

The Influence of Collectivism and Individualism on Attitudes Towards Older People: A Systematic Literature Review

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Abstract

Aim: Past research has shown that the attitude towards older people differs across countries, and cultural value-orientations might influence these attitudes. In this context, an East-West debate has evolved, discussing whether collectivistic societies may value their older members more than individualistic societies do. This disagreement leads to an unclear image of the current status of research in this field. Thus, this systematic literature review aims to create a holistic picture of the current state of the art in this research field.

Method: To answer the research question a literature search using the keywords ‘ageism’ or ‘age related discrimination’ or ‘attitude towards elderly’ and ‘culture’ was conducted. Three different study categories were included, all of them assessed ageism and: 1) the collectivistic and individualistic cultural values on the individual-level with a suitable scale, 2) compared at least two countries and assigned them into a collectivistic or individualistic country category or 3) used the countries collectivism and individualism score. Studies that assessed experienced ageism, did not assess collectivism in one of the three ways, or were not quantitative were excluded. This resulted in a sample pool of 18 samples. To answer the given research question different sub-questions were formulated. Study characteristics were compared and effect sizes were computed and examined to answer these questions.

Results: Results showed that the majority of studies reported an effect of collectivism and individualism on the attitude towards older individuals. It was found that 6 studies reported a positive effect of collectivism and a negative effect of individualism on the attitude towards older individuals, 6 studies reported a negative effect of collectivism and a positive effect of individualism on the attitude towards older individuals and 6 studies reported no effect. Thus, it was unclear whether collectivism or individualism fosters a positive attitude towards older people. Calculating effect sizes for cross-country comparisons and using correlational coefficients showed it is not possible to give a clear answer to the given research question. Therefore, study characteristics were compared in order to find explanations for the contradictory findings.

Conclusion: Evaluating the results and possible biases suggested that it might hold true that collectivism fosters a positive attitude towards older individuals. It was found that future research should focus on large-scale cross-cultural studies using community samples and consider personal value orientation rather than overall country scores. This review underlines the importance of society-level cultural values on the attitude towards older individuals but also highlights the relevance of individual value orientations within a certain culture.

Introduction

In the last years, a significant change in our society was observed, especially in Europe and Northern America: our population is ageing. By 2050 the group of people being 60 years or older will be significantly larger than the group of people aged between 10 and 24 years (UN, 2017). People all over the world are living longer and in return less children are born. These declining birth rates and longer life expectancies are causing a major change of needs affecting several different sectors of our society. This means the ageing population has serious implications for social, political, economic, and other areas of our lives.

Recently, the implications evoked by the ageing population such as problems related to the costs of health and pension programs for older people are affecting all age groups of society (UN, 2017). Population aging is expected to cause a decrease in labour force and an age-related structural change in the demand of goods, forcing our society to take steps to fulfil these demands (Boersch-Supan, 2001). Studies showed that the aging population and its implications contribute to the formation of negative stereotypes of older people as depending and burdening (Tinker, 2002). It is also reported that the ageing of our population and the debate about care and responsibilities is causing discrimination of older adults by individuals of younger age groups (Bytheway, 2005). In the same vein, Kearney et al. (2000) observed that negative attitudes of caregivers towards older individuals can be recognized in the health sector.

It is of high importance to cautiously evaluate these developments and consider possible long- and short-term consequences. Recently, it was discovered that higher levels of perceived discrimination are related to physical and mental health outcomes (Pascoe & Smart Richman, 2009). Thus, discrimination of people based on their age has grown into a public health issue, which has to be addressed as effectively as possible. To do so it is important to find out what affects this kind of discrimination. Research encountered that cultural values such as collectivism are important and relevant factors in the development of ageist attitudes (North & Fiske, 2015, Greenberg et al., 2002). Thus, it is the aim of this research to examine the relationship between cultural values, such as individualism and collectivism, and attitudes towards older people. Identifying reasons for attitudes towards older people can give indications for the development of preventive measures.

Ageism

Ageism, defined as stereotyping, prejudice, or discrimination towards people based on their age, are covered by the umbrella term ageism, an important international concern with

important health implications (Officer et al., 2016). While some people associate older individuals with wisdom and knowledge, others tend to associate them with being dependent of others in several areas such as daily life or finances. Although the categorization of people based on specific characteristics such as age or gender is a natural phenomenon, especially older people are often the victim of negative attitudes (North & Fiske, 2015). The representation of such attitudes can be divided into prejudices (affect), discrimination (behaviour) and stereotyping (cognition) (Cuddy & Fiske, 2002). The origin of a prejudice can often be found in a stereotype that individuals have about a certain group of individuals. Stereotypes are cognitive structures which store our behaviour and expectations of such groups. Those cognitive structures are developed over time and influenced by how we perceive our environment (Cuddy & Fiske, 2002). Therefore, our environment plays an important role in this developmental process.

Recently, it was found that negative attitudes towards elderly have different alarming consequences for those affected, such as physical and mental health issues (Pascoe & Smart Richman, 2009; Levy et al., 2016). Therefore, improving attitude towards older individuals has been of high interest for our public health system. In the last years research has been done on the possible factors that affect ageism, such as the influence of cultural values, and specifically individualism and collectivism. Different findings have evoked a discussion of the influence of these cultural value systems.

Cultural Values and the East-West Debate

Thus far, research has shown that cultural norms and values, which appreciate older individuals and highlight the importance of treating them well, can prevent the development of prejudices against older people. Those values were especially found in collectivistic cultures such as China (Greenberg et al., 2002). The categorisation of countries into collectivistic or individualistic is related to the integration of individuals into primary groups (Hofstede, 2011). In collectivistic cultures the focus is on the group goals and what is best for the collective group and the interpersonal relationships. In contrast, individualistic cultures have loose ties between their members and the focus is on the individual goals and the rights of the individual person (Gelfand et al., 2004).

The influence of collectivistic cultures on the attitudes towards older people has been subject of different studies in the last years. Results by Cheong et al. (2009) have shown that the attitude towards older individuals among Singapore medical students can be described as

positive. An explanation for this positive attitude can be found in the influence of the collectivistic culture of Singapore which is especially influenced by Confucianism.

While the most common assumption seems to be that Western cultures have a more negative attitude towards older adults and Eastern cultures have a more positive attitude towards older people, latest research has started to disprove this idea. Recently, a meta-analytic review found that individualism has a positive impact on a person's attitude towards older individuals (North & Fiske, 2015). This meta-analysis found that, contrary to common beliefs, traditional collectivism does not affect the attitude towards older people positively. It is important to consider that Fiske and North (2015) did not examine individualism and collectivism at the individual-level as values individuals endorse, but only at the country-level by examining participants' place of residence and assigning participants to either a collectivistic or individualistic category. This choice of operationalisation might limit inferences regarding the role of collectivism/individualism on ageism, as various studies have found that individuals' private, subjective attitudes do not always match with the social norms and expectations of their country (Zhang et al. 2016). Thus, it could be of interest to find studies that used a scale to measure an individual's value orientation at the individual level instead of using country-level collectivism scores.

In the context of the East-West debate different studies can be found. By measuring cultural values on the country-level it was found that there is actually a mix of attitudes in both cultures that are neither explicitly positive nor explicitly negative (Lin & Bryant, 2009). In line with these findings, Boduroglu et al. (2009) found similarities by comparing age-related beliefs of participants from the USA and China, which were assigned to the categories individualistic culture and collectivistic culture. Thus, results showed that a global positive bias for older individuals in East-Asia is absent. A similar result was found by Vauclair et al. (2017), who compared young people's attitudes towards older people in the UK and Taiwan. The study examined these attitudes by distinguishing between the normative context and personal attitudes and also took into account the different components of ageism. As a result, it was found that neither of both cultures had explicitly negative or positive attitudes towards older individuals (Vauclair et al., 2017). In contrast to these findings, a study conducted by Peterson & Ralston (2017) examining cultural values at the country-level established that Asian, Middle Eastern and Sub-Saharan African countries have significantly more negative attitudes towards older individuals.

The suggested findings showed that there are contradictory results in the topic of the East-West debate. One possible reason for the contradictory evidence could be that the majority of studies does not measure individualism and collectivism at an individual level but rather assumes it by the participants' place of residence. This thesis is also supported by Zhang et al. (2016) who found that personal endorsement of collectivistic values might influence participant's attitudes towards older adults much more than cultural values assigned to a society do. Therefore, an aim of this literature review is to also compare the results of studies using individual-level measurements of value orientation to those who assigned participants to a category or used country-level collectivism scores.

Study Goal and Research Question

Especially older individuals suffer from the consequences of ageism and negative attitudes towards them; thus, it is important to explore the current state of the art on possible factors affecting this development. Although different possible factors have been studied, there are contradictory findings on how cultural values affect an individual's attitude towards older people. The East-West debate has shed a light on the influence of collectivism and individualism on the attitudes towards older people. Nevertheless, inconsistent findings give an unclear impression of the relationship between these variables. Therefore, the aim of this systematic literature review is to analyse the given studies and generate a holistic picture of the current state of the art. Through this we hope to generate an answer to the question of the effect of individualism and collectivism on attitudes towards older individuals. Furthermore, it is important to analyse the methodology of the studies as this can give explanations for possible contradictory findings. Other possible explanations might also be found in the descriptive characteristics of the studies. Therefore, it is of high importance to also observe possible moderators of the relationship between individualism/collectivism and attitude towards older people (North & Fiske, 2015). By including moderating factors such as age, gender, education level or religion into the research important findings could be made that could explain differences in the attitudes among the target group.

As mentioned, conducting a systematic literature review on the effect of collectivism and individualism on attitudes towards older individuals will give more important implications for the public health sector. By identifying possible factors that affect the attitude towards older people potential preventive measures can be developed. Those measures can help to change ageist attitudes and thus, reduce consequences of ageism such as mental and physical health issues as mentioned before.

To conclude, the aim of this review is not only to answer the overall research question but also to create a holistic picture of the current research field and find possible explanations for the results of the studies. By this, we hope to generate implications for future research. In order to generate satisfying results different sub-questions have been formulated:

1. *How are the studies designed that examine the influences of collectivism and individualism on the attitude towards older individuals?*

Answering this question will help to get an overview of the current research and also give recommendations for future research.

2. *How are individualism, collectivism and the attitude towards older individuals operationalised?*

Answering this question provides an understanding of how the studies were designed and how the different variables were assessed. This can help to evaluate the results and give recommendations for future research.

3. *How are individualism and collectivism related to attitudes towards older people and what are possible factors that influenced the results?*

The answer to this question will outline a potential relationship between collectivism and individualism and the attitude towards older people, like those discussed in the East-West debate. Furthermore, by answering this question previous findings can be evaluated. Thus, an explanation for previous contradictory findings could be found.

Methods

A systematic literature was conducted to answer the given research question as well as the sub-questions. In this process the databases of SCOPUS, Web of Science and PsychINFO were used to identify suitable studies. The steps of the literature search can be seen in Figure 1. Using the search terms “ageism” or “age stereotypes” or “attitudes towards elderly” and “culture” 258 articles were found via SCOPUS and 1.963 articles were found via Web of Science and 2.585 articles were found via PsychINFO. Adding ‘age related discrimination’ as a synonym for ‘ageism’ did not lead to a change in search results. In the next steps the titles of the articles were screened to identify suitable studies, and duplicates were removed to. This led to a sum of 88 articles. In the next steps the abstract of the articles were scanned and exclusion criteria (see Figure 1) were applied in order to examine the suitability of those articles. Thus, a sum of 26 articles remained. Afterwards the full-text was scanned and a sum of 17 articles (18 samples) remained, all of them met the inclusion criteria in assessing ageism as well as individualism and collectivism on the country- or individual-level. Those articles

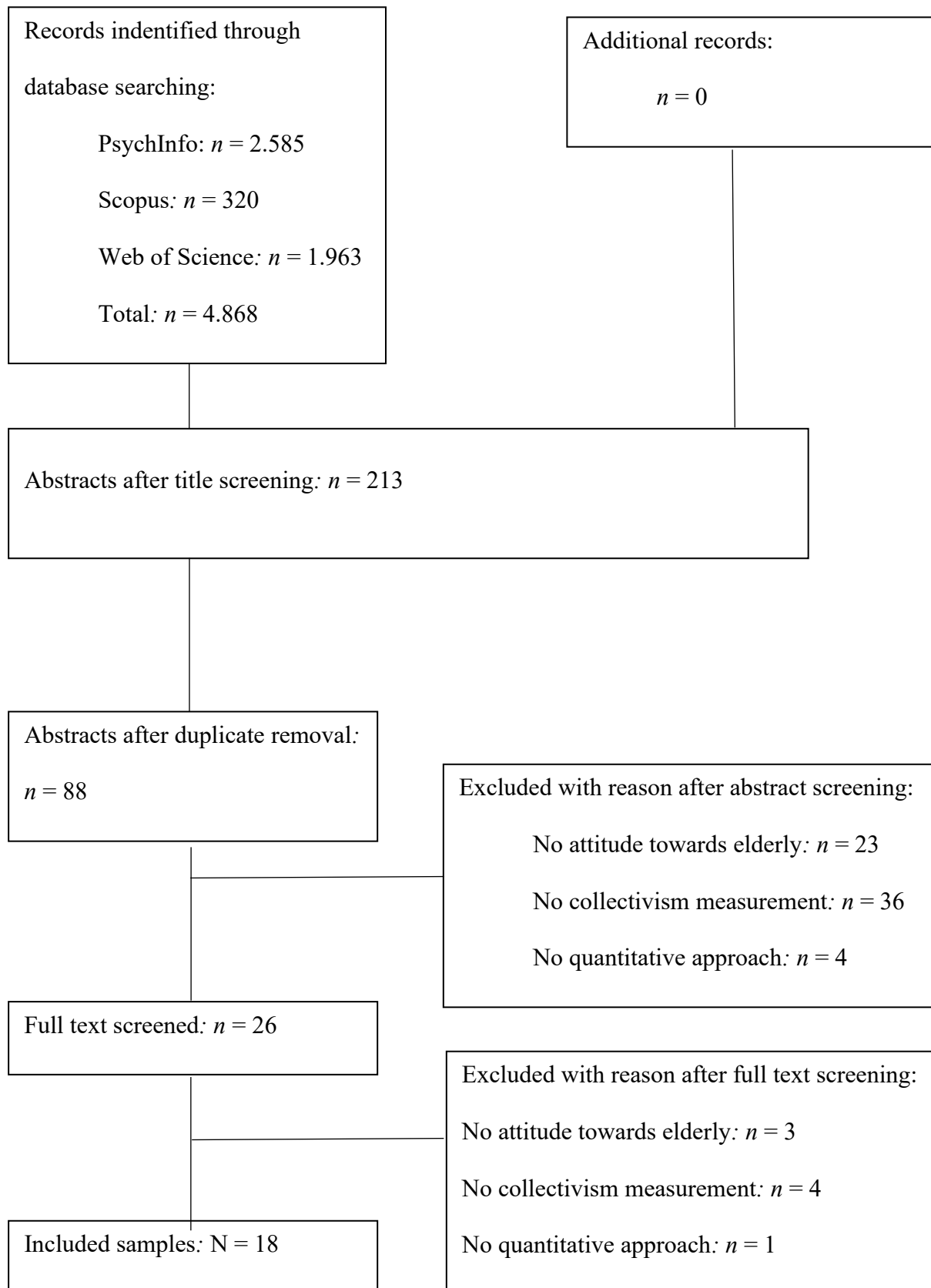
were then used in order to answer the research questions as well as the formulated sub-questions. The answers can be found in the corresponding paragraph in the result section.

Selection of Studies

As can be seen in Figure 1, four exclusion criteria have been formulated before the literature search was conducted. Firstly, studies that did not assess attitudes towards older individuals in their research have been excluded. To answer the given research questions, it is important to find studies that assessed the participants' attitude towards older people in order to examine the relationship between the attitude and the cultural values. Furthermore, it was examined if the studies measured collectivism or individualism. Three different study types were included: 1) studies that examined collectivism/individualism on an individual level in one country by using a collectivism/individualism scale, 2) studies that compared attitude towards older individuals in at least two countries that are categorised as individualistic or collectivistic or 3) studies that examined the correlation between attitudes towards older individuals and the collectivism score of multiple countries. Studies that compared at least two different countries were suitable because then collectivism/individualism could be compared on a country-level. As it is a key aim of this study to examine the relationship between attitudes towards older individuals and individualism and collectivism it is of high importance to see if the cultural value was measured on country- or individual-level. The results could give important answer to why there have been inconsistent findings and if it is important to examine the cultural values at the individual level or not. Additionally, it was decided to only include studies that measured attitudes towards older people or ageing and to exclude studies that measured experienced ageism or age-related discrimination. This means that only studies are included that examine the individual's attitude by self-reporting and not by the perceiving of others.

Figure 1.

Flow chart literature search



Method of Analysis

In order to answer the sub-questions different analyses were conducted. For answering the first sub-question (*How are the studies designed that examine the influences of collectivism and individualism on the attitude towards older individuals?*) descriptive statistics were screened, the analysed study characteristics can be found in Table 1.

Furthermore, the sample characteristics age, gender ratio, nationality, sample size and social group were collected. Additionally, it was determined whether the study was cross-sectional or longitudinal and which of the three options for collectivism/individualism measurement was chosen. As mentioned before, there were three different options of measuring collectivism and individualism: 1) on the individual-level with a suitable scale, 2) by categorizing the country as collectivistic or individualistic or 3) by assessing the correlation between country's collectivism score and country-mean of attitude towards older individuals. Therefore, studies were compared by their design and by connecting it to their results possible explanations for contradictory results were investigated.

To answer sub-question 2 (*How are individualism, collectivism and the attitude towards older individuals operationalised*) the way of operationalising the different variables was displayed in Table 2. For each study information were gathered on what method was used to measure the attitude towards older individuals. Furthermore, it was analysed how the authors defined the participant's value orientation. Lastly, during the literature search it was found that studies differed in if and what they defined as old. Thus, this characteristic of the studies was also included in Table 2. As in sub-question 1, sub-question 2 was also formulated to compare the different studies and find possible explanations for contradictory results.

Next, for answering sub-question 3 different measures were taken. For studies which categorized the countries as collectivistic or individualistic effect sizes were computed via means and standard deviations and the differences between the countries on attitudes towards older adults were compared. For this we employed Cohen's d and the results can be found in Table 3. Cohen's d is used to define the standardized mean difference between two groups in order to find out the effect size (Lenhard & Lenhard, 2016). Thus, an overall effect of collectivism and individualism on the attitudes towards older people was computed for the studies to make them comparable. An effect size d from 0.0 to 0.1 means there is no effect, from 0.2 to 0.4 means there is a small effect, 0.5 to 0.7 means there is an intermediate effect and 0.8 to ≥ 1 means there is a large effect (Vacha-Haase & Thompson, 2004). Only seven of the 18 samples were suitable to calculate Cohen's d , because some of the studies did not give

the means and standard deviations. Furthermore, for studies that measured value orientation on the individual level the correlation coefficient r was integrated in Table 3. The correlation coefficient gives the correlation of two variables, here individual's value orientation and their attitude towards older people. A correlation coefficient above 0.30 means there is a weak linear relationship between the variables, above 0.50 shows a moderate relationship and from 0.70 to 1.00 means there is a strong linear relationship. Whether the score is positive or negative gives information about the direction of the relationship.

Lastly, for answering sub-question 4 the studies in Table 3 were categorized into three groups, studies that reported no effect of collectivism and individualism on the attitude towards older people, studies that reported a positive effect of collectivism and a negative effect of individualism on the attitude towards older people and studies that reported a negative effect of collectivism and a positive effect of individualism on the attitude towards older people. Different sample characteristics as well as instruments of measurement were then compared in order to find possibly factors that influenced the results and could provide an explanation for contradictory findings.

Results

How are the studies designed that examine the influences of collectivism and individualism on attitude towards older people?

To answer this question several study characteristics have been collected and displayed in Table 1. All of the studies ($n = 18$) are cross-sectional, and the majority of the studies are only measuring collectivism and individualism at the country-level ($n = 12$), meaning that they are comparing two or more countries and either categorise them as collectivistic or individualistic. One study used country-level collectivism scores. Four studies used a combination of country-level and individual-level measurement. And one study used only a scale to measure individualism/collectivism on the individual level.

The majority of the samples consisted only of students ($n = 10$) from different sectors e.g. nursing or psychology. Almost half of the samples ($n = 7$) had significantly more female than male participants, three samples had a balanced female to male ratio, eight studies did not mention the ratio and none of the studies had significantly more male than female participants. The different gender representation might be influenced by the sample choice because samples consisted of student groups from subjects that are predominantly chosen by females, e.g. psychology or nursing. As Hussein et al. (2013) found, the health care sector is still dominated by female workers and men remain outnumbered.

The majority of the samples ($n = 16$) was in a sample size range between 40 and 554 participants. Two studies used data from bigger surveys and had between 48.363 and 63.180 participants. Apart from the two big cross-cultural surveys, the other samples consisted of participants from 14 different countries, seven countries from Europe, four Asian countries, one African country, the U.S. and Australia. The majority of the studies ($n = 12$) examined two different countries, the others were single-country ($n = 2$) or had more than two countries ($n = 4$).

Table 1.

Descriptive Statistics

Author(s)	Sample characteristics (age, gender, country, number of participants)	Study design (individual-level, collectivism/individualism category or collectivism/individualism score)
1. Gattuso & Shadbolt, 2002	308 participants (M age = 22), 172 Pacific Islander university students (78% female, 22% male), 136 Australian university students (92% female, 8% male),	Cross-sectional, collectivism/individualism category
2. Intrieri & Kurth, 2017	271 participants from the U.S., Age unknown, 175 Non-Hispanic White students (116 female, 59 male), 96 African-American students (72 female, 24 male),	Cross-sectional, collectivism/individualism category
3. Luo, 2010	258 Taiwanese community participants (M age = 35, 157 female, 101 male)	Cross-sectional, individual-level
4. Luo et al., 2013	332 U.S. students (M age = 22, 74,1% female, 25,9% male), 980 Chinese students (64,2% female, 35,8% male)	Cross-sectional, collectivism/individualism category
5. Marquet et al., 2016	88 Participants, 20-54 years, Belgian (n=27), Burundi (n=32) and Burundian living in Belgium (n=29)	Cross-sectional, collectivism/individualism category (3 groups)

- | | | | |
|-----|---|--|---|
| 6. | McConatha et al.,
2003 | 254 students, 18-36 years, 157 German students (84 male, 73 female), 97 U.S. students (50 female, 47 male) | Cross-sectional,
collectivism/individualism
category |
| 7. | McCracken et al.,
1995 | 363 students, 182 Norwegian nursing students (M age = 26.6), 181 U.S. nursing students (M age = 23.7) | Cross-sectional,
collectivism/individualism
category |
| 8. | Peterson & Ralston,
2017 | 63,180 participants from 55 countries (M age = 42), gender composition not mentioned | Cross-sectional, individual-
level &
collectivism/individualism
category |
| 9. | Rego et al., 2020 | 554 participants, 154 African managers (M age = 36,9, 42% female, 58% male), 154 Portuguese managers (mean age 38,5, 25% female, 75% male), 108 African students (mean age 28,4, 46,3% female, 53,7% male), 138 students from Portugal (mean age 26,4, 69% female, 31% male) | Cross-sectional,
collectivism/individualism
category |
| 10. | Runkawatt &
Engström, 2013 | 540 nursing students, 241 Thai, 299 Swedish | Cross-sectional,
collectivism/individualism
category |
| 11. | Schloegel et al., 2018 | 457 employees in software development (M age=39 years), 44% Germans, 42% Chinese and 15% Eastern Europe | Cross-sectional,
collectivism/individualism
score |
| 12. | Sharps, Price-Sharps
& Hanson, 1998 | 88 Students, 44 U.S. Students (M age = 19.6 years, 32 females, 12 males), 44 Thai Students (mean age 17 years, 26 females, 19 males) | Cross-sectional,
collectivism/individualism
category |
| 13. | Vauclair, Hanke,
Huang & Abrams,
2017 | 433 students, 184 UK students (M age = 21.76, 71,2% female, 28,8% male), 249 Taiwan students (M age = 20.72, 52,2% female, 47,8% male) | Cross-sectional, individual-
level &
collectivism/individualism
category |
| 14. | Williams & Blunk,
1999 | 40 school children, 4-5 years, Swedish (n = 20) & U.S. (n=20) | Cross-sectional,
collectivism/individualism
category |

15. Xiao, Shen & Paterson, 2013	460 nursing students, 256 Australian students, 204 Chinese students	Cross-sectional, collectivism/individualism category
16. Xiaoping & Bryant, 2009	65 psychology students, 17 to 35 years, (16 male, 49 female), 31 Anglo-Australian, 34 Immigrants from Asia	Cross-sectional, collectivism/individualism category
17. Zhang et al., 2016	45,363 participants from 35 nations, age and gender not mentioned	Cross-sectional, individual-level & collectivism/individualism score
18. Zhang et al., 2016	367 Chinese participants (M age = 25,63, 46% female, 54% male)	Cross-sectional, individual-level & collectivism/individualism score

Note. Collectivism/individualism category = studies that compared attitude towards older individuals in at least two countries and categorised the countries as individualistic or collectivistic. Collectivism/individualism score = studies that compared attitudes towards older individuals and the collectivism score of at least two countries. Individual-level = studies that compared attitude towards older people and the score of a collectivism/individualism scale.

How are the variables operationalised and assessed?

The chosen studies all examined the influence of culture on the attitudes towards older people. To understand what has been studied and to be able to interpret the results, it is important to outline how these variables have been operationalised and assessed, a summary of this can be found in table 2.

Operationalisation and assessment of attitude towards older people

Firstly, it is interesting to see, how ‘being old’ is defined in the different studies. To operationalize the attitude towards older people and to interpret the results of the studies it is important to know what participants consider as old. Thus, it is critical that more than one third (n = 7) of the studies did not mention which age is considered as old (articles numbered 2, 7, 8, 9, 10, 11, 15 in Table 1). Only three studies asked the participants what they consider as old, the other studies (n = 9) determined a certain age as old beforehand. One study (Nr. 11) considered someone aged 51 years and above as old, two of the studies (Nr. 3 & 16) considered someone aged 60 years and above as old, two studies (Nr. 1 & 14) considered

someone aged 65 years and above as old and three studies (Nr. 13, 17 & 18) considered someone aged 71 years and above as old.

To measure participants' attitude towards older individuals, different measures were used. Several studies (Nr. 2, 4, 5 & 16) (n=4) used the Fraboni Ageism Scale (Fraboni, Saltstone & Hughes, 1990), which is a well-established scale for measuring attitudes towards the older individuals. Two of the other studies (Nr. 7 & 10) used the Old People Scale (Kogan, 1961). The other studies used self-developed instruments or other instruments, which might not be validated enough yet in order to generate reliable results.

Operationalisation and assessment of collectivism and individualism

The operationalisation of collectivism can be divided into three categories: studies that defined the value-level by categorizing countries into a collectivistic or individualistic category, studies that examined correlations between the countries' collectivism score and the attitude towards older people and studies that measured collectivism and individualism at the individual level using a scale. The majority of studies (n = 13) examined the value-level by categorizing countries as individualistic or collectivistic. The majority of those studies (n = 10) compared an Eastern and a Western culture, by considering the Western culture as an individualistic culture, and the Eastern culture as a collectivistic culture, which indicates the high importance of the East-West debate in this research context. One study with two different samples used the countries' collectivism score as value-level. Only a small number of the studies (n = 4) measured collectivism at the individual level. As collectivistic values can differ within a culture, it can be seen critical that the majority of studies assumed the participants' value orientation by using country scores.

Table 2.

Operationalisation and Assessment of Variables

Author(s)	What is considered as old?	Operationalisation Attitude towards older people	Operationalisation level (of value orientation)
1. Gattuso & Shadbolt, 2002	65 years and older	Reactions to Aging Questionnaire (Gething, 1994)	Collectivism/individualism category: Australia = individualistic; Pacific Islander = Collectivistic

2. Intriери & Kurth, 2017	Not mentioned	Aging Semantic Differential (Rosencanz & McNevin, 1969), Fraboni Scale of Ageism (Fraboni, Saltstone & Hughes, 1990)	Collectivism/individualism category: Non-Hispanic-White = individualistic; African-American = collectivistic
3. Luo, 2010	60 years and older	Older People Scale (Lu & Kao, 2009)	Individual level: Social-oriented Self Scale, (Lu, 2007) measuring social or individual orientation (collectivism vs. individualism)
4. Luo et al., 2013	Participants were asked what they considered old, average answer: 74.0	Fraboni Scale of Ageism (Fraboni, Saltstone & Hughes, 1990)	Collectivism/individualism category: America = individualistic; China = collectivistic
5. Marquet et al., 2016	Participants were asked what they considered old, average answer: 62.3	Open-ended Image-of-Aging question (Levy et al., 2004), Fraboni Scale of Ageism-French version (Fraboni, Saltstone & Hughes, 1990)	Collectivism/individualism category: Belgium = individualistic; Burundi = collectivistic
6. McConatha et al., 2003	Participants were asked what they considered old, average answer: Germany = 62, U.S. = 50,5	Anxiety about Aging Scale (Lasher & Faulkender, 1993)	Collectivism/individualism category: Germany = individualistic; America = individualistic
7. McCracken et al., 1995	Not mentioned	Kogan's Old People Scale (Kogan, 1961)	Collectivism/individualism category: Norway =

			individualistic; America = individualistic
8. Peterson & Ralston, 2017	Not mentioned	Statements from Wave 6 – Survey of Health	Collectivism/individualism category & Individual-level (Materialism value orientation scale, (Inglehart, 1971)
9. Rego et al., 2020	Not mentioned	Self-developed 20 item scale (Rego et al., 2017)	Collectivism/individualism category: Portugal = individualistic; Africa = collectivistic
10. Runkawatt & Engström, 2013	Not mentioned	Kogan's Old People Scale (Kogan, 1961)	Collectivism/individualism category: Sweden = individualistic; Thailand = collectivistic
11. Schloegel et al., 2018	51 years and older	Self-developed 5-point Likert scale (Schloegel et al., 2016)	Collectivism/individualism score (2 countries, item for organisational culture)
12. Sharps, Price-Sharps & Hanson, 1998	Not mentioned	Adjective-generation instrument (Carmel et al., 1992)	Collectivism/individualism category: United States = individualistic; Thailand = collectivistic
13. Vauclair, Hanke, Huang & Abrams, 2017	71 years and older	Questionnaire with measures on meta-perceptions and personal attitudes (Vauclair et al., 2017)	Collectivism/individualism category: U.K. = individualistic; Taiwan = collectivistic & Control of category with: Short Schwartz's Value Survey (Schwartz, 2010)
14. Williams & Blunk, 1999	65 years and older	Social Attitude Scale of Ageist Prejudices (Isaacs & Bearison, 1986)	Collectivism/individualism category: Sweden = individualistic; U. S. = individualistic
15. Xiao, Shen & Paterson, 2013	Not mentioned	Nursing Students' Attitudes Towards the Elderly (Johnson, 1992)	Collectivism/individualism category: Australia =

			individualistic; China = collectivistic
16. Xiaoping & Bryant, 2009	60 years and older	Fraboni Scale of Ageism (Fraboni, Saltstone & Hughes, 1990)	Collectivism/individualism category: Australia = individualistic; Asian countries = collectivistic
17. Zhang et al., 2016	71 years and older	2 Items for warmth and competence (Cuddy et al., 2009)	Collectivism/individualism score (35 countries) & Individual level: Schwartz Value Survey (Schwartz, 1992)
18. Zhang et al., 2016	71 years and older	Self-developed adjective-scale, Ageism scale (North & Fiske, 2013b)	Collectivism/individualism score (1 country) & Individual Level: Schwartz Value Survey filled out with personal opinion

What is known about the effects of individualism and collectivism on attitudes towards older people?

A main aim of this review is to compare the results of the different studies and evaluate the state of research on the effect of individualism and collectivism on attitudes towards older people. The majority of samples (n = 12) observed an effect of collectivism and individualism on the attitude towards older individuals (Nr. 3, 4, 5, 7, 8, 9, 10, 11, 12, 15, 17, 18). Those studies can be divided into two groups: 1) six studies that identified a positive effect of collectivism on the attitude towards older people (samples numbered 3, 9, 11, 15, 17 & 18) and 2) six studies that identified a negative effect of collectivism on the attitude towards older individuals (samples numbered 4, 5, 7, 8, 10, 12).. Xiao et al. (2013) found higher levels of ageist attitudes among Australian participants (individualistic society) when comparing them with Chinese participants (collectivistic society), what supports the assumption that collectivistic cultures have a positive influence on people's attitude towards older people. Furthermore, Lu et al. (2010) found that traditional Chinese values (collectivistic society) were related to positive attitudes towards older people and also to stronger intentions to work with older employees. In line with this, Rego et al. (2020) found more positive attitudes towards older workers among African managers (collectivistic society)

than among Portuguese managers (individualistic society). In contrast, Luo et al. (2013) found that Chinese college students (collectivistic society) held more negative attitudes toward older individuals than U.S. students (individualistic society) did. This goes in line with the results from Sharps et al. (2006) who identified more negative attitudes among a group of Thai students (collectivistic society) than among a group of U.S. students (individualistic society), indicating that individualistic cultures might hold more positive attitudes than collectivistic cultures do. One third of the samples ($n = 6$) identified that there is no relationship between collectivism and individualism and the attitude towards older individuals (sampled numbered as 1, 2, 6, 13, 14, 16 on Table 2). Vauclair et al. (2017) found that there is actually a mix of positive and negative attitudes in collectivistic as well as in individualistic cultures. Similar results were found by Xiaoping & Bryant (2009) who identified generally positive but mixed attitudes in both cultures.

To compare the studies that found an effect of collectivism and individualism, effect sizes were computed. For studies with collectivism and individualism categories and Cohen's d was used. Only five (Nr. 4, 5, 9, 10 & 12) of those 7 studies were suitable to calculate Cohens d . The remaining two studies were excluded because they either did not give a Mean and Standard Deviation to calculate Cohens d . The results can be found in Table 3. Additionally, three (Nr. 3, 11 & 17) of the five samples that measured collectivism on the individual level gave a correlational coefficient and were included in table 3. The remaining two studies were excluded because they did not give the correlational coefficient.

Cohens d is interpreted as no effect (0.0-0.1), small effect (0.2-0.4), intermediate effect (0.5-0.7) or large effect ($0.8 \geq 1$), negative and positive scores indicate the direction of the relationship. For better understanding the studies that identified a positive effect of collectivism on the attitude towards older individuals are marked with an *. One of the effect sizes shows a small negative effect of collectivism on the attitude towards older people compared to the effect of individualism (Nr. 5). One shows a small to intermediate positive effect of collectivism on the attitude towards older people compared to the effect of individualism (Nr. 9*). Lastly, three of the effect sizes show a large negative effect of collectivism on the attitude towards older people compared to the effect of individualism (Nr. 4, 10 & 12). Individual level measurements to examine the relationship between collectivism and the attitude towards older individuals were used in only a few studies, to describe the effect of the relationship of the variables a correlational coefficient was given (Nr. 3, 11 & 17). All three studies reported a positive effect of collectivism and a negative effect of

individualism on the attitude towards older individuals. The reported relationships differ in their strength and are described as very weak positive (Nr. 3), weak positive (Nr. 11) and very strong positive relationship (Nr. 17). Especially interesting results are reported by Zhang et al. (2016, Nr. 17) who compared measuring collectivism on the country-level and on the individual-level and reported that personal values measured at the individual-level are a much stronger predictor for the attitude towards older people than country-level value scores.

Table 3.

Cohens d and r (correlational coefficient) for correlation between attitudes towards older individuals and collectivism

Author(s)	Effect Size d_{Cohen}	Correlation coefficient
3. Luo et al., 2017		.17*
4. Luo et al., 2013	-1.17	
5. Marquet et al., 2016	-1.27	
7. McCracken et al., 1995	-	
8. Peterson & Ralston, 2016		-
9. Rego et al., 2020	0.25 to 0.57*	
10. Runkawatt & Engström, 2013	-0.94	
11. Schloegel et al., 2018		0.34*
12. Sharps et al.,	-0.95	
15. Xiao et al., 2013	-*	
17. Zhang et al., 2016		.098 & 0.53*
18. Zhang et al., 2016		-*

The reported results show that currently in this research field there is no general statement for the relationship of collectivism and the attitude towards older individuals. Thus, it is important to evaluate the different studies and examine possible factors that influenced the results. Therefore, studies have been categorised into three different groups: 1) studies that reported no effect (Nr. 1, 2, 6, 13, 14, 16), 2) studies that reported a positive effect (Nr. 3, 9, 11, 15, 17 & 18) and 3) studies that reported a negative effect (Nr. 4, 5, 7, 8, 10, 12).

Following, the study characteristics such as samples size, gender ratio, measurements etc. were investigated. In the interest of clarity, those characteristics have been visualised in Table 4.

It can be said that several similarities within the three different groups were recognised that may have influenced the reported results. Firstly, it is noticeable that all samples that reported no effect of collectivism on the attitude towards older individuals consisted only of students. In contrast to that, except for one sample all of the samples who reported a positive effect of collectivism on that attitude towards older people, consisted of community samples or participants from a working sector. Furthermore, samples that reported a negative effect of collectivism on the attitude towards older people also had a majority ($n = 4$) of student samples. This distribution could be evidence for a systematic bias in the sample choice. Additionally, the choice of student samples led to a decrease in the participants' age. Thus, samples of group 1 were in an age range between 4 – 36, while samples in group 2 ranged from 26 to 39 years. As group 1 included participants from a younger age group this could have caused a systematic bias.

Furthermore, it is striking that all samples that included participants from the U.S. were either in group 1 or 3. Other countries are distributed equally across the three groups. This highlights the importance of a multicultural sample. Additionally, it was suspected that the choice of measurement for collectivism and individualism could influence the results. In Table 4 it can be seen that all studies from group 1 categorised the countries into collectivism and individualism categories, while in group 2 the majority of studies used collectivism and individualism scores or measured collectivism on the individual level. It is striking that all studies that used an individual-level measurement reported a significant correlation between collectivism and individualism and the attitude towards older people. This indicates that the country-level measurements cause a bias, while individual-level measurements provide clearer results.

Lastly, some of the studies had sample sizes below 100, which evoked the impression that the sample size could have affected the results of those studies. However, as can be seen in Table 4, samples sizes differed throughout the groups and therefore do not seem to influence the inconsistent results found between the group 1 and group 2 samples.

Table 4.

Screening of possible factors of inconsistent results.

Sample Nr.	Sample size	Age	Student sample?	What is considered old?	Country	Operationalisation Collectivism
(Group 1)						
1	308	M = 22	Yes	65 ≥	Australia	Category
2	271	-	Yes	-	U.S.	Category
6	254	18 - 36	Yes	Participants asked, M = 62 & 50	Germany & U.S	Category
13	433	21	Yes	71 ≥	U.K. & Taiwan	Category
14	40	4-5	Yes	65 ≥	Sweden & U.S.	Category
16	65	17-35	Yes	60 ≥	Australia	Category
(Group 2)						
3	258	35	No	60 ≥	Taiwan	Individual
9	554	36.9	No	-	Africa & Portugal	Category
11	457	39	No	51 ≥	Germany, China & Eastern Europa	Score
15	460	-	Yes	-	Australia & China	Category
17	45,363	-	No	71 ≥	Inter-national	Individual & Score
18	367	26	No	71 ≥	China	Individual & Score

(Group 3)

4	332	22	Yes	Participants asked, M = 74	U.S. & China	Category
5	88	20-54	No	Participants asked, M = 62	Belgium & Burundi	Category
7	363	26	Yes	-	Norway & U.S.	Category
8	63,180	42	No	-	Inter- national	Individual & Score
10	540	-	Yes	-	Thailand & Sweden	Category
12	88	19.6	Yes	-	U.S. & Thailand	Category

Discussion

The aim of this study was to evaluate the current state of research on the effect of collectivism and individualism on the attitude towards older people. Beforehand, it was assumed that collectivistic cultures fostered the attitude towards older people. Nevertheless, some studies found that individualistic cultures foster the attitude towards older people. This led to an unclear image of the current state of the art in this field. Thus, we compared the results of 18 samples that measured the impact of collectivistic or individualistic cultures on the attitude towards older individuals. Furthermore, it was important to investigate whether the choice of measurement or sample characteristics influenced the reported results. As mentioned in the introduction, it was considered that measuring collectivistic values on the country-level or on the individual-level could be a reason for inconsistent findings. Therefore, it was part of this paper to examine the difference between these study-designs.

To conclude, it can be said that evaluating the results of the studies shed a light on which results are suspected to give a clearer answer in the research question. Although the majority of studies reported a relationship between the attitude towards older people and collectivism and individualism, it was unclear whether collectivistic cultures foster the attitude towards older individuals or not. As the same amount of studies either reported a positive or a negative relationship between collectivism and the attitude towards older people, it is not possible to give a reliable assertion on this statement. Additionally, these results

support findings of a previous study of Vauclair et al. (2017) who reported that there is actually a mix of negative and positive attitudes in the East. Nevertheless, after evaluating the study characteristics, it was found that some studies might have used more favourable designs that lead to more reliable results.

Thus, the studies were examined to find possible factors that influenced the results and caused biases. It was found that different sample characteristics could have affected the results. The use of samples that consisted solely of students may have caused a bias in the results, also by causing an increase in the age range of participants. It was found that especially studies that found no correlation between the attitude towards older people and collectivism or individualism and partly also studies that found a negative effect of collectivism and a positive effect of individualism on the attitude towards older individuals used students samples. Furthermore, the distribution of nationalities indicated that specification on one or two countries may have caused a bias as well. It was found that participants from the U.S. were only included in studies that reported no effect on collectivism or individualism on the attitude towards older individuals and studies that found a negative effect of collectivism and a positive effect of individualism on the attitude towards older people. Therefore, it was found that the limited variety of participants may have inhibited the achievement of reliable results. Studies that reported a positive effect of collectivism and a negative effect of individualism on the attitude towards older people were found to use community samples with participants from different sectors of society and were also found to use a larger variety of ethnicities.

As described in the results section there was also a difference found in the use of instruments of the studies. It seems that using a scale to measure collectivistic values on an individual-level generates a better impression of a person's actual values than only considering those by using a country collectivism score. This assumption is supported by the comparison that was conducted in one of the studies. Zhang et al. found that personal collectivistic values might influence participant's attitudes towards older adults much more than cultural values do (Zhang et al., 2016) by comparing the results of the two measurements. In line with this, Vauclair et al. (2017) found that it is important to distinguish between the cultural context and the personal attitudes of participants when comparing them to the attitude towards older individuals.

Strengths and Limitations

It was found that an important strength of this systematic literature review is that it compared studies that categorised countries as collectivistic or individualistic with studies that used collectivism and individualism scores and studies that used individual-level measurements for collectivism and individualism. By doing so important explanations for the results were found and suggestions for future research can be made.

Furthermore, there are some limitations that were found. An important factor that was examined was the variety of samples that were used for the studies. Firstly, it was reported that samples that consisted solely of students were suspected to cause a systematic bias in the results. Recently, it was found that it is not possible to generalise from a student sample to the general public, because students differ randomly across countries and variables (Hanel & Vione, 2016). As the majority of samples ($n = 11$) consisted of student samples, this is an important limitation for this study and the current state of the art in this field. Therefore, it is an important suggestion that future research focusses on the use of large community samples that include participants from different sectors of the society and also present a large variety of different ethnicities. Doing so increases the variety of value orientations that are included in the research which could lead to more reliable results.

Additionally, there are other aspects of the study designs that need to be seen critically. Firstly, the variety of countries participants lived in was not sufficient. Especially, individualistic cultures were only small in number and the examined countries often repeated themselves throughout the different studies. To generate a representative sample and to generalise results to the general public, it is important to recruit participants from all countries. Especially cultural values can differ a lot throughout different countries and cannot be generalised by using samples of only two countries.

Furthermore, it was found that many studies did not determine what is considered to be old. Thus, participants considered their own perception of being old while answering the questionnaires. As Chopik et al. (2018) found, estimates of the timing of developmental transitions (e.g. when does someone turn into an older adult?) are differing across societies and also change within a person as they grow older. Therefore, it is important to identify the age at which someone considers a person as old, to make results comparable.

Lastly, some of the studies used self-developed scales which were new and possibly not approved enough. Newly developed scales need to be tested and approved in terms of their reliability. A test's reliability has crucial implications for the quality of decision that are

made on the basis of the test score and long-term use of this scale can prevent difficulties by revealing issues in the design of the scales. Therefore, this review found that for some studies the reliability of the test-measures is possibly at risk.

Implications and Future Research Suggestions

The goal of this study was to define to what extent collectivism and individualism affect an individual's attitude towards older people. As findings have been contradictory, a clear answer to this question cannot be given. Nevertheless, after collecting the results and critically evaluating the limitations, several implications and suggestions for research and practical work can be mentioned.

Firstly, this study gave a comprehensive overview of the current state of the art in this research field. Thereby, it revealed that several biases affected the results. Furthermore, it showed that studies that were not affected by these biases predominantly reported a positive effect of a collectivistic and a negative effect of an individualistic value-orientation on the attitude towards older people. Thus, this review supports the aim of further elaborating on the topic of the influence of collectivism and individualism on the attitude towards older individuals. It highlights the influence of cultural values on the attitude towards older individuals and the relevance of this topic in the context of our ageing society.

Furthermore, this review revealed possible drawbacks in the study designs and how future research can overcome them. Firstly, the samples that were used were mainly students in the age from 18 to 30 years. Evaluating the findings, this revealed a potential bias and a lack of generalisability of the reported results. Furthermore, the chosen countries were found to influence the results additionally. These findings highlighted the importance of using representative samples. Thus, a possible solution to overcome the limitations of the reviewed study designs would be to conduct large-scale multi-cultural studies that include a majority of countries all over the world. For this purpose, large community samples could be used in order to get more generalisable results. Additionally, the inclusion of more individualistic and collectivistic countries could improve the generalisability of the findings. Additionally, it was presumed that measuring collectivism and individualism on the individual-level gives a better impression of a person's values than measuring the variables on the country-level. Future research could use these findings by choosing an approved scale to measure collectivistic values on the individual level. Additionally, with the results of the individual-level measurement country means can be calculated in order to generate an actual collectivism score for each country.

Additionally, this study also provides some important implications for practical work. To know the impact of collectivism and individualism on the attitude towards older individuals provides indications for the development of preventive measures to reduce ageism among different cultures. Burnes et al. (2019) found that studies on interventions for ageism are mainly conducted in the United States and thus, lack understanding of the effect of these intervention across different cultures and age-related social norms. Findings of this systematic literature review suggest that cultural value-orientations influence the attitude towards older people. This highlights the importance of considering different cultural value orientations in the development of ageism interventions. Implying that future research should investigate whether interventions are more needed in societies that are more individualistically oriented.

Furthermore, the results of this review can be used to implement certain preventive measures such as the PEACE model, an intervention that uses positive education about older individuals in order to improve the attitudes of younger individuals towards older people (Lytle & Levy, 2019). As this review supports the hypotheses that individuals with certain cultural values such as individualism might show more ageist attitudes than other individuals, this can help to know where to implement certain interventions. Thus, it could be more useful to apply Positive Education about Aging and Contact Experiences in communities that are more individualistic because the development of ageist attitudes is more likely.

Moreover, this study gave an appraisal of which individuals might be more likely to provide care for older individuals than others. As populations are ageing the need for health care is increasing and labour shortage is turning into a significant problem for the public health sector. Consequently, it is important to recruit qualified and competent employees that are willing to work in the field of elderly care. The results of this review show that those employees are more likely to be individuals that have collectivistic values. This way specially targeted recruiting measures can be applied in order to improve the resources of our elderly care sector. Nevertheless, as mentioned before more research is needed to support these suggestions.

Conclusion

In summary, this systematic literature review examined the potential effect of collectivism on the attitude towards older individuals and outlined different gaps in the current research. Due to contradictory findings it was difficult to give a general answer on the research questions. Nevertheless, considering the biases that were found it has shown that studies that reported a positive effect of collectivism and a negative effect of individualism on

the attitude towards older people are suggested to give the most reliable results. This suggests a direction for future research, meaning that collectivistic value-orientations foster a positive attitude towards older people while individualistic value-orientations might inhibit a positive attitude towards older individuals. Thus, it was found that further exploration of this topic could possibly bring further confirmation of this suggestion. Thus, it is important to consider the mentioned drawbacks of the chosen studies and develop study designs that overcome them. The use of student samples from a young age group and the inclusion of participants from only two countries was found to cause a bias in the results of the studies. As mentioned before, large-scale cross-cultural studies that consider personal collectivistic and individualistic values could generate more consistent results. In the context of our ageing society it is vital to prevent intergenerational conflicts and the development of ageism, by identifying the roots and findings measures to eliminate them. As topics such as elderly care will continue to concern the public health sector in the next years, research in this field will remain important. This review opened up new possible paths for future research and highlighted the importance of further elaboration of this topic.

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