

## Literature Review

# Ageism in Health Care: A Systematic Review of Operational Definitions and Inductive Conceptualizations

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## Abstract

**Purpose:** International and national bodies have identified tackling ageism in health care as an urgent goal. However, health professionals, researchers, and policy makers recognize that it is not easy to identify and fight ageism in practice, as the identification of multiple manifestations of ageism is dependent on the way it is defined and operationalized. This article reports on a systematic review of the operational definitions and inductive conceptualizations of ageism in the context of health care.

**Design and Methods:** We reviewed scientific articles published from January 1995 to June 2015 and indexed in the electronic databases Web of Science, PubMed, and Cochrane. Electronic searches were complemented with visual scanning of reference lists and hand searching of leading journals in the field of ageing and social gerontology.

**Results:** The review reveals that the predominant forms of operationalization and inductive conceptualization of ageism in the context of health care have neglected some components of ageism, namely the self-directed and implicit components. Furthermore, the instruments used to measure ageism in health care have as targets older people in general, not older patients in particular.

**Implications:** The results have important implications for the advancement of research on this topic, as well as for the development of interventions to fight ageism in practice. There is a need to take into account underexplored forms of operationalization and inductive conceptualizations of ageism, such as self-directed ageism and implicit ageism. In addition, ageism in health care should be measured by using context-specific instruments.

**Keywords:** Ageism, Health care, Systematic review

Almost 50 years ago, Robert Butler (1969, p. 243) coined the concept of ageism, having then offered the following definition of it: “prejudice by one age group towards other age groups.” His work signaled increased societal and research interest in the phenomenon of ageism and strategies to combat it. Initial studies on ageism in health care revealed ageist attitudes and practices of professionals (Greene, Adelman, Charon, &

Hoffman, 1986) in the fields of psychology (Gatz & Pearson, 1988), psychiatry (Ray, Raciti, & Ford, 1985), rehabilitation (Benedict & Ganikos, 1981), and dentistry (Gilbert, 1989), to name just a few. Currently abundant evidence of ageism in the health care domain, as well as in other domains, has accumulated (Levy, 2016). A report by the Economist Intelligence Unit on health care strategies for an ageing society, published in

2009, underlined that there is strong evidence of widespread ageism in medical treatment around the world (Economist Intelligence Unit, 2009). This evidence had been previously confirmed by other reports at national level, such as in the United States (Alliance for Aging Research, 2003) and the United Kingdom (Roberts, Robinson, & Seymor, 2002).

Ageism in health care can be found in social interactions, in organizational cultures, and in health policies. In each of these levels of reality, it can assume multiple manifestations. For example, at the microlevel of reality, ageism may be conveyed by conscious or unconscious behaviors and attitudes of health care professionals, patients, and their relatives, such as ordering fewer diagnostic tests for older patients when compared to young patients, and assuming that communicating with older patients is very frustrating.

Ageist behaviors and attitudes in the context of health care are far from innocuous, given that the amount and quality of care requested, delivered, and received is affected by the existence of ageism (Ouchida & Lachs, 2015). A recent study conducted in the United States found that “one in 17 [adults over the age of 50 years] experience frequent health care discrimination, and this is associated with new or worsened disability by 4 years” (Rogers, Thrasher, Miao, Boscardin, & Smith, 2015, p. 1413). In the worst scenarios, ageism in health care may imply a higher probability of death for older patients than for younger patients (Grant, Henry, & McNaughton, 2000; Peake, Thompson, Lowe, & Pearson, 2003).

Because of its potential harmful effects, the issue of ageism has gained increasing importance on the political agendas of international and national bodies. In 2010, the General Assembly of the United Nations called upon Member States “to eliminate and address discrimination on the basis of age and gender” (United Nations, 2010, p. 3). In 2012, the European Network of Equality Bodies (Equinet) elected tackling ageism as an essential condition to promote active ageing (Equinet, 2011). In the United Kingdom, the Equality Act 2010 made age discrimination illegal, meaning that the National Health Service cannot provide services on the basis of the patients’ age, unless there are justified reasons.

However, eradicating ageism from health care is not an easy task. Ageist health policies and regulations can be identified easily and be abolished in a relatively short period of time. The same cannot be said in relation to more indirect and subtle forms of ageism, such as unconscious age-based rationing in clinical decisions. These covert forms of ageism are not only difficult to identify but also difficult to change (Dey & Fraser, 2000; Roberts et al., 2002).

Therefore, identifying the multiple manifestations of ageism, including those more surreptitious or invisible, is a fundamental prerequisite to developing interventions and policies to eradicate ageism in health care. Nevertheless, in order to identify the full spectrum of ageism manifestations in health care, one first needs to know how to define and operationalize it. To date, there is no broad consensus

on the definition and operationalization of ageism, which results from the negligence with respect to its conceptual aspects (Iversen, Larsen, & Solem, 2009).

This article intends to provide a systematic review of operational definitions and inductive conceptualizations of ageism, which have been used/produced by empirical research on ageism in health care. By operational definitions, we mean the specific way in which a construct is measured in quantitative studies, referring to the dimensions/components and respective indicators which are defined before data collection (from the construct to data collection). In turn, by inductive conceptualizations, we mean the constructs which emerge from an inductive analysis (from data collection to the construct), which is normally conducted in qualitative studies. It is important to underline that we are interested in the way ageism, as a concept, has been operationalized and inductively conceptualized rather than in the evidence of the phenomenon of ageism. Hence, this systematic review aims to answer the following review questions: How has ageism in health care been operationalized in quantitative studies? How has ageism in health care been inductively conceptualized in qualitative studies? To the best of our knowledge, no published review with similar objectives exists.

It is our conviction that answers to the aforementioned questions will raise awareness of the need to take into account underexplored forms of operationalization and inductive conceptualizations of ageism. This will enable us to capture the full picture of this phenomenon. In addition to contributing to the advancement of research, a more comprehensive operationalization and inductive conceptualization of ageism in health care would put us in a better position to identify and fight it in practice.

There is an expectation that research on ageism, including ageism in health care, will increase significantly in the coming years due, in part, to the rapid population ageing (Levy & Macdonald, 2016) and the implementation of a European Concerted Research Action on ageism (<http://notoageism.com/>). Considering this expectation, in our view, this review is not only necessary but also timely.

## Conceptual Framework

There are two central concepts in this review that we need to clarify: ageism and health care. Regarding ageism, we adopt the extended definition proposed by São José and Amado (2017) that builds on the work of Iversen and colleagues (2009):

Ageism is defined as negative or positive stereotypes, prejudice and/or discrimination against (or to the advantage of) us on the basis of our chronological age or on the basis of a perception of us as being “old,” “too old,” “young” or “too young.” Ageism can be self-directed or other-directed, implicit or explicit and can be expressed on a micro, meso or macro-level.

This definition includes four dimensions, each one with its respective components: the dimension of the three classic components (cognitive-stereotypes, affective-prejudice, behavioral-discrimination); the self-directed/other-directed dimension (self-directed ageism, other-directed ageism); the conscious/unconscious dimension (explicit ageism, implicit ageism); and the positive/negative dimension (positive ageism, negative ageism). From our viewpoint, the micro-, meso- and macro-levels are not dimensions of the phenomenon but rather the levels of reality in which the phenomenon manifests. Combining the four dimensions and respective components of ageism, we obtain a conceptual framework with 24 possibilities of operationalizing ageism (see Table 1). These multiple forms of operationalization also serve to classify the inductive conceptualizations of ageism.

Following Abrams, Swift, Lamont, and Drury (2015) and Iversen and colleagues (2009), it is important to clarify that the cognitive component refers to “what we think about,” accounting for stereotypes (e.g., holding the assumption that older patients are problematic), while the affective component refers to “what we feel about,” accounting for prejudice (e.g., to dislike having conversations with older patients). Finally, the behavioral component refers to “how we behave towards,” accounting for discrimination (e.g., asking fewer questions to older patients than to younger patients when making a diagnosis). In turn, the self-directed component refers to ageism directed towards people of one’s own age or towards oneself (e.g., assuming that I am too old to receive certain treatments), whereas the other-directed component refers to ageism directed from a person (or persons) towards a person (or persons) of other age groups (e.g., believing that older patients are always complaining about their health). Looking now at the rows, the explicit component corresponds to conscious ageism (ageist beliefs, feelings, and behaviors, which are consciously enacted) and the implicit component corresponds to unconscious ageism (ageist beliefs, feelings, and behaviors, which are automatically enacted without conscious awareness). Consciously believing that older patients are always complaining about their health can be an example of explicit ageism, while not asking for information about sexual life to older patients can be an example of implicit ageism (a health professional may not be aware of this behavior, based on the assumption, also unconscious, that older people do not have active sexual lives). Finally, the positive component consists of stereotypes, prejudices,

and discrimination in favor of someone on the basis of age (e.g., giving priority to older patients when prescribing treatments), while the negative component consists of stereotypes, prejudices, and discrimination in disfavor of someone on the basis of age (all the other examples offered previously). More illustrations of the different components of ageism can be found in the Supplementary Appendices 2–4, Section A.

With respect to the concept of health care, we adopt the following general definition by the World Health Organization (2004, p. 28): “Services provided to individuals or communities by health service providers for the purpose of promoting, maintaining, monitoring or restoring health.” Considering the purpose of this review, we exclude long-term care from this definition, although in some countries, long-term care is an integral part of the health care system. We based this decision on the findings of a European research project, designated by “Interlinks,” that there is a functional differentiation (in terms of services provided, providers, methods, legal frameworks, and policies) between health care, social care, and long-term care for older people (Billings, Leichsenring, & Wagner, 2013). Therefore, long-term care responses, such as nursing homes, day care centers, “meals on wheels,” and other services intended to support activities of daily living (bathing, dressing, toileting, etc.), are excluded from the definition of health care adopted in this review.

## Methods

This systematic review followed the guidance for undertaking reviews in health care provided by the Center for Reviews and Dissemination (CRD) at the University of York (CRD, 2009) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Moher, Liberati, Tetzlaff, & Altman, 2009).

## Inclusion and Exclusion Criteria

We established the inclusion/exclusion criteria in relation to timespan, language, study focus, study type, and publication type. We searched for studies published from January 1, 1995 to June 30, 2015. Our searches date back to 1995, as research on ageism in health care barely existed before this date.

We included studies exclusively reported in English, which is the common language of communication among the authors of this paper.

**Table 1.** Multiple Possibilities of Operationalizing Ageism

		Cognitive		Affective		Behavioral	
		Self-directed	Other-directed	Self-directed	Other-directed	Self-directed	Other-directed
Explicit	Positive	1	2	3	4	5	6
	Negative	7	8	9	10	11	12
Implicit	Positive	13	14	15	16	17	18
	Negative	19	20	21	22	23	24

Regarding the study focus, we only included studies which meet, cumulatively, the following criteria: to address ageism in health care (studies not focused on ageism, and studies focused on ageism, but in long-term care and social care, were excluded); to make an explicit reference to the terms “ageism” or “ageist” (studies making reference only to “age discrimination” and related terms were excluded, as this review intends to systematize the way the specific concept of ageism has been worked in empirical research); and to provide an operational definition of ageism or an inductive conceptualization of ageism (studies offering solely conceptual definitions of ageism, i.e., definitions of the meaning of ageism adopted before data collection, were excluded). These criteria are justified by the aim and questions of this review, as well as the concept of health care adopted in this review.

We also only included studies based on empirical research, excluding theoretical studies, opinion articles, policy documents, and literature reviews. However, we visually scanned the reference lists of literature reviews with the aim to identify relevant studies.

Finally, in order to ensure quality in the reviewed publications, we only included articles published in peer-reviewed journals.

## Search Strategy

The electronic databases Web of Science, PubMed, and Cochrane were searched in order to find relevant studies. In the Web of Science database, we searched in “all databases,” selecting the option “basic search” and using the following fields and keywords/specifications: TOPIC: (“ageism” or “ageist”) AND TOPIC: (“healthcare” or “health care”); Timespan: 1995–2015. Subsequently, this search was refined by: DOCUMENT TYPES: (ARTICLE OR REVIEW) AND LANGUAGES: (ENGLISH).

In the PubMed database, we selected the option “advanced” and used the following fields and keywords/specifications: “ageism”[Title/Abstract] OR “ageist”[Title/Abstract] AND “healthcare”[Title/Abstract] OR “health care”[Title/Abstract] AND “1995/01/01”[Date-Publication]:”2015/06/30”[Date-Publication] AND “english”[Language] AND “journal article”[Publication Type].

Finally, in Cochrane database, we also selected the option “advanced search” and used the keywords “ageism” OR “ageist” in the fields “Title, Abstract, and Keywords.” We limited the search by “Publication Year from 1995 to 2015.”

Searches in these electronic databases were complemented with visual scanning of reference lists from literature reviews and articles which met the inclusion criteria. We also conducted a hand search of the following journals on the field of ageing and social gerontology: *The Gerontologist*, *Journal of Aging Studies*, and *European Journal of Ageing*.

## Selection of the Publications

The identified publications were selected according to the PRISMA flow diagram (Moher et al., 2009). All the stages of the selection process were carried out in parallel by two authors of this article, working independently, and any disagreements were resolved by consensus.

## Data Extraction

All relevant data contained in the reviewed articles were extracted to a data extraction form. We pilot-tested a preliminary version of this form in five randomly selected articles and the form was subsequently refined. The final version of the data extraction form includes the following items: author and date, aims of the study, theoretical underpinnings, conceptual definition of ageism, operational definition of ageism, inductive conceptualization of ageism and research design and methods of data collection. The process of data extraction was executed in parallel by two authors of this article, working independently, and any disagreements were resolved by consensus.

Systematic reviews which look at the available empirical evidence normally conduct a quality appraisal of the reviewed studies, which is focused on the quality of the results/findings. Considering that, on one hand, our systematic review does not look at findings/results but rather at operational definitions and inductive conceptualizations and that, on the other hand, there is no established methodology for quality appraisal in conceptual or construct reviews, we decided not to undertake a quality appraisal of the reviewed studies. This decision was also taken in other reviews of operational definitions (e.g., Cosco, Prina, Perales, Stephan, & Brayne, 2013; Ozawa & Sripad, 2013).

## Data Synthesis

The data that were needed to answer the review questions were synthesized by using two approaches: narrative synthesis (Popay et al., 2006) and thematic synthesis (Thomas & Harden, 2008). Narrative synthesis “(...) refers to an approach to the systematic review and synthesis of findings from multiple studies that relies primarily on the use of words and text to summarize and explain the findings of the synthesis. While narrative synthesis can involve the manipulation of statistical data, the defining characteristic is that it adopts a textual approach to the process of synthesis to ‘tell the story’ of the findings from the included studies.” (Popay et al., 2006, p. 5). Normally, a narrative synthesis is supported by “tabulation,” which consists in organizing and presenting data in tabular form. In turn, thematic synthesis consists, basically, in reducing the extracted data by a process of transforming “free codes” in “descriptive themes” and these themes in more abstract ones, the “analytical themes” (Thomas & Harden, 2008).



We started by collecting all the indicators of ageism, both quantitative and qualitative, explicitly reported in the reviewed studies. By indicators of ageism, we mean a cognition, feeling, or behavior chosen to measure or capture ageism. Then, these indicators were submitted to four operations. First, they were categorized in facets of ageism, following the basic procedures of thematic synthesis. The facets were categorized by stereotypes, prejudice, and discrimination and by the specific themes found within each of these three components (see Supplementary Appendices 2–4, Section A). Second, all the indicators were classified in terms of the components of ageism described in the conceptual framework section (see Supplementary Appendices 2–4, Section A). Third, we counted the indicators included in each facet and in each component (see Supplementary Appendices 2–4, Section B). Finally, on the basis of the last count, we counted the indicators and the studies included in each of the 24 forms of operationalization/inductive conceptualization of ageism, as described in Table 1 (see Tables 2–4).

## Results

The searches in electronic databases yielded a total of 311 publications. After removing 100 duplicates and adding 15 more articles from searching reference lists, we obtained a total of 226 publications to screen. After applying the inclusion/exclusion criteria to titles and abstracts, 181 publications were excluded. The majority of the screened publications were excluded because they are not based on empirical research. Upon screening the full text publications, eight publications were excluded, chiefly because they do not offer an operational definition of ageism. This means that 37 articles were included in this review (see Figure 1).

Almost all reviewed articles were published after 2000 and most of them after 2010. Due to the inclusion criteria, all of the reviewed studies provide an operational or inductive conceptualization of ageism. In addition, most of them also provide a conceptual definition of ageism, although some only implicitly, and about a quarter do not offer any conceptual definition. It is also worth mentioning that only a minority of the studies make an explicit reference to their theoretical underpinnings (see Supplementary Appendix 1).

We created three groups of studies in order to organize the presentation of the results: quantitative studies which did not administer validated scales of ageism (21 studies), quantitative studies which administered validated scales of ageism (8 studies), and qualitative studies (8 studies). There are two mixed methods studies, which were incorporated in the group of quantitative studies, given that data analysis followed a clear quantitative logic. From this point onwards, the reviewed studies are referenced by their identification numbers, as described in Supplementary Appendix 1. The full references of the reviewed studies are also found in Supplementary Appendix 1.

**Table 2.** Number of Indicators and Studies in Each Component and Operationalization of Ageism (Quantitative Studies Which Did Not Administered Scales of Ageism)

		Cognitive		Affective		Behavioral		No. of indicators	No. of studies
		Self-directed	Other-directed	Self-directed	Other-directed	Self-directed	Other-directed		
Explicit	Positive	0	1 [15]	0	0	0	37 [1; 2; 3; 4; 5; 7; 13; 14; 18; 20; 23; 29; 31; 33; 34]	38	16
	Negative	0	2 [15; 23]	1 [23]	1 [23]	0	43 [1; 2; 3; 4; 5; 6; 7; 9; 13; 14; 18; 20; 27; 29; 31; 33; 34; 37]	47	20
Implicit	Positive	0	0	0	0	0	2 [32]	2	1
	Negative	0	0	0	0	0	2 [32]	2	1
No. of indicators		0	3	1	1	0	45		
No. of studies		0	2	1	1	0	20		

*Note:* The numbers between square brackets correspond to the identification numbers of the reviewed studies, which are described in Supplementary Appendix 1. The total number of indicators in the other-directed component (behavioral) is 45, because 39 indicators (37 explicit and two implicit) have the potential to measure both positive and negative ageism.

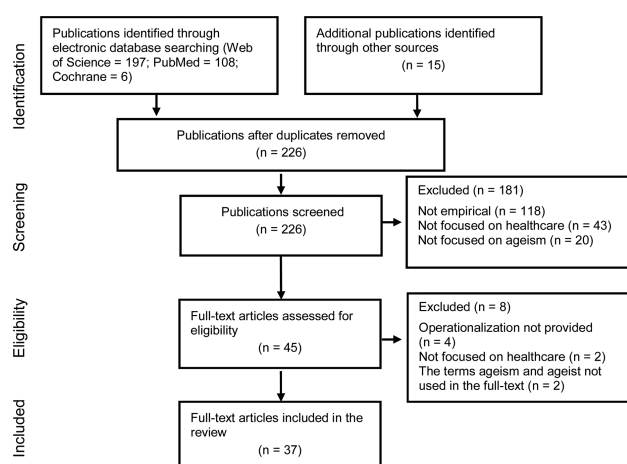


Figure 1. Process of the selection of publications.

### Quantitative Studies Which Did Not Administered Validated Scales of Ageism

The 50 indicators of ageism, which were used by quantitative studies that did not administered validated scales of ageism, are distributed between 22 facets of ageism. Almost all of these facets account for discrimination (19 out of 22), with only 1 accounting for stereotypes and beliefs and 2 accounting for prejudice. Among the discrimination facets, those which refer to discrimination in treatment and management (13 out of 19) stand out, with discrimination in prescribing treatments and access to care services/facilities, being the 2 facets covered by the largest number of indicators and studies. Four facets of discrimination refer to diagnosis, with the facet accounting for discrimination in ordering/performing diagnostic tests/examinations being the one which includes more indicators and studies. Only one facet of discrimination accounts for clinical trials and another one for survival rates (see Supplementary Appendix 2, Section B).

If we look now at the number of indicators and studies by components of ageism, we verify that there are major imbalances between the attention that each component receives in the literature (see Table 2). Among the classic components (cognitive, affective, behavioral), the behavioral component is clearly predominant. Strong contrasts are also found with respect to the self-directed or other-directed components, as well as explicit and implicit components, heavily favoring the other-directed and explicit ones. Regarding the last two components (positive and negative), we find a significant balance, although with a slight predominance of the negative component.

Table 2 also shows the number of indicators and studies which are inserted in each of the 24 possible forms of operationalizing ageism. Two main forms of operationalizing ageism emerge as the most predominant, namely “behavioral, other-directed, explicit, negative” and “behavioral, other-directed, explicit, positive.” The majority of the other possible forms of operationalization are not covered at all, whereas the remaining ones have between one and two indicators and one and two studies.

### Quantitative Studies Which Administered Validated Scales of Ageism

Eight studies administered validated scales of ageism. Most of these studies adopted only one scale, whereas one study adopted two scales and another one three scales. The scales of ageism which were administered were the following: Attitudes Towards Older People Scale (Kogan, 1961), Aging Semantic Differential Scale (Rosencranz & McNevin, 1969), Facts on Aging Quiz (Palmore, 1998), Fraboni Scale of Ageism (Fraboni, Saltstone, & Hughes, 1990), Reactions on Aging Questionnaire (Gething, 1994). All the scales are composed of several statements (with the exception of the Aging Semantic Differential Scale) and use a Likert scale format. It is important to clarify that these scales were not designed to measure ageism towards older persons in the context of health care, but rather towards older persons in general (a more detailed characterization of these scales can be found in Supplementary Appendix 3, Section C).

We considered each statement of the scales as one indicator of ageism, with the exception of the Aging Semantic Differential Scale, in which each pair of adjectives was considered to have two indicators. The 173 indicators used by the quantitative studies that administered validated scales of ageism are distributed between 34 facets of ageism. Almost all indicators relate to the facets that account for stereotypes and beliefs (28 out of 34). There are four facets accounting for prejudice and two accounting for discrimination. The great majority of the facets which account for stereotypes and beliefs has older people as targets (24 out of 28), with the exception of four facets which are directed to ageing, old age, and the priority given by medical practitioners to older persons. Among the facets accounting for stereotypes and beliefs about older people, the one focused on interaction style and mood stands out, as it is covered by a significant number of indicators and by all studies (see Supplementary Appendix 3, Section B).

We also found significant imbalances in the distribution of the indicators by components of ageism (see Table 3). The cognitive and affective components are covered by the same number of studies but the cognitive component includes much more indicators than the affective component. The behavioral component is covered only by five indicators and one study. In turn, the other-directed component is clearly predominant when compared to the self-directed component. The explicit component is covered by all the indicators and by all the studies, contrasting clearly with the implicit component, which was not covered at all. The absence of indicators and studies in the implicit component is not surprising, as all of the aforementioned scales were developed to measure explicit forms of ageism. Finally, we find a slight predominance of the negative component when compared with the positive component, as it is covered by more indicators and studies.

The studies which administered scales of ageism have employed three major forms of operationalization, namely “cognitive, other-directed, explicit, negative,” “affective,

**Table 3.** Number of Indicators and Studies in Each Component and Operationalization of Ageism (Quantitative Studies Which Administered Scales of Ageism)

		Cognitive		Affective		Behavioral		No. of indicators	No. of studies
		Self-directed	Other-directed	Self-directed	Other-directed	Self-directed	Other-directed		
Explicit	Positive	2 [12]	37 [10; 11; 12; 21; 25; 26; 36]	0	1 [10; 11; 21; 25; 26; 36]	0	0	40	7
	Negative	8 [12]	90 [10; 11; 12; 21; 24; 25; 26; 36]	12 [12]	18 [10; 11; 12; 21; 24; 25; 26; 36]	0	5 [24]	133	8
Implicit	Positive	0	0	0	0	0	0	0	0
	Negative	0	0	0	0	0	0	0	0
No. of indicators		10	127	12	19	0	5		
No. of studies		1	8	1	8	0	1		

Note: The numbers between square brackets correspond to the identification numbers of the reviewed studies, which are described in Supplementary Appendix 1.

other-directed, explicit, negative,” and “cognitive, other-directed, explicit, positive” (see Table 3). However, the first operationalization is covered by more than half of all indicators and was used by all studies, while the second operationalization includes the same number of studies but with much fewer indicators. The third operationalization was adopted by seven studies, although it has more indicators than the second operationalization. Among the other possible forms of operationalization, most of them are not covered by any indicator and study, two have a relatively significant number of indicators but only one study, one has only one indicator and five studies, and the remaining ones have five or fewer indicators and only one study.

### Qualitative Studies

The 18 indicators of ageism which were used by the qualitative studies are distributed between two major facets of ageism, the facets accounting for stereotypes and beliefs about older patients (seven out of 14) and the facets accounting for discrimination in treatment and management (six out of 14). There is one facet accounting for discrimination in diagnosis and another one accounting for discrimination in social interactions in the context of health care settings. There is no facet accounting for prejudice. The facets covered by the largest number of indicators and studies are the ones accounting for “stereotypes and beliefs about the older patients: symptoms” and “discrimination in treatment and management: disempowering older patients,” although closely followed by the others (see Supplementary Appendix 4, Section B).

In line with the previous two groups of studies, the qualitative studies also exhibit some imbalances with respect to the distribution of the indicators and studies by components of ageism (see Table 4). The cognitive and behavioral components are covered by nearly the same number of indicators and studies, given that five indicators are duplicated in the cognitive component (one indicator measures both self-directed and other-directed ageism, while four indicators measure both explicit and implicit ageism). The affective component is not covered at all. In turn, the other-directed component includes more indicators and studies than the self-directed component. With respect to the explicit and implicit components, the first one is covered by all the indicators and all the studies (in Table 4 it appears 19 indicators, as 1 indicator is duplicated), whereas the second one has much less indicators and fewer studies. The positive component is not covered at all, contrasting clearly with the negative component, which includes all the indicators and all the studies.

Looking now at the inductive conceptualizations of ageism, we find three major conceptualizations: “cognitive, other-directed, explicit, negative,” “behavioral, other-directed, explicit, negative,” and “cognitive, other-directed, implicit, negative” (see Table 4). We verify that the first two conceptualizations are covered by the same number

**Table 4.** Number of Indicators and Studies in Each Component and Inductive Conceptualization of Ageism (Qualitative Studies)

	Cognitive		Affective		Behavioral		No. of indicators	No. of studies
	Self-directed	Other-directed	Self-directed	Other-directed	Self-directed	Other-directed		
Explicit								
Positive	0	0	0	0	0	0	0	0
Negative	2 [19; 28]	8 [8; 16; 17; 19; 30; 35]	0	0	1 [8]	8 [8; 17; 19; 22; 35]	19	8
Implicit								
Positive	0	0	0	0	0	0	0	0
Negative	1 [19]	4 [19; 30; 35]	0	0	0	0	5	3
No. of indicators	3	12	0	0	1	8		
No. of studies	2	6	0	0	1	5		

Note: The numbers between square brackets correspond to the identification numbers of the reviewed studies, which are described in Supplementary Appendix 1.

of indicators but the first one includes one more study. The vast majority of the other possible conceptualizations are not covered by any studies and three conceptualizations have up to two indicators and two studies.

## Discussion

This systematic review aims to answer two review questions: How has ageism in health care been operationalized in quantitative studies? How has ageism in health care been inductively conceptualized in qualitative studies?

We found two main forms of operationalizing ageism in the quantitative studies that did not administer scales of ageism and three main forms of operationalizing ageism in the quantitative studies that administered scales of ageism. If we look at the two groups of quantitative studies as a whole, we can verify that the components of ageism which are completely absent in these five forms of operationalization are the self-directed and the implicit components. This has clear implications for the study of ageism in the context of health care, as well as for developing interventions to tackle ageism in practice. With respect to the self-directed ageism in relation to older patients, this component of ageism can assume several manifestations, such as refusing certain diagnostic procedures/tests and certain treatments because of the perception of being “too old,” and believing that certain symptoms have to do with “normal ageing” (articles 19 and 28). If we do not pay due attention to these practices, attitudes, and beliefs, we run the risk of not capturing the full picture of ageism in health care, underestimating its prevalence and perpetuating situations with potential severe consequences for older patients. Furthermore, self-directed ageism tends to be implicit (unconscious), which makes it particularly insidious and harmful (Levy & Banaji, 2002). This justifies the importance of identifying the possible manifestations of self-ageism in the context of health care, so that appropriate interventions can be developed to fight them.

Regarding implicit ageism, it is important to underline that it is insidious (Levy & Banaji, 2002) and can assume different manifestations in health care, such as believing that older people do not fit in the hospital environment (article 30) and believing that older patients cannot tolerate the same treatment administered to younger patients (article 35). Many ageist practices are rooted in implicit negative stereotypes about older people and old age (Nelson, 2002) and this is also found in the care contexts (Clarke, Bennett, & Korotchenko, 2014). A review of the literature on ageism and age discrimination in primary and community health care in the United Kingdom concluded that “Age barriers are often implicit rather than explicit so that simply removing age criteria from clinical protocols and guidelines will not necessarily eliminate ageist practices” (Clark, Hayes, Jones, & Lievesley, 2009). This urges us to take into account the implicit component of ageism in future operationalization and inductive conceptualization



of this concept, as we can only effectively tackle ageism in health care if we are able to identify and measure their implicit manifestations.

We also verified that the quantitative studies which did not administer scales of ageism neglected the facets of discrimination in diagnosis and clinical trials. Ageism in diagnosis is no less important than ageism in treatment and management, and for this reason the existing negligence of the first facet should be overcome. Concerning clinical trials, international regulatory agencies recommend avoiding arbitrary upper age limits, as the exclusion of older persons from clinical trials implies that health professionals have limited clinical evidence when treating older patients, with obvious risks for the later.

There is one more aspect related to the quantitative studies which used scales of ageism that is important to mention. The indicators (statements) of these scales do not measure ageism directed towards older patients but rather towards older people in general. There are even some statements which are irrelevant to health care, such as the following one included in the Attitudes Towards Older People Scale: Most old people would prefer to quit work as soon as pensions or their children can support them (for other examples, please refer to Supplementary Appendix 3, Section A). In this respect, it is important to recognize that the condition of being an older patient is different from the condition of being an older person, and this leads us to believe that there are stereotypes, prejudices, and discriminatory practices specifically related to the condition of being an older patient. Furthermore, considering that there is evidence that some health professionals have positive attitudes towards older people, but exhibit negative attitudes towards older patients (Penner Ludenia, & Mead, 1984), probably the prevalence of ageism would not be the same if we administered a scale of ageism in which the targets were older patients instead of older persons. In our viewpoint, measuring/capturing ageism directed specifically towards older patients in the context of health care has two chief advantages. First, it enhances our understanding of the phenomenon of ageism in the particular setting of health care. Second, this understanding is essential to develop interventions to tackle ageism specifically tailored to the reality of health care, and these tailored interventions are more likely to be more effective. For example, we are convinced that interventions to fight ageism in the daily practices of health care professionals would be more effective if focused on negative stereotypes and prejudices towards older patients rather than towards older people in general.

With regard to qualitative studies, we found that the self-directed, affective and positive components are absent in the inductive conceptualizations produced. The implications of the inattention devoted to the self-directed component were already addressed. In turn, ignoring aspects of affective and positive ageism also contributes to a partial exploration of ageism in health care, mainly with respect to its manifestations and prevalence.

The inductive conceptualizations of ageism offered by qualitative studies include facets of ageism accounting for discrimination but almost exclusively in treatment and management. As we had the opportunity to note, this also happens with respect to the dominant forms of operationalizing ageism found in the quantitative studies that did not administer scales of ageism. The implications are discussed above.

## Recommendations for Future Research

Based on the discussion of the results, priority recommendations for future research on ageism in health care can be formulated. First, considering that any operational definition and inductive conceptualization is influenced, at least partially, by the conceptual definition of the phenomenon under study, we recommend that future studies adopt a comprehensive conceptual definition of ageism, like the one provided in this article. As argued by Iversen and colleagues (2009, p. 5), "A clear definition may thus be the starting point on the way to achieving a higher degree of reliability and validity in future studies of ageism."

Second, we recommend that future research make efforts to measure and assess stereotypes and prejudices specifically directed towards older patients. If we think of scales or similar instruments, this could be achieved by selecting older patients as the targets of statements containing stereotypes and prejudices.

Third, it would be important that future studies devote special attention to measuring and assessing self-stereotyping, self-prejudice, and self-discrimination. This could be done through different research methods and approaches, such as scales and other self-reporting techniques, experimental designs (similar to those adopted by articles 1 and 2), interviews, and diaries. In addition to the manifestations and prevalence of self-directed ageism, it would also be important to explore its etiology and consequences.

Fourth, implicit ageism also deserves more attention in future research. However, measuring and assessing this component of ageism is a particularly difficult task, as recognized by Abrams and colleagues (2015) and by the authors of one of the reviewed studies (article 32). One of the instruments that are commonly used to measure implicit ageism is the Implicit Association Test (IAT). However, this instrument has some limitations, as it is unable, for example, to capture how implicit ageism is produced and reproduced through language in daily life (Gendron, Welleford, Inker, & White, 2016). In this respect, it is important to underline that we still know little about how implicit biases are manifest in naturally occurring social interactions (Stivers & Majid, 2007). Therefore, one of the main challenges regarding the study of implicit ageism in the context of health care, as in other contexts, is to develop research approaches able to capture it in naturally occurring interactions. Videotaping the care encounters is an interesting research approach to achieve this (see Stivers & Majid,

2007), but participant observation could also be a valid approach, given that it is very powerful in grabbing the finer and the taken for granted aspects of daily practices. Still in relation to implicit ageism, it would also be important to explore in more depth not only its manifestations and prevalence, but also its etiology and consequences.

There are other recommendations that should not be dismissed by future studies, such as discrimination in diagnosis, discrimination in clinical trials, and positive ageism.

## Strengths and Limitations

The inclusion of quantitative and qualitative studies adds comprehensiveness to this review. This comprehensiveness was reinforced by the fact that the electronic searches were complemented with hand searching of leading journals in the field of ageing and social gerontology. Furthermore, the first and second screen, as well as data extraction and synthesis, were executed in parallel by two reviewers, thereby decreasing the probability of misinterpretations.

However, we also identify some limitations. In our viewpoint, the main one relates with some subjectivity that may persist in the judgments made by the reviewers. Despite good inter-reviewer agreement, the classification of the indicators in terms of facets and components may continue to suffer from some subjectivity. We recognize another limitation, namely, only scientific articles written in English were included. Finally, despite the care that we have put in the search strategy, some relevant articles may still be missing.

## Concluding Remarks

There is a significant number of empirical studies that have focused on ageism in health care. However, the different forms of operationalization and inductive conceptualization of ageism, which were used/produced by the reviewed studies, are far from covering the many possibilities of operationalizing and inductively conceptualizing this phenomenon. Some operational definitions of ageism have acquired a prominent position in empirical research, but there is still “much ground to explore.” The multidimensionality and complexity of the phenomenon, that is, its multiple components and combinations between components, have not been fully explored. Of particular relevance is the lack of attention to the most surreptitious and insidious forms of ageism, that is, self-directed ageism and implicit ageism. As long as these forms of ageism continue to be under-studied and poorly understood, their harmful consequences will prevail. Therefore, we need to pay more attention not only to these components of ageism, but also to research approaches which are able to measure/capture them in an appropriate way. We hope that this systematic review and the associated recommendations could contribute to advance research on ageism in health care and interventions to fight it.

## Supplementary Material

Supplementary data are available at *The Gerontologist* online.

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