

REVIEW

The role of self-compassion in the psychological (mal)adjustment of older adults: a scoping review

L. R. Tavares,¹  P. Vagos,² and A. Xavier²

¹Universidade Portucalense Infante D. Henrique, Instituto de Desenvolvimento Humano Portucalense, Rua Dr. António Bernardino de Almeida, 541/619, 4200-072 Porto, Portugal

²Universidade Portucalense Infante D. Henrique, Instituto de Desenvolvimento Humano Portucalense, Centro de Investigação em Neuropsicologia e Intervenção Cognitivo-Comportamental da Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra, Rua Dr. António Bernardino de Almeida, 541/619, 4200-072 Porto, Portugal

ABSTRACT

Background: The identification of protection factors regarding older adults' mental health is essential. Self-compassion, the capacity to be kind towards the self during challenging times, may be one such factor. Although still scarce, some research in this field has already been conducted with older adults. Our research question was the following: what is currently known about the role of self-compassion in the psychological (mal)adjustment of older adults?

Objectives: To review any study designs, in any setting, where self-compassion and any indicators of psychological (mal)adjustment were assessed in participants aged ≥ 60 years.

Design: A scoping review of English, Portuguese, and Spanish published and unpublished materials, using the EBSCOhost Research and PubMed databases and reference lists. Search terms included self-compassion, self-compassion, older adults, elderly, seniors, and geriatrics. After screening and selection of the studies, we charted the relevant data.

Results: Eleven published studies (2012–2018) were reviewed. Self-compassion was associated with, and a predictor of, diverse mental health indicators in older adults. Self-compassion was also associated with indicators of physical health, moderated the relationship between physical health indicators and mental health indicators, and mediated the relationship between diverse mental health indicators. Results were obtained with participants of different nationalities and age. All studies had a cross-sectional design, and most studies recruited well-functioning community residents.

Conclusions: Self-compassion is beneficial for the psychological adjustment of older adults and may also benefit their biological functioning. Self-compassion seems particularly relevant for those experiencing more negative life events. Studies with more robust methodologies are needed in order to replicate these findings.

Key words: nutrition, public health, US Army, behavioral health

Introduction

The increase in human life span and the decrease in birth rates have culminated in the aging of modern societies (Laidlaw *et al.*, 2003). Portugal has one of the largest aging rates in Europe and, according to Instituto Nacional de Estatística (INE), 18.7% to 28.6% of the population is aged 65 years or older

(INE, 2016). Whereas it is possible to remain physically and mentally healthy even at a prolonged age, it is also undeniable that functional incapacities, chronic diseases, and overall stress factors may result in impoverished quality of life and higher risk of psychopathology. During the aging process, one normatively experiences the decline in or loss of physical and psychological resources, and adjusting to these life stressors can be challenging. Older adults may respond to such undesired changes in a self-critical way, by blaming themselves and being overwhelmed with negative affect, regret, and rumination (Baltes and Smith, 2003; Casey, 2012; Laidlaw *et al.*, 2003). Therefore, it is of crucial importance to study constructs that may

Correspondence should be addressed to: Lúcia Rafaela Tavares, Universidade Portucalense Infante D. Henrique, Instituto de Desenvolvimento Humano Portucalense, Rua Dr. António Bernardino de Almeida, 541/619, 4200-072 Porto, Portugal. Phone: + 351 225 572 269. Email: 40734@alunos.uportu.pt. Received 15 Nov 2019; revision requested 24 Jan 2020; revised version received 04 Jun 2020; accepted 05 Jun 2020. First published online 06 Jul 2020

contribute to a kinder, more accepting, and more adaptative attitude toward the effects of aging. One such construct may be self-compassion (SC).

SC originates from the Asian Buddhist philosophy, preconizing an adaptive relationship with the self during times of difficulty or failure, by being kind and understanding instead of judgmental and self-critical. SC entails recognizing that personal mistakes are inherent to the human condition, rather than a sign of one's inadequacy. This fosters the capacity to be mindfully aware of painful sentiments and cognitions, without avoiding, suppressing, or overidentifying the self with them (Neff, 2003a; 2003b). Neff (2003b) conceptualizes SC as three interrelated components. Self-kindness represents the capacity to be soothing and gentle toward oneself while experiencing complicated challenges and promotes the motivation for personal growth and improvement. Mindfulness represents the capacity to be aware of one's feelings, thoughts, and experiences in a given moment, which promotes the acknowledging of negative circumstances in an adaptative manner. Finally, common humanity represents the capacity to have a holistic and broader view of one's flaws and shortcomings, understanding that negative experiences are shared by others.

Research in the field of SC has significantly increased within the past two decades. SC has been associated with several positive psychological outcomes (e.g., life satisfaction, well-being, positive affect) and has been suggested as a protection factor in face of psychological distress and mental health disorders and symptoms (Neff, 2011; Neff *et al.*, 2007a; 2007b; MacBeth and Gumley, 2012; Zessin *et al.*, 2015). Although most of this research has been conducted with younger populations, recent studies also suggest that SC may be of great importance for older adults and may help develop or improve psychological interventions to promote successful aging. In their systematic review and meta-analysis, Brown *et al.* (2019) have concluded that, in the geriatric population, SC was associated with lowered depressive and anxious symptoms, and with heightened levels of hedonic and eudaemonic well-being. SC was also considered particularly important for the well-being of older adults who experienced more health problems, emerging as a moderator of this relationship. The authors, therefore, considered SC to be a promising resilience factor for this population, able to foster the aging process in a more adaptative manner. This work was essential to demonstrate the relevance of SC for older adults, but their search process was limited by not including qualitative studies, conference abstracts, nor materials published in a language other than English.

The present study, therefore, aimed to extend the currently existing knowledge. Its purposes were to

clarify the extent and breadth of research related to SC in the geriatric population and to identify potential gaps in this field. We elaborated the following research question: What is currently known about the role of SC in the psychological (mal)adjustment of older adults? The scoping review is a method of knowledge and evidence synthesis that allows for an initial overview of a research field, by making use of broad search terms without imposing quality filters. It is a useful methodology to summarize and disseminate research findings, to identify research gaps, and to make recommendations for future research. Additionally, it may be particularly useful to review the literature in areas with emerging evidence (Arksey and O'Malley, 2005; Grant and Booth, 2009; Levac *et al.*, 2010; Peters *et al.*, 2015). Given the relatively recent nature of research regarding SC in the geriatric population, we considered that the scoping review is a well-suited methodology able to answer our research question and to complement the results of Brown *et al.* (2019), by providing broader conclusions.

To this purpose, the present study reviewed any study designs, in any setting, where SC and any indicators of psychological (mal)adjustment (e.g., depressive symptoms, life satisfaction) were assessed in participants aged 60 years or older or with a mean age of 65 years or older.

Methods

Eligibility criteria

The present review included studies where the sample's age was ≥ 60 years or its mean age was ≥ 65 years. Studies with samples of mixed age were excluded, except for studies where the geriatric sample was examined independently (Homan, 2016a; Greene *et al.*, 2016). SC must be an outcome analyzed in the study and assessed with a validated instrument. Studies where compassion was the outcome were excluded. Any study design and methodology, as well as any setting, were considered acceptable. Finally, published and unpublished materials (e.g., dissertations), written in Portuguese, English, or Spanish, were considered acceptable.

Information sources

The present scoping review was conducted according to the recommendations of Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR; Tricco *et al.*, 2018). The PRISMA-ScR checklist is available in Table S1, as supplementary material. The lead researcher performed the search between June 2019

and September 2019, using the EBSCO host Research and PubMed databases. Additionally, the same researcher manually scanned the reference lists of relevant studies. No date limitations were applied. The EBSCO host Research databases, Academic Search Ultimate, Fonte Académica, Psyc ARTICLES, Psychology and Behavioral Sciences Collection, and Psyc INFO were searched using the following combination of Boolean operators: “self-compassion or self compassion” AND “older adults or elderly or seniors or geriatrics.” In the PubMed databases, the combination of Boolean operators used was “self compassion” AND “older adults”.

Selection of sources of evidence

During the search, the lead researcher screened the titles and abstracts for eligibility. All materials of potential relevance were retrieved in full text. These were posteriorly read by the same researcher who further applied the eligibility criteria until achieving the final selection of studies to be included in the scoping review.

Data charting process

The lead researcher charted the data from each study and inserted it in a table elaborated *a priori* by the same researcher. This table was further reviewed by the two co-researchers. This table was created according to the recommendations of PRISMA-ScR (Tricco *et al.*, 2018), with the objective of capturing all relevant information about all key study characteristics that would answer the present review’s research question. The lead researcher abstracted data on (1) characteristics of participants (sample size, age range and mean age, country, setting); (2) study objectives; (3) outcomes and instruments; and (4) study design and methodology. For mixed-age studies and studies where multiple outcomes were assessed, only the results referring to the geriatric samples and to the SC-related outcomes, respectively, were charted. The summary of the charted data is presented in Table 1.

Critical appraisal of individual sources of evidence

According to the PRISMA-ScR methodology (Tricco *et al.*, 2018), this step is described as optional, given the scoping review’s objective of providing an overview of the existing evidence, regardless of methodological quality. Given this recommendation, corroborated by similar methodological frameworks suggested by Arksey and O’Malley (2005) and Peters *et al.* (2015), and given the paucity of research with older adults which we have already mentioned, we opted

for not conducting a quality appraisal of the included studies, in order to make our review as broad as possible.

Results

Selection of sources of evidence

The search in the EBSCO host Research and PubMed databases provided, respectively, 72 and 123 results. Together with 2 studies identified from scanning reference lists, the initial total was 197 results. After review of the titles and abstracts, 56 results (EBSCO host Research) and 122 results (PubMed) were discarded, based on duplicated results, nonrelevant results, and the application of the selection criteria. The full text of 19 results was examined, with further exclusion of 8 results. Reasons for exclusion were one or more of the following: study objectives that were not pertinent to answering the present review’s research question, assessed outcomes did not include SC, mean age value did not meet the inclusion criteria or was not specified. A final total of 11 published studies were included in the scoping review (no unpublished materials were eligible). Figure 1 provides an overview of the PRISMA-ScR strategy (Tricco *et al.*, 2018) used during this process.

Characteristics of sources of evidence

The reviewed studies dated between 2012 and 2018. All studies were published in peer-reviewed journals and had a cross-sectional design. Six studies were conducted in the USA (Allen *et al.*, 2012; Allen and Leary, 2013; Greene *et al.*, 2016; Homan, 2016a; 2016b; Smith, 2015), two in Canada (Bennett *et al.*, 2017; Herriot *et al.*, 2018), one in Pakistan (Imtiaz and Kamal, 2016), one in South Korea (Kim and Ko, 2018), and one in Australia (Phillips and Ferguson, 2013). Nine studies had a quantitative methodology (Allen *et al.*, 2012; Greene *et al.*, 2016; Herriot *et al.*, 2018; Homan, 2016a; 2016b; Imtiaz and Kamal, 2016; Kim and Ko, 2018; Phillips and Ferguson, 2013; Smith, 2015), one had a qualitative methodology (Bennett *et al.*, 2017), and one had a mixed methodology (Allen and Leary, 2013).

The main objectives of the studies were to examine relations between SC and other variables (Allen *et al.*, 2012; Greene *et al.*, 2016; Herriot *et al.*, 2018; Homan, 2016a; 2016b; Imtiaz and Kamal, 2016; Kim and Ko, 2018; Phillips and Ferguson, 2013; Smith, 2015), to test the role of SC as a moderator (Allen *et al.*, 2012; Herriot *et al.*, 2018; 2016a; Smith, 2015) or mediator (Allen and Leary, 2013; Homan, 2016b), to explore the nature of cognitions associated with SC (Allen and Leary, 2013), to explore experiences and perceptions of SC in the

Table 1. Summary of reviewed studies about the role of self-compassion in the psychological (mal)adjustment of older adults

AUTHOR/ YEAR/ COUNTRY	STUDY CHARACTERISTICS	STUDY OBJECTIVES	SETTING/SAMPLE SIZE/ AGE RANGE (MEAN, STANDARD DEVIATION)	ASSESSED OUTCOMES (INSTRUMENTS)	KEY FINDINGS
Allen, Goldwasser, & Leary/ 2012/ USA	Published in peer-reviewed journal. Quantitative Cross-sectional design.	<p>Study 1: To examine the relationship between physical health, SC, and well-being.</p> <p>Study 2: To examine whether participants higher in SC are more accepting of their limitations and more inclined to take proactive measures to improve well-being than participants lower in SC.</p>	<p>Study 1: Not specified/ 132 participants/ 67–90 years (not specified)</p> <p>Study 2: Independent living facility/ 71 participants/ 63–97 years (not specified)</p>	<p>Study 1: Self-compassion (SCS) Pain (SF-36) General health (SF-36) Mobility (SF-36) Hearing (created instrument) Number of medical problems (created instrument) General well-being (GWBI) Successful aging (AtOAS) Emotional problems (SF-36) Life satisfaction (SLS) Social functioning (SF-36)</p> <p>Study 2: Self-compassion (SCS-SF, created) Depression (GDS-15) Level of impairment (created instrument) Successful aging (AtOAS) Physical and mental difficulties (created instrument) Use of assistance (created instrument) Bothered by assistance (created instrument) Public concealment (created instrument) Mental status (SPMSQ)</p>	<p>Study 1: SC was associated with pain and with all indicators of well-being. Main effect of SC on general well-being, life satisfaction, social functioning, emotional problems, and successful aging. SC moderated the relationship between physical health and subjective well-being.</p> <p>Study 2: Participants higher in SC were more willing to ask people to repeat themselves when they could not hear what had been said and more willing to use a walker (but not another person’s help). SC moderated the relationship between memory difficulty and use of mnemonic tricks and strategies. Participants high in SC were less bothered by needing assistance to walk. SC was not related to the degree to which participants wanted to hide their problems from others.</p> <p>General findings: The average SC score for these participants was higher than the college-student population.</p>

Table 1. Continued

AUTHOR/ YEAR/ COUNTRY	STUDY CHARACTERISTICS	STUDY OBJECTIVES	SETTING/SAMPLE SIZE/ AGE RANGE (MEAN, STANDARD DEVIATION)	ASSESSED OUTCOMES (INSTRUMENTS)	KEY FINDINGS
Allen & Leary/ 2013/USA	Published in peer-reviewed journal. Mix-methods research: quantitative data with qualitative feedback. Cross-sectional design.	To examine how participants who differ in SC think differently about age-related events. To test whether the nature of the participants' thoughts mediates the relationship between SC and coping with such events.	Community/ 121 participants/ 63–93 years ($M = 76.2$, $SD = 6.74$)	Self-compassion (SCS-SF) Self-esteem (SES) Thoughts and feelings about an aging-related event (created Likert scales and open-ended questions)	Self-compassionate participants reported more positive self-compassionate cognitions when discussing an age-related event, their general thoughts about getting older, and how their thoughts about aging have changed since turning 40. Self-compassionate participants expressed fewer negative thoughts about these events. SC predicted self-compassionate thoughts when writing about both positive and negative age-related events. Participants low <i>versus</i> high in SC were distinguished not by their propensity to experience negative events or by their evaluations of those events, but rather by the ways in which they think about them. Self-compassionate cognitions related to the event mediated the relationship between SC and the emotional tone of participants' responses as well as the relationship between SC and the extent to which participants reported that their attitude helped them adjust to the event. All results were obtained while controlling for trait self-esteem.
Bennett, Clarke, Kowalski, & Crocker/ 2017/ Canada	Published in peer-reviewed journal. Qualitative research. Thematic analysis. Cross-sectional design.	To explore perceptions and experiences of, and coping with, physical changes associated with aging. To examine the cognitive, emotional, and behavioral strategies employed to manage these changes. To examine the experiences of SC and perceptions of its utility as a resource in the face of aging body-related changes.	Community and retirement communities/ 21 physically active women/ 65–94 years ($M = 77$, $SD = 7.82$)	Self-compassion and body perceptions, experiences, and management (semi-structured interviews)	SC for the aging body may be perceived as difficult and idealistic because of the physical changes accompanying aging (i.e., deviating from Western feminine societal beauty standards). Although self-compassionate, in the sense of accepting their physical limitations, the participants were also critical of their body's functionality and appearance. Age and cohort may influence the perceptions and experiences of body-related SC.

Table 1. Continued

AUTHOR/ YEAR/ COUNTRY	STUDY CHARACTERISTICS	STUDY OBJECTIVES	SETTING/SAMPLE SIZE/ AGE RANGE (MEAN, STANDARD DEVIATION)	ASSESSED OUTCOMES (INSTRUMENTS)	KEY FINDINGS
Greene, Britton, & Shepherd/ 2016/ USA	Published in peer-reviewed journal. Quantitative research. Cross-sectional design.	To predict perceived LGBTQ positive mental health at midlife and in older adulthood as a function of potential risk and protective factors. To test for differences between age-groups to investigate the developmental process of aging in LGBTQ populations. To test a model where stressors associated with aging, for persons identifying as LGBTQ, may influence additional stressors which may then predict coping strategies and mental health.	Community/ 124 participants/ 65–87 years ($M = 69.24$, $SD = 3.88$)	Self-compassion (SCS-SF) Mental and physical health (HSQ-12) Body shame (ESS) Financial anxiety (FAS) Alienation and self-transcendence (ASTI) Loneliness (UCLA LS-3)	The levels of SC were significantly higher in the LGBTQ older adults sample, compared to the LGBTQ midlife sample. SC, physical health, financial anxiety, and self-transcendence predicted mental health in LGBTQ older adults. Both age-groups associated capacities for SC and self-transcendence with positive mental health, and SC contributed most to the prediction of mental health in older adults.
Herriot, Wrosch, & Gouin/ 2018/ Canada	Published in peer-reviewed journal. Quantitative research. Cross-sectional design.	To examine the associations among SC, specific age-related stressors, and diurnal cortisol secretion. To test the moderating role of SC in the relationship between age-related stressors and diurnal cortisol secretion.	Community/ 233 participants/ 59–93 years ($M = 75.57$, $SD = 7.75$)	Self-compassion (SCS-SF) Diurnal cortisol secretion (saliva samples) Physical health problems (created instrument) Functional disability (created instrument) Regret intensity (created instrument)	SC moderated the associations between specific chronic and uncontrollable age-related stressors (physical health problems, functional disability, and regret intensity) and the levels of diurnal cortisol secretion. The results were significant after controlling for age, sex, socioeconomic status, body mass index, and smoking habits.
Homan/ 2016a/ USA	Published in peer-reviewed journal. Quantitative research. Cross-sectional design.	To explore the relationships between SC and psychological functioning, and between SC and age.	Community/ 126 participants/ 59–95 years ($M = 70.59$, $SD = 7.84$)	Self-compassion (SCS-SF) Self-esteem (SISE) Psychological well-being (SPWB modified version) Psychological distress (DASS-SF)	SC increased with age. SC predicted six dimensions of psychological well-being (self-acceptance, positive relationships, personal growth, purpose in life, environmental mastery, and autonomy). SC moderated the relationship between subjective ratings of overall health and depression.

Table 1. Continued

AUTHOR/ YEAR/ COUNTRY	STUDY CHARACTERISTICS	STUDY OBJECTIVES	SETTING/SAMPLE SIZE/ AGE RANGE (MEAN, STANDARD DEVIATION)	ASSESSED OUTCOMES (INSTRUMENTS)	KEY FINDINGS
Homan/ 2016b/ USA	Published in peer-reviewed journal. Quantitative research. Cross-sectional design.	To explore the relationships between SC, attachment anxiety and avoidance, and eudaemonic well-being. To test the mediating role of SC in the relationships between attachment and eudaemonic well-being.	Community/ 126 participants/ 60–95 years ($M = 70.40$, $SD = 8.14$)	Self-compassion (SCS-SF) Attachment (ECR, adapted version) Eudaemonic well-being (SPWB, modified version)	Participants with more secure attachment styles tended to experience more SC. SC had a positive correlation with five dimensions of eudaemonic well-being (self-acceptance, personal growth, personal relationships, purpose in life, and environmental mastery). SC also mediated the associations between attachment anxiety and avoidance and these five indicators.
Imtiaz & Kamal/ 2016/ Pakistan	Published in peer-reviewed journal. Quantitative research. Cross-sectional design.	To investigate the relationships between SC, optimism, rumination, and psychological well-being. To explore the predicting role of the SC dimensions for these variables.	Community/ 209 participants/ 60–90 years (not specified)	Self-compassion (SCS) Rumination (RRS) Optimism (LOT) Psychological well-being (WEMWBS)	SC was positively associated with psychological well-being, optimism, and perceived financial security. SC was negatively associated with rumination. Of the SC dimensions, self-judgment, isolation, and overidentification positively predicted rumination, whereas common humanity was a negative predictor. Overidentification and isolation were negative predictors of optimism, whereas self-kindness was a positive predictor. Self-kindness, mindfulness, and common humanity positively predicted psychological well-being, whereas isolation was a negative predictor.
Kim & Ko/ 2018/ South Korea	Published in peer-reviewed journal. Quantitative research. Cross-sectional design.	To examine the associations between SC and mental health symptoms, sleep disturbance, life satisfaction, and health-related quality of life.	Community/ 203 participants/ 65–≥ 85 years ($M = 76.26$, $SD = 6.77$)	Self-compassion (SCS) Depression (GDS-15) Anxiety (HADS) Sleep disturbance symptoms (ISI) Life satisfaction (SLS) Health-related quality of life (EQ-5D-5L)	SC was associated with depression, sleep disturbance, and life satisfaction. The positive dimensions of SC (i.e., mindfulness, self-kindness, and common humanity) were associated with lower depressive and sleep disturbance symptoms, and with a higher level of life satisfaction, self-care, and usual activities. The negative dimensions (i.e., self-judgment, isolation, and overidentification) were associated with age, with increased depressive, anxiety, and sleep disturbance symptoms, and with a lower level of life satisfaction.

Table 1. Continued

AUTHOR/ YEAR/ COUNTRY	STUDY CHARACTERISTICS	STUDY OBJECTIVES	SETTING/SAMPLE SIZE/ AGE RANGE (MEAN, STANDARD DEVIATION)	ASSESSED OUTCOMES (INSTRUMENTS)	KEY FINDINGS
Phillips & Ferguson/ 2013/ Australia	Published in peer-reviewed journal. Quantitative research. Cross-sectional design.	To explore the relations between SC and four indicators of well-being. To identify the latent structure of the SCS in a geriatric sample.	Retirement communities/ 185 participants/ 65–92 years ($M = 73.42$, $SD = 6.72$)	Self-compassion (SCS) Meaning in life (MLQ) Ego integrity (IPD) Positive affect (PANAS) Negative affect (PANAS)	SC was associated with subjective well-being (i.e., positive affect and negative affect) and with psychological well-being (i.e., ego integrity and meaning in life), while controlling for the effects of age, perceived health, income adequacy, and education. SC was weakly and nonsignificantly correlated with age. The six-factor SCS structure ascertained from younger participants' responses was not observed in this sample. Instead, a structure with two factors representing a positive facet (self-kindness, common humanity, and mindfulness) and a negative facet (self-judgment, isolation, and overidentification) was found.
Smith/ 2015/ USA	Published in peer-reviewed journal. Quantitative research. Cross-sectional design.	To examine the relationship between SC and psychological resilience. To examine the relationship between SC, stress, health, and psychological well-being.	Continuing care retirement community/ 102 participants/ 65–94 years ($M = 82.1$, $SD = 5.53$)	Self-compassion (SCS-SF) Perceived stress (PSS-4) Health (SF-36) Happiness (SHS) Depression (CES-D)	SC moderated the relationship between perceived stress and happiness and depression. SC also moderated the relationship between health and happiness and depression. Participants with higher SC displayed greater levels of psychological resilience compared to participants with lower SC.

SC = Self-compassion; SCS = Self-Compassion Scale; SF-36 = Short Form (36) Health Survey; GWBI = General Well-Being Index; AtOAS = Attitude toward Own Aging Scale; SLS = Satisfaction with Life Scale; SCS-SF = Self-Compassion Scale – Short Form; GDS-15 = Geriatric Depression Scale – 15 items; SPMSQ = Short Portable Mental Status Questionnaire; SES = Self-esteem Scale; HSQ-12 = Health Status Questionnaire-12; ESS = Experience of Shame Scale; FAS = Financial Anxiety Scale; ASTI = Adult Self-Transcendence Inventory; UCLA LS-3 = UCLA Loneliness Scale Version 3; LGBTQ = lesbian, gay, bisexual, transgender, and queer or questioning; SISE = Single-Item Self-Esteem Scale; SPWB = Scales of Psychological Well-Being; DASS-SF = Depression Anxiety and Stress Scale – Short Form; ECR = Experiences in Close Relationships Scale; RRS = Ruminative Responses Scale; LOT = Life Orientation Test; WEMWBS = Warwick-Edinburgh Mental Well-Being Scale; HADS = Hospital Anxiety and Depression Scale; ISI = Insomnia Severity Index; EQ-5D-5L = EuroQoL-5 Dimensions; MLQ = Meaning in Life Questionnaire; IPD = Inventory of Psychosocial Development; PANAS = Positive and Negative Affect Scale; PSS-4 = Perceived Stress Scale – 4 items; SHS = Subjective Happiness Scale; CES-D = Center for Epidemiologic Studies Depression Scale.

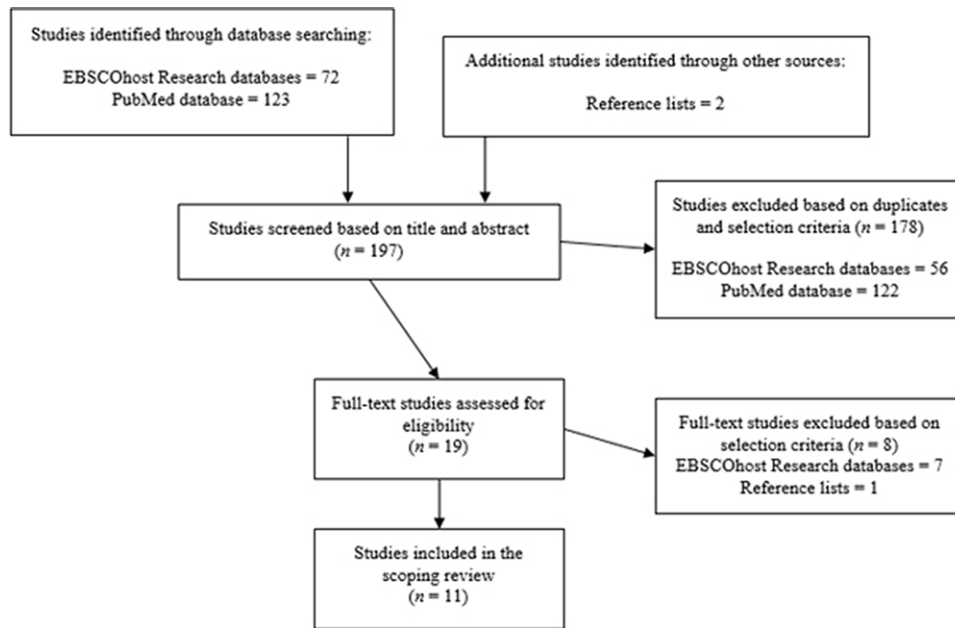


Figure 1. Modified PRISMA flow diagram of study screening and selection.

context of body image (Bennett *et al.*, 2017), and to examine the factorial structure of the Self-Compassion Scale in the geriatric population (Phillips and Ferguson, 2013).

No studies recruited clinical samples. Eight studies recruited participants from the general community (Allen and Leary, 2013; Bennett *et al.*, 2017; Greene *et al.*, 2016; Herriot *et al.*, 2018; Homan, 2016a; 2016b; Imtiaz and Kamal, 2016; Kim and Ko, 2018), two studies recruited from retirement communities (Bennett *et al.*, 2017; Phillips and Ferguson, 2013), one study recruited from a continuing care retirement community (Smith, 2015), one study recruited from an independent living facility (Allen *et al.*, 2012, study 2), and one study did not specify the origin of the recruited sample (Allen *et al.*, 2012, study 1). The sample size of the studies varied between 21 and 233 participants, the age range varied between 59 and 97 years, and the mean age varied between 69.24 and 82.1 years.

SC was assessed with the Self-Compassion Scale in four studies (Allen *et al.*, 2012, study 1; Imtiaz and Kamal, 2016; Kim and Ko, 2018; Phillips and Ferguson, 2013), with the shortened version of this scale in six studies (Allen and Leary, 2013; Greene *et al.*, 2016; Herriot *et al.*, 2018; Homan, 2016a, 2016b; Smith, 2015), and with a semi-structured interview in one study (Bennett *et al.*, 2017). In their study 2, Allen *et al.* (2012) created their own short form of the Self-Compassion Scale, given that, at the time of their research, no abbreviated version was available.

Other psychological outcomes assessed in the studies included general well-being, successful aging, emotional problems, social functioning, mental

status (Allen *et al.*, 2012), psychological well-being (Homan, 2016a; 2016b; Imtiaz and Kamal, 2016; Phillips and Ferguson, 2013), subjective well-being (Phillips and Ferguson, 2013), life satisfaction (Allen *et al.*, 2012; Kim and Ko, 2018), depression (Kim and Ko, 2018; Allen *et al.*, 2012; Smith, 2015), self-esteem (Allen and Leary, 2013; Homan, 2016a), body shame, financial anxiety, alienation and self-transcendence, loneliness (Greene *et al.*, 2016), psychological distress (Homan, 2016a), attachment (Homan, 2016b), rumination, optimism (Imtiaz and Kamal, 2016), anxiety, health-related quality of life (Kim and Ko, 2018), perceived stress, happiness (Smith, 2015), body image-related indicators (Bennett *et al.*, 2017), and assorted mental health indicators (e.g., mental difficulties, regret intensity; Allen *et al.*, 2012; Allen and Leary, 2013; Greene *et al.*, 2016; Herriot *et al.*, 2018).

Physical outcomes assessed in the studies included pain (Allen *et al.*, 2012), general health (Allen *et al.*, 2012; Smith, 2015), diurnal cortisol secretion (Herriot *et al.*, 2018), sleep disturbance (Kim and Ko, 2018), and assorted physical health indicators (e.g., number of medical problems, functional disability; Allen *et al.*, 2012; Greene *et al.*, 2016; Herriot *et al.*, 2018).

Synthesis of results

Results of individual sources of evidence are presented in Table 1.

In the studies with quantitative or mixed methodology, SC was positively correlated with, and was a predictor of, beneficial mental health outcomes in nine studies (Allen *et al.*, 2012; Allen and Leary,

2013; Greene *et al.*, 2016; Homan, 2016a; 2016b; Imtiaz and Kamal, 2016; Kim and Ko, 2018; Phillips and Ferguson, 2013; Smith, 2015). SC was also negatively correlated with, and was a predictor of, psychopathology-related symptoms in six studies (Allen *et al.*, 2012; Herriot *et al.*, 2018; Homan, 2016a; Imtiaz and Kamal, 2016; Kim and Ko, 2018; Smith, 2015). SC was further associated with indicators of physical health in five studies (Allen *et al.*, 2012; Herriot *et al.*, 2018; Homan, 2016a; Kim and Ko, 2018; Smith, 2015). The moderator role of SC was tested in four studies (Allen *et al.*, 2012; Herriot *et al.*, 2018; Homan, 2016a; Smith, 2015), regarding the relationship between physical health-related outcomes (e.g., functional disability) and mental health-related outcomes (e.g., subjective well-being). The mediator role of SC was tested in one study (Homan, 2016b), regarding the relationship between diverse mental health-related constructs. Additionally, the mediator role of self-compassionate cognitions was tested in one study (Allen and Leary, 2013).

Still regarding the quantitative studies, these beneficial results reported for SC were found for older adults in western (Allen *et al.*, 2012; Allen and Leary, 2013; Greene *et al.*, 2016; Herriot *et al.*, 2018; Homan, 2016; Homan, 2016b; Phillips and Ferguson, 2013; Smith, 2015) and eastern societies (Imtiaz and Kamal, 2016; Kim and Ko, 2018). Likewise, and based on Funnell (2010)'s terminology, beneficial results were reported for "young-old" participants (i.e., mean age of less than 75 years; Greene *et al.*, 2016; Homan, 2016a; Homan, 2016b; Phillips and Ferguson, 2013) and for "old-old" participants (i.e., mean age of 75 years or older; Allen and Leary, 2013; Herriot *et al.*, 2018; Kim and Ko, 2018; Smith, 2015). All these studies recruited nonclinical samples and assessed SC with a self-report instrument.

In the studies with qualitative or mixed methodology, mixed results were found about the role of SC. One study (Allen and Leary, 2013) interpreted SC and self-compassionate cognitions as having a beneficial impact on the emotional tone of age-related thoughts and on the appraisal of, and coping with, negative age-related events. On the other hand, one study (Bennett *et al.*, 2017) interpreted SC as being potentially difficult to foster and idealistic. In this case, SC was explored solely regarding age-related body image perceptions. Results of both studies were reported for "old-old" participants in a western society. Both recruited nonclinical samples, the mixed methodology study (Allen and Leary, 2013) assessed SC with a self-report instrument, and the qualitative methodology study (Bennett *et al.*, 2017) assessed SC with a semi-structured interview.

Discussion

Summary of evidence

Within the past two decades, the role of SC as a protection factor in the face of psychopathology symptoms has been increasingly researched. Whereas the majority of this literature has focused on younger populations, SC has also been suggested as an important resource to cope with the challenges inherent to the aging process.

The systematic review and meta-analysis conducted by Brown *et al.* (2019) was the first to address this possibility, by synthesizing the currently available knowledge. They reported, for older adults, meta-analytic results for the association between SC and reduced symptoms of depression and anxiety as well as the association between SC and higher levels of both hedonic and eudaemonic well-being. Additionally, they found evidence that SC may reduce the emotional burden of health issues in these individuals. Finally, preliminary findings were reported in regard to the relation between SC and social well-being.

The present scoping review was conducted to complement and expand the work of Brown *et al.* (2019) and to further ascertain the role of SC in the psychological (mal)adjustment of older adults. Both works included six overlapping studies (Allen *et al.*, 2012; Allen and Leary, 2013; Greene *et al.*, 2016; Homan, 2016a; Phillips and Ferguson, 2013; Smith, 2015). On the other hand, our inclusion criteria were broader and we did not perform a quality appraisal of the included studies, which allowed us to review five studies not addressed by the previous article (Bennett *et al.*, 2017; Herriot *et al.*, 2018; Homan, 2016b; Imtiaz and Kamal, 2016; Kim and Ko, 2018). Additionally, our scoping review contributes to the literature by having included one qualitative study (Bennett *et al.*, 2017). This methodology allowed those participants the opportunity to talk more in-depth about their experience of SC, rather than responding to preestablished closed questions only, and inclusively highlighted potential difficulties in being compassionate toward oneself (a further discussion of this topic is presented below). Our review also contributes by having searched and reviewed unpublished materials and materials written in Spanish and Portuguese (although none were ultimately included, based on our selection criteria). Finally, our work provides the synthesis of data regarding constructs that may be highly relevant to the process of healthy aging: rumination, optimism, attachment anxiety and avoidance, sleep disturbance symptoms, life satisfaction, health-related quality of life, regret intensity, functional disability, diurnal cortisol secretion, and perceptions, experiences, and management of body image.

The present scoping review included 11 studies, between 2012 and 2018, that investigated the relationship of SC with several constructs associated with psychological (mal)adjustment in the geriatric population as well as constructs related to physical health, and that tested the role of SC as a potential protection factor for this population. The reduced number of eligible studies, and of studies identified through the search process, demonstrates the paucity of research in this area. Nonetheless, some conclusions can be drawn at this point.

Of the 11 reviewed studies, 10 had a quantitative or mixed methodology and, in all of these, SC was (a) positively associated with, and a predictor of, beneficial mental health constructs (e.g., life satisfaction, psychological well-being), and/or (b) negatively associated with, and a predictor of, mental disorder symptoms (e.g., depression). Additionally, SC was associated with physical health constructs (e.g., pain, sleep disturbances, diurnal cortisol secretion). In some studies, SC further emerged as a protection factor regarding the mental health of older adults, in face of life stressors normatively associated with the aging process (e.g., decline or loss of general health or physical skills). Therefore, SC seems to be a valuable resource for the psychological adjustment of these individuals, as has been demonstrated for younger populations (e.g., MacBeth and Gumley, 2012). It is noteworthy that, based on these findings, SC may benefit not only the mental health of older adults but their biological functioning as well. The present review replicates the results found by Brown *et al.* (2019) regarding mental health-related constructs (i.e., depression, anxiety, hedonic well-being, eudaemonic well-being) and physical health and add to this body of evidence by extending these results to other constructs (e.g., life satisfaction, attachment anxiety and avoidance, sleep disturbance symptoms).

Allen *et al.* (2012) suggested that SC is associated with more acceptance toward one's physical limitations and with the motivation for self-care, whereas Smith (2015) ascertained that self-compassionate participants showed greater levels of psychological resilience. Thus, SC may contribute to a kinder and more accepting attitude toward the effects of aging. Self-compassionate older adults are aware that such changes are part of the human nature, rather than personal failures, and this can foster positive interpersonal relationships, personal growth-related activities, and the cherishing of a purpose in life (Neff, 2003b). The findings of the present review suggest that SC may be particularly relevant for those who experience more negative life circumstances, which was also highlighted by Brown *et al.* (2019). This conclusion was particularly emphasized in the work of Allen *et al.* (2012).

The extent to which our results can be generalized is somewhat limited. Most of the included studies recruited participants from the general community and no studies included clinical samples. Despite including participants from eastern societies (Imtiaz and Kamal, 2016; Kim and Ko, 2018), all samples were relatively homogenous and comprised mostly of White, well-functioning, financially stable older adults. As was mentioned, SC may be of increased importance for those who face more challenging life conditions. Nonetheless, our scoping review contributes to further extend the results of Brown *et al.* (2019) who have extracted and analyzed data mainly from developed, western societies (i.e., USA, Canada, and Europe). On the other hand, the study of Greene and colleagues (2016) is a first indicator of the beneficial role of SC for lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ) older adults, and more research is needed that takes into account the specificities of minority groups.

Additionally, the positive impact of SC was demonstrated even with "old-old" participants, suggesting that the benefits of fostering a self-compassionate mind and attitude do not decrease with age. Nonetheless, through a qualitative methodology and by the use of semi-structured interviews, Bennett and colleagues (2017) alerted for the possibility of SC being interpreted as difficult and idealistic, at least in the context of the body image of physically active older women, and emphasized that such perceptions were mostly expressed by the oldest participants, which suggest that body-related SC may be influenced by age and cohort. Further research is needed to clarify whether such perceptions may also apply to general SC, for example, by conducting more qualitative studies that allow a deeper understanding of what SC means to these individuals, along with its perceived utility. Additionally, it might prove useful to explore whether beliefs similar to the ones expressed by those participants are an indicator of fear of SC (Gilbert and Procter, 2006), which is a construct not yet studied in the geriatric population.

The relationship between SC and age also requires attention. Whereas Neff (2011) suggested that SC may increase in older adulthood, particularly upon achieving the stage of ego integrity, the studies included in the present review showed mixed results: Allen and colleagues (2012) found that SC was higher in their geriatric sample compared to college students. Using a multigenerational sample, Homan (2016a) also reported an increase in SC with age, and Greene and colleagues (2016) found that LGBTQ participants aged 65 years and older were more self-compassionate than midlife participants. However, the results of Phillips and Ferguson (2013) showed a weak and nonsignificant correlation between

SC and age. We suggest that these mixed results may be due to the heterogeneity of older adult samples, given the idiosyncrasies of the aging process in itself, even among well-functioning community residents. Future research with longitudinal designs would be useful to clarify these mixed findings.

Finally, with the exception of Bennett and colleagues (2017), all studies assessed SC with a self-report measure, namely, the Self-Compassion Scale (Neff, 2003a). Most studies preferred the shortened version of this instrument, with the intention of reducing the assessment burden for the participants. However, a recent study by Bratt and Fagerström (2020) reported psychometric problems when using the scale's short form in a sample of adults of age 66–102 years. Acceptable internal consistency was found only for the “young-old” participants, which suggests that adjustments may be necessary to improve the fit of the abbreviated scale for the “old-old” cohorts. Additionally, confirmatory factorial analyses indicated that the six-factor solution, obtained with younger populations, did not have an acceptable fit for this sample of older adults. Instead, a two-factor model, comprising a compassionate or uncompassionate relation with the self, showed better adjustment. Such model was corroborated by Phillips and Ferguson (2013), regarding the standard form of the scale. Therefore, the conclusions of the studies where the abbreviated scale was used should be interpreted with caution, and more research is needed to clarify the reliability of this version with this population. These findings add to the conclusions provided by Brown *et al.* (2019) who had already alerted for the heterogeneity issues caused by the use of several, and diverse, measures across different studies.

As a final note, we would like to emphasize the cross-sectional design of all the studies reviewed, which inherently limits the conclusions that can be drawn. We, therefore, argue that future research with longitudinal designs will be essential to clarify the results obtained so far. All the beneficial outcomes associated with SC, as well as its promising role as a protection factor regarding the mental health of older adults, must be replicated with more robust methodologies, in order to improve the reliability of current knowledge. Additionally, we argue that more intervention studies with the geriatric population will be of great value, provided they include an assessment of SC with validated instruments and an intervention rationale explicitly based on the promotion of SC. In this regard, we further argue that such intervention studies will benefit from not only assessing SC as an outcome but, as well, considering SC as a mechanism of change in said interventions. We furthermore suggest that qualitative studies will provide a more in-depth understanding of the role of SC in

this population and would allow older adults to more openly express their representations and appraisal of this construct.

Limitations

The present scoping review presents three main limitations. First, despite aiming to be as broad as possible, it included a small number of studies and only published papers written in English were ultimately selected. Six studies were excluded due to not meeting the selection criteria, and these studies could have contributed in answering the present review's research question. However, we made this decision based on the paucity of SC-related research focused only on the geriatric population, and with the intention to provide more specific conclusions.

Second, all the studies included in this review had a cross-sectional design and, therefore, cannot provide inferences about causality. It is plausible to assume that increased levels of SC lead to the reported positive outcomes, but it is also possible that higher levels of indicators such as psychological well-being or life satisfaction, in turn, foster one's capacity to be self-compassionate. Likewise, it is possible that third, unknown variables have an impact on these relationships. Therefore, whereas the conclusions provided by these studies are optimistic, their interpretation warrants caution. Future studies with longitudinal design, as already discussed, will be essential to clarify the results and conclusions achieved so far.

Finally, the screening and review of all studies included were conducted by the lead researcher only, due to limitations associated with the broader research project in which this scoping review is included.

Conclusions

Notwithstanding the limitations identified, SC seems to be a valuable resource for the psychological adjustment of older adults and can be a protective factor in coping with the challenges associated with aging. Research shows that SC is a malleable trait that can be promoted through psychological interventions (e.g., Gilbert, 2010), and some evidence of the efficacy and utility of these interventions were already found for older adults (e.g., Perez-Blasco *et al.*, 2016). Therefore, the implementation and/or optimization of such protocols is of great clinical and societal value. Future research should invest in further assessing the efficacy of SC-based interventions for older adults as well as to begin exploring mechanisms of therapeutic change and continue to examine the relations of SC with indicators of psychological and physical (mal)adjustment in this population. Studies with longitudinal design, with clinical

samples, and with samples of more diverse backgrounds could help improving the presently available knowledge.

Conflict of interest

None.

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Supplementary material

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