly systematic procedure. Even if the scoping methodology originated in clinical research to map knowledge related to interventions, it was successively adopted to map other phenomena of interest, such as research designs, frameworks, theories, or classifications (Peters et al. 2015). The scoping review involves a systematic procedure: registration of a protocol, defining of inclusion/exclusion criteria, a systematic search on databases, and selection and coding records by two independent reviewers. Specifically, the current study used the guidelines initially proposed by Arksey and O'Malley (2005), which were later clarified and enhanced by further studies (e.g., Levac et al. 2010; Daudt et al. 2013; Colquhoun et al. 2014; Peters et al. 2015). The authors worked on this study's protocol during the fall of 2015 and its registration was finalized on December 7, 2015. (It is available at 10.6084/m9.figshare.1619774).

Research Questions

For mapping the literature on the financial well-being of emerging adults, we grouped our research questions into five sections: (1) publication, (2) research aim, (3) the financial well-being construct, (4) data collection, and (5) the financial well-being relationships/associations with other variables.

Specifically, the *publication* section includes the following questions: In which database can the publications on emerging adults' financial well-being be found? In which years have they been published? What are the types of publications (e.g., article, chapter, or report) on emerging adults' financial well-being? To which disciplines do these publications belong?

The *research aim* section consists of the following questions: What were the aims of the studies on the financial well-being of emerging adults? What research approach and design were adopted?

The third section collects information related to the *financial well-being construct*: Which term did the authors usually use to refer to the financial well-being construct? How was this construct defined? Did the authors investigate financial well-being using a developmental model to classify the participants' stage of life? Which side (objective or subjective) of this construct was usually operationalized? How was financial well-being measured?

The fourth section involves *data collection*-related information. The included questions are the following: In which year were the data collected? Who did the data refer to (i.e., unit of analysis)? What were the characteristics (sample size, age, sex, race, country) of the subjects to whom the data referred? Who reported the data (e.g., informants)? How were the data collected (e.g., instruments and administration mode)?

Finally, *financial well-being relationships*-related information was collected, in order to answer the following questions: When financial well-being was studied in relation to other variables, what was the role of financial well-being (e.g., predictor, outcome, or mediator)? What were the variables studied in relation to financial well-being? What statistical techniques were used to investigate these relationships?

Content arising from this five-section mapping was successively used to identify the definition of financial well-being, components, predictors, outcomes, and research gaps in the context of emerging adults.

Methods

Inclusion Criteria

To identify the studies eligible for our scoping review, the following three inclusion criteria were adopted:

1. The studies in question were required to have financial well-being as an empirical variable. We collected studies that measured financial well-being (or its synonyms: economic well-being, financial wellness, financial health, financial satisfaction, income satisfaction).
2. The financial well-being variable measured in the studies had to refer to emerging adults, i.e. subjects aged between 18 and 29. Studies with participants' ages outside the range of 18–29 were also included in cases where the authors conducted separate analyses for emerging adults in a sub-group, and/or involved a longitudinal study in which the financial well-being variable was relieved during emerging adulthood in at least one wave. When the participants' age was partially not included in the age range of 18–29 (e.g., 25–32 years old), the mean and the standard deviation of the age were checked using the following measure: if the mean minus the standard deviation and the mean plus the standard deviation fell within the range of 18–29, the study was eligible. If this information was missing, the authors were contacted when possible. If age information missed but the participants belonged to a group (e.g., college students) that was likely to fit in the emerging adult population, the record was retrieved. Studies with participants who were not emerging adults but to whom the financial well-being construct was applicable (e.g., mothers who reported the financial well-being of their children aged between 18 and 29) were also eligible. The financial well-being variable was required to refer to emerging adults directly. For example, if the variable referred to the emerging adult's family of origin, the study was not included.
3. Studies were required to have their full-text record written in English language.

The first two criteria were required to identify records pertaining to the key topic of the scoping review. English language restriction was applied because it is the international language of science and the number of studies being published in English is increasing over time (Research Trends 2008), as well as because the English language enabled reviewers to evaluate the records' eligibility.

Search Process

Since the financial well-being of emerging adults is a topic of interest for different disciplines such as economics, psychology, and sociology, three different and interdisciplinary electronic databases covering these disciplines were considered: (1) PsycINFO, which is specific to behavioral and social science research; (2) EconPapers, the world's largest collection of online economics working papers, journal articles, and software; and (3) Scopus, a highly comprehensive database covering different disciplines such as science, technology, medicine, social sciences, and arts and humanities.

The following syntax was used for the search: ("emerging adult*" OR "young adult*" OR youth) AND ("financial well*" OR "economic well*" OR "financial satisfaction" OR "income satisfaction" OR "financial health"). These syntax words were searched in the following fields: titles, abstracts, and keywords of records. When the database did not permit for a search of only these fields, we checked all the fields of the record. The EconPapers database at first generated tens of thousands of results, for which the search was restricted using the following Journal of Economic Literature (JEL) codes: Relation of Economics to other Disciplines (A12), Sociology of Economics (D14), Microeconomic Impacts of Globalization (F61), and General Welfare—Quality of Life (I31). Additional studies were obtained by hand-searching the reference lists of included studies. These also included the relevant studies that were known to the researchers prior to conducting the search that however, did not emerge as results of the search owing to search query restrictions.

The search was performed in December 2015. No date restriction was imposed. During the search process, it was important to not limit the search to peer-review literature in order to obtain a more exhaustive mapping of literature. This requirement was met partially by using databases that permitted to check for grey literature (e.g., "ProQuest Dissertations" in PsycINFO as well as the section "working paper" in EconPapers). Simultaneously, a search was performed for grey literature specifically. The authors searched for eligible records presented at two conferences, namely, the biannual conference of the Society for the Study of Emerging Adulthood (SSEA), which is specific to studies on emerging adults as participants and the annual conference of Association for Financial Counseling and Planning Education (AFCPE), which is exclusive to financial issues. In both cases, the search was restricted to the records published during or after 2008 (when the global economic recession occurred). Specifically, four SSEA conferences' books of abstract (2009, 2011, 2013, and 2015) and eight AFCPE proceedings (2008, 2009, 2010, 2011, 2012, 2013, 2014, and 2015) were manually searched. In the SSEA books of abstract, the words "financial," "economic," and "income satisfaction" were searched using the "Find" command. In the AFCPE proceedings, the phrases "financial well," "economic well," "financial health," "financial satisfaction," and "income satisfaction" were searched. The records that contained these words were selected and evaluated for eligibility, excluding studies in which the word was present only in the record's references list.

Records Selection

Two researchers independently screened the records obtained from the databases and conferences search to determine if they met this study's inclusion criteria. First, the abstracts were screened. When the abstract information was not sufficient to determine the record's eligibility, the full-text was examined. Any differences in the records selected by the authors were discussed until an agreement was reached.

The selection flow and reasons for exclusion of records were documented in a Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) diagram for the scoping review process (see Fig. 1), as suggested by Peters et al. (2015).

A total of 648 records were obtained from the databases search (125 from Scopus, 242 from PsycINFO, and 281 from EconPapers), 117 records were obtained from the conferences search (52 from SSEA, 65 from AFCPE), and 9 other records were obtained from other sources (e.g., studies already known to researchers and/or records cited in the references list of other included records). After the duplicates were removed and the abstracts of 694 records were screened, a total of 124 records were retrieved for eligibility assessment. Only 44 out of 124 records met all the eligibility criteria. The list of all excluded records and reasons for exclusions were reported in Online Resource 1. References marked with an asterisk indicate the 44 studies included in the review.

Results

Five-Section Mapping

The 44 selected publications were reviewed independently by the two authors and their characteristics were documented using a standardized data extraction form. All the coded data were reported in this study according to the five

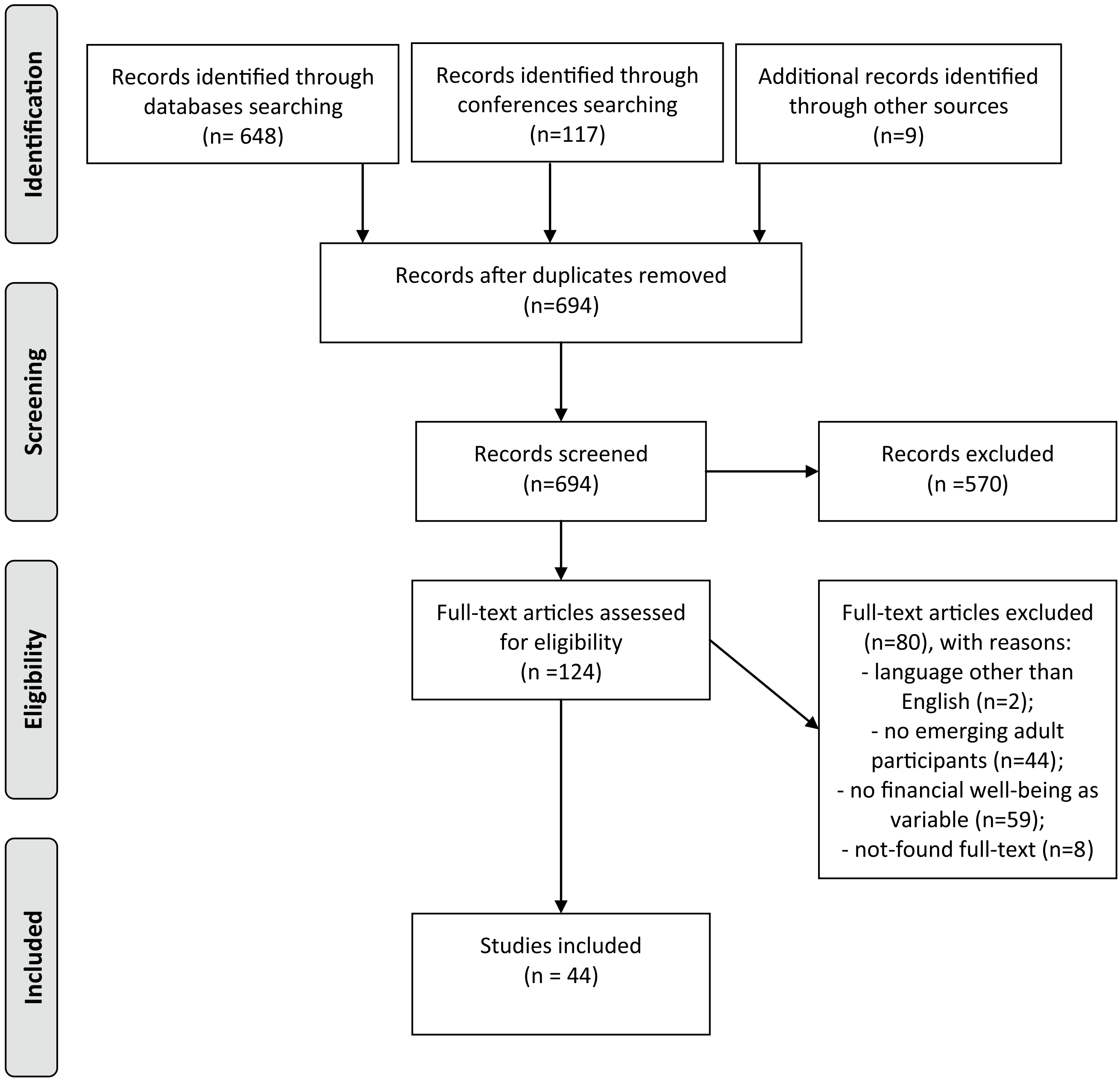

Fig. 1 PRISMA diagram of selection process

sections that were previously described. Each section has a corresponding table reporting the details for each included study.

Publication-Related Information

This first mapping section grouped four research questions concerning publication issues (database in which the publication was detected, year of the publication, format of the publication, and disciplinary field of the publication). Details of this mapping can be found in Table 1.

The majority of the 44 considered studies were derived from PsycINFO database (N = 12) and Scopus database (N = 10); a total of four more studies were obtained from both databases. Only two studies from EconPapers database met the inclusion criteria. Five studies from SSEA conferences' books of abstracts and two from AFCPE annual conferences' proceedings were collected. Nine studies were collected from the manual search of the list of references and personal information of authors.

The 44 studies found were published during the last 25 years. The oldest study that met this review's inclusion

Table 1 Publication-related information of 44 included records

Record	Database	Year	Format	Disciplinary area of publication	
				Publication's journal	Specific subject categories
Easterlin et al. (1990)	S	1990	Article	Journal of Population Economics	Demographics; economics and econometrics
Caputo (1998)	P, S	1998	Article	Families in Society: The Journal of Contemporary Social Services	Social sciences; social work
Clarkberg (1999)	S	1999	Article	Social Forces	Anthropology; history; sociology and political science
Simons et al. (2002)	P	2002	Article	College Student Journal	Arts and humanities; psychology; social sciences
Smeeding and Phillips (2002)	S	2002	Article	The Annals of the American Academy of Political and Social Science	NA
Norvilitis et al. 2003	M	2003	Article	Journal of Applied Social Psychology	Social Psychology
Smith (2005)	P	2005	Chapter	NA	NA
Norvilitis et al. 2006	P	2006	Article	Journal of Applied Social Psychology	Social psychology
Reynolds et al. (2007)	S	2007	Article	Archives of Pediatrics & Adolescent Medicine	NA
Shim et al. (2009)	P, S	2009	Article	Journal of Applied Developmental Psychology	Developmental and educational psychology
Shim and Serido (2009)	M	2009	Report	NA	NA
Xiao et al. (2009)	M	2009	Article	Social Indicators Research	Arts and humanities; developmental and educational psychology; social sciences; sociology and political science
LaVeist et al. (2010)	P, S	2010	Article	Journal of Family Issues	Social sciences
Norvilitis and MacLean (2010)	P	2010	Article	Journal of Economic Psychology	Applied psychology; economics and econometrics; sociology and political science
Rutherford and Fox (2010)	P, S	2010	Article	Family and Consumer Sciences Research	Cultural studies; sociology and political science
Serido et al. (2010)	SSEA	2010 (2009)	Article (conference paper)	Family Relations	Developmental and educational psychology; education; social sciences; social work
Shim et al. (2010)	M	2010	Article	Journal of youth and adolescence	Developmental and educational psychology; education; social psychology; social sciences
Shim and Serido (2010)	M	2010	Report	NA	NA
Zhang and Cao (2010)	P	2010	Article	Journal of Social and Clinical Psychology	Clinical psychology; social psychology
Chang et al. (2011)	P	2011	Article	Journal of Positive Psychology	psychology
Gutter and Copur (2011)	P	2011	Article	Journal of Family and Economic Issues	Economics and econometrics; social psychology
Karmel and Liu (2011)	S	2011	Report	NA	NA
Salazar (2011)	P	2011	Thesis	NA	NA
Shim and Serido (2011)	M	2011	Report	NA	NA
Brown and Applegate (2012)	S	2012	Article	Journal of Holistic Nursing	Nursing
Chan et al. (2012)	P	2012	Article	College Student Journal	Arts and humanities; psychology; social sciences

Table 1 (continued)

Record	Database	Year	Format	Disciplinary area of publication	
				Publication's journal	Specific subject categories
Shim et al. (2012)	E	2012	Article	Journal of Economic Psychology	Applied psychology; economics and econometrics Sociology and political science
Norvilitis and Mao (2013)	M	2013	Article	International Journal of Psychology	Arts and humanities; psychology
Norvilitis and Mendes-Da-Silva (2013)	M	2013	Article	Journal of Business Theory and Practice	NA
Salazar (2013)	P	2013	Article	Social work	Social work; sociology and political science
Schnusenberg et al. (2013)	S	2013	Article	Applied Health Economics and Health Policy	Economics and econometrics; health policy
Shim et al. (2013)	S	2013	Article	Journal of Retailing and Consumer Services	Marketing
Spangler (2013)	AFCPE	2013 (2013)	Thesis (poster)	Journal of Financial Counseling and Planning	Economics and econometrics; finance
Switek (2013)	E	2013	Working paper	IZA Discussion	NA
Friedline et al. (2014)	S	2014	Article	Journal of Family and Economic Issues	Economics and econometrics; social psychology
Shim and Serido (2014)	M	2014	Report	NA	NA
Vlaev and Elliott (2014)	P	2014	Article	Social Indicators Research	Arts and humanities; developmental and educational psychology; social sciences; sociology and political science
Friedlmeier and Dahlstrom (2015)	SSEA	2015	Conference paper	[Emerging Adulthood Journal]	Developmental and educational psychology; experimental and cognitive psychology; life-span and life-course studies
Oman et al. (2015)	P	2015	Article	American Journal of Public Health	Public health, environmental and occupational health
Negru-Subtirica et al. (2015)	SSEA	2015	Conference paper	[Emerging Adulthood Journal]	Developmental and educational psychology; experimental and cognitive psychology; life-span and life-course studies
Rehman et al. (2015)	S	2015	Article	Pakistan Journal of Medical Sciences	Medicine
Solis and Durband (2015)	AFCPE	2015 (2012)	Article (poster)	College Student Journal	Arts and humanities; psychology; social sciences
Tagliabue et al. (2015)	SSEA	2015	Conference paper	[Emerging Adulthood Journal]	Developmental and educational psychology; experimental and cognitive psychology; life-span and life-course studies
Thompke et al. (2015)	SSEA	2015	Poster	Emerging Adulthood Journal	Developmental and educational psychology; experimental and cognitive psychology; life-span and life-course studies

S Scopus, *P* PsycINFO, *NA* not applicable, *M* manual search, *SSEA* Society for the Study of Emerging Adulthood's books of abstract, *E* EconPapers, *AFCPE* Association for Financial Counseling and Planning Education's proceedings

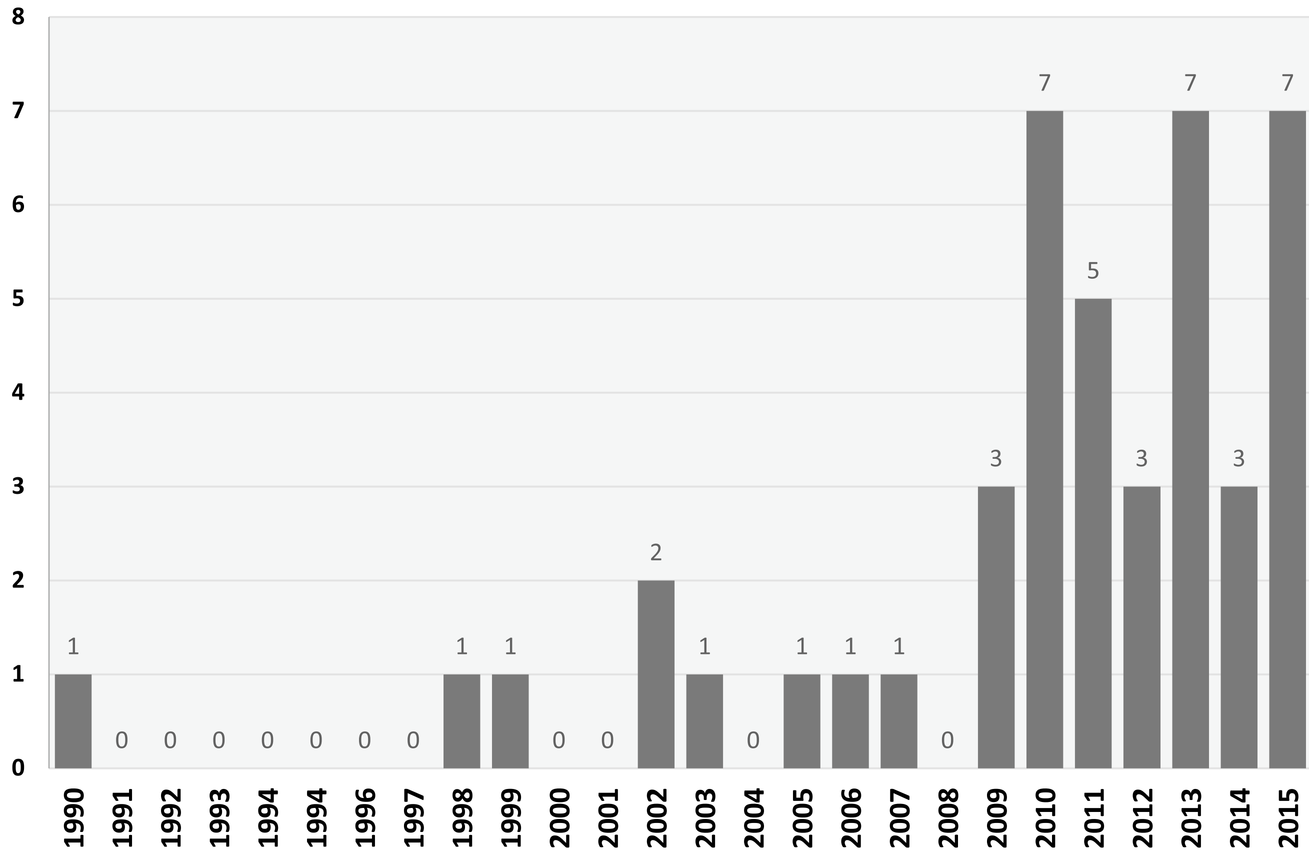

Fig. 2 Year of publication of records

criteria was conducted by Easterlin et al. (1990). Moreover, this topic as an area of research appears to have become widespread only in 2009 (see Fig. 2), after the economic crisis of 2008.

The 44 collected and coded[1] studies had different formats. Most of them were articles (N = 31), while some were reports (N = 5), conference papers (N = 3), and theses (N = 2). Only one chapter, poster, and working paper were collected. Since most of the included papers were articles, the publication's disciplinary field was defined according to the journals in which these studies were published. To classify each journal into a specific disciplinary field, the Scopus classification of journals was adopted. According to this classification system, each journal can be classified under more than one category. To classify the studies retrieved from conferences, we used the same classification as the one by which the journal was linked to the conference or to the organizing association. Specifically, the SSEA conference's records were classified under the Emerging Adulthood Journal and AFCPE conference's records under the Journal of Financial Counseling and Planning. The Scopus classification was applicable to 33 of 44 studies. It was not applicable to the remaining 11 as they were not published in journals (N = 10) or the study's journal was not indexed in Scopus (N = 1). The categories to which the 33 journals belong were Developmental and Educational Psychology (N = 9), Social Sciences (N = 9), Economics and Econometrics (N = 7), Arts and Humanities (N = 6), and Social Psychology (N = 6). The expected relevance of psychology, sociology, and economy disciplines for the financial well-being topic was confirmed.

Research Aim-Related Information

Research aim is a relevant aspect as it not only provides information on the direction that of the studies within the field, but also generates two important consequences (Gelo 2012): the choice of research approach (qualitative vs quantitative) and research design (descriptive/correlational, quasi-experimental, experimental, review, or meta-analytic). Information related to research aim, approach, and design is detailed in Table 2.

[1] If there was more than one format for the same study, only the most recent was codified. For example, if a study was presented in a poster and later published in an article format, only the article was included in the review.

Table 2 Research aim-related information of the 44 included records

Record	Research aim	Research approach	Research design
Easterlin et al. (1990)	1	Quantitative	Descriptive
Caputo (1998)	1, 2	Quantitative	Correlational
Clarkberg (1999)	2	Quantitative	Correlational
Simons et al. (2002)	2	Quantitative	Correlational
Smeeding and Phillips (2002)	1	Quantitative	Descriptive
Norvilitis et al. (2003)	2	Quantitative	Correlational
Smith (2005)	1	Quantitative	Descriptive
Norvilitis et al. (2006)	2	Quantitative	Correlational
Reynolds et al. (2007)	2	Quantitative	Correlational
Shim et al. (2009)	2	Quantitative	Correlational
Shim and Serido (2009)	2	Quantitative	Correlational
Xiao et al. (2009)	2	Quantitative	Correlational
LaVeist et al. (2010)	4	Quantitative	Correlational
Norvilitis and MacLean (2010)	2	Quantitative	Correlational
Rutherford and Fox (2010)	3	Quantitative	Correlational
Serido et al. (2010)	2	Quantitative	Correlational
Shim et al. (2010)	2	Quantitative	Correlational
Shim and Serido (2010)	2	Quantitative	Correlational
Zhang and Cao (2010)	2	Quantitative	Correlational
Chang et al. (2011)	2	Quantitative	Correlational
Gutter and Copur (2011)	2	Quantitative	Correlational
Karmel and Liu (2011)	2	Quantitative	Correlational
Salazar (2011)	2	Quantitative	Correlational
Shim and Serido (2011)	2	Quantitative	Correlational
Brown and Applegate (2012)	4	Quantitative	Correlational
Chan et al. (2012)	2	Quantitative	Correlational
Shim et al. (2012)	2	Quantitative	Correlational
Norvilitis and Mao (2013)	2	Quantitative	Correlational
Norvilitis and Mendes-Da-Silva (2013)	2	Quantitative	Correlational
Salazar (2013)	2	Quantitative	Correlational
Schnusenberg et al. (2013)	2	Quantitative	Correlational
Shim et al. (2013)	2	Quantitative	Correlational
Spangler (2013)	2	Quantitative	Correlational
Switek (2013)	2	Quantitative	Correlational
Friedline et al. (2014)	2	Quantitative	Correlational
Shim and Serido (2014)	2	Quantitative	Correlational
Vlaev and Elliott (2014)	3	Mixed	Correlational
Friedlmeier and Dahlstrom (2015)	2	Quantitative	Correlational
Oman et al. (2015)	2	Quantitative	Correlational
Negru-Subtirica et al. (2015)	2	Quantitative	Correlational
Rehman et al. (2015)	3	Quantitative	Correlational
Solis and Durband (2015)	2	Quantitative	Correlational
Tagliabue et al. (2015)	2	Quantitative	Correlational
Thompke et al. (2015)	2	Quantitative	Correlational

1 To describe FW variable; *2* to verify the relationship between FW and other variables; *3* to analyze the correlation between the FW components; *4* others aims

The aims of the 44 included studies were classified into the following categories: (1) To describe the financial well-being variable; (2) to verify the relationship between financial well-being and other variables (e.g., financial well-being was a predictor, outcome, or a moderator variable with respect to other variables); (3) to analyze the components of financial well-being construct (the aim was not to study the associations between financial well-being and other variables, but to analyze the correlation between the financial well-being components themselves); and (4) other aims. Most of the studies aimed to test the relationship between financial well-being and other variables (N = 36). Studies describing financial well-being (N = 4) and analyzing the correlations between financial well-being's components (N = 3) were less frequent. Caputo (1998)'s aims were labeled under both Categories 1 and 2. The remaining two studies could not be classified because financial well-being was not included specifically in their aims. In particular, LaVeist et al. (2010) used financial well-being only as a control variable, and Brown and Applegate (2012) simply inserted certain items to measure financial well-being using a holistic wellness instrument. The studies aiming to describe financial well-being were also the oldest studies included in this review. This indicates that a simple description of the phenomenon is an old direction taken by researchers.

The research approach was quantitative throughout, except for Vlaev and Elliott (2014), who applied a mixed methodology using an exploratory sequential design. Moreover, the included studies' research design, that is, the plan of action and logical structure of a study (Gelo 2012), was descriptive or correlational. The three studies that aimed to describe the financial well-being variable adopted a descriptive design. The 36 studies that aimed to study the relationship between financial well-being and other variables as well as the 3 that examined the correlation within components of financial well-being adopted a correlational design, as none of them manipulated the variables actively. LaVeist et al. (2010) and Brown and Applegate (2012), which performed an Exploratory Factor Analysis, employed a correlational design too.

Financial Well-Being Construct-Related Information

This section addressed five research questions about the manner in which authors dealt with the construct of financial well-being (label adopted to refer to financial well-being, definition of financial well-being, adaptation of financial well-being to the participants' stage of life, side of financial well-being that was operationalized (objective or subjective), measures of financial well-being that were used). Details related to these research questions are provided in Table 3.

The first research question was about the label used to refer to financial well-being. To search for studies investigating the emerging adults' financial well-being, the following synonyms of financial well-being were used for syntax: economic well-being, financial well-being, financial wellness, financial health, financial satisfaction, and income satisfaction. Among the 44 studies collected, the label "economic well-being" was used 7 times (15.91%) to indicate the financial well-being construct. In one of these cases, the label was "perceived economic well-being." It was found that the adjective "economic" was used in the five oldest studies reviewed in this study. Overall, the most used label was "financial well-being," adopted in 19 studies (43.19%). Two out of these used the label "perceived financial well-being." The wider concepts of "financial well-ness" and "financial health" were used thrice (6.82%) and twice (4.55%), respectively. The label "financial satisfaction" (also named "satisfaction with finances"; e.g., in Smith 2015) was adopted 12 times (15.91%), all in the last 5 years. The subjective dimension of financial well-being (i.e., financial satisfaction) has been investigated only recently. We suppose that this focus on the subjective dimension has been stimulated by the recent interest of psychology in this research topic. The label "income satisfaction," even if used synonymously with financial well-being in literature, was never detected in our included studies. Two studies used more than one label to refer to financial well-being. In Vlaev and Elliott (2014), both financial well-being and financial satisfaction were used, whereas in Serido et al. (2010), financial well-being and financial stress were used. Specifically, Serido et al. (2010) stated that in their research, financial well-being was measured through financial distress.

It is difficult to determine if these labels had different meanings across the studies. It was found that most of the studies did not define the financial well-being construct. Specifically, 26 out of 44 (59.1%) studies did not provide any theoretical definition of the financial well-being construct they measured. Only nine studies (20.45%) defined the financial well-being construct explicitly, and these definitions only overlapped partially. We linked these definitions to each other in order to outline a comprehensive financial well-being definition (see Fig. 3).

As shown in Fig. 3, among the financial well-being definitions detected in the included studies, we distinguished two levels, according to the extent of elements included as part of the construct. The first one (located at the top of the figure) is the macro level, where financial well-being (here, often labeled as "financial well-ness") is considered a function of a greater number of elements, namely, objective determinants, satisfaction with one's financial situation, financial behavior, subjective perception, individual characteristics, financial stressor events, financial knowledge, having control over personal finances, and ability to mobilize finances. The second level at which the financial well-being was defined is a micro level in which only one specific element is considered. For example, Smeeding and Phillips (2002) focused on the material dimension of financial well-being; Chan et al. (2012) on the control about the present

Table 3 Financial well-being construct-related information of 44 included records

Record	Financial well-being label	Financial well-being definition	Theory on emerging adults	Financial well-being side	Financial well-being measure(s)
Easterlin et al. (1990)	Economic well-being	Just some attributes	X	Objective	1. Labor market conditions, by the income per adult equivalent 2. Distribution of leaving/inequality, by "Gini coefficient"
Caputo (1998)	Economic well-being	No	X	Objective	1. Income: income-to-poverty ratio
Clarkberg (1999)	Economic well-being	No	Stage of life contextualization	Objective	1. Annual earnings, (continuous, in dollars) 2. High relative income (log of actual income > 1.2 of predicted income) 3. Stability of employment, by months employed at the current job, and the number of prior jobs
Simons et al. (2002)	Perceived economic well-being	Just some attributes	Stage of life contextualization	Subjective	One item (5-point scale)
Smeeding and Phillips (2002)	Economic well-being	Yes	X	Objective	Household income adjust for family size
Norvilitis et al. (2003)	Financial well-being	No	Financial contextualization	Subjective	The Financial Well-Being Scale (Norvilitis et al. 2003): 8 items (5-point scale)
Smith (2005)	Financial satisfaction	No	Stage of life contextualization	Subjective	X
Norvilitis et al. (2006)	Perceived financial well-being	No	X	Subjective	The Financial Well-Being Scale (Norvilitis et al. 2003): 8 items (5-point scale)
Reynolds et al. (2007)	Economic well-being	No	X	Objective	1. Education: a dichotomous variable indicating whether participants attended college 2. Stable work history: defined as 4 quarters of earned income exceeding $3000 3. Full-time employment defined as 35 or more hours per week 4. Public aid received and for how many months 5. Participation in the food stamp program, and for how many months

Table 3 (continued)

Record	Financial well-being label	Financial well-being definition	Theory on emerging adults	Financial well-being side	Financial well-being measure(s)
Shim et al. (2009)	Financial well-being	Just some attributes	Explicit models: Arnett (2000) and Baltes (1987)	Both	1. Level of debt: 3 items (5-point scale) 2. Satisfaction with financial status: 1 item (5-point scale) from xiao et al. (2006) 3. Financial worries and coping: 7 items (binary response scale), some of them come from the michigan study of life transitions (Eccles et al. 1998)
Shim and Serido (2009)	Financial well-being	No	Implicit model: Arnett (2000)	Subjective	Set of items (5-point scale)
Xiao et al. (2009)	Financial satisfaction	Just some attributes	Financial contextualization	Subjective	One item (5-point scale)
LaVeist et al. (2010)	Economic well-being	No	X	Objective	1. Income = "household income at Time 3 was a binary variable indicating above or below $40,000" 2. Education = binary variable (high school, college)
Norvilitis and MacLean (2010)	Perceived financial well-being	No	X	Subjective	The Financial Well-Being Scale (Norvilitis et al. 2003): 8 items (5-point scale)

Table 3 (continued)

Record	Financial well-being label	Financial well-being definition	Theory on emerging adults	Financial well-being side	Financial well-being measure(s)
Rutherford and Fox (2010)	Financial wellness	Just some attributes	Financial contextualization	Both	1. Financial ratios measured by liquidity ratio (1 if liquid assets/monthly debt payments > 2.5, 0 if otherwise), asset allocation ratio (1 if liquid assets/net worth > 0.15, 0 if otherwise), and combined ratios (1 if both liquidity and asset allocation ratios have been met, 0 if otherwise) 2. Objective status measured by income (continuous, in dollars), total assets (continuous, in dollars), credit card debt (continuous, in dollars), health insurance coverage (1 if covered; 0 if otherwise), education (continuous, in years) 3. Financial satisfaction measured by 1 item (3-point scale) 4. Financial behavior measured by use of credit cards (1 item; 3-point scale), past payment behavior (1 item; 3-point scale), level of shopping around when making major saving and investment decisions (1 item; 3-point scale) 5. Subjective perception measured by attitude toward credit (1 item; 3-point scale), spending pattern (1 item; 3-point scale), planning horizon (1 item; 4-point scale), risk tolerance (1 item; 3-point scale)
Serido et al. (2010)	Financial well-being/financial stress	Definition	Financial contextualization	Subjective	Three items (5-point scale) from Shim et al. (2009)
Shim et al. (2010)	Financial satisfaction	Definition	Implicit model: Arnett (2000)	Subjective	Three items (5-point scale) from Shim et al. (2009)
Shim and Serido (2010)	Financial well-being	No	X	Subjective	Set of items (5-point scale)
Zhang and Cao (2010)	Financial satisfaction	No	X	Subjective	Five items (5-point scale)
Chang et al. (2011)	Financial satisfaction	Just some attributes	X	Subjective	Six items (5-point scale) from Loibl and Hira (2005)

Table 3 (continued)

Record	Financial well-being label	Financial well-being definition	Theory on emerging adults	Financial well-being side	Financial well-being measure(s)
Gutter and Copur (2011)	Financial well-being	Definition	Explicit model: Arnett (2000)	Subjective	Incharge Financial Distress/Financial Well-Being (IFDFW) scale (Prawitz et al. 2006): 8 items (10-point scale)
Karmel and Liu (2011)	Financial well-being	No	X	X	X
Salazar (2011)	Financial satisfaction	No	X	Subjective	One item (3-point scale + "don't know/skip")
Shim and Serido (2011)	Financial well-being	No	Implicit model: Arnett (2004)	Subjective	Set of items (5-point scale)
Brown and Applegate (2012)	Financial wellness	Just some attributes	X	Subjective	Set of items (4-point scale)
Chan et al. (2012)	Financial well-being	Definition	Financial contextualization	Both	1. The Financial Well-Being Scale (Norvilitis et al. 2003): 8 items (5-point scale) 2. The "anticipated income": students were asked to estimate their income after graduation (continuous, in dollars) 3. Time required repaying loans (continuous, in years)
Shim et al. (2012)	Financial well-being	Just some attributes	Financial contextualization	Subjective	Three items (5-point scale) from Shim et al. (2009)
Norvilitis and Mao (2013)	Financial well-being	No	Financial contextualization	Subjective	The Financial Well-Being Scale (Norvilitis et al. 2003): eight items (5-point scale)
Norvilitis and Mendes-Da-Silva (2013)	Financial well-being	No	Financial contextualization	Subjective	The Financial Well-Being Scale (Norvilitis et al. 2003): eight items (5-point scale)
Salazar (2013)	Financial satisfaction	No	X	Subjective	One item (3-point scale)
Schnusenberg et al. (2013)	Financial well-being	No	X	Subjective	Five items (non-specified response scale)
Shim et al. (2013)	Financial well-being	No	Financial contextualization	Subjective	3 Items (5-point scale) from Shim et al. (2009)
Spangler (2013)	Financial well-being	Definition	Explicit model: Arnett (2000)	Subjective	Incharge Financial Distress/Financial Well-Being Scale (Prawitz, et al. 2006) Eight items (10-point scale)
Switek (2013)	Financial satisfaction	No	Stage of life contextualization	Subjective	One item (5-point scale)
Friedline et al. (2014)	Financial health	No	X	Objective	1. Savings account ownership (1 item, binary scale response) 2. Savings amount (1 item, continuous)
Shim and Serido (2014)	Financial well-being	No	X	Subjective	Set of items (5-point scale)

Table 3 (continued)

Record	Financial well-being label	Financial well-being definition	Theory on emerging adults	Financial well-being side	Financial well-being measure(s)
Vlaev and Elliott (2014)	Financial well-being and/or satisfaction	Just some attributes	Financial contextualization	Subjective	X
Friedlmeier and Dahlstrom (2015)	Financial satisfaction	No	Implicit model: Arnett (2004)	Subjective	Three items (5-point scale) from Shim et al. (2009)
Oman et al. (2015)	Financial health	No	Explicit model: Arnett (2004)	Subjective	One item (5-point response scale)
Negru-Subtirica et al. (2015)	Financial satisfaction	No	X	Subjective	Three items (5-point scale) from Shim, et al. (2009)
Rehman et al. (2015)	Financial wellness	Definition	Financial contextualization	Subjective	Five items (4-point scale) from Wellness wheel scale (Vander Bilt University, 2011)
Solis and Durband (2015)	Financial satisfaction	Just some attributes	Financial contextualization	Subjective	One item (5-point scale)
Tagliabue et al. (2015)	Financial well-being	Just some attributes	Implicit model: Scabini et al. (2007)	Subjective	Nine items (4-point scale) from Sorgente et al. (2016)
Thompke et al. (2015)	Financial satisfaction	No	X	Subjective	Three items (5-point scale) from Shim et al. (2009)

X content absent in the record

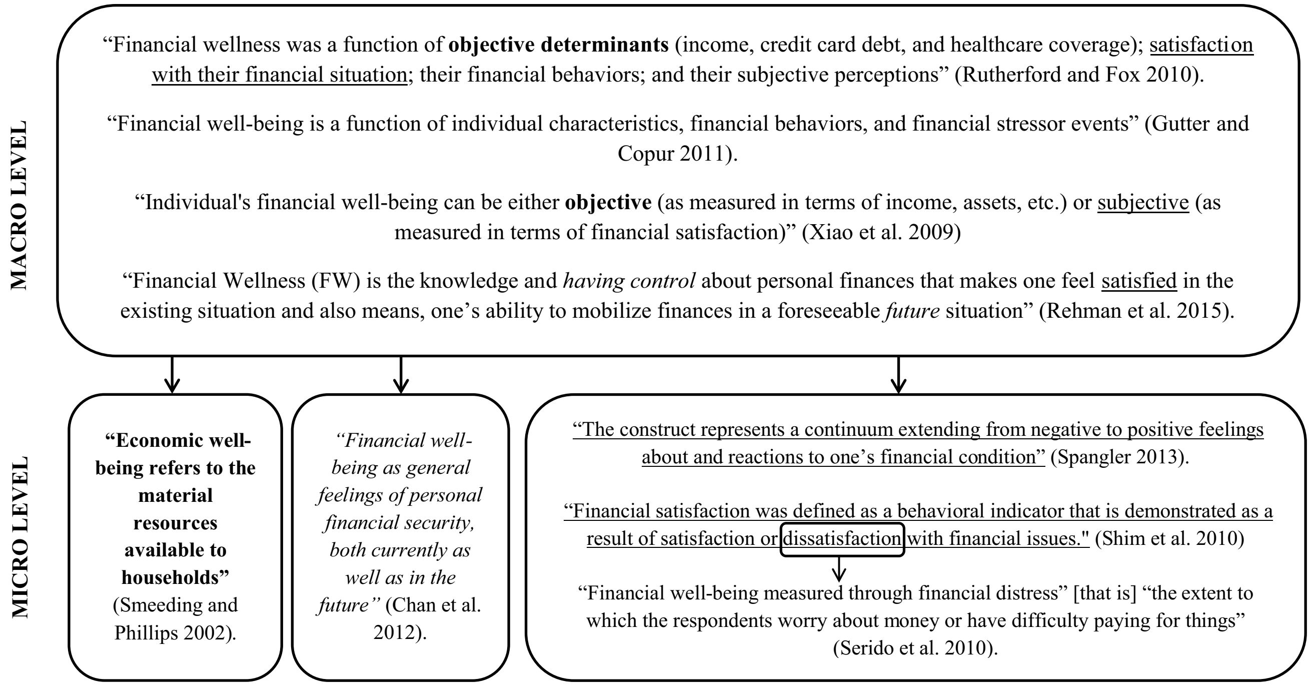

Fig. 3 Financial well-being definition. *Italics*, **bold** and *underlined styles* are used to indicate the different micro-level definitions within the macro level

and future financial situation; and Shim et al. (2010), Spangler (2013), and Serido et al. (2010) focused on the positive (satisfaction) and negative (worry) sensations that the subject feels about one's financial situation. Thus, the micro level refers only to the outcomes of a positive and healthy financial condition (e.g., material resources, financial security, presence of positive feelings and absence of negative feelings), while the macro level also includes the antecedents of these outcomes (e.g., financial stressors events, financial abilities, financial perception, and behavior).

Among the included studies, there were some papers that did not provide any definition but described some attributes of financial well-being. Part of these studies contextualized the financial well-being construct with respect to the general well-being. Specifically, certain authors simply described the financial well-being as being different from general well-being (e.g., Easterlin et al. 1990), while others described it as a sub-dimension of the general well-being (e.g., Brown and Applegate 2012). In one study (Tagliabue et al. 2015), financial well-being was considered as a sub-dimension of the wider financial well-ness construct, that is itself a sub-dimension of general well-being (Joo 2008). The other studies that did not define financial well-being explicitly, but described some attributes include the following: (1) Simons et al. (2002), which noted financial well-being as a demographic variable; (2) Shim et al. (2009), which outlined financial well-being as a complex process and not as a simple state/condition; and (3) Vlaev and Elliott (2014), which built a parallelism between financial and subjective well-being: financial well-being was considered analogous to the measurement of subjective well-being in the domain of healthcare.

In this mapping section on the financial well-being construct, we also verified if the construct was conceptualized taking into consideration the stage of life of the participants. None of the detected definitions contained a reference specific for emerging adults' condition. Consequently, we verified whether the authors investigated the financial well-being construct with recognition of the specific characteristics of their participants' stage of life. Across the 44 studies, we distinguished two ways in which the participants' stage of life had been taken into account. In the first method, authors did not refer to a specific developmental model to define the participants' stage of life. They only contextualized the phase in which the participants were living, specifying certain general characteristics of this stage (*stage of life contextualization*) or youth financial condition (*financial contextualization*). In the second method, authors defined the stage of life of their participants referring to a developmental model in an explicit (*explicit developmental model*) or an implicit (*implicit developmental model*) manner. Specifically, the "stage of life contextualization" was detected 4 times [e.g., Clarkberg (1999) defined young adulthood as the prime period of union formation], whereas "financial contextualization" was detected 12 times [e.g., Rutherford and Fox (2010) affirmed that young adults usually have little experience with managing money]. The "implicit developmental model" [e.g., Shim and Serido (2009) used Arnett's theory as reference] and "explicit developmental model" [e.g., Spangler (2013) affirmed explicitly the use of Arnett's conception of emerging adulthood] were detected five and four times, respectively. Finally, 19 studies did not refer to the participants' stage of life in any way. Across studies that used a developmental model, three different theories were cited: Arnett's theory of emerging adulthood (2000, 2004), Baltes' theory of lifespan development (1987), and Scabini et al.'s intergenerational approach to the transition to adulthood (2007). The theories of Baltes and Scabini et al. were cited only once in Shim et al. (2009) and Tagliabue et al. (2015), respectively. The most used developmental model was the Arnett theory, with eight records.

The financial well-being definitions of the included studies often highlighted both the objective (material resources) and the subjective (financial satisfaction and negative and positive feelings) financial well-being side. Instead, when the financial well-being construct was operationalized, usually only one of the two sides was considered. Only three studies (6.82%) operationalized the financial well-being construct using both subjective and objective indicators. A greater number of studies (44.75%) considered only the subjective side in the operationalization of the financial well-being construct, while seven studies (15.91%) considered only the objective one. In one study (Karmel and Liu 2011), no information on financial well-being operationalization was mentioned, because of which the study was not classifiable.

The different financial well-being sides that the researcher considered (objective vs subjective) in its operationalization affected the measurement of financial well-being. The financial well-being objective side was measured in 10 studies. It was usually measured as personal income (e.g., "annual earning," "income per adult equivalent," and "income-to-poverty ratio") or as debts (e.g., credit card debt, educational-loan, and other personal debt). In some cases, the income was considered in addition to the information on the emerging adult's socioeconomic status (such as education, income inequality, and job stability). Finally, other detected ways to measure the emerging adults' objective financial well-being were the presence of a checking or savings account under their name and the amount of dollars saved in it (Friedline et al. 2014). Additionally, in Rutherford and Fox (2010), the total assets (continuous, in dollars), the health insurance coverage (1 if covered; 0 if otherwise), the liquidity ratio (1 if liquid assets / monthly debt payments >2.5, 0 if otherwise), the asset allocation ratio (1 if liquid assets/net worth >0.15, 0 if otherwise), and the combined ratio (1 if both liquidity and asset allocation ratios have been met, 0 if otherwise) had been used.

The subjective side of financial well-being was found to have been measured in a more homogeneous manner across the studies included in the review. It was always relieved by instruments or item(s) asking the participants to evaluate their financial well-being. Such measures were found in 36 of 44 studies (81.82%), which were classified into 3 groups, namely, (1) studies that used a validate instrument; (2) studies that used item(s) taken from previous studies; and (3) studies that used item(s) created as ad hoc for the study.[2]

In eight studies, two different validate instruments were used to estimate the financial well-being construct. The first instrument was the Financial Well-Being Scale (Norvilitis et al. 2003) that was adopted in six studies. This scale comprised eight items evaluated on a five-point response scale. These items load two different factors, such as current financial concern and future expectations. Examples for the first and second factors are "I am confident in my abilities to handle credit cards" and "I will be able to handle my money in the years to come," respectively. The second validate instrument used to measure subjective financial well-being was the InCharge Financial Distress/Financial Well-Being Scale (Prawitz et al. 2006) adopted in Gutter and Copur (2011) and Spangler (2013). This scale comprised eight items, each evaluated on a ten-point response scale. Sample items are "How frequently do you find yourself getting by financially, living paycheck to paycheck?" and "How do you feel about your current financial situation?"

The second group of studies had item(s) taken from previous studies. Eleven studies belonged to this group. Seven of them obtained their items (i.e., three items measured on a five-point scale) from Shim et al. (2009).

Finally, most of the studies (N = 16) that used subjective financial well-being's measures built ad hoc or used item(s) for which no reference was attributed. In eight of these studies, a single item was used to estimate the financial well-being construct, often when it was referred to as financial satisfaction (N = 6).

The only case in which a subjective measure did not consist of item(s) evaluated on a Likert-type scale was Chan et al. (2012), where researchers asked participants to estimate the income they expected to receive after graduation (continuous variable, in dollars). This variable, labeled as "anticipated income," was here coded as a subjective measure because it was purely the respondents' idea and not a fact.

[2] This group also includes the studies that do not provide information about the origin of the items, as it is likely that authors created the items they reported.

Summarizing, the variables used as indicators of the objective side of financial well-being were income (annual earning, income weighted for family size, income weighted for respondent's personal and family characteristics), debt (credit card debt, educational loans, and other personal debt), education, job (hours worked, stability), total assets, health insurance coverage, financial ratios (liquidity ratio, asset allocation ratio, and combined ratio) and owning a saving account. For the subjective side, validated instruments and non-validated scales of one or more items evaluated on a Likert-type point scale were used.

Data Collection-Related Information

The fourth mapping section reports information concerning data collection in the 44 included studies (year in which data were collected, to whom data refer and their characteristics, who reported the data and how data were collected). The information is summarized in Table 4, where each column contains a specific question.

For each study, we recorded the year in which the variable financial well-being was retrieved from the participants. The oldest data on emerging adults' financial well-being were found in Easterlin et al. (1990), with data collection from 1965 to 1988. The most recent data were collected in 2014 (Tagliabue et al. 2015). Twelve studies collected financial well-being variable more than once (these were longitudinal studies instead of cross-sectional studies that collect data only once). Among them, only Smith (2005) collected these data on financial well-being from different participants at each time point. Finally, in Reynolds et al. (2007), LaVeist et al. (2010), Friedline et al. (2014), and Oman et al. (2015), even if data were collected more than once, the financial well-being variable was retrieved only once.

For each study, we also checked the unit of analysis to which the financial well-being variable referred. The term "unit of analysis" indicates the entity (object, person, dyad, group, social artifact, space, time, or event) to which the measured construct refers (Babbie 2001; Pedon 2009; Yurdusev 1993). In most of the cases, the unit of the analysis was the individual because financial well-being referred to the emerging adults considered as a single person. In three cases instead, the unit of the analysis was the emerging adult's family because the emerging adult was considered as a leader of the household. Specifically, in Caputo (1998), the financial well-being variable was the family income, while in Easterlin et al. (1990) as well as in Smeeding and Phillips (2002), the personal income was weighted for the number of family members.

Regardless of the unit of analysis considered, included studies' authors reported emerging adults' characteristics (sample size, age, sex, race, and country). Across the 44 included studies, the sample size varied greatly, from 149 emerging adults in Negru-Subtirica et al. (2015) to 15,797 in Gutter and Copur (2011). For each of these samples, the range, mean, and standard deviation of the participants' age were examined. Where available, this information was reported in Table 4. In 11 studies, no age information was reported. Additionally, information about gender was sometimes missing. For studies that did report this information, female participants were always greater in number than males, except for Smith (2005), LaVeist et al. (2010), Zhang and Cao (2010), and Easterlin et al. (1990). In three of the latter four cases, the samples were almost distributed equally by gender. In Easterlin et al. (1990), the oldest included record that had data collected from 1965 to 1988, the sample comprised only of men. Finally, to describe the samples of the 44 included studies, information on the participants' race and country were collected. Since financial issues were linked to race/ethnicity historically (e.g., white was richer; De La Cruz-Viesca et al. 2016), 31 of 44 (70.45%) included studies specified the race composition of the sample. In 27 of these 31 (87.09%) studies, most of the participants were white. Regarding country information, 31 of 44 (70.45%) studies were conducted in the U.S. using North Americans as sample. Only four studies on emerging adults' financial well-being were cross-cultural, namely, Schnusenberg et al. (2013) (China, Germany, and the U.S.), Smeeding and Phillips (2002) (France, The Netherlands, U.S., Germany, United Kingdom, Italy, and Sweden), Norvilitis and Mao (2013) (China and the US), and Norvilitis and Mendes-Da-Silva (2013) (Brazil and the US). In conclusion, the most available data on emerging adults' financial well-being concerned white American women.

We also identified who reported the data (i.e., the informant) about emerging adults' financial well-being. A researcher could select one or more informants, and the informant(s) need not necessarily coincide with the unit of analysis. For example, the financial well-being of emerging adults can also be reported by their parents or partner. Most of the 44 included studies collected data only from emerging adults, but in 3 studies, data were also collected from the parents (i.e., Negru-Subtirica et al. 2015; Oman et al. 2015; Spangler 2013). Only Negru-Subtirica et al. (2015) asked the parents to evaluate their child's financial well-being, while in Spangler (2013), the mothers reported variables that concern themselves, and parents reported the household income in Oman et al. (2015).

Finally, we mapped the instruments and mode used to collect data. In general, data collection instruments are classified into three broad categories, namely, self-completed questionnaires, interviews, and observation (Phellas et al. 2011). Furthermore, each instrument can be administered through different modes. For example, the interview can be face-to-face or delivered through a telephone, and

Table 4 Data collection-related information of 44 included records

Record	Year	Unit of analysis	Participants' characteristics					Informant (s)	Instrument and mode
			Sample size	Age	% Women	Race	Country		
Easterlin et al. (1990)	Each 5 years from 1965 to 1988	Family (weighted individual income)	X	20–29	0% (only men)	X	USA	Emerging adult	Survey
Caputo (1998)	1985	Family (family income)	603	Everyone around 28	52.75%	White (70.52%), Black, Hispanic	USA	Emerging adult	Interview
Clarkberg (1999)	Each year from 1972 to 1986	Individual	12,841	From 18 (in 1972) to 32 (in 1986)	X	Black, other (86%)	USA	Emerging adult	Survey
Simons et al. (2002)	X	Individual	172	19–35 (M = 21.24; SD = 2.01)	77.1%	X	TR	Emerging adult	Survey
Smeeding and Phillips (2002)	1989 in FR; 1991 in NL; 1994 in USA and DE; 1995 in UK, IT,CH	Family (weighted individual income)	X	18–32	X	X	FR, NL, USA, DE, UK, IT, CH	Emerging adult	NS
Norvilitis et al. (2003)	2000	Individual	227	"College students"	70,25%	Caucasian (76.2%), African American, Hispanic, Asian, Native American, other	USA	Emerging adult	Paper and pencil questionnaire
Smith (2005)	Thrice: 1973–1985–1997	Individual	4584 (in 1973), 4437 (in 1985), 5716 (in 1997)	6 Different age range. We considered only18-24	45% (in 1973); 52.4% (in 1985) and 50% (in 1997)	Black, other (86–88%)	USA	Emerging adult	NS
Norvilitis et al. (2006)	X	Individual	448	18–26 or older	75.7%	White (87.7%), African American, Hispanic, Asian, Native American	USA	Emerging adult	Paper and pencil questionnaire
Reynolds et al. (2007)	Between 2002 and 2004	Individual	1389	Between ages 22 and 24 years	X	Black (93%), Hispanic	USA	Emerging adult	Survey

Table 4 (continued)

Record	Year	Unit of analysis	Participants' characteristics					Informant (s)	Instrument and mode
			Sample size	Age	% Women	Race	Country		
Shim et al. (2009)	2006	Individual	781	18–24	65%	White (64%), African American/Black, Asian, Hispanic/Latino, Native American, other	USA	Emerging adult	Online questionnaire
Shim and Serido (2009)	2008	Individual	2098	"First-year college students"	61.9%	White (67%), Native American, African American, Asian/ Pacific Islander, Hispanic/Latino, other	USA	Emerging adult	Online or paper and pencil survey
Xiao et al. (2009)	2007	Individual	620	"Undergraduated students"	65%	White (64%), Hispanics, Asian, other	USA	Emerging adult	Online or paper and pencil survey
LaVeist et al. (2010)	Between 1992 and 1994	Individual	2200	27–33	49.91%	African American (100%)	USA	Emerging adult	NS
Norvilitis and MacLean (2010)	X	Individual	173	19–26 (M = 23.08; SD = 3.58)	77.5%	Caucasian (73.4%), African American, Hispanic, Asian, Native American, other or biracial	USA	Emerging adult	Paper and pencil questionnaire
Rutherford and Fox (2010)	2007	Individual	458	18–30 (M = 25.67, SD = 3.09)	X (not specified)	White (60.68%), Black, Hispanic, other	USA	Emerging adult	NS
Serido et al. (2010)	2008	Individual	2098	"first-year college students"	61.9%	White (67.4%), Hispanic, Asian/Asian American/Pacific Islander, Black, Native American, other/ missing	USA	Emerging adult	Online or paper and pencil survey

Table 4 (continued)

Record	Year	Unit of analysis	Participants' characteristics					Informant (s)	Instrument and mode
			Sample size	Age	% Women	Race	Country		
Shim et al. (2010)	2008	Individual	2098	"First-year college students"	61.9%	White (67.4%), Hispanic, Asian/ Asian American/ Pacific Islander, Black, Native American, Other/missing	USA	Emerging adult	Online or paper and pencil survey
Shim and Serido (2010)	Twice: 2008 and 2009	Individual	748	"Second-year college students"	65.4%	White (69.6%) Native American, African American, Asian/ Pacific Islander, Hispanic	USA	Emerging adult	Online survey
Zhang and Cao (2010)	During 2005/2006 academic year	Individual	319	18–29 (M = 20.9; SD = 1.5)	45%	X	CN	Emerging adult	Paper and pencil questionnaire
Chang et al. (2011)	X	Individual	338	18–44 (M = 19.30; SD = 1.9)	67.46%	European American (65.4%), African American, Asian American, Hispanic American, Native American	USA	Emerging adult	Paper and pencil questionnaire
Gutter and Copur (2011)	2008	Individual	15,797	18 and over (M = 21.3)	65.8%	White (83.3%), other	USA	Emerging adult	Online survey
Karmel and Liu (2011)	2006	Individual	3913	25	53.72%	X	AUS	Emerging adult	NS
Salazar (2011)	2006	Individual	944	21–31 (M = 25.6; SD = 2.7)	73.9%	White (44.6%), Black, Native American, Asian, Hispanic/Latino, other, mixed race	USA	Emerging adult	Online survey
Shim and Serido (2011)	Twice: 2008 and 2010	Individual	1508	"Fourth-year college students"	63%	White (71.4%); Latino; Asian; Black, Native American	USA	Emerging adult	Online survey

Table 4 (continued)

Record	Year	Unit of analysis	Participants' characteristics					Informant (s)	Instrument and mode
			Sample size	Age	% Women	Race	Country		
Brown and Applegate (2012)	During 2008/2009 academic year	Individual	2090	17–27and over	59.78%	European American (60.01%), African American, Asian American, Hispanic American, Native American, Middle east American, other	USA	Emerging adult	Online questionnaire
Chan et al. (2012)	X	Individual	802	18–30 (M = 21.1, SD = 2.32)	66.5%	X	CN	Emerging adult	Online survey
Shim et al. (2012)	Twice: 2008 and 2009	Individual	748		65.4%	X	USA	Emerging adult	Online or paper and pencil survey
Norvilitis and Mao (2013)	X	Individual	410 (207 from USA, 203 from CN)	"College students"	USA sample: 74%F; CN: 70% F	In USA: Caucasian (69%), African American, Hispanic, Asian American, native American In CN: Han (100%)	USA – CN	Emerging adult	Paper and pencil questionnaire
Norvilitis and Mendes-Da-Silva (2013)	X	Individual	1257 (443 from USA and 814 from BR)	"College students"	USA sample: 79% F; BR: 54% F	In USA: White (67%), African American, Hispanic, Asian American, native American In BR: White (76%), Hispanic, Asian, African descent, native Brazilian	USA - BR	Emerging adult	Paper and pencil questionnaire
Salazar (2013)	2010 per foster care alumni; 2006 per general population	Individual	1089	21–31	76% within forest care alumni; 52.5% within general population sub-group	White (44.1% for foster care and 78.9% for general population), Black, other	USA	Emerging adult	Online survey

Table 4 (continued)

Record	Year	Unit of analysis	Participants' characteristics					Informant (s)	Instrument and mode
			Sample size	Age	% Women	Race	Country		
Schnusenberg et al. (2013)	2010	Individual	612 (200 from CN; 189 from DE; 223 from USA)	M = 22	57%	X	CN, DE, USA	Emerging adult	Online or paper and pencil survey
Shim et al. (2013)	Twice: 2008 and 2009	Individual	681	"Second-year college students"	65.4%	X	USA	Emerging adult	Online or paper and pencil survey
Spangler (2013)	2013	Individual	323 students −84 mothers	18–25 (M = 20.84; SD = 1.26)	75.2%	White (60.4%), Hispanic or Latino, Black or African American, Asian	USA	Emerging adult and, when possible, the mother	Online survey
Switek (2013)	Thrice: 1999, 2003 and 2009	Individual	1385	4 Age intervals. We considered only 22–26 and 26–30/32	58.07% for 22–26; 59.04% for 26–30/32	X	CH	Emerging adult	Survey
Friedline et al. (2014)	2009	Individual	435	M = 22.79; DS = 1.08	53%	White (82%); Black	USA	Emerging adult	Survey
Shim and Serido (2014)	Thrice: 2008, 2010, 2013	Individual	1010	23–26	"Two-thirds of respondents were women"	White (67.5%), Latino, Asian, Black, Native American	USA	Emerging adult	Online survey
Vlaev and Elliott (2014)	2008	Individual	334	18–29	57.78%	X	UK	Emerging adult	Online survey
Friedlmeier and Dahlstrom (2015)	X	Individual	360		72%	Predominantly white	USA	Emerging adult	NS
Oman et al. (2015)	During 2007/2008	Individual	651	18–22 (M = 19.2; SD = 1.1)	55%	Non-Hispanic White (41%), non-Hispanic Black, Hispanic, other	USA	EA and one parent	Online survey
Negru-Subtirica et al. (2015)	X	Individual	149 Dyads children–parents	M = 20.7; SD = 1.9	80%	X	RO	EA and one parent(83% mother)	NS
Rehman et al. (2015)	2011	Individual	800	18–23 years	81.8% in public college; 64.9% in private one	"Exclusion of foreign students"	PK	Emerging adult	Paper and pencil questionnaire
Solis and Durband (2015)	2006	Individual	1498	"Undergraduate students"	57.1%	White (74%), Hispanic, Black, Other	USA	Emerging adult	Online survey

Table 4 (continued)

Record	Year	Unit of analysis	Participants' characteristics					Informant (s)	Instrument and mode
			Sample size	Age	% Women	Race	Country		
Tagliabue et al. (2015)	2014	Individual	224	20–30 (M = 24.44; SD = 2.57)	73.4%	X	IT	Emerging adult	Online survey
Thompke et al. (2015)	X	Individual	359	16–28 (M = 20.04; SD = 1.89)	71.9%	Caucasian (85%), Other	USA	Emerging adult	Paper and pencil survey

X content absent in the record

NS not specified. The age ranges has different meaning according the kind of considered dataset: when the data collection was done in just one wave, the age range consists in the different ages that subject had at that time points, while when data were collected in more than one wave, range age reports how age changed across time points. In the race column we reported the race categories used to classify the sample. When detectable, we also reported the percentage of the most frequent racial group in that sample

the questionnaire can be a paper-and-pencil or an online one. Among the 44 included studies, seven provided no information on the process of data collection. Among the remaining studies, 34 specified the instrument used to collect data and only 23 studies included the administrating mode (e.g., online, paper-and-pencil, face-to-face). Overall, only Caputo (1998) stated to have adopted the interview as an instrument. All other studies used questionnaires (or survey) to collect data, using the Internet (N = 14), paper-and-pencil (N = 4), or both (N = 7) as modes of collection. Among the 44 included studies, the online mode was first described as being used in 2009 in a study by Shim et al. and nowadays it is the common mode of data collection.

Financial Well-Being Relationship-Related Information

This mapping focused on the association of financial well-being with other variables. Specifically, it investigated the theoretical[3] role (e.g., outcome, predictor) that the researcher assigned to financial well-being in relation to the other variables, as well as the other variables involved in these associations and the statistical techniques adopted to inspect these associations between variables. Note that this section concerns only the relationships involving the financial well-being variable and not all the associations investigated in the 44 included studies. Details for each study were reported in Table 5.

As regards the role of financial well-being, in most of the studies (N = 28; 63.64%), financial well-being was investigated as the outcome. Instead, in three studies (6.82%), the financial well-being variable was a predictor (i.e. it influenced other variables), whereas in three other studies (6.82%), it was considered as a predictor and an outcome at the same time. For example, in Shim et al. (2013), financial well-being was conceptualized as affected by financial crisis, and at the same time, as affecting the level of trust in banks and financial institutions. Both in Zhang and Cao (2010) and Switek (2013), the financial well-being variable, labeled as "financial satisfaction," was considered a mediator of association between predictors—money and role transitions (in the two papers)—and subjective well-being. In LaVeist et al. (2010), financial well-being was used as a covariate in the multivariate analysis that tested the effects of parent's marital status during childhood on the psychological well-being in young adulthood. Finally, in four studies, the financial well-being variable assumed

[3] None of the included studies manipulated the variable actively, thus cause-effect relationships involving emerging adults' financial well-being were never tested. Consequently, in this section, terms such as "predictor," "outcome," and "relationship" do not intend to recall an evidence-based cause-effect relationship. They are used to reflect the theoretical hypotheses that drove the researchers.

Table 5 Financial well-being relationship-related information of 44 included records

Record	FW role	Variables in relation with FW	Statistical analysis
Easterlin et al. (1990)	NA	NA	Only descriptive analysis
Caputo (1998)	Outcome	Demographic variables (education, age, marital status, hours worked, sex, race or ethnicity) and psychological variables (locus of control, self-esteem)	Multiple regression analysis
Clarkberg (1999)	Predictor	Transition from singlehood to cohabitation/marriage	Multinomial probit method
Simons et al. (2002)	Predictor	Satisfaction with life	Correlation and regression
Smeeding and Phillips (2002)	NA	NA	Only descriptive analysis
Norvilitis et al. (2003)	NA	debt-to-income ratio, attitude towards debt, money attitude scale, life satisfaction, Depression Anxiety Stress scale, locus of control, functional impulsivity, dysfunctional impulsivity	Correlation
Smith (2005)	NA	NA (comparing FWB among different age and cohorts)	Only descriptive analysis
Norvilitis et al. (2006)	Outcome	Level of credit card debt	Multiple regression
Reynolds et al. (2007)	Outcome	3 characteristics of the "preventive intervention on the health and well-being": preschool participation (for 1 or 2 years [n = 888] vs 0 years [n = 480]), school age participation (for 1–3 years [n = 778] vs 0 years [n = 590]), extended program participation (preschool starting at age 3 or 4 years and continuing to second or third grade [n = 522] VS all other children, who had 0 to 4 years of participation [n = 846])	Multiple, probit, and negative binomial regression
Shim et al. (2009)	Both	As FW predictors: parent socialization, education socialization, gender personal values, class, student income, parent income, subjective norm, perceived behavioral control, financial knowledge, financial attitudes, financial behavior intention, satisfaction with financial status, debt, financial coping (extreme, economizing), overall life satisfaction, academic success, physical health, depressed mood As FW outcomes: overall satisfaction, academic success, physical health, depressed mood	Correlation and SEM
Shim and Serido (2009)	Outcome	Demographic variables (gender, race, residential status) and risky financial behavior	NS
Xiao et al. (2009)	Both	As FW predictors: financial behavior (expenses track, balance control, saving); financial status defined as level of debt (education loan, credit card debt and other debts) As FW outcome: life satisfaction	SEM
LaVeist et al. (2010)	Covariate	NA	Logistic regression (where FW is a covariate)
Norvilitis and MacLean (2010)	NA	Parental (parent instruction, parent facilitation, parent worries, parent reticence, parent bailout), credit card (credit card problems, credit card disinhibition, credit card debt), and personal (financial delay of gratification, financial knowledge) variables	Only correlation

Table 5 (continued)

Record	FW role	Variables in relation with FW	Statistical analysis
Rutherford and Fox (2010)	Outcome	Objective status (income, credit card debt, assets, health insurance, education), financial satisfaction, financial behavior (credit card use, past payment behavior, shopping for investment), and subjective perceptions (attitude towards credit, spending patterns, planning horizon, risk tolerance) and control variables (age, race/ethnicity, marital status)	Logistic regression
Serido et al. (2010)	Outcome	Financial parenting (social status, communications, expectations) and future-oriented financial coping behavior (proactive, preventive)	SEM
Shim et al. (2010)	Outcome	Parental SES; Parental financial behavior; Parental direct teaching ; High school work experience; High school financial education; Adopting parental role modeling; Financial knowledge; Parental subjective norms; Perceived behavioral control; Financial attitude; Financial relationship with parents; Financial relationship with parents; Healthy financial behaviors	Correlation and SEM
Shim and Serido (2010)	Outcome	Two studies implying FW: (1) times/waves (before and after economic crisis); (2) financial coping behavior (proactive and preventive and reactive)	NS for the first result and SEM for the second
Zhang and Cao (2010)	Mediator	FW is the mediator between money e subjective well-being; correlation with demographic variables (gender, age, relationship status) and face consciousness	Regression
Chang et al. (2011)	Outcome	General optimism, financial optimism	Correlations and hierarchical regression
Gutter and Copur (2011)	Outcome	Demographic variables (gender, race, marital status, school rank), financial characteristics (financial aid, amount of debt, monthly income, amount of student loans), financial education, financial disposition (materialism, no financial risk, future orientation, compulsive buying, self-efficacy), financial behavior	T-test, ANOVA, correlation and ordinary least squares regression analysis
Karmel and Liu (2011)	Outcome	Pathways generated by completion of high school (yes/no) and post high school activity (nothing, VET, universitary study)	Regression
Salazar (2011)	Outcome	Groups by foster care history and education (foster care alumni college graduates, general population college graduates, and general population non-graduates)	Chi square
Shim and Serido (2011)	Outcome	Two studies implying FWB: (1) times/waves (wave 1 VS wave 2); (2) financial behavior	NS for the first result and SEM for the second
Brown and Applegate (2012)	NA	NA	Explorative factor analysis
Chan et al. (2012)	Outcome	Number of credit cards, credit card use, loans, cash used in advance	Correlation
Shim et al. (2012)	Outcome	Financial behavior; past financial well-being; perceived impact of economic crisis	SEM e multigroup analysis

Table 5 (continued)

Record	FW role	Variables in relation with FW	Statistical analysis
Norvilitis and Mao (2013)	Outcome	(1) Country (USA VS CN); (2) income and self-confidence; (3) attitude towards debt, delay of gratification, social comparison, financial social comparison, parental financial teaching, parental financial worries, credit card positive attitude, credit card trouble attitudes	(1) MANOVA; (2) Correlation; (3) regression
Norvilitis and Mendes-Da-Silva (2013)	Outcome	(1) Country (USA VS BR); (2) income; (3) gender, year in school, attitude towards debt, financial self-confidence, credit card positive attitude, credit card negative attitudes, social comparison, financial social comparison, positive financial parenting, negative financial parenting, delay of gratification, debt-to-income ratio, student loans	(1) ANCOVA; (2) Correlation; (3) regression
Salazar (2013)	Outcome	Foster care history	Logistic regression
Schnusenberg et al. (2013)	Predictor	Attitude toward social health insurance	Regression (ordinary least square)
Shim et al. (2013)	Both	As FW predictor: time (before and after financial crisis) As FW outcome: level of trust in bank and institution	Repeated measures ANOVA, multiple discriminant analysis
Spangler (2013)	Outcome	Budgeting behavior; financial delay of gratification; maternal attachment; relative financial responsibility	Bivariate correlations
Switek (2013)	Mediator	FW is the mediator between life transition (school-to-work transition, changes in partnership status, and the parenting transition) and life satisfaction	OLS regression
Friedline et al. (2014)	Outcome	Net worth accumulation trajectories during childhood/adolescence (from 1999 to 2009); having a savings account during childhood/adolescence (in 2002); control variables (race, gender, optimism for future, employed at 2005, ever enrolled in college at 2005)	Regression model
Shim and Serido (2014)	Outcome	Times (wave 1, wave 2, wave 3); employment status; debt	NS
Vlaev and Elliott (2014)	Outcome	Financial control, debt to income, income, comfort with being in debt, external pressure affecting borrowing, other items measuring financial attitudes separately tested ("I adjust the amount of money I spend on non-essentials when my life changes", "I think it is easy to get into debt because banks and shops make it too easy to get credit", "I think it is better to live your life and enjoy it rather than worry about money", "I think it's important to save up for things I/we want", "I think of my money in terms of ''pots'' put aside for different things")	Regression

Table 5 (continued)

Record	FW role	Variables in relation with FW	Statistical analysis
Friedlmeier and Dahlstrom (2015)	Outcome	Three studies: (1) Parental SES; Parenting Quality (responsiveness, autonomy support, and behavioral control) and Knowledge about children's spending; Parents' Financial Behaviors; Parent Direct Financial Teaching; (2) financial behavior, financial control, financial knowledge, life satisfaction; (3) Working Experience High School, Financial Education High School, Working experience during college	(1) Regression; (2) Correlation; (3) t-test, ANOVA
Oman et al. (2015)	Outcome	14 Youth assets: 4 assets operated at the individual level (religiosity, responsible choices, educational aspirations for the future, and good health practices), 4 at the family level (family communication, relationship with mother, relationship with father, and parental monitoring), and 6 at the community level (non-parental adult role models, community involvement, peer role models, use of time for sports or other group activity, use of time for religion, and school connectedness)	Regression
Negru-Subtirica et al. (2015)	Outcome	Perceived SES (reported by parent); Dyadic (parent–child) representations of financial success; Parent's financial satisfaction; Child-reported healthy financial behavior; Parent-reported healthy financial behavior of child; Child-reported financial relations with parents; Parent-reported financial relations with child	Regression
Rehman et al. (2015)	NA	NA	Factor Analysis
Solis and Durband (2015)	Outcome	4 types of financial support: student loan, family financial support, scholarship, grants	Logistic regression
Tagliabue et al. (2015)	Outcome	Individual predictor (proactive coping, preventive coping, optimism) and relational predictor (mother support, father support, financial support), employment status (to be student, worker or student-worker)	SEM
Thompke et al. (2015)	Outcome	Working experience during high school, working experience during college, financial education during high school, length of employment	ANOVA and T-test

NA not applicable, *NS* not specified, *SEM* structural equation model, *ANOVA* analysis of variance

no specific role. In these studies, the correlation analysis (Norvilitis et al. 2003; Norvilitis and MacLean 2010) or factor analysis (Brown and Applegate 2012; Rehman et al. 2015) were used.

Across these various roles, financial well-being was investigated in relation to different variables. We reviewed the variables directly related to financial well-being. Across the 44 studies, 115 different variables were detected and listed in Table 5. To simplify the presentation of these variables, we classified them into 11 categories (10 for the financial well-being's predictors and 1 for the outcomes), and the frequency (f) with which they were investigated across the included studies was reported.

The ten categories of financial well-being's predictors are as follows: socio-demographic variables such as gender and age (f = 44); particular events that occurred in emerging adults' life such as economic crisis (f = 6); general characteristics of emerging adults such as their personality or their personal resources (f = 16); and general characteristics of their family (f = 6) or community (f = 5). The most investigated categories were the ones in which the individual-level financial aspects were located, such as subject's financial information (f = 9), financial cognition (f = 30), and financial behaviors (f = 23), as well as components of financial well-being itself (f = 34). The family of origin-level financial aspects were also investigated as predictor (f = 28). Moreover, the relationship between financial well-being and outcome variables such as life satisfaction or physical health was analyzed 11 instances. These 11 categories will be examined in depth in the next section and in Online Resource 2. In this resource, all the variables are listed and located in one of the 11 categories. Furthermore, for each single variable, the number of times (i.e., frequency) it was studied in relation to the emerging adults' financial well-being across the 44 studies was specified.

As regards the statistical analysis used in the studies, Shim and Serido (2009, 2010, 2011, 2014) did not specify any or a part of the analysis implying financial well-being. These four studies were reports and not scientific publications. As such, the nature of their publication justified the lack of details on statistical analysis. In the other included studies, the most used technique was regression analysis ($N = 22$). Correlation was applied in 12 studies, followed by the Structural Equation Model (SEM) in 8 studies. The T-test and/or different kinds of ANOVA were applied only in six studies. The least used analyses were factor analysis (two studies), Chi square (Salazar 2011), and multiple discriminant analysis (Shim et al. 2013). Certain studies analyzed the financial well-being using more than one technique.

Mapping Outcomes

The mapping of literature on emerging adults' financial well-being made it possible to organize and summarize information that helped clarify certain fundamental issues on financial well-being that the literature did not address adequately. Specifically, we outlined a definition of financial well-being, listed the components of the construct, and categorized all the variables investigated as financial well-being's predictors and outcomes.

Financial Well-Being's Definition

The information collected through this literature mapping enabled us to identify a cross-disciplinary definition of financial well-being, and consequently to detect the boundaries and links it has with similar constructs.

Financial well-being is a good and positive financial condition that has an objective and a subjective side. The former (usually referred as "economic well-being")[4] consists of the material resources that an individual possesses when the balance between entry (e.g., income) and exit (e.g., debt) is considered, and those he/she already owns (e.g., assets, a saving account, a health insurance, job benefits, education). The latter, or subjective financial well-being, consists of an individual's subjective experience with respect to his/her financial condition and the manner in which he/she evaluates such condition. Thus, we detected two theoretical dimensions of subjective financial well-being, and here we propose to refer them as experience and evaluation. The *experience* consists of the individual's perception of his/her own financial condition. It does not require an explicit judgment/evaluation of the person, but only consists of one's perception/description of an experienced situation. For example, the individual can perceive that at times, he/she has no money to buy the things that he/she needs, or that he/she cannot engage in certain activities with friends owing to lack of money, but he/she is not reporting how these situations affect him/her. Instead, the *evaluation* consists of a judgment that an individual conducts of their owns financial experience. This evaluation is emotional when it concerns the positive (e.g., security, control) or negative (e.g., worry, distress) feelings caused by personal financial experiences of the individual. In this sense, financial well-being consists of the presence of positive and the absence of negative feelings. Instead, the subjective evaluation of one's financial experience is cognitive when it consists of the degree of satisfaction or dissatisfaction that one has for his/her financial condition at that moment. The subjective financial well-being, both as an experience and an evaluation, is linked to one's past and future. For example, the experience of not having enough money to buy things can depend on the past experience of having more money. The feeling of worry over one's own financial condition can depend on the financial uncertainty of the future.

This definition allows to delineate the boundaries between financial well-being and similar constructs. First, we can state that financial satisfaction and financial well-being are erroneously used as synonymous; the first concept is a dimension of the second one. Furthermore, the expression "income satisfaction" is a specific type of financial satisfaction. It indicates financial satisfaction when referring only to one's income and not to one's general

[4] The label "economic well-being" was used 7 times across the 44 included studies. In six out of these seven studies, the label referred to the objective side of financial well-being. In the only case in which it was used to refer to the subjective side, this was specified using the adjective "perceived" (i.e., perceived economic well-being).

financial situation. Finally, the relationship between financial well-being and financial well-ness can be conceptualized as hierarchical; financial well-being is a dimension of financial wellness.

"Financial well-ness" (or financial health) is a healthy and functional financial process. Specifically, financial wellness is a process that works as a function of financial skills, such as the ability to interpret, compute, develop independent judgments, and take financial actions resulting from those processes; these skills are usually referred as "financial literacy." The outcome of this financial literary process is a positive financial condition, referred to as "financial well-being." Both financial literacy and financial well-being are dimensions of financial well-ness. Furthermore, financial wellness is a process [e.g., certain financial attitudes generate certain financial behaviors that generate certain financial well-being (Shim et al. 2009)], whereas financial well-being, as an outcome of financial well-ness, is a state.

In the definition of financial well-being constructed across this study's 44 records, no specificities for emerging adulthood were detected. These specificities were included when financial well-being was operationalized. For example, to take into account the different occupational statuses that an emerging adult can have, it is not sufficient to operationalize the objective side of financial well-being measuring the income. It is not necessary that all emerging adults have to be workers. Income should be substituted with the general concept of "money" which, for example, in Zhang and Cao (2010) was operationalized according to four categories: money from family, internship, college (e.g., scholarship), and other sources.

Financial Well-Being's Components

As clarified by the definition of financial well-being, this construct has two components:

1. Objective financial well-being, often named as "economic well-being," consists of the objective determinants of financial well-being. Three different aspects of this objective dimension were detected, namely, the entries (e.g., income, financial aids), the exits (e.g. debt, expenses), and whatever the individual already owns (e.g., assets, a saving account, a health insurance, job benefits, and education).
2. Subjective financial well-being, consists of the experiences of an individual based on one's financial situation (e.g., to have enough money to do what he/she needs) and its consequently emotional (positive/negative feelings) and cognitive (financial satisfaction) evaluation.

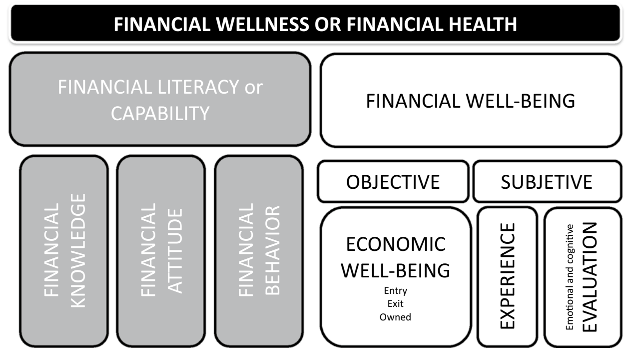

Fig. 4 Financial well-being's components and its relationship with financial well-ness

Furthermore, the hierarchical relationship between financial well-being and financial well-ness allows us to consider financial well-being as a component of financial wellness itself. Overall, financial wellness has two components, namely, financial literacy and financial well-being (see Fig. 4).

Financial literacy (or capability) is composed itself of three sub-components, as follows:

1. Financial knowledge, that consists of the information and preparation on financial matters that an individual possesses.
2. Financial attitudes that consist of the expression of favor or disfavor toward a financial matter. An example is evaluating the credit as a good or a bad idea (*attitude towards credit*; Rutherford and Fox 2010). In a more general way, the expression "financial attitudes" indicates certain personal dispositions of the person with respect to financial issues, for example, the level of comfort with being in debt.
3. Financial behavior, that consists of the behavior of the individual in terms of managing his/her money [e.g., the *action of saving money* in Shim et al. (2009) or the *ability to mobilize finances* in Rehman et al. (2015)]. At times, in this behavioral dimension, actions do not necessarily consist of money management; those to resolve/avoid/react to financial stressors form a part as well. These actions are usually called "financial coping behaviors" (e.g., Serido et al. 2010; Shim and Serido 2010).

Overall, a healthy and functional financial condition consists of two components (see Fig. 4): financial literacy and financial well-being. The former is composed of three other sub-components, while the latter has two other sub-components. The last two sub-components (objective and subjective financial well-being) are sufficient to refer to the financial well-being, but when the antecedents of financial

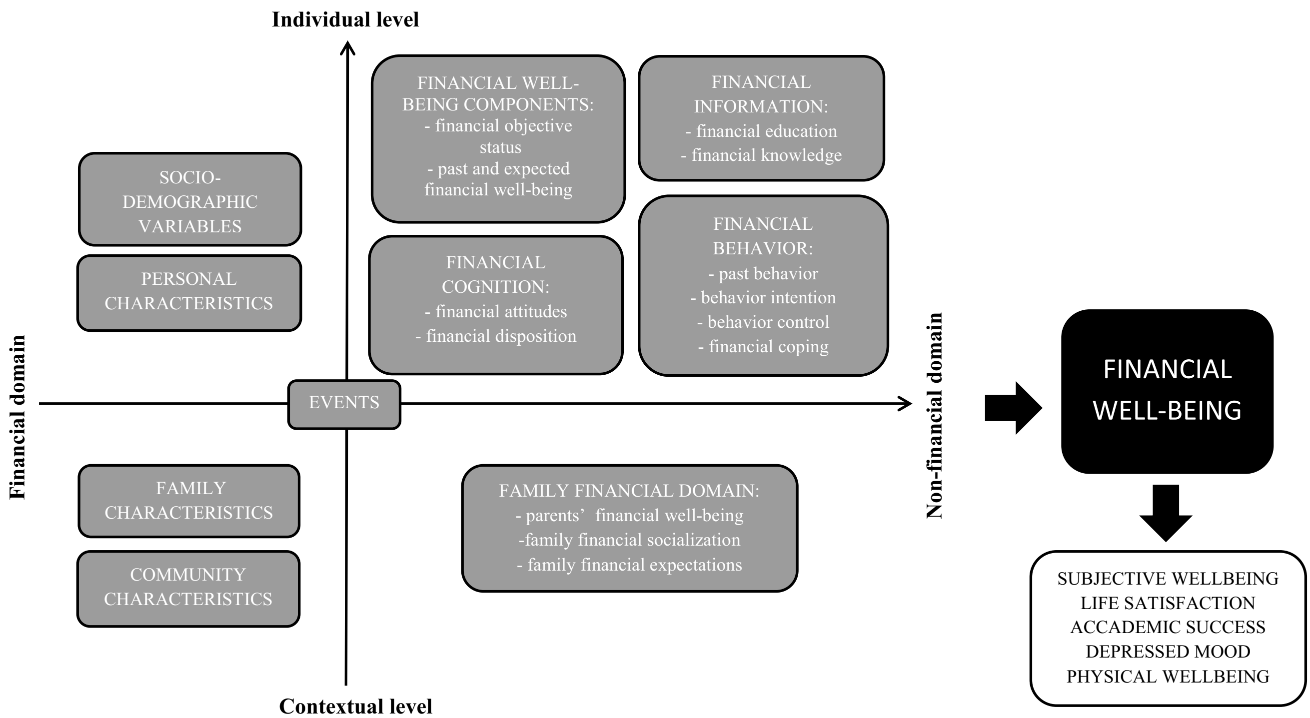

Fig. 5 Predictors and outcomes of financial well-being

well-being also need to be considered, financial wellness can be an appropriate construct. Financial wellness is a process, and its dimensions are connected over time. In order to obtain a high level of financial well-being is necessary to exhibit a healthy financial behavior, which is a consequence of specific financial attitudes and knowledge. This study found no specificities of the emerging adulthood stage of life in the structure of financial well-being components.

Financial Well-Being's Predictors and Outcomes

Across the 44 papers reviewed, many variables were studied in relation to financial well-being. The full list of these variables is reported in Online Resources 2. We coded the variables into 11 categories based on the similarities and differences among the constructs they measured: 10 categories on the financial well-being's predictors and one category on financial well-being's outcomes. Indeed, outcomes of emerging adults' financial well-being were rarely investigated. Specifically, the list of variables considered as financial well-being's outcomes is short and consists of the overall subjective well-being (e.g., life satisfaction and positive/negative feelings) or only its cognitive sub-dimension (i.e., life satisfaction), the depressed mood (e.g., to be "depressed," "unhappy"), the academic success (e.g., a student's grade-point average), and the physical health (see Fig. 5).

The list of variables considered as financial well-being's predictors is instead longer, and we decided to group them into 10 categories that we organized along two axes (see Fig. 5).

The vertical axis distinguishes between predictors that concern only the emerging adults (individual level) and predictors that concern the emerging adults' context, for example, their family or community (contextual level). The horizontal axis distinguishes between predictors that concern financial issues (financial domain) and predictors that concern non-financial issues (non-financial domain). Crossing these two axes, four quadrants were obtained. The ten categories of financial well-being's predictors were classified into these four quadrants as shown below.

Individual Level and Non-Financial Domain Two categories of financial well-being's predictors were located in this quadrant. The first category consists of the *socio-demographic variables* that described the emerging adults, such as gender, age, cohort (defined as the epoch to which the emerging adults belong, when authors compared the financial well-being of emerging adults belonging to different historic periods), race, country in which the emerging adult lives, residential status (whether the emerging adult lives in their country/state of origin or not), and relationship/marital status (e.g., single, married, cohabiting). Moreover, variables that concerned school and work such as education (e.g., the highest education level reached) and information about past job experiences (employment in the past during high school/college, length of employment, hours worked) or the current one (employment status, federal work-study) were collected. Finally, the emerging adult's pathways (e.g., decision to work or to study after high school), and life transitions (e.g., the parenting transition) were also located in this category of socio-demographic variables.

The second category belonging to the "individual level X non-financial domain quadrant" consists of the *personal characteristics* and includes aspects of the emerging adults' personality and disposition (e.g., locus of control, optimism, self-esteem, face consciousness, future orientation, delay of gratification, impulsivity, and social comparison) as well as their assets. The expression "personal assets" refers to different individual resources (e.g., religiosity, responsible choices, educational aspirations for the future, and good health practices) that can help emerging adults in their transition to adulthood (Oman et al. 2015).

Finally, some personal life *events* should be located in this quadrant, such as having a foster care history, or having taken part in a preventive intervention on health and well-being, as they were investigated as financial well-being predictors in the included studies. At the same time, across the included studies, it is possible to detect as financial well-being's predictors some events that are neither individual neither non-financial. For example, the predictors "economic crisis of 2008" is an event experienced by participants in Shim et al. 2013, but this event should belong to the "contextual level X financial domain" quadrant. This is the reason why the category event was located at the intersection of the two axes (see Fig. 5). According to the type of considered event, the category "event" can belong to each of the four quadrants.

Contextual Level and Non-Financial Domain In this second quadrant, two categories of financial well-being's predictors, namely, family and community characteristics were found. *Family characteristics*, even if not related to the financial domain, that affect the child's financial well-being are the variables that assess the parent–child relationship, such as maternal attachment, support in mother–child relationship, support in father-child relationship, and parenting quality (responsiveness, autonomy support, and behavioral control) as well as family communication. Additionally, the *community characteristics* were considered as predictors of financial well-being. Specifically, non-parental adult role models, community involvement, peer role models, use of time for sports or other group activity, use of time for religion, and school connectedness were investigated in relation to financial well-being.

Individual Level and Financial Domain The "individual level X financial domain" quadrant contains the highest number of financial well-being predictors, given that financial well-being was itself a variable that concerns the individual level and the financial domain. Specifically, four categories of predictors are located in this quadrant: financial well-being's components, financial information, financial cognition, and financial behavior.

The first category of predictors was named *financial well-being's components*, because it consists of the variables defined as components of the construct in the previous paragraph. These components are also reported in the financial well-being predictors list because researchers often conceptualized them thus (e.g., the objective financial well-being as predictor of the subjective one). We agree that a reciprocal influence between financial well-being components can be hypothesized, but we argue that, from a theoretical point of view, these variables are more appropriately financial well-being's components than predictors, as sometimes stated by the same authors who tested relationships between them (e.g., Shim et al. 2009). Even more accurately, components of financial well-being are sometimes studied in relationship to financial well-being when measured in different time points with respect to the present financial well-being (e.g., "past subjective financial well-being" and the "anticipated income").

The second category of predictors located in this quadrant consists of the *financial information* (education and knowledge) that the emerging adults have on financial matters. Using the expression "financial information," we refer to financial knowledge (i.e., how much preparation that the emerging adults have about financial matter) and financial education (i.e., if the emerging adults took part in courses or programs aiming at enhancing his/her financial knowledge). Financial knowledge can be subjective or objective. It is subjective in cases where it is the subject evaluates the knowledge s/he has about financial matters. It is objective when it is assessed through a test about financial notions, such as "If you expect to carry a balance on your credit card, the APR is the most important thing to look at when comparing credit card offers"?

The third category belonging to the intersection "individual level X financial domain" is *financial cognition*, which contains all the predictors related to the way in which the subject mentally approaches financial matters. Specifically, we collected in this category the predictors that across the included studies were referred as financial attitudes and financial disposition. The attitude consists of an evaluation of an object to assess its positive or negative valence. Thus, "financial attitude" is an expression of favor or disfavor toward a financial matter. For example, across the 44 included studies, the emerging adults' attitude toward credit (e.g., Rutherford and Fox 2010), target financial behavior (e.g., Shim et al. 2010), money (e.g., Norvilitis et al. 2003), debt (e.g., Novrilitis and Mao 2013), credit card (e.g., Norvilitis and Mendes-Da-Silva 2013), and social health insurance (e.g., Schnusenberg et al. 2013) were evaluated. Instead, the expression "financial disposition" referred to certain personality characteristics that defined how individuals tend to think of financial matters, such as financial optimism, comfort with being in debt, risk tolerance, materialism, and so on. The boundary between financial attitude and disposition is really thin. For example, in Gutter and Copur (2011), "risk tolerance" is defined as both an attitude and a disposition.

The last category of predictors concerning the individual level and the financial domain is *financial behavior*, in which we collected information on the past financial behavior, the financial behavior intention, the financial behavior control, and the financial coping. Financial behavior (or practice) can be defined as any human behavior that is relevant to money management (Gutter and Copur 2011). For instance, budgeting, saving, credit usage behaviors, and compulsive buying are examples of financial behaviors. In general, financial behaviors can be risky (such as maxing out credit cards or using payday loans) or healthy (such as tracking monthly expenses, or spending within budget) for the financial well-being of emerging adults. The financial behavior that is commonly tested as financial well-being's predictor is the financial behavior that individuals have exhibited and/or usually exhibit, and that we named as "past financial behavior." Instead, the expression "financial behavior intention" indicates the evaluation of emerging adults' intention to exhibit a specific financial behavior in the next months, whereas the expression "financial behavior control" indicates the individuals' evaluation of how easy or difficult it is for them to exhibit that behavior. Finally, financial coping strategies also belong to the financial behavior category. The term "financial coping" refers to behavior exhibited to resolve/avoid/react to financial stressors. In Serido et al. (2010) and Shim and Serido (2010), three types of financial coping were listed, namely, reactive (e.g., using one credit card to pay off another), preventive (e.g., paying off credit card balances each month), and proactive (e.g., saving money). Instead, Shim et al. (2009) and Shim and Serido (2009) distinguished two types of coping, namely, a more normative "economizing" coping response to financial hardship that includes relatively minor adjustments to daily life (e.g., cutting back on eating out) and an "extreme" measure involving desperate financial changes (e.g., relying on payday loans).

Contextual Level and Financial Domain Only one category of predictors is located in the "contextual level X financial domain quadrant": the *family financial domain*. Across the 44 included studies, the impact of the family financial domain on the emerging adults' financial well-being was investigated through three different types of predictors. First, the parental financial condition, including both the objective (e.g., parental socio-economic status) and the subjective (e.g., parents' financial satisfaction and financial worries) sides of their financial well-being was tested as a potential predictor of child's financial well-being. Second, variables concerning the financial socialization that the child received from the parents were investigated as predictors of the child's financial well-being. For example, parents can socialize with the child about financial matters in different ways, such as "parent facilitation" (i.e., parental assistance in handling money), "financial reticence" (if parents avoid addressing financial matters with their child), "financial relation" (i.e., how much the financial issues affect the parent–child relationship), "parents financial support" (i.e., the economic help that parents provide to a child), and "parent financial behavior" (i.e., how parents acts as financial model for the child). Finally, the financial expectations that family members have of each other were investigated as predictors of financial well-being. For example, Serido et al. (2010) investigated the parents' expectation about the child's financial behaviors, while Norvilitis and MacLean (2010) studied children's expectations of being helped by parents if they found themselves in debt.

Discussion

The economic crisis of 2008 that affected the youth the most increased the attention that media, as well as the academy, paid to the financial well-being of emerging adults. This new academic trend is developing fast, as indicated by the many studies investigating the financial well-being of young adults that have been published. At the same time, this recent development has so far not provided enough space to the theoretical reflection on this topic.

This review is the first attempt to summarize all the scientific works on emerging adults' financial well-being and produce a shared language and knowledge. This construct, rarely defined in the studies in which it was investigated as discussed, was often treated as a construct with an obvious meaning. Instead, this systematic synthesis of literature reveals that financial well-being is a construct that requires recognizing both its components (i.e., objective and subjective financial well-being) and the elements that compose them (income, debt, and assets for the objective as well as experience and evaluation for the subjective financial well-being). Furthermore, financial well-being is one dimension of the wider concept of financial wellness. This hierarchical structure allowed us to assign a specific definition to diverse labels (financial well-being, financial wellness, financial health, financial satisfaction, income satisfaction) often adopted in ways that are inconsistent with each other. Specifically, *financial wellness (of health)* is a dynamic financial process that has *financial well-being* as an outcome. This outcome has an objective and a subjective side. The subjective financial well-being consists of the experience of one's financial condition and its evaluation. When this evaluation is cognitive—instead of emotional—it is defined *financial satisfaction*. Furthermore, when this cognitive evaluation is not referred to ones' general financial condition, but only to ones' income, it can be referred as *income satisfaction*.

We believe that the main findings of this review are recognizing the complexity of the financial well-being construct as well as its strong link with the non-financial domain. The list of variables studied in relation to financial well-being revealed that many predictors of financial well-being are unexpectedly not related to the financial domain (e.g., parents' emotional support, religiousness, life events, and so on), and the consequences generated by an increase/decrease of financial well-being affect subjective and physical well-being. As shown, the current review is valuable because it maps the literature on the financial well-being of emerging adults, and generates a wider view of the construct, recognizing both its multidimensionality and its relationship with domains different from financial ones. However, this review has some limitations, which are discussed below.

We identify three main limitations. The first limitation is due to the three inclusion criteria we used to select the records. The inclusion criterion related to the financial well-being construct is based on the searching of labels (i.e., financial wellness, financial well-being, financial satisfaction, financial health, income satisfaction) that refer to a positive paradigm of the construct. Specifically, we searched only for labels that recalled a positive condition of well-being and satisfaction, ignoring labels such as financial distress, financial concerns, and financial worry. In fact, in literature, the relationship between this positive side (e.g., financial well-being) and the negative one (e.g., financial stress) is not clear. Some scholars consider these two frameworks to be interrelated (e.g., Serido et al. 2010), while others considered them as totally separated constructs (e.g., Archuleta et al. 2013; Joo and Grable 2004). The inclusion criterion related to the participants' age was probably too flexible (e.g., even if the age range of participants did not exactly fit the range of 18–29, the mean and the standard deviation were used as criterion). This choice was made in order to not exclude a large number of records, but at the same time, studies with participants with age different from 18 to 29 are included in this review. Finally, the richness of the included records was strongly affected by the inclusion criterion that required English-language full texts. It is quite probable that relevant studies on emerging adults' financial well-being were published in languages other than English, and their contribution is not reported in this review.

The second limitation we identified is due to the knowledge synthesis methodology we selected. The scoping methodology indeed primarily aims to synthesize and map existing knowledge. The focus is on what was done and not on the obtained results. Consequently, our review did not include any information on the results that each included study attained (e.g., significance and effect size of the investigated relationships).

Finally, the third limitation of this study involves the team of researchers who conducted it. The interpretation of collected information and the posed research questions are inevitably affected by the history of this study's authors, who are both psychologists. When an inter-disciplinary topic is treated, an inter-disciplinary research team is desirable.

At the same time, our aim was not to finalize the literature on the financial well-being of emerging adults, but to create a starting point, a shared base, from which cross-disciplinary exchange and enrichment could originate. Our mapping of literature can provide information on what was done in disciplines different from one's own and discipline-specific vocabulary. Furthermore, the mappings' outcomes (financial well-being's definition, components, and predictors and outcomes) offer a shared framework to conceptualize financial well-being. In order to further reinforce this exchange and reflection, we intend to also realize the scoping review's optional final stage: the consulting stage. It entails consulting experts for suggestions on additional references and providing insights beyond those in the literature. The consultation's purpose includes sharing preliminary findings with stakeholders, validating the findings, or informing future research. With this objective, we have sent a copy of this review to authors of each included contribution, in order to share this information with authors potentially interested in this theme. We are confident that this information sharing and connection will help emerging adults' financial well-being literature.

Conclusions

The current systematic review summed up the scientific literature related to emerging adults financial well-being in order to build a systematic understanding of financial well-being and its specific characteristics and influences during emerging adulthood. The information extracted from the 44 included studies was mapped along five sections, in which we reported the information related to (1) publication of the included studies, (2) research aim, (3) the financial well-being construct, (4) data collection, and (5) the financial well-being relationships with other variables.

This five-section mapping enabled the bases to produce three outcomes: the definition of financial well-being, the components of financial well-being, and the list of its predictors and outcomes. These three products are an important contribution for scholars, practitioners, and policymakers interested in emerging adults' financial well-being.

The content here reported is a useful framework to read what has so far been done on financial well-being. Specifically, the definition of financial well-being as well as components resulted to be non-specific for the emerging adulthood stage of life; thus it pertains to all academics interested in financial well-being, without any distinction for the stage of life to which their target belongs. At the same time, to conduct this review specifically with studies in which the emerging adults were the target population allowed to recognize and emphasize that the financial dimension is no longer a taboo for researchers on adolescence and emerging adulthood and that the existing body of work has significant scope for growth. The main research gaps are described below.

The relationship between all the financial well-being components as well as the relationship between financial well-being, financial wellness, and general well-being needs to be investigated. Even if certain studies investigated the different financial well-being and financial wellness components at the same time (e.g., Rutherford and Fox 2010; Shim et al. 2009), no study includes all the identified components. Therefore, their relationships during emerging adulthood have never been completely tested. Additionally, the relationship that financial well-being has with the general well-being and its other sub-dimensions (e.g., psychological, subjective, and physical well-being) is not clear.

Even if all studies identified by the researchers had used a quantitative approach, studying the emerging adults' financial well-being using a qualitative approach is possible and also relevant. Financial well-being can be investigated efficiently using a qualitative approach, as shown by a recent research in which authors performed different interviews to investigate the financial well-being of working-age adults and older consumers (CFPB 2015). This should be undertaken for emerging adults to understand their subjective perspectives and experiences contextually (and eventually, critically).

Multiple informant research investigating the emerging adults' financial well-being could offer a new prospective on the topic, particularly if the new informants are the emerging adults' parents. Parents are often relevant actors for their child's financial well-being, given that they are their main financial socialization factors, and because they often give money to the children and offer them their house. This multiple informant methodology could enrich the literature on emerging adults' financial well-being in different ways. First, it is possible to study how parents experience the financial dynamic in which they are involved with their child (e.g., financial socialization, economic support). For example, the financial assistance parents offer to the child may be considered a family dynamic in which all family members are involved (Sorgente et al. 2016), and studying family constructs requires collecting data from more than one informant to deal with the complexity of the relational constructs (Lanz et al. 2015). Furthermore, the multiple informant methodology can be adopted to ask the same questions to parents and the child on the child's financial well-being in order to (1) have a more reliable measure of the construct (Kraemer et al. 2003), and (2) to compare their answers. Indeed, when reports of a child and a parent were compared, they were often divergent (Negru-Subtirica et al. 2015). It could be interesting to investigate the origins and the consequences of these differences. The multiple informant approach was rarely applied in this field and never performed by collecting information from both the mother and father. This reflection on multiple informant methodology also allowed to emphasize the important role played by parents for emerging adults. Emerging adults deal with the transition to adulthood, a progressive process during which they leave the adolescent roles and take up the adult ones. In doing so, emerging adults become progressively more independent from parents, also in the financial domain. It is important to study how the parents offer this progressive independence to their child and how they promote their financial autonomy.

As already said, specific references to emerging adulthood were not detected in the definition of financial well-being, while they were found with respect to the way in which the financial well-being was measured (e.g., student loans, financial aid, parental economic support). The importance of recognizing the specificities of emerging adults' financial well-being when the construct is measured reminds of the need for a validate instrument measuring specifically their financial well-being. The Norvilitis scale is the only instrument specific for emerging adults, but it is applicable only to students (e.g., an item on student loan), whereas it is important to create an instrument applicable to emerging adults, regardless of their occupational status. It could be useful to investigate the differences between students and emerging adult workers in terms of their financial well-being. Additionally, a new instrument should include items referring to all the different financial well-being subdimensions to verify if there are differences not only theoretically but also empirically as separate factors.

Finally, the last research gap we identified consists of the scarcity of cross-cultural studies. It is important to replicate studies already conducted in different countries, with different races, and use samples that are more representative of the whole emerging adult population. In this way, it can be tested whether the financial well-being phenomenon and its related processes are universal or have different characteristics and dynamics across different countries. Cross-cultural studies could fit this aim well.

This review's outcomes can be useful also for practitioners and policymakers. We believe that the list of financial well-being predictors and outcomes identifies the factors (i.e., predictors) that can enhance the emerging adults' financial well-being as well as the consequences (i.e., outcomes) to expect when the emerging adults' financial well-being is improved. For example, the huge impact that the family of origin has on the child's financial well-being cannot be denied. Interventions should not work only on the emerging adults' skills but also on their familial context. Indeed the family financial socialization works through the examples and teachings that parents provide as well as the emotional support that the mother and father give the child. Furthermore, these interventions aiming to improve the emerging adults' financial well-being should be endorsed because they will also generate indirect consequences on the well-being and satisfaction in the overall life domain of the emerging adults.

Lastly, we hope that this work prompts researchers interested in the adolescence and emerging adulthood stages of life, during which the financial components have not yet been adequately studied. As a dimension of well-being, financial well-being should have its space in developmental science when individual adaptation is considered.

Compliance with Ethical Standards

Conflict of interest The authors report no conflicts of interest.

References

Arber, S., Fenn, K., & Meadows, R. (2014). Subjective financial well-being, income and health inequalities in mid and later life in Britain. *Social Science and Medicine, 100*(January): 12–20.

Archuleta, K. L., Dale, A., & Spann, S. M. (2013). College students and financial distress: Exploring debt, financial satisfaction, and financial anxiety. *Journal of Financial Counseling and Planning, 24*(2), 50–62.

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International journal of social research methodology, 8*(1), 19–32.

Arnett, J. J. (1998). Learning to stand alone: The contemporary American transition to adulthood in cultural and historical context. *Human development, 41*(5–6), 295–315.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American psychologist, 55*(5), 469–480.

Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. New York: Oxford University Press.

Babbie, E. (2001). *The Practice of Social Research*: 9th edn. Belmont, CA: Thomson Wadsworth.

Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology, 23*(5), 611–626.

* Brown, C., & Applegate, B. (2012). Holistic wellness assessment for young adults psychometric analysis. *Journal of Holistic Nursing, 30*(4), 235–243.

Bynner, J., & Parsons, S. (2002). Social exclusion and the transition from school to work: The case of young people not in education, employment, or training (NEET). *Journal of vocational behavior, 60*(2), 289–309.

* Caputo, R. (1998). Economic well-being in a youth cohort. *Families in Society: The Journal of Contemporary Social Services, 79*(1), 83–92.

CFPB (2015). *Financial well-being: the goal of financial education*. Report, Iowa City, IA: Consumer Financial Protection Bureau.

* Chan, S. F., Chau, A. W. L., & Chan, K. Y. K. (2012). Financial knowledge and aptitudes: Impacts on college students' financial well-being. *College Student Journal, 46*(1), 114–132.

* Chang, E. C., Bodem, M. R., Sanna, L. J., & Fabian, C. G. (2011). Optimism–pessimism and adjustment in college students: Is there support for the utility of a domain-specific approach to studying outcome expectancies? *The Journal of Positive Psychology, 6*(5), 418–428.

* Clarkberg, M. (1999). The price of partnering: The role of economic well-being in young adults' first union experiences. *Social Forces, 77*(3), 945–968.

Colquhoun, H. L., Levac, D., O'Brien, K. K., Straus, S., Tricco, A. C., Perrier, L., Kastner, M., & Moher, D. (2014). Scoping reviews: time for clarity in definition, methods, and reporting. *Journal of Clinical Epidemiology, 67*(12), 1291–1294.

Daudt, H. M., Van Mossel, C., & Scott, S. J. (2013). Enhancing the scoping study methodology: a large, inter-professional team's experience with Arksey and O'Malley's framework. *BMC Medical Research Methodology, 13*(1), 1–9.

De La Cruz-Viesca, M., Chen, Z., Ong, P. M., Hamilton, D., & William Jr, A. D. (2016). *The Color of Wealth in Los Angeles*. Report produced by Duke University, The New School, and University of California, Los Angeles.

Drever, A. I., Odders-White, E., Kalish, C. W., Else-Quest, N. M., Hoagland, E. M., & Nelms, E. N. (2015). Foundations of financial well-being: Insights into the role of executive function, financial socialization, and experience-based learning in childhood and youth. *Journal of Consumer Affairs, 49*(1), 13–38.

Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. *Nations and households in economic growth, 89*, 89–125.

* Easterlin, R. A., Macdonald, C., & Macunovich, D. J. (1990). How have American baby boomers fared? Earnings and economic well-being of young adults, 1964–1987. *Journal of Population Economics, 3*(4), 277–290.

Eccles, J. S., Barber, B. L., & Jozefowicz, D. (1998). Linking gender to educational, occupational, and recreational choices: Applying the Eccles et al. model of achievement-related choices. In W. B. Swann, J. H. Langlois & L. C. Gilbert (Eds.), *Sexism and stereotypes in modern society: The gender science of Janet Taylor-Spence* (pp. 153–192). Washington, DC: American Psychological Association.

* Friedline, T., Nam, I., & Loke, V. (2014). Households' net worth accumulation patterns and young adults' financial health: ripple effects of the great recession? *Journal of Family and Economic Issues, 35*(3), 390–410.

* Friedlmeier, M., & Dahlstrom, S. (2015). Are parents the best financial advisors for their children? The Contribution of parenting quality. In: Negru-Subtirica, O. (chair). *All about the money: Negotiation of financial socialization in emerging adults and*

their parents. Symposium conducted at the 7th Biennial Conference on Emerging Adulthood, Miami, FL.

Gelo, O. C. G. (2012). On research methods and their philosophical assumptions: “raising the consciousness of researchers” again. *Psychotherapie und Sozialwissenschaft, 14*(2), 111–130.

Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal, 26*(2), 91–108.

* Gutter, M., & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. *Journal of Family and Economic Issues, 32*(4), 699–714.

Jensen, L. A., & Arnett, J. J. (2012). Going global: New pathways for adolescents and emerging adults in a changing world. *Journal of Social Issues, 68*(3), 473–492.

Joo, S. (2008). Personal financial wellness. In J. J. Xiao (Ed.), *Handbook of consumer finance research* (pp. 21–33). New York, NY: Springer.

Joo, S. H., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of family and economic Issues, 25*(1), 25–50.

* Karmel, T., & Liu, S. (2011). Which paths work for which young people? Longitudinal Surveys of Australian Youth Research, *Report 57*. Retrieved from http://files.eric.ed.gov/fulltext/ED522946.pdf.

Kraemer, H. C., Measelle, J. R., Ablow, J. C., Essex, M. J., Boyce, W. T., & Kupfer, D. J. (2003). A new approach to integrating data from multiple informants in psychiatric assessment and research: Mixing and matching contexts and perspectives. *American Journal of Psychiatry, 160*(9), 1566–1577.

Lanz, M., Scabini, E., Tagliabue, S., & Morgano, A. (2015). How should family interdependence be studied? The methodological issues of non-independence. TPM: Testing, psychometrics. *Methodology in Applied Psychology, 22*(2), 169–180.

* LaVeist, T. A., Zeno, T. L., & Fesahazion, R. G. (2010). The effects of mother’s marital status on adolescent and young adult health and economic well-being among African Americans. *Journal of Family Issues, 31*(8), 1065–1080.

Levac, D., Colquhoun, H., & O’Brien, K. K. (2010). Scoping studies: advancing the methodology. *Implement Science, 5*(1), 1–9.

Loibl, C., & Hira, T. K. (2005). Self-directed financial learning and financial satisfaction. *Financial Counseling and Planning, 16*, 11–21.

* Negru-Subtirica, O., Damian, L., Friedlmeier, M. (2015). What does it take to be financially successful? Views of emerging adults versus their parent. In: Negru-Subtirica, O. (chair). *All about the money: Negotiation of financial socialization in emerging adults and their parents*. Symposium conducted at the 7th Biennial Conference on Emerging Adulthood, Miami, FL.

* Norvilitis, J. M., & MacLean, M. G. (2010). The role of parents in college students’ financial behaviors and attitudes. *Journal of economic psychology, 31*(1), 55–63.

* Norvilitis, J. M., & Mao, Y. (2013). Attitudes towards credit and finances among college students in China and the United States. *International Journal of Psychology, 48*(3), 389–398.

* Norvilitis, J. M., & Mendes-Da-Silva, W. (2013). Attitudes toward credit and finances among college students in Brazil and the United States. *Journal of Business Theory and Practice, 1*(1), 132–151.

* Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality factors, money attitudes, financial knowledge, and credit-card debt in college students. *Journal of Applied Social Psychology, 36*(6), 1395–1413.

* Norvilitis, J. M., Szablicki, P. B., & Wilson, S. D. (2003). Factors Influencing Levels of Credit-Card Debt in College Students. *Journal of Applied Social Psychology, 33*(5), 935–947.

* Oman, R. F., Vesely, S. K., Aspy, C. B., & Tolma, E. L. (2015). Prospective associations among assets and successful transition to early adulthood. *American Journal of Public Health, 105*(1), e51–e56.

Pedon, A. (2009). *Dizionario di statistica e metodologia per le scienze del comportamento*. Roma: Alpes Italia.

Peters, M. D., Godfrey, C. M., Khalil, H., McInerney, P., Parker, D., & Soares, C. B. (2015). Guidance for conducting systematic scoping reviews. *International Journal of Evidence-Based Healthcare, 13*(3), 141–146.

Phellas, C. N., Bloch, A., & Seale, C. (2011). Structured methods: Interviews, questionnaires and observation. In Seale, C. (Eds), *Researching society and culture* (3rd edn) (pp. 182–205). Sage Publications: UK.

Prawitz, A. D., Garman, E. T., Sorhaindo, B., O’Neill, B., Kim, J., & Drentea, P. (2006). InCharge financial distress/financial well-being scale: Development, administration, and score interpretation. *Journal of Financial Counseling and Planning, 17*(1), 34–50.

* Rehman, R., Katpar, S., Khan, R., & Hussain, M. (2015). Financial wellness awareness: A step closer to achieve Millennium Development Goals for Pakistan. *Pakistan Journal of Medical Sciences, 31*(1), 49–53.

Research Trends (2008). English as the international language of science. *Research Trends*, Issue 6, July 2008.

* Reynolds, A. J., Temple, J. A., Ou, S. R., Robertson, D. L., Mersky, J. P., Topitzes, J. W., et al. (2007). Effects of a school-based, early childhood intervention on adult health and well-being: A 19-year follow-up of low-income families. *Archives of Pediatrics and Adolescent Medicine, 161*(8), 730–739.

* Rutherford, L. G., & Fox, W. S. (2010). Financial wellness of young adults age 18–30. *Family and Consumer Sciences Research Journal, 38*(4), 468–484.

* Salazar, A. M. (2011). Investigating the Predictors of Postsecondary Education Success and Post-College Life Circumstances of Foster Care Alumni (Doctoral dissertation). Retrieved from http://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1264&context=open_access_etds.

* Salazar, A. M. (2013). The value of a college degree for foster care alumni: Comparisons with general population samples. *Social Work, 58*(2), 139–150.

Scabini, E., Marta, E., & Lanz, M. (2007). *The transition to adulthood and family relations: An intergenerational approach*. New York, NY: Psychology Press.

* Schnusenberg, O., Loh, C. P. A., & Nihalani, K. (2013). The role of financial wellbeing, sociopolitical attitude, self-interest, and lifestyle in one’s attitude toward social health insurance. *Applied Health Economics and Health Policy, 11*(4), 369–381.

* Serido, J., Shim, S., Mishra, A., & Tang, C. (2010). Financial parenting, financial coping behaviors, and well-being of emerging adults. *Family Relations, 59*(4), 453–464.

* Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence, 39*(12), 1457–1470.

* Shim, S. &, Serido, J. (2009) *Arizona Pathways to Life Success for University Students, Wave 1. Cultivating Positive Financial Attitudes and Behaviors for Healthy Adulthood*. Tucson, AZ: University of Arizona. Retrieved from http://aplus.arizona.edu/wave1_report.pdf.

* Shim, S. &, Serido, J. (2010) *Arizona Pathways to Life Success for University Students (APLUS) Wave 1.5. Economic Impact Study: Financial well-being, coping behaviors, and trust among young adults*. Tucson, AZ: University of Arizona. Retrieved from http://aplus.arizona.edu/wave1_5_report.pdf.

* Shim, S. &, Serido, J. (2011). *Arizona Pathways to Life Success for University Students, Wave 2. Young adults' Financial Capability*. Tucson, AZ: University of Arizona. Retrieved from http://aplus.arizona.edu/Wave-2-Report.pdf.

* Shim, S. &, Serido, J. (2014). *Arizona Pathways to Life Success for University Students, Wave 3. Life After College: Drivers for Young Adult Success*. Tucson, AZ: University of Arizona. Retrieved from http://aplus.arizona.edu/wave-3-report.pdf.

* Shim, S., Serido, J., & Tang, C. (2012). The ant and the grasshopper revisited: The present psychological benefits of saving and future oriented financial behaviors. *Journal of Economic Psychology, 33*(1), 155–165.

* Shim, S., Serido, J., & Tang, C. (2013). After the global financial crash: individual factors differentiating young adult consumers' trust in banks and financial institutions. *Journal of Retailing and Consumer Services, 20*(1), 26–33.

* Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology, 30*(6), 708–723.

* Simons, C., Aysan, F., Thompson, D., Hamarat, E., & Steele, D. (2002). Coping resource availability and level of perceived stress as predictors of life satisfaction in a cohort of Turkish college students. *College Student Journal, 36*(1), 129–141.

* Smeeding, T. M., & Phillips, K. R. (2002). Cross-national differences in employment and economic sufficiency. *The ANNALS of the American Academy of Political and Social Science, 580*(1), 103–133.

* Smith, T. W. (2005). Generation gaps in attitudes and values from the 1970s to the 1990s. In R. A. Settersten Jr., F. F. Furstenberg & R. G. Rumbaut (Eds.), *On the frontier of adulthood: Theory, research, and public policy* (pp. 177–221). Chicago, IL: University of Chicago Press.

* Solis, O., & Durband, D. B. (2015). Financial support and its impact on undergraduate student financial satisfaction. *College Student Journal, 49*(1), 93–105.

Sorgente, A., Lanz, M., Schilirò, M., & Terranova, F. (2016). Benessere finanziario soggettivo dei giovani: percorsi di transizione e predittori relazionali. *Psicologia Sociale, 2016*(1), 47–68.

* Spangler, T. L. (2013). Purposive Budgeting Socialization: Effects of Maternal Characteristics on College Students' Financial Outcomes (Master's thesis). Retrieved from http://ufdc.ufl.edu/UFE0046369/00001.

* Switek, M. (2013). Explaining well-being over the life cycle: A look at life transitions during young adulthood. *IZA Discussion Paper No. 7877*. Retrieved from http://ssrn.com/abstract=2377613.

* Tagliabue, S., Sorgente, A., Lanz, M., (2015). Predictors of psychological and financial well-being in emerging adulthood: differences between students, workers and student-workers. In A. Sorgente (Chair). *The different pathways toward adulthood: resources and values*. Symposium conducted at the 7th Biennial Conference on Emerging Adulthood, Miami, FL.

* Thompke, H., Herpst, S., & Friedlmeier, M. (2015). *The contribution of work experience and finance classes on college students' financial outcomes*. Poster presented at the 7th Biennial Conference on Emerging Adulthood, Miami, FL.

Van Campen, K. S., Serido, J., & Shim, S. (2010). *A roadmap for young adults' financial well-being (Frances McClelland Institute for Children, Youth, and Families ResearchLink, Vol. 2, No. 3)*. Tucson, AZ: The University of Arizona.

Vander Bilt University (2011). *Wellness centre. Wellness wheel*. Retrieved from http://www.vanderbilt.edu/recreationandwellnesscenter/wellness/wellness-wheel/.

Verick, S. (2009). Who is hit hardest during a financial crisis? The vulnerability of young men and women to unemployment in an economic downturn. *Discussion paper series*, IZA DP No. 4359. Retrieved from http://library.bsl.org.au/jspui/bitstream/1/1234/1/227148_Who_is_the_hardest_hit_during_financial_crisis.pdf.

* Vlaev, I., & Elliott, A. (2014). Financial Well-Being Components. *Social Indicators Research, 118*(3), 1103–1123.

Whittemore, R., Chao, A., Jang, M., Minges, K. E., & Park, C. (2014). Methods for knowledge synthesis: an overview. *Heart & Lung: The Journal of Acute and Critical Care, 43*(5), 453–461.

* Xiao, J. J., Tang, C., & Shim, S. (2009). Acting for happiness: Financial behavior and life satisfaction of college students. *Social Indicators Research, 92*(1), 53–68.

Yurdusev, A. N. (1993). Level of analysis and unit of analysis: A case for distinction. *Millennium: Journal of International Studies, 22*(1), 77–88.

* Zhang, X. A., & Cao, Q. (2010). For whom can money buy subjective well-being? The role of face consciousness. *Journal of Social and Clinical Psychology, 29*(3), 322–346.