

Ageism in the emergency department: Evaluating emergency medicine physicians' knowledge of and attitudes toward geriatric care in a tertiary hospital in Saudi Arabia

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Abstract

Objectives

The quality of care provided to older persons may be affected by ageism among medical professionals, particularly in emergency departments (EDs), where older adult patients may have complex medical needs. Evidence regarding emergency medicine (EM) physicians' knowledge of aging, ageism, and aging-related anxiety remains limited, especially in Saudi Arabia (SA). We assessed these domains and identified factors associated with them.

Methods

This single-center cross-sectional study invited all eligible EM physicians working at a tertiary hospital in Saudi Arabia to participate. Of these invited, 105 returned completed questionnaires. Participants completed the Facts on Aging Quiz, the Fraboni Scale of Ageism, and the Anxiety about Aging Scale. Descriptive statistics were calculated, Spearman's correlation was determined, and multivariable linear regression analyses were conducted.

Results

A total of 105 physicians participated in this research. These physicians exhibited moderate knowledge of aging and generally favorable attitudes toward older adults, although a few misconceptions and stereotypical beliefs persisted. Greater knowledge of aging was significantly associated with lower overall ageism scores (Spearman's $\rho = -0.566$, $p < 0.001$) and remained independently associated with lower levels of ageism in the multivariable analysis ($B = -3.06$, 95% confidence interval [CI], -4.05 to -2.06 ; $p < 0.001$). Physicians who reported that they provided care to an older adult outside the workplace also obtained lower overall ageism scores ($B = -5.95$, 95% CI, -11.8 to -0.12 ; $p = 0.046$). Anxiety about aging was not significantly associated with knowledge or ageism. The findings regarding knowledge and personal contact were consistent with theoretical expectations that these factors may reduce ageist attitudes. In contrast, the absence of an association with anxiety about aging was contrary to frameworks proposing that aging anxiety contributes to ageism.

Conclusions

Despite persistent knowledge gaps and misconceptions, EM physicians exhibited positive attitudes toward older adult patients. Both higher levels of knowledge and personal exposure to older adults were associated with lower levels of ageism. More equitable emergency care can be achieved by strengthening geriatric education and promoting meaningful contact with older adults.

Background

The global population of older adults is increasing rapidly. Between 2015 and 2050, the proportion of people aged 60 years or older is projected to nearly double, rising from 12% to 22% worldwide (1). In Saudi Arabia (SA), the World Health Organization (WHO) reported that 4.3% of the population was aged 55–64 years in 2013, and the proportion of adults aged 65 years or older is expected to continue increasing (2). Consequently, the demand for healthcare professionals with expertise in caring for older adults continues to grow (3).

Ageism is particularly relevant in the emergency department (ED), where the number of visits by older adults continues to increase because of the growing older population and its complex healthcare needs (4). Older adults presenting to the ED constitute a distinct patient population because altered homeostasis and reduced physiological reserve may affect their responses to illness and acute stressors (5). Improving emergency care for older adults has therefore been identified as one of the top 10 research priorities by the Royal College of Emergency Medicine (6).

Healthcare professionals' knowledge of and attitudes toward aging may influence the quality of care provided to older adults. Butler first described age discrimination in 1969 as discrimination against individuals based on age in a manner analogous to racial and gender discrimination (7). The WHO subsequently defined ageism as "the stereotypes (how we think), prejudice (how we feel), and discrimination (how we act) toward others or oneself based on age" (8). Negative beliefs about older adults—including viewing them as helpless, forgetful, or unable to care for themselves—may result in lower-quality care and age-discriminatory behaviors. Conversely, positive attitudes toward older adults may promote more respectful, supportive, and patient-centered care (9).

Previous studies have demonstrated the presence of ageism among healthcare professionals, with negative attitudes toward older adults reported across different healthcare settings. However, physicians, particularly those working in ED, have received comparatively less attention despite their central role in caring for older adults. Previous studies have reported inconsistent findings regarding physicians' attitudes toward older adults (10). One study conducted in the ED found that greater knowledge of geriatric care among emergency medicine (EM) physicians was associated with more positive attitudes toward older adults (11). Anxiety about aging has also been proposed as a factor that may influence attitudes toward older adults and contribute to ageist beliefs.

Despite the increasing number of older adults who require emergency care, only limited data are available concerning EM physicians' knowledge of geriatric care, ageism, and anxiety about aging, particularly in SA. Examining these domains in the Saudi context is important given the country's growing older population and the need for local evidence to guide geriatric education and emergency-care planning. Therefore, this study aimed to evaluate EM physicians' knowledge of geriatric care, ageism, and anxiety about aging, as well as to identify relevant factors associated with these domains.

Methods

Study Design

This was a single-center, cross-sectional study conducted in the ED of a tertiary hospital in Saudi Arabia between February and December 2025. All EM physicians working in the study ED during the data-collection period were eligible to participate. Paper questionnaires were distributed to all 160 eligible physicians; 105 completed questionnaires were returned and included in the analysis, yielding a response rate of 65.6%. The study was approved by the Institutional Review Board of King Abdullah International Medical Research Center (KAIMRC), Riyadh, Saudi Arabia (approval number: 0000076024), and was conducted in accordance with the Saudi Law of Ethics of Research on Living Creatures and its Implementing Regulations. Informed consent was obtained from all participants prior to participation.

Funding

No funding was received for this study.

Measures and Scoring

Three previously validated instruments were used: the Facts on Aging Quiz (FAQ) to assess knowledge of aging, the Fraboni Scale of Ageism (FSA) to assess ageist attitudes, and the four-item Anxiety About Aging Scale to assess anxiety about aging. These instruments were selected because they are validated measures of their respective constructs and have been widely used individually in previous research examining knowledge of aging, ageist attitudes, and anxiety about aging, thereby facilitating comparison with the existing literature (12–15). The knowledge domain was assessed using the 25-item FAQ (12). Each item was scored as 1 for a correct response and 0 for an incorrect response. The total knowledge score was calculated by summing all correct responses, which resulted in a possible range from 0 to 25. Higher scores indicate greater knowledge about aging. The overall ageism domain was measured using the 29-item FSA (13,14). Each item was scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Positively worded items were reverse-coded prior to analysis. The total ageism score was obtained by summing the responses across all 29 items, which resulted in a possible range of 29 to 145. Higher total scores indicate higher levels of ageism. Subdomain scores (i.e., antilocution, avoidance, and discrimination) were calculated by summing the relevant items within each subscale (13). The anxiety domain was evaluated using the four-item Anxiety about Aging Scale (15). Each item was scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total anxiety score was calculated by summing the four items, which resulted in a possible range from 4 to 20. Higher scores indicate greater anxiety about aging.

Statistical Analysis

The data were analyzed using RStudio (version 2024.9.1.394; Boston, MA, USA) in R version 4.4.2. Descriptive statistics were used to summarize demographic characteristics and item-level responses.

Categorical variables were presented as frequencies and percentages, whereas continuous variables were summarized using medians and interquartile ranges (IQRs) because they were not normally distributed. The internal consistency of the overall ageism and anxiety scales was assessed using Cronbach’s alpha coefficient to evaluate the reliability of the instruments in the study sample.

Bivariate correlations among knowledge, overall ageism and its subdomains, and anxiety scores were assessed using Spearman’s rank correlation coefficient because these variables were not normally distributed. All demographic, professional, and scale variables specified before the analysis were entered simultaneously into the relevant multivariable model. To identify factors independently associated with knowledge, overall ageism, and anxiety scores, multivariable linear regression analyses were conducted to estimate the association of each variable with the respective outcome while adjusting for the other variables included in the model. Unstandardized regression coefficients (β) with 95% confidence intervals (CIs) were reported.

To determine whether the assumptions of the regression models were met, homoscedasticity was assessed using the Breusch–Pagan test, independence of errors using the Durbin–Watson test, and normality of residuals using the Shapiro–Wilk test and visual inspection of Q–Q plots. Variance inflation factor (VIF) values were used to assess multicollinearity. These analytical approaches have been commonly used in studies that have examined attitudes and perceptions pertaining to aging (16,17). A p-value < 0.05 was considered statistically significant.

Results

Demographic Characteristics of the Participants

Of the 160 eligible EM physicians invited to participate, 105 returned completed questionnaires and were included in the analysis, yielding a response rate of 65.6%. The majority were between the ages of 25 and 30 years old (84, 80.0%), males (78, 74.3%), and PGY–1 residents (41, 39.0%). Half of these participants had 3–6 years of professional experience (50, 47.6%). Most participants did not live with an older adult (69, 65.7%), whereas 63 participants (60.0%) reported having provided care to an older adult outside the workplace (Table 1).

Table 1. Demographic and professional characteristics of the participants (N = 105)

Characteristic	n (%)
Age (years)	
25–30	84 (80.0%)
31–40	13 (12.4%)
41–64	8 (7.6%)
Sex	
Male	78 (74.3%)
Female	27 (25.7%)
Occupational level	
PGY–1 resident	41 (39.0%)
PGY–2 resident	19 (18.1%)
PGY–3 resident	11 (10.5%)
PGY–4 resident	11 (10.5%)
General physician	10 (9.5%)
Assistant consultant	7 (6.7%)
Associate consultant	2 (1.9%)
Consultant	4 (3.8%)
Professional experience (years)	
<3	43 (41.0%)
3–6	50 (47.6%)
≥7	12 (11.4%)
Living with an older adult aged ≥65 years	
No	69 (65.7%)
Yes	36 (34.3%)
Providing care to an older adult (≥65 years) outside the workplace	
No	42 (40.0%)
Yes	63 (60.0%)

Abbreviations: PGY, postgraduate year; n, number of participants; N, total sample size. Values are presented as n (%).

Descriptive and Internal Consistency Analyses of the Included Domains

The median overall ageism score was 63.0 (IQR, 53.0 to 74.0; range, 40.0–120.0; Cronbach's alpha = 0.920). With respect to the ageism subdomains, the median antilocution score was 20.0 (IQR, 17.0 to 25.0; Cronbach's alpha = 0.811), the median avoidance score was 21.0 (IQR, 17.0 to 24.0; Cronbach's alpha = 0.829), and the median discrimination score was 21.0 (IQR, 17.0 to 26.0; Cronbach's alpha = 0.760). The median anxiety score was 15.0 (IQR, 13.0 to 18.0; range, 4.0–20.0; Cronbach's alpha = 0.776; Table 2).

Table 2. Descriptive statistics and internal consistency of the study domains

Domain	Median (IQR)	Cronbach's α	Items
Attitudes (Fraboni Scale of Ageism)	63.0 (53.0–74.0)	0.920	29
Antilocution	20.0 (17.0–25.0)	0.811	9
Avoidance	21.0 (17.0–24.0)	0.829	10
Discrimination	21.0 (17.0–26.0)	0.760	10
Anxiety (Anxiety about Aging Scale)	15.0 (13.0–18.0)	0.776	4

Abbreviations: IQR, interquartile range.

Participants' Responses to the Items Pertaining to Knowledge

The highest proportions of correct responses were observed for the two items pertaining to the decline in physical strength with age, as 101 (96.2%) and 97 (92.4%) participants, respectively, provided correct responses to these items. A similarly high proportion of participants correctly reported that older adults may take longer to learn new information (94, 89.5%) and that most older adults are not senile (94, 89.5%). Additionally, 89 participants (84.8%) correctly responded to items pertaining to slower reaction time and prolonged recovery from physical or emotional stress among older adults (Table 3).

In contrast, lower proportions of correct responses were observed for items pertaining to the productivity of older workers, which 43 participants (41.0%) answered correctly, and driving safety comparisons between older and younger drivers, to which 53 participants (50.5%) provided correct responses. The lowest proportions of correct responses were observed for statements that older adults do not necessarily become more conservative with age (16, 15.2%), do not inevitably become more religious as they age (19, 18.1%), and are not set in their ways or unable to change (23, 21.9%) (Table 3). Overall, participants demonstrated greater knowledge of age-related physical changes, whereas misconceptions were more common regarding the social and behavioral characteristics of older adults.

Table 3. Participants' responses to knowledge items (Facts on Aging Quiz)

Knowledge Items	Answer	Correct, n (%)
The majority of old people (age 65+) are senile (i.e., deficient in memory, disoriented, or demented)	False	94 (89.5%)
All five senses tend to decline in old age	False	30 (28.6%)
Most old people have no interest in or capacity for sexual relations	False	60 (57.1%)
Lung capacity tends to decline in old age	True	84 (80.0%)
Physical strength tends to decline in old age	True	101 (96.2%)
At least one-tenth of elderly individuals are living in long-term residence institutions (nursing homes, mental hospitals, homes for elderly individuals, etc.)	False	74 (70.5%)
Elderly drivers have fewer accidents per driver than those under age 65	True	53 (50.5%)
Most old people are set in their ways and unable to change	False	23 (21.9%)
Old people usually take longer to learn something new	True	94 (89.5%)
It is nearly impossible for most old people to learn new things	False	84 (80.0%)
About 80% of older adults are healthy enough for usual activities	True	97 (92.4%)
The majority of old people are socially isolated	False	76 (72.4%)
Old people tend to become more religious as they age	False	19 (18.1%)
Old people are seldom bored	False	69 (65.7%)
The reaction time of most old people tends to be slower than that of younger people	True	89 (84.8%)
Older workers are less productive than younger workers	False	43 (41.0%)
Old people tend to be largely similar to one another	False	67 (63.8%)
The majority of old people have incomes below the poverty line	False	79 (75.2%)

The majority of old people are working or would like to have some kind of work to perform	True	65 (61.9%)
Most medical practitioners give low priority to elderly individuals	False	81 (77.1%)
The majority of old people are seldom irritated or angry	False	72 (68.6%)
Old people tend to become more conservative as they age	False	16 (15.2%)
Old people usually take longer to recover from physical or emotional stress	True	89 (84.8%)
Most old people feel miserable most of the time	False	65 (61.9%)
Old people are generally tranquil and serene	False	38 (36.2%)

Values are presented as n (%).

Participants' Responses to the Ageism Domain (the FSA Scale)

In the antilocution subdomain, agreement was most frequent with respect to positively framed perceptions of older adults' personality (64, 61.0%). In contrast, disagreement predominated with regard to items that focused on making jokes about older adults (75, 71.4%) and reduced friendliness (68, 64.7%). Responses pertaining to frequent complaints among older adults were mainly neutral (32, 30.5%).

In the avoidance subdomain, disagreement predominated with regard to avoiding eye contact (89, 84.8%), a limited need for companionship (85, 81.0%), and disliking conversations (83, 79.1%). In contrast, agreement was highest with respect to preferences regarding the socialization of older adults within their own age group (60, 57.2%).

In the discrimination subdomain, agreement was highest with respect to equal rights and freedoms (92, 87.6%) and decision-making capacity (80, 76.2%), whereas disagreement predominated with regard to institutionalization (86, 81.9%), segregation (84, 80.0%), and separation from younger people (90, 85.7%). Overall, participants expressed generally favorable attitudes across the antilocution, avoidance, and discrimination subdomains, with particularly strong rejection of social avoidance and discriminatory treatment, although some preference for older adults to socialize within their own age group persisted.

Participants' Responses to the Items Pertaining to Anxiety

Agreement was highest with respect to the statement "I am afraid that when I am old, I will be less independent" (85, 81.0%), followed by the statements "The older I get, the more I worry about my health" (73, 69.5%), "I am afraid of becoming old" (61, 58.1%), and "I am afraid that when I am old, I will be

lonely” (59, 56.2%). Overall, concerns about loss of independence and declining health were more commonly reported than fears of becoming old or experiencing loneliness.

Bivariate Correlations between Knowledge, Overall Ageism, and Anxiety Scores

A significant moderate negative correlation was observed between knowledge scores and overall ageism scores (Spearman’s $\rho = -0.566$, $p < 0.001$, Figure 1). Significant negative correlations were also observed between knowledge scores and the antilocution (Spearman’s $\rho = -0.525$, $p < 0.001$), avoidance (Spearman’s $\rho = -0.516$, $p < 0.001$), and discrimination (Spearman’s $\rho = -0.490$, $p < 0.001$) subdomains. No significant correlations were observed between anxiety and knowledge scores, overall ageism scores, or any of the ageism subdomains (all $p > 0.05$). Overall, greater knowledge of aging was consistently associated with lower levels of ageism, whereas anxiety about aging was not significantly related to either knowledge or ageism.

Factors Associated with Participants’ Knowledge Scores

In the multivariable linear regression model, general physicians obtained significantly lower knowledge scores than PGY-1/2 residents ($\beta = -3.49$; 95% CI, -6.22 to -0.76 ; $p = 0.013$). Higher overall ageism scores were significantly associated with lower knowledge scores ($\beta = -0.09$, 95% CI, -0.13 to -0.06 , $p < 0.001$; Table S1). Overall, lower knowledge scores were independently associated with being a general physician and with higher overall ageism scores.

Factors Associated with Participants’ Overall Ageism Scores

In the multivariable model, lower overall ageism scores were significantly associated with having provided care to an older adult outside the workplace ($\beta = -5.95$, 95% CI, -11.8 to -0.12 , $p = 0.046$). Higher knowledge scores were significantly associated with lower overall ageism scores ($\beta = -3.06$, 95% CI, -4.05 to -2.06 , $p < 0.001$; Table 4). Overall, greater knowledge of aging and having provided care to an older adult outside the workplace were independently associated with lower levels of ageism.

Table 4. Multivariable linear regression analysis of the factors associated with overall ageism scores

Variable	β	95% CI	p value
Age (years)			
25–30	Reference		
31–40	2.75	–10.1 to 15.6	0.671
41–64	10.5	–8.03 to 29.1	0.263
Sex			
Male	Reference		
Female	0.69	–5.63 to 7.00	0.829
Occupational level			
PGY–1/2 resident	Reference		
PGY–3/4 resident	3.36	–4.69 to 11.4	0.409
General physician	–0.29	–16.3 to 15.8	0.971
Assistant/Associate Consultant	–4.18	–17.4 to 9.04	0.532
Professional experience (years)			
<3	Reference		
3–6	0.33	–6.76 to 7.43	0.926
≥ 7	5.51	–8.45 to 19.5	0.435
Living with an older adult aged ≥ 65 years			
No	Reference		
Yes	–3.78	–9.77 to 2.22	0.214
Provided care for an older adult aged ≥ 65 years outside the workplace			
No	Reference		
Yes	–5.95	–11.8 to –0.12	0.046

Knowledge score	-3.06	-4.05 to -2.06	<0.001
Anxiety score	0.11	-0.68 to 0.90	0.777

The Breusch–Pagan test indicated heteroscedasticity ($p = 0.022$); therefore, HC3 robust standard errors were used. Independence of errors was supported by the Durbin–Watson statistic (2.03), residuals did not significantly deviate from normality (Shapiro–Wilk $p = 0.188$), and no problematic multicollinearity was detected (all VIF values <5). Abbreviations: CI, confidence interval; HC3, heteroscedasticity-consistent standard errors; VIF, variance inflation factor.

Factors Associated with Participants' Anxiety Scores

No variables were significantly associated with anxiety scores in the multivariable regression model ($p > 0.05$ for all variables; Table 5).

Table 5. Multivariable linear regression analysis of the factors associated with anxiety scores

Variable	β	95% CI	p value
Age (years)			
25–30	Reference		
31–40	–0.67	–4.04 to 2.70	0.692
41–64	–0.18	–5.08 to 4.73	0.943
Sex			
Male	Reference		
Female	1.58	–0.04 to 3.20	0.056
Occupational level			
PGY–1/2 resident	Reference		
PGY–3/4 resident	0.14	–1.98 to 2.26	0.897
General physician	2.00	–2.19 to 6.19	0.346
Assistant/Associate Consultant	1.68	–1.78 to 5.13	0.337
Consultant			
Professional experience (years)			
<3	Reference		
3–6	–1.77	–3.59 to 0.05	0.057
≥ 7	–3.48	–7.08 to 0.12	0.058
Living with an older adult aged ≥ 65 years			
No	Reference		
Yes	0.78	–0.80 to 2.36	0.328
Provided care for an older adult aged ≥ 65 years outside the workplace			
No	Reference		

Yes	0.29	-1.27 to 1.85	0.714
Knowledge score	-0.08	-0.39 to 0.23	0.619
Overall ageism score	0.01	-0.05 to 0.06	0.777

The model diagnostics demonstrated homoscedasticity (Breusch–Pagan, $p = 0.878$), the independence of errors (Durbin–Watson statistic = 2.12), and the absence of problematic multicollinearity (all VIF values < 5). The residual Q–Q plot indicated only mild tail deviations from normality; however, the Shapiro–Wilk test indicated a statistically significant departure from normality ($p = 0.030$).

Abbreviations: CI, confidence interval; VIF, variance inflation factor.

Discussion

Our study evaluated emergency physicians' knowledge of aging, attitudes toward older adults, and anxiety about aging in a tertiary hospital ED. Overall, the participating physicians exhibited moderate knowledge of aging and generally favorable attitudes toward older adults. However, some stereotypical beliefs persisted, thus highlighting the need for continued education and training to address age-related perceptions among EM professionals. Higher knowledge scores were associated with lower levels of ageism, and physicians who reported caring for an older adult outside the workplace reported more positive attitudes toward older patients. In contrast, anxiety about aging was not associated with either age-related knowledge or ageist attitudes. Taken together, these findings suggest that geriatric knowledge and meaningful exposure to older adults may be modifiable factors that are associated with the attitudes toward older patients exhibited by physicians in the ED.

The ED represents a particularly relevant setting for such an examination of age-related perceptions. A growing number of older adults seek care in the ED, and they often present with multiple comorbidities and atypical disease manifestations (4,18). In this environment, time pressure and diagnostic uncertainty may increase physicians' reliance on assumptions pertaining to age, thereby potentially influencing clinical evaluation, communication, and treatment decisions (19,20). As a result, ageism in emergency care may not always result in overt discrimination; rather, it may emerge through implicit expectations regarding frailty, prognosis, or functional outcomes (21).

In our study, physicians exhibited moderate knowledge of aging. The participants in this research generally exhibited a stronger understanding of the biological aspects of aging but were more likely to hold misconceptions regarding the social and psychological characteristics of older adults, a pattern that is consistent with the findings reported by previous studies concerning people's knowledge of aging (12). In the ED, where clinical decisions are often made under significant time constraints, such assumptions may influence clinical reasoning and contribute to subtle forms of age-related bias. These

findings suggest that future geriatric EM education should address not only the biological aspects of aging but also misconceptions regarding older adults' social and psychological characteristics, potentially through case-based learning and reflection on age-related assumptions.

Despite these knowledge gaps, the physicians in our study reported generally positive attitudes toward older adults. These findings are consistent with previous research in the field of EM. Hogan and colleagues reported that EM residents generally expressed favorable attitudes toward older patients, although certain stereotypes persisted (22). Although their study was limited to residents, whereas our sample included EM physicians across different levels of training and practice, both studies identified generally positive attitudes alongside persistent age-related stereotypes. Their work also suggested that attitudes may become less positive as the level of training provided to such professionals increases, thereby possibly reflecting the structural challenges of caring for medically complex geriatric patients in busy EDs (22). The relatively favorable attitudes observed in our study may reflect an increasing recognition of geriatric EM as an important area of practice and the increasingly widespread emphasis on equitable care for older adults.

Our findings also indicated an inverse relationship between knowledge about aging and ageist attitudes. Physicians who exhibited greater geriatric knowledge were less likely to report ageist attitudes across multiple domains. These findings suggest that gaps in geriatric knowledge may contribute to physicians' reliance on generalized assumptions about aging during clinical decision-making. When clinicians are unfamiliar with common geriatric presentations or functional changes associated with aging, symptoms or limitations may be attributed primarily to age. In contrast, greater geriatric knowledge may support a more individualized and evidence-based approach to the task of evaluating older patients. Previous studies have similarly reported that targeted geriatric education can improve clinicians' knowledge and reduce negative stereotypes toward older adults (9,23).

Another notable finding indicated that physicians who reported caring for an older adult outside their professional role obtained lower ageism scores. Personal interactions with older adults may influence clinicians' perceptions by highlighting the diversity and heterogeneity of aging and challenging common assumptions concerning frailty or dependence. Intergenerational contact has been identified as one of the most effective strategies for improving attitudes toward older adults (14,24).

Relevant theoretical frameworks have suggested that anxiety about one's own aging may contribute to negative attitudes toward older adults. However, in our study, anxiety about aging was not significantly associated with knowledge of or attitudes toward older patients. One possible explanation for these findings is the relatively young age of many participants, which may have limited the degree of variability in aging-related concerns. Professional identity and clinical experience may also moderate the influence of personal aging concerns on physicians' perceptions of older patients (25).

This study has several strengths. It focuses specifically on EM physicians, a group for whom competence in geriatric care has increasingly been recognized as an essential clinical skill (19). In addition, we evaluated multiple related domains—including knowledge, attitudes, and anxiety about

aging—to provide a broader perspective on the factors that may shape physicians’ perceptions of older adults.

Several limitations of this research should also be considered. The single-center design of this study may limit the generalizability of its findings to other institutions or health care systems. In addition, the cross-sectional design of this research precludes causal inferences regarding the relationships observed in this context. The use of self-report questionnaires may also introduce response or social desirability bias. Finally, the modest internal consistency of the FAQ reflects known limitations of this instrument (12). Accordingly, the findings should be interpreted as associations within this single-center physician sample rather than as causal or nationally representative estimates.

Future research should explore ageism across a wider variety of health care professionals and institutions, including nurses, allied health professionals, and senior physicians. Longitudinal studies may also help determine whether targeted geriatric education programs—such as case-based learning, simulation training, and structured geriatric curricula—can improve clinicians’ knowledge of and attitudes toward older adults (9,23).

In conclusion, despite some persistent knowledge gaps and age-related stereotypes, our study highlights a favorable attitude towards older adults in the ED. The associations of greater knowledge and interpersonal contact with older adult individuals with lower ageism suggest that addressing ageism requires attention to both clinical knowledge and how EM training and professional experience shape physicians’ perception of aging.

Declarations

Funding

No funding was received for this study.

Author Contribution

All authors contributed to the conceptualization and design of the study. M.A. contributed to the selection of the study instruments, and N.A. contributed to questionnaire development and distribution. M.A. performed data cleaning and statistical analysis. S.A.M. drafted the Introduction and Methods sections. S.A.G. interpreted the findings, drafted the Results and Discussion sections, and prepared the tables and figure. N.A. supervised the study and critically reviewed and revised the manuscript throughout its development. All authors reviewed and approved the final manuscript and agreed to be accountable for the accuracy and integrity of the work.

Data Availability

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request, subject to applicable ethical and institutional approvals.

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Figures

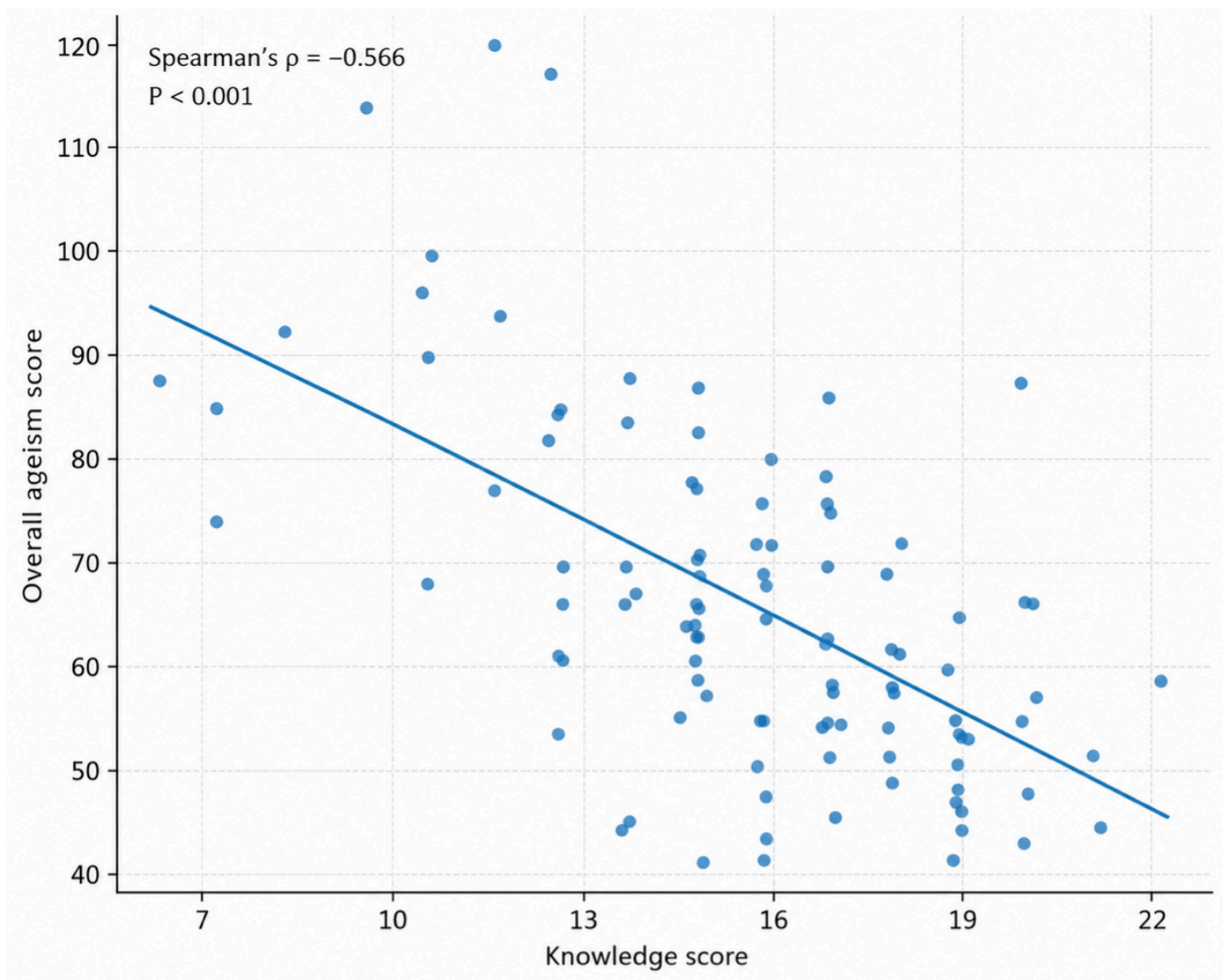


Figure 1

Associations between knowledge scores and overall ageism scores

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