



Suggestions regarding the relationship between daily information-seeking habits and the formation of ageism

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DOI: <https://doi.org/10.47989/ir31iConf64169>

Abstract

Introduction. Various previous studies have suggested a relationship between information-seeking preferences and ageism. However, the mechanisms and processes underlying the relationship between information preference and ageism have not been explored. Moreover, both of the aforementioned studies assumed the provision of accurate information and knowledge. Therefore, this study aimed to determine whether people's information-seeking preferences affect ageism and to examine the mechanisms underlying this effect.

Method. A questionnaire survey was conducted among 154 undergraduate students enrolled at national universities in Japan.

Analysis. A covariance structure analysis was conducted to test whether information-seeking preferences affect ageism.

Results. The factors of information-seeking preferences were related to ageism. Among the factors of ageism, antilocution and discrimination were particularly affected.

Conclusion(s). While the Internet facilitates interaction with people of different generations and values, it has also been suggested that information-seeking preferences can reinforce ideological inclinations. This study shows that information-seeking behaviour can inhibit ageism, but also indicates that individuals may be more prone to ageist attitudes when relying on people as information sources.

Introduction

Ageism is discrimination that associates older people with negative stereotypes, such as illness, ugliness, cognitive decline, uselessness, and isolation, and regards old age as the worst period of life (Butler, 1969). Unlike sexism or racism, everyone is subject to this form of discrimination as they age; therefore, the number of people affected by ageism is enormous. However, according to Palmore (1999), ageism refers to any prejudice and discrimination, negative or positive, against an age group, and thus includes age groups other than older adults, as well as instances of positive discrimination or prejudice. As Iversen et al. (2009) noted, definitions of ageism are diverse. This study focused on ageism as a negative attitude towards older people.

Ageism consists of three elements: stereotypes, prejudice, and discrimination (Butler, 1969; Palmore, 1999). Stereotypes are stylised images or perceptions of a group, for instance, '*older people have a bad memory*' or '*older people are stubborn*'. Prejudices are feelings and evaluations based on stereotypes, such as '*I do not like older people*' or '*I do not want to hire them*'. Finally, discrimination is the behavioural manifestation of these perceptions and feelings, such as putting age restrictions in employment or offering unfair treatment. These three elements can be encapsulated by the concept of '*attitude*', which encompasses all three.

It has been suggested that stereotypes, prejudice, and discrimination stem from a lack of knowledge and understanding of the subject (Fishbein & Ajzen, 1975). Lytle and Levy (2019) also found that imparting knowledge about older people and ageing inhibits ageism. Similarly, Chonody (2015) reported that implementing educational programmes providing accurate information about older people hinders ageism. Thus, various previous studies have suggested a relationship between information-seeking preferences and ageism. However, the mechanisms and processes underlying the relationship between information preference and ageism have not been explored. Moreover, both of the aforementioned studies assumed the provision of accurate information and knowledge. In reality, people today are exposed to a vast amount of information, not all of which is accurate. The fact that it remains unclear whether people's information-seeking preferences influence their discriminatory attitudes is a serious concern. Therefore, this study aimed to determine whether people's information-seeking preferences affect ageism and to examine the mechanisms underlying this effect. To eliminate ageism, it is essential to understand and respond to the mechanisms through which discrimination occurs. This study may provide important findings in this regard.

Methods

A questionnaire survey was conducted among 154 undergraduate students enrolled at national universities in Japan. These students were enrolled in the same class (Introduction to mathematical and data science) and mainly belonged to the Faculty of Informatics. In April 2023, the URL of the survey form was distributed via a learning management system. Participants were informed that participation was voluntary, that their responses would not affect their evaluation, and that both their identities and response content would remain anonymous. They were also informed about how the response data would be managed.

The survey included questions on respondents' age, gender, and faculty. The *Information Seeking Scale* (Igarashi, 2006) was used to measure information-seeking preferences. It consists of three subscales: *implementing mass media resource*, *implementing interpersonal resource*, and *proactivity in information seeking* (a four-item method). The *Fraboni scale of ageism* (Fraboni et al., 1990) was used to assess ageism. This scale consists of three subscales: *avoidance*, *antilocution*, and *discrimination* (a five-item scale). Considering the population in this study, a version of the scale developed in Japanese was used. These methods are robust and have been employed in numerous studies to elucidate information seeking preferences and the extent of age discrimination; hence, they were adopted in this research.

Results

A total of 83 participants (53.90%) responded to the survey. Tables 1 and 2 present the results of the factor analysis (maximum likelihood method and Promax rotation) for each scale. In previous studies, the *information-seeking scale* had a three-factor structure. However, a four-factor structure was found to be optimal based on parallel analysis and factor loadings (Table 1). The goodness-of-fit of the model and its stability were sufficiently ensured, with Tucker–Lewis Index = .87 and RMSEA = .05. The four factors were named: *implementing mass media resource* (IMMR), *implementing interpersonal resource* (IIR), *proactivity in information seeking* (PIS), and *emphasis on quick facts* (EQF). For the ageism scale, a three-factor structure was confirmed, consistent with previous studies (Table 2). The factors were named *avoidance*, *antilocution*, and *discrimination* (Tucker–Lewis Index = .79, RMSEA = .06).

	F1	F2	F3	F4
Implementing mass media resource (IMMR)				
If I don't understand something, I first look it up in a book, magazine, Refer to books, magazines, and websites when doing something new.	.81	-.01	.11	-.07
If I don't understand something, I quickly look it up.	.66	-.14	.06	.11
As much as possible, I want to know the essence of things.	.61	.06	.17	-.25
I prefer to know a wide variety of things.	.45	.26	.20	.03
Implementing interpersonal resource (IIR)				
When in doubt, ask someone I trust.	-.12	.84	.04	.03
Actively ask others when researching matters of interest.	-.05	.82	.19	.09
When doing something new, ask someone who knows about it.	.06	.68	-.25	.08
I try to socialise with people who have different kinds of information.	.17	.55	-.03	.07
When gathering information, I do not ask someone.	.05	.49	.03	.11
Proactivity in information seeking (PIS)				
I want to investigate thoroughly until I am satisfied.	-.14	.04	.98	-.01
Gather the information I think I need on my own.	.14	-.05	.63	.09
I am rarely willingly look something up.	-.06	.17	.52	-.06
Gather information about matters of interest on my own.	.18	.08	.30	.16
Emphasis on quick facts (EQF)				
I want to get information promptly.	.09	.01	.02	.93
I want to be up to date with the latest information.	-.24	.09	.20	.77
When I want to know something, I look it up in books, magazines, or websites.	.36	-.07	-.12	.50

Table 1. Factor analysis: information seeking scale.

	F1	F2	F3
Avoidance			
If possible, I do not want to live with older people.	.86	.04	-.14
Socialising with older people is a lot of fun.	.83	.12	.27
I do not want to spend a lot of time with older people.	.65	.03	.09
If invited, I would not want to go to an older people's club event.	.59	-.02	.26
If an older person speaks to me, I do not want to talk to them.	.52	.04	.32
When I meet older people, I sometimes avoid eye contact.	.42	-.02	.21
Antilocution			
Many older people live in the past.	-.20	.85	-.10
Many older people are stingy and save money and goods.	-.10	.55	.11
Many older people cling to old friends and do not make new ones.	.25	.54	-.12
Most older people cannot be trusted to look after babies.	.22	.35	-.06
Discrimination			
Older people should be grateful when invited to gatherings of young people.	-.17	.08	.81
I do not want older people to use local sports facilities.	.04	-.22	.74
Older people are better off living somewhere where they would not be bothered by anyone.	-.09	.11	.63

Table 2. Factor analysis: Fraboni scale of ageism.

A covariance structure analysis was conducted to test whether information-seeking preferences affect ageism (Figure 1; GFI = 1.00, AGFI = .76, and RMSEA = .13).

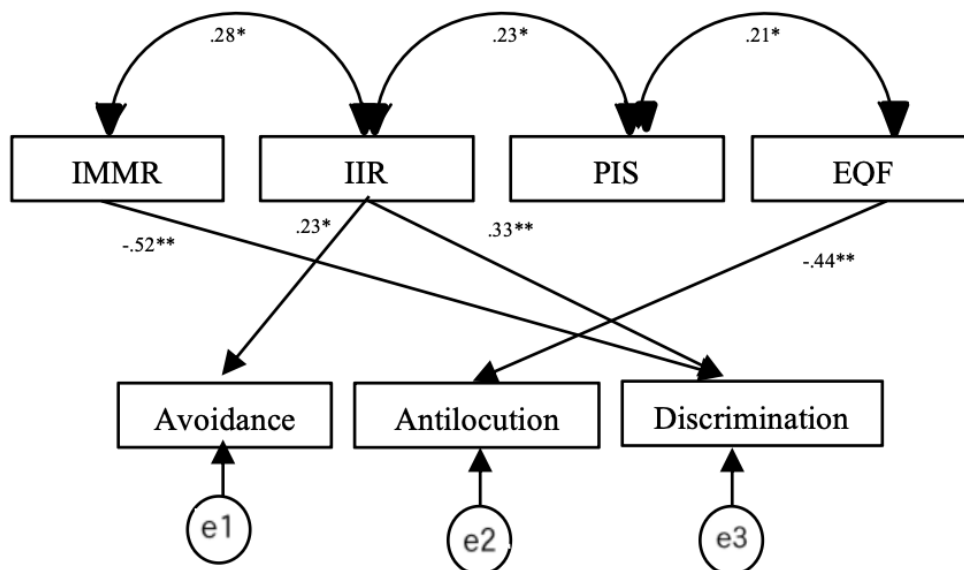


Figure 1. Causal model of information-seeking preferences and ageism
(Only statistically significant paths are shown; * $p < .05$, ** $p < .01$).

The results of the covariance structure analysis showed that the factors of information-seeking preferences, IMMR, IIR, PIS, and EQF, were related to ageism. Among the factors of ageism, *antilocution* and *discrimination* were particularly affected. More specifically, the results revealed a direct effect of IMMR and IIR on *discrimination*: the higher the IMMR, the lower the

discrimination; and the higher the IIR, the higher the *discrimination*. The results also showed a direct effect of EQF on *antilocution*, such that the higher the EQF, the lower the *antilocution*.

Discussion

This study aimed to verify whether information-seeking preferences influence ageism. The results confirmed that such preferences do indeed affect ageism. More specifically, higher implementation of interpersonal resources increased discrimination, whereas higher implementation of mass media resources and greater emphasis on quick facts decreased discrimination and antilocution, respectively. Butler (1969) explained that one of the causes of ageism is ignorance and a lack of understanding about older people. It appears that this lack of comprehension can be addressed by obtaining accurate and reliable information through information-seeking behaviours.

The relationship between the implementation of mass media resources and interpersonal resources with discrimination may reflect one's tendency to critically evaluate information sources. When people use various media, such as books or the Internet, they tend to consume information after comparing and reflecting on it. However, when they use other people as their information source, they may accept information more uncritically (Weiler, 2005). Therefore, it can be inferred that seeking information from mass media (e.g., books, magazines, and websites) inhibits ageism, while relying on information from other people may amplify it.

The relationship between emphasis on quick facts and antilocution appears to be linked to a tendency to acquire information quickly. The '*emphasis on quick facts*' factor included items such as '*I want to get information promptly*' and '*I want to be up-to-date with the latest information*'. This suggests a shift to immediate search behaviour when an information need is recognised. Because such search behaviour itself may help suppress ageism, individuals may come to form updated perceptions of older people – ones that differ from outdated stereotypes, such as '*many older people live in the past*', '*many older people are stingy and save money and goods*', and '*many older people cling to old friends and do not make new ones*', which are examples from the antilocution factor.

Conclusion

This study empirically clarified the relationship between information-seeking preferences and ageism. While the Internet facilitates interaction with people of different generations and values, it has also been suggested that information-seeking preferences can reinforce ideological inclinations; for example, through echo chambers. This study shows that information-seeking behaviour can inhibit ageism, but also indicates that individuals may be more prone to ageist attitudes when relying on people as information sources. Although information literacy is often discussed in relation to evaluating online sources, we should also be fully aware of our tendency to rely on human sources and the potential risks it entails.

Limitation

This study included a large number of students majoring in informatics, which may reflect specific information-seeking preferences that differ from those of the general population. In addition, some of the models lacked sufficient fit indices. Future research should aim to refine these models by re-examining the sample and variables.

Acknowledgements

This study was funded by the SUNTORY FOUNDATION.

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