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Ageism in students of psychology and medicine and its relationship with religiosity

Abstract

More and more, the elderly population is assuming a fundamental role in the structure of our society. However, this advancement does not appear to be matched by a change in the subconscious of many people in contemporary society who still tend to nurse a certain stigma with regard to old age. Ageism is the term that represents prejudice against and discrimination of the elderly and the ageing process. Religiosity has been suggested as one of the protective factors against ageism. In order to investigate the relationship between ageism and religiosity in future health professionals, this article describes a study carried out with students of Psychology and Medicine in a university in the Federal District of Brasilia. A total of 88 Psychology and 80 Medicine undergraduates took part in the study. The Fraboni Scale of Ageism and the Duke Scale of Religiosity were employed. The results show a predominance of positive attitudes towards the elderly, a prevalence of religious believers in both groups studied as well as a modest relationship between ageism and religiosity. The implications for training in the area of health are discussed.

Keywords: age discrimination, ageism, religiosity, psychology training, medical training

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Introduction

The elderly population is more and more assuming a fundamental role in the structure of our society and this is happening concurrently with the reduction in the mortality rate of the population and a decline in fertility. Indeed, at the global level, the burgeoning growth of the elderly population[1,2] in recent decades has, as of 2018, meant that this group now accounts for approximately 8.7 percent of the world's population. Given the current rate of growth, it is estimated that this figure will rise to 15.8 percent by 2050.[3] This change in the demographic scenario brings with it challenges for and demands upon various sectors of the economy, for example, education, work, social security and, primarily, healthcare for this section of the population,[3,4] necessitating further research and constructive responses.[5]

This inversion of the age pyramid, that is to say, the relative reduction at its base (infancy) and increase at the top (old age),[6] does not just depict the dominance of old age but also paints a picture of longevity as being a privileged phase for those who succeed in getting there, carrying with them a wealth of experience and learning that can be passed down to future generations.[7] Indeed, growing old has been one of humanity's greatest achievements. To get to this point, a good many technological advances have been required, such as the invention of vaccines, antibiotics and chemotherapy products, which have cured or prevented many diseases, significantly prolonging the human lifespan.[7] However, these rapid advances in technology have not necessarily been accompanied by a change in the subconscious or the social representation of people with regard to old age, such that there is still a lot of stigma in society in relation to this phase of human life, which has also been exacerbated by the COVID-19 pandemic.[8]

In ancient societies, elders were considered wise and experienced, to whom others could look to for their personal growth. Unfortunately, this notion has fallen out of favour in contemporary society to the extent that the elderly are very often considered and treated as a problem.[9] The ageing process, not properly understood by many people in today's society, is ultimately seen as undesirable in a society which, paradoxically, craves longevity but prizes "not getting old".[10] Accordingly, it is still necessary to deconstruct particular negative stigmas that exist in certain sections of society, primarily among youngsters and adults, who still often associate ageing with illness and/or disability.[11]

On the other hand, old age is composed up of both expected and unexpected events which also relate to the development of some abilities and the decline in others.[11] This happens because old age is not simply the result of the physiological process of ageing. It is also a social construction,[12] characterizing, for this selfsame society, both a positive and a negative phenomenon, and both for the individuals themselves and for society. Thus, for example, if on the one hand we achieve greater longevity, an aspect evaluated by society as positive, on the other we have witnessed a reduction in fertility, generating a phenomenon which could have grave consequences, it being hard to reverse the situation due to the inability to replace generations, which has indeed been the case in many countries in the developed world.

Living longer and with a better quality of life is, therefore, a challenge to humanity.[13] Living longer can also mean greater exposure to chronic illness, problems of self-sufficiency and dependence – physical, mental and also economic. In addition to the chronological and biological determinants, we also see with regard to old age sociocultural constructions such as ageism, prejudice based on age, unfortunately heavily disseminated in our cultures.[14]

Ageism

Ageism, also referred to as age discrimination, a term coined by the American gerontologist Butler,[15–17] encompasses prejudice and discrimination against the elderly and the process of ageing. The author defined ageism as "a profound psychosocial disorder characterized by institutionalized prejudice, stereotyping, mystification, distaste, and/or avoidance".[17] Such prejudice and discrimination are manifested through the perception that old people are narrow-minded, infantile, stubborn, incapable of working and taking decisions, among other negative, demeaning adjectives.[18] Butler[19] argues that ageism is analogous to racism and sexism. Iversen, Larsen and Solem,[20] however, consider that ageism differs from sexism and racism in that age is continuous and everybody experiences ageism at some given moment of their lives. Palmore[21] assigns a broader meaning to ageism, defining it as any prejudice or discrimination against or in favour of

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any age group, and he emphasizes both the negative and positive aspects of ageing. Palmore,[21] however, relates that the negative aspect is observed more often than the positive one. Iversen et al.,[20] proposed a new definition of ageism, stating that this concept is defined by three classic components, namely: cognitive (stereotype), affective (prejudice) and behavioural (discrimination).

One of the tools most commonly used in studies of ageism is the Fraboni Scale of Ageism (FSA) developed by Fraboni, Saltstone and Hughes,[21] aimed at evaluating and measuring cognitive and affective aspects related to prejudice towards the elderly. Recently, this scale has been used in studies carried out in Brazil and, to our knowledge, at least two initiatives to validate the scale for Brazil have been tried: one conducted by Seidl, Neiva and Murta,[22] focusing specifically on the organizational context, and the other by Neto,[23] developed in a university setting.

Although ageism is a topic still largely unexplored, not just in Brazil but also internationally, its consequences can clearly be seen in individual, institutional and societal cases.[24] The lack of understanding about ageing leads to the growth of prejudice that is manifested in stereotypes and derogatory attitudes towards the elderly, causing old age to be frequently associated with illness, sexual impotence, loyalty, mental decline, mental illness, uselessness, isolation, poverty/marginalization and depression.[9] Such stereotypes tend to be attributed to all old people without taking into account the merits of each individual.

The disparagement of the physical characteristics of old people and the association with socially devalued profiles, causing them to be regarded as incompetent and unproductive, are patent phenomena of the contempt for this group of people, thus diminishing their status in society.[24] Given the significant increase in the number of elderly people all over the world, it is imperative that we should have a better understanding of attitudes towards the ageing process, particularly in young people undergoing education in the area of healthcare, who will need to look after the elderly in the future. Their perceptions may influence not only the behaviour of society and the way the elderly are treated, but also the very perception of growing old.[19] Studies show that health professionals who demonstrate high levels of confidence when working with older patients and who have more contact with healthy old people, have more positive attitudes towards ageing.[9]

Many studies have investigated the perceptions of diverse populations about ageing. However, few studies have investigated the perceptions of undergraduates on this topic.[18,25] Some studies have tended to demonstrate the predominance of negative perceptions, accompanied by anxiety about growing old, with women exhibiting greater anxiety than men, mainly in respect of fading looks, quality of life, cognitive and physical abilities.[3,26] There is little consensus however. For instance, Vasquez, Contreras, Delgado, Martell and Pando,[27] in their studies on this topic, involving a population of university students, observed that men and women alike harbour negative perceptions about ageing. On the other hand, the studies conducted by Rupp[28] showed that male participants achieved higher scores for ageism than the female participants. They also observed a tendency for ageism scores to fall with advancing chronological age.

Another study found that, generally speaking, undergraduate students tend to exhibit negative attitudes towards the elderly, with men having higher ageism scores than women.[29] Moreover, a study conducted on students of Medicine and other university courses[30] showed that negative perceptions and attitudes towards the elderly have significant undermining effects on the quality of life and on the quality of healthcare in this population. The same study also showed that students of Medicine had more positive perceptions and attitudes towards the elderly than students in other courses. A study carried out by Mosher-Ashley and Ball[31] conducted with students of Psychology, showed that these students maintained relatively negative perceptions.

Although it is known that ageism can compromise the health and wellbeing of the elderly, several studies[8,32–36] have indicated that today's undergraduates have little interest in embarking on professions that care for the geriatric population. Meanwhile, in the previous decade, studies indicated that this lack of interest is related to ageism on the part of the younger population.[34,37,38] Nevertheless, many authors state that studies and understanding of the topic can positively change the perceptions and attitudes of undergraduates towards the elderly[39,40] and could even ignite an interest in careers in the area of gerontology.[40,41]

Influence of religiosity

In recent years, many studies have emerged investigating the role of religiosity in the health and quality of life of the elderly,[42–46] however precious few have evaluated its influence on ageism. In one of these rare studies, Kim and Jung[47] found that a country's religious environment exerts a protective, moderating role against the harmful consequences of age prejudice towards the older population.

Given that Brazil is a country where around 92% of the population claim to subscribe to a formal religion,[48] religiosity has gradually become an important area of study in the field of health, challenging professionals to recognize its place, importance and impact on people's lives and wellbeing.[49] However, we may ask ourselves what would the specific role of religiosity be in terms of attitudes towards the elderly by young students in the area of health, particularly in Medicine and Psychology courses.

One of the biggest challenges to the development of studies in this field is the conceptual complexity and variety, where the terms religion, religiosity and spirituality are interchangeable, very often regarded as synonyms of one another, though also sometimes different from one another, and indeed often regarded as dichotomous, as noted by Freitas and Vilela.[50] For the purposes of the present study, we shall adopt the notion of religiosity coined by Koenig,[51] taking it to be the adoption of an organized set of beliefs, practices and/or symbols that allow an individual to partake of that which he/she considers sacred or transcendent. By wording the definition in this way, the author simultaneously associates it with and disassociates it from spirituality and religion. Thus, spirituality is defined as the impulse to search for the meaning of life based on the reference to the sacred and transcendent, but one which does not necessarily lead to practising a religion. For its part, religion is the sharing of beliefs and practices in relation to what is sacred in the context of a single institution or moral community, responsible for assembling a specific set of principles and practices linked to the sacred or transcendent.

In an attempt to provide a more objective conceptualization of the notion of religiosity, and to offer greater heuristic value to this construct for their health-related study, Koenig[51] define three dimensions of religious involvement: organizational religiosity (OR), private or non-organizational religiosity (NOR) and intrinsic religiosity (IR). The first of these relates to the social component, referring therefore to the practice of frequenting religious ceremonies (masses, cults, prayer groups, spiritist centres, among others). The second does not necessarily relate to organizations or specifically religious settings. Rather it embraces habits and behaviour that might take place in a private setting, individually or in small groups, distinct from liturgies or formal institutions (e.g., prayers, the reading of

sacred texts, listening to religious programmes, meditation, among others). Lastly, the third dimension refers to the internal world of the individual, whose complete experience of religiosity takes on a special significance and in such a way that it presides over every aspect of life. In this case, one's faith in particular religious principles is linked to social convention or specific rituals, though it is regulated intrinsically, in the form of existential values and directives.

This conception of religiosity gave rise to a tool called the Duke Religious Index (DUREL), which captures the three abovementioned dimensions.[52] It is a brief, succinct and easy-to-use instrument containing just five items, conceived to be used in largescale epidemiological studies, and is now widely used all over the world. The Duke Religious Index has already been used in over 100 studies,[52] and more and more researchers are opting to use the instrument, particularly those who wish to include in their studies only a few questions about religion and evaluate the religious domain as part of a more comprehensive exercise. DUREL has already been translated into the Spanish, Portuguese, Romanian, Persian, German, Norwegian, Dutch, Danish, Chinese, Japanese and Thai languages, to name but a few,[52] the Portuguese version having initially been translated by a group of Brazilian researchers,[53] whose version was termed P-DUREL. Subsequently, the instrument's psychometric properties were validated for diverse Brazilian samples,[54–57,] including university students.[54]

Given the importance of gaining a better understanding of how future health professionals may perceive old age, the intention of the present study was to make a contribution along these lines. Thus, the aim was to investigate ageism and its relationship with religiosity, in Psychology and Medicine undergraduates, also verifying the possible correlation with the religiosity of these young people, and making comparisons by sex and area of study. Accordingly, the questions were framed as follows:

a. Could there be a difference between undergraduates in the Psychology and Medicine courses in attitudes towards ageing and religiosity?
b. Could there be a correlation between attitudes towards ageing and the levels and nature of religiosity in these young students?
c. Could attitudes to ageing, as well as the levels and nature of religiosity, be gender-related?

Method

Participants

A total of 168 university students from a private institution of higher education, located in the Federal District of Brasilia, took part in the study, with ages ranging from 18 to 41 years, of whom 116 (69.0%) were female and 52 (31%) male. Participants were divided into two groups according to the course attended, with 88 (52.4%) studying Psychology and 80 (47.6%) Medicine.

Of those participants studying Psychology, 22 (25.0%) were male and 66 (75.0%) female, with a mean age of 25.83 years (SD = 6.33). As for those studying Medicine, 30 (37.5%) were male and 50 (62.5%) female, with a mean age of 21.1 years (SD = 2.80). There was no significant difference between the number of female and male participants by course, however the Psychology students were, on average, older than those studying Medicine ($t = 6.16$; $p < 0.001$).

Measurement tools

To respond to the study questions, in addition to the collection of sociodemographic information (sex, age, ethnicity, university course and religion), two scales were employed:

Ageism scale: This scale was designed to reflect the construct of ageism, as defined by Butler,[17] and to include an affective component of attitude, guided by the definition of three of Allport's[58] five levels of prejudice. The Portuguese version of the scale originally developed by Fraboni and collaborators was used[59,60] consisting of 25 items, which are answered by way of a 7-point Likert-type scale ranging from 'strongly disagree' (1) to 'strongly agree' (7).

For the sample used in the study (N = 168), the level of Internal Consistency of the ageism scale, assessed by way of Cronbach's Alpha, was 0.81. In the analysis of Internal Consistency carried out separately by group, i.e., students of either Psychology or Medicine, the value of the internal consistency remained adequate (0.81 and 0.78, respectively).

Duke Religiosity Scale: According to Koenig,[51] this scale measures three of the largest aspects of religiosity: organizational (frequency of church attendance, or other religious services), non-organizational (frequency of private religious activities like praying, meditating or Bible study) and intrinsic religiosity (the quest for internalization and the perception of religiosity). The scale is composed of five items, as follows: frequency of church attendance, or other religious services, frequency of private religious activities like praying, meditating or Bible study, while the last three items relate to religious experiences and beliefs. The items are answered via a 5-point Likert-type scale, ranging from "Completely true for me" (1) to "Not true" (5).

The aforementioned scale has a Brazilian adaptation, whose validity study and internal consistency were developed by Tauna et al.,[54] using samples of university students and psychiatric patients. The indices of Internal Consistency of the scores on the scale in the two samples, and in the three dimensions, were above 0.80. Moreover, the authors obtained a test-retest correlation after an interval of 30 days, whose indices in both samples were higher than 0.99.

In the sample in the present study, the index of Internal Consistency obtained via Cronbach's Alpha for the dimension of Intrinsic Religiosity was 0.84 for the overall sample and 0.83 for each group of students. In both the overall sample and the sample separated by course, all three items contributed favourably for Cronbach's Alpha. The internal consistency of the other two dimensions could not be ascertained as each consisted of just one item.

Procedures

The instruments were applied in the classroom for students in the Medicine and Psychology courses at the Catholic University of Brasília, between September 2018 and June 2019, and lasted 30 minutes. It was previously approved by the Research Ethics Committee and was also officially authorized by the respective course coordinators. Participation in the study was voluntary and, prior to answering the instruments, each student signed a Free and Informed Consent agreement, through which the researchers promised to maintain individuals' data secret and confidential.

Data analysis

After the instruments had been administered, the data were input to the SPSS program, version 18.0 for Windows, permitting subsequent statistical processing and analysis which enabled the comparisons referred to in the project objectives, above. Descriptive analysis was used to characterize the sample's sociodemographic data and analyse the results relating to the indices of ageism and religiosity reported by the participants. With the aim of exploring the possible association between the study variables, we opted for bivariate correlation using the Bravais-Pearson coefficient. To check potential differences between the study variables and the sociodemographic data, the one-

way analysis of variance (ANOVA) was employed. The level of significance was set at 5% for all hypotheses.

Results

Students' religion

As far as religious beliefs and practices are concerned, it was found that approximately 75% of students in the two courses were believers, however, over half of Psychology students and just 35% of Medical students also stated they practised a religion (Table 1). Of the students who said they maintained religious beliefs (127), the majority (48.8%), corresponding to a total of 62 students, said they were Catholic, of whom 29 (45.3%) studied Psychology and 33 (56.9%) Medicine. Additionally, 43.3% (55) said they subscribed to a different Christian religion and just 5 (3.9%) Psychology students stated their religion was not Christian (Table 2).

Table 1 Frequency of participation in some religion, by course

Religion/Course	Psychology N (%)	Medicine N (%)
Practising	50 (56.8)	28 (35.0)
Non-practising believer	17 (19.3)	32 (40.0)
Neither believer nor practising	21 (23.9)	19 (23.7)
No response	-	1 (1.3)
Total	88 (100)	80 (100)

Table 2 Number of participants by religion and course

Religion/Course	Psychology N (%)	Medicine N (%)	Total N (%)
Catholic	29 (43.3)	33 (55.0)	62 (48.8)
Spiritist	8 (11.9)	11 (18.3)	19 (15.0)
Evangelical	10 (14.9)	6 (10.0)	16 (12.6)
Protestant	4 (6.0)	4 (6.7)	8 (6.3)
Christian (unspecified)	8 (11.9)	4 (6.7)	12 (9.4)
Non-Christian	5 (7.5)	-	5 (3.9)
No response	3 (4.5)	2 (3.3)	5 (3.9)
Total N (%)	67 (52.5)	60 (47.5)	127 (100)

Ageism and religiosity

The mean score on the Ageism Scale for the students of Psychology was 2.47 (SD = 0.65) and, for the students of Medicine, 2.40 (SD = 0.59). It was considered that the students on the two courses showed low indices of ageism, in other words, they have more positive attitudes towards ageing, bearing in mind that the scores on the scale ranged from 1 to 7, and that the closer to a score of 7, the more the attitudes towards ageing are negative. No significant differences were found between the mean scores for ageism for students of Psychology and students of Medicine. Similarly, no differences were found in mean scores for ageism between female and male participants, and there was no significant correlation between ageism scores and participants' age.

As for the organizational dimension of religiosity on the Duke Religiosity Scale, no significant differences were found between the mean scores of the Psychology students (M = 3.55; SD = 1.87) and the Medical students (M = 3.86; SD = 1.56). Again, no significant differences were identified in relation to sex, nor any correlation in this dimension with participants' age in either group.

Regarding the non-organizational dimension, the mean score on the Duke Religiosity Scale for students of Psychology (M = 3.58; SD = 1.98) was significantly different from that of the students of Medicine (M = 4.19; SD = 1.75), where the Medical students demonstrated higher levels in this dimension compared to the Psychology students (t = -2.89; $p < 0.005$). In similar vein, the students of Medicine produced significantly higher means than the students of Psychology in the Intrinsic dimension on the religiosity scale, with means of 2.56 (SD = 1.56) and 3.14 (SD = 1.35), respectively (t = -4.03; $p < 0.001$).

The mean scores of the non-organizational and intrinsic dimensions for the male and female students were not significantly different in either group. Similarly, no significant correlation was found between age and the non-organizational dimension of religiosity. However, there was a slight, negative correlation between the intrinsic dimension and the age of the Psychology students (r = -0.28; $p < 0.01$). This correlation was not observed among the students of Medicine.

Correlations between ageism and religiosity were low for both groups of students. Regarding the Psychology students, it was found that negative attitudes towards ageing are slight and positively correlated with organizational and non-organizational religiosity. As for the students of Medicine, negative attitudes towards ageing exhibited a moderate correlation only in terms of non-organizational religiosity (Table 3). Thus, students of Psychology with high scores in organizational and non-organizational religiosity and students of Medicine with high scores in non-organizational religiosity, also tend to display higher levels of ageism.

Table 3 Correlation between scores for ageism and religiosity

Course / Ageism	Organizational religiosity	Non-organizational religiosity	Intrinsic religiosity
Psychology	0.266*	0.265**	0.201
Medicine	0.113	0.301**	0.118
*p <0.05	**p <0.01		

Discussion

The fact that students in the Psychology and Medicine courses presented more positive than negative attitudes towards ageing may be related to a greater awareness and affinity that students in the field of healthcare have for gerontology-related topics. Moreover, it may be surmised that students in these two areas have had more contact with older people through practical activities conducted during the graduation courses, which could lead to more positive attitudes, consistent with the results found by Pereira[9] where health professionals in more frequent contact with older people were seen to have more positive attitudes towards ageing.

The vision of each of these future health professionals can influence not only the way the elderly are treated but also the individual experience of ageing given that all over the world the proportion of people aged 60 or over is rising at some pace, more so than any other age group.[7] Understanding and being in contact with the elderly affects ageism, and these aspects are also associated with anxiety about growing old.[29]

Accordingly, it is recognised that it is important to address this topic, aimed at professionals reflecting on the relationship between ageing and religiosity.[35] After all, it is these professionals who will be caring for the elderly, who will be responsible for their care and the promotion of their health. Moreover, as noted in the literature review conducted by Mesquita,[7] many health professionals still have difficulty in establishing effective policies and programs in the complete accompaniment of old people. This is because they often focus only on the disease, without taking into consideration

the elderly individual's quality of life as a whole. Therefore, it is necessary to involve everyone who cares for the health of the elderly and for healthcare professionals to be encouraged to reassess the care that is required in this age group, the objective being to build a health system that is more proactive and quality-driven, thereby contributing to enhancing the quality of life of the elderly.[7]

In the training of these professionals, it is important to develop cognoscitive and procedural skills, primarily with regard to communication,[61] and also to build an awareness that they are dealing with a vulnerable population with characteristics that set them apart from the general population.[62,63] This procedure is corroborated by the findings of Allan and Johnson[29] who showed that improving our understanding of ageing contributes toward a reduction in negative attitudes towards the elderly.

Studies show that medical students' exposure to old people helps to diminish ageism and also better prepares them to deal with this section of the population.[64–66] In the case of the two courses around which the present study was developed, it is known that this contact with old people is a frequent occurrence as the university has long been providing extension courses developed with this population in mind. This endorses what has been advocated by many other studies: the improvement and the quality of undergraduate education and the creation of greater opportunity for students to form relations and be more involved with the elderly throughout their training.[29,37,41,67,68] These initiatives help to transform perceptions of ageism.[36,41]

The correlations observed between ageism and religiosity in the two groups, though low, surprisingly, show that students in the two courses who achieved higher levels of non-organizational religiosity also demonstrated greater prejudice towards the elderly. As correlation values were low, albeit significant, caution is needed with this interpretation. Cohen[69] proposed one of the most frequently used criteria for interpreting correlation. For this author, correlations between 0.10 and 0.29 are small. Moreover, in large samples, as is the case of the present study, the variance explained by the index of correlation is small.[70] Accordingly, the coefficients of correlation between organizational and non-organizational religiosity explained just 7% of the variance in the sample of Psychology students while the correlation of non-organizational religiosity explained 9% of the variance in the sample of students of Medicine. In cases such as these, the authors advise caution in the interpretation of the correlation.

As regards the possible differences between the students in each area of study, Psychology and Medicine, one salient aspect concerns the indices of attitudes towards religiosity, whether organizational or intrinsic, which are seen to be higher among students of Medicine than students of Psychology. This result agrees to the data found by Zanetti[71] who, on investigating the perception of academics of Medicine and other areas of health and the social sciences, concerning the relationships between spirituality, religiosity and health, found that Psychology students (56%) tend to claim they do not belong to any religion, more so than the students of Medicine (28.6%). This difference may also be related to a situation which, for several years now, has been evident in various studies conducted with Psychology students:[72–74] the specific difficulty of these future professionals in accepting their own religious beliefs. For many of them, over time, the course appears to promote a kind of extirpation of religiosity,[73–76] since, in some way, over the course of their psychology training, they are led to believe that accepting their own religiosity, whether intrinsic or extrinsic, could be detrimental to the exercise of their profession. The fact that a low, negative correlation was found between the intrinsic dimension and the age of the students of Psychology, corroborates this interpretation.[77–81]

Conclusion

Based on this study, it may be concluded that there is a predominantly positive vision of the elderly among students of Psychology and Medicine, as no statistically significant difference was found between the two courses. It can also be concluded from the data obtained that the students of both Psychology and Medicine have some level of contact with religiosity, which may have had an impact on their positive attitudes towards ageing. Therefore, it is recommended that the study be expanded, replicating it with Medical and Psychology students in secular, public universities, to check for possible specific bias in the institution studied, in view of the fact that the sample in the present study consists of students attending a Catholic institution.

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Conflicts of interest

None.

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