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Physicians' Implicit Attitudes Toward Obese and Mentally Ill Patients: Effects of Specialty and Experience

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Abstract

Implicit prejudice can contribute to unequal treatment in healthcare. However, the influence of medical specialty and professional experience on implicit bias toward obese and mentally ill patients has not been fully investigated. This study aimed to assess how specializing in psychiatry versus general medicine and years of clinical experience moderated implicit prejudice among Swiss physicians. Secondary objectives included evaluating the effects of two video-based interventions and a cognitive load condition on implicit bias, as well as exploring correlations between implicit bias, responses to a clinical vignette, and explicit prejudice. The study was conducted in three stages. In stage 1, participants completed an online questionnaire that included a clinical vignette. Stage 2 assessed implicit prejudice pre- and post-intervention using a 4 × 4 between-subjects design with a control group. Stage 3 measured explicit prejudice via feeling thermometers and included participant debriefing. Participants were 133 psychiatrists and internists working in Geneva, in both hospital and private practice settings. Implicit prejudice was measured using the Weight Implicit Association Test (IAT) and the Mental Illness IAT. Explicit attitudes toward obese and mentally ill individuals were assessed with Feeling Thermometers. The clinical vignette evaluated participants' concern for a fictional patient presented under four conditions: control, obese, depressed, and obese with depression. Linear regression analyses examined associations between gender, experience, specialty, interventions, and responses on pre- and post-intervention IATs, explicit attitudes, and vignette ratings. Effect sizes were calculated using Cohen's d, with significance set at $p < 0.05$ (two-tailed). Psychiatrists exhibited significantly lower implicit bias toward mentally ill patients compared to internists and reported warmer explicit attitudes toward this group. Physicians with more experience demonstrated warmer explicit attitudes toward the mentally ill and greater concern for patients in the vignette, except when the patient was described as obese. Medical specialty influences both implicit and explicit prejudice toward mental illness, while experience primarily affects explicit attitudes and patient concern. The impact of specialty on implicit bias appears to be largely related to self-selection into fields.

Keywords: Implicit bias, Prejudice, Stereotype, Medical specialty, Clinical experience, Training, Medical education, Doctor–patient relationship, Vulnerable populations, Mental health, Obesity

Background

Providing equitable care to patients regardless of characteristics such as race, weight, or other personal attributes is a core standard in medicine, and physicians often cite a commitment to helping others as a primary motivation for their work [1–6]. This principle has gained particular relevance during the COVID-19 pandemic, when limited resources and documented disparities in mortality rates across racial groups highlighted systemic inequalities in healthcare in countries such as the UK and the US [7, 8]. Concerns about discrimination, including due to obesity, have also increased among patients [9].

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Implicit biases toward stigmatized groups pose a threat to this standard of care. These biases are automatic, often unconscious associations between a category (e.g., being overweight) and a negative evaluation (implicit prejudice) or stereotype (e.g., laziness) [10]. Unlike explicit biases, which are consciously held, implicit biases may manifest in non-verbal behaviors, such as eye contact or physical proximity [11]. Critically, implicit biases can influence clinical decision-making even when physicians consciously intend to treat all patients equally—for example, underestimating the pain of a Black child compared to a White child, potentially affecting pain management [12].

The influence of medical specialty and professional experience on implicit bias toward obesity and mental illness has not yet been thoroughly examined. The primary aim of this study was to investigate how specialization in psychiatry versus general medicine and years of clinical experience affect implicit biases among Swiss physicians. Given the unclear relationship between implicit bias and clinical behavior [13], physicians' intended behaviors were evaluated through responses to a clinical vignette. Secondary objectives included testing whether implicit bias could be modified through video-based interventions, a cognitive load condition, and exploring correlations with explicit prejudice.

Implicit prejudices are common worldwide and can influence real-world behavior [13, 14]. They can exist even within stigmatized groups—for example, many obese individuals exhibit implicit bias against other obese people [15]. Within healthcare, such biases are a concern as they may contribute to disparities in patient care [16–18]. While implicit bias is only one factor, it likely contributes to documented healthcare inequalities. In the US, racial disparities in care are well established, and implicit racial bias is considered a potential contributing factor [19]. In the UK, Black women are five times more likely to die during childbirth or postpartum than White women [20]. Other disparities linked to socioeconomic status, sexual orientation, or gender may also partly stem from implicit bias [21].

Despite a limited evidence base for effective interventions, implicit bias training is widely offered in English-speaking countries [22]. However, the role of clinical training and experience in shaping bias remains unclear. Greater experience could reduce bias by increasing exposure to diverse patients, enhancing empathy, and freeing cognitive resources to maintain equitable care. Training in mental health, for example, has been associated with more positive implicit and explicit attitudes toward people with mental illness [23]. Conversely, some experiences may reinforce stereotypes due to confirmation bias [24], hierarchical influences in medical training, or exposure to stressful situations, which can reduce empathy [25, 26]. Fast-paced clinical environments may also promote cognitive shortcuts that increase susceptibility to implicit bias [27].

Medical specialty may further influence bias levels. For instance, pediatricians have been shown to exhibit lower implicit racial bias than other physicians [28], and mental health training appears to reduce bias toward individuals with mental illness. Specialty choice, training, and experience likely interact in complex ways to shape implicit attitudes. To date, no study has systematically explored the interaction of specialty and experience with implicit biases, a gap this study aims to address.

Rationale for selecting implicit obesity and mental illness bias

Implicit prejudice related to obesity and mental illness was chosen as the focus of this study because both characteristics are medically relevant and can influence clinical decision-making. Previous research has shown that healthcare professionals exhibit implicit bias against obese patients at rates similar to those observed in the general population [29]. Although evidence on implicit bias toward individuals with mental illness is more limited, available studies indicate its presence among physicians as well as the general public [23, 30–32]. Notably, prior work suggests that mental health training may reduce this type of bias, making it a particularly relevant domain for investigation.

While racial bias—especially against Black individuals—has received substantial attention in the U.S., its relevance to Swiss physicians is less clear. In Switzerland, discrimination may be more likely based on patients' country of origin rather than skin color [33]. Geneva, in particular, represents a highly multicultural context: both patients and medical staff originate from diverse countries and typically speak multiple languages. Unlike racial bias, implicit bias against obesity and mental illness has been documented as both an implicit and an explicit attitude among healthcare professionals [31, 32, 34]. One explanation for this is that, because these characteristics have medical relevance, they may not trigger the same automatic warnings of prejudice that racial characteristics do.

Given the evidence from other countries indicating the presence of implicit obesity and mental illness biases among physicians, it was anticipated that Swiss physicians would exhibit some degree of these biases as well. At the same time, cultural and institutional differences could produce levels of bias that are either higher or lower than those reported elsewhere [35]. The study hypothesized that clinical experience and training would affect the expression of implicit bias, although the direction of this effect was uncertain given prior mixed findings. Additionally, physicians specializing in psychiatry were expected to show lower levels of mental illness bias, consistent with research indicating that mental health training is associated with reduced prejudice [28].

Methods

Study participants

The study recruited physicians from two specialties: psychiatry and general internal medicine. These specialties were selected to allow comparison between biases directed toward mental health conditions and those directed toward physical characteristics. Psychiatrists, as specialists in mental health, were expected to exhibit lower implicit bias against mental illness, whereas general internists were expected to show relatively greater sensitivity to physical characteristics, such as obesity. Gender differences were also anticipated, with prior evidence suggesting that female physicians demonstrate weaker implicit bias against obese patients than their male counterparts [29]. Recruitment occurred at Geneva University Hospitals and among private practices in Geneva, using both email and postal invitations.

Data collection

All participants provided written informed consent prior to participation. The study was described broadly as an investigation of implicit attitudes using a categorization task aimed at improving standards of clinical care, deliberately avoiding terms such as "bias" or "prejudice" to prevent influencing responses. The order of measures **(Figure 1)** was carefully designed to conceal the specific characteristics under investigation for as long as possible. Ethical approval was obtained for this consent procedure. Participants first completed an online demographic questionnaire, followed by a clinical vignette designed to assess their intended clinical responses. To avoid systematic bias, patient characteristics within the vignette were randomized, creating four distinct versions of the vignette, each representing a different combination of patient attributes. This randomization allowed the researchers to examine how physicians' implicit attitudes might interact with the specific patient profiles presented.

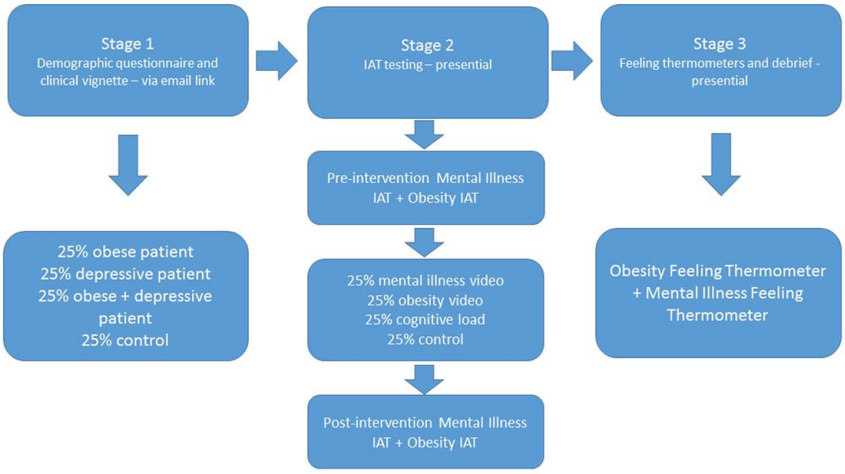

Figure 1. Experimental design

Procedure

Following the online questionnaire, each participant attended an individual, face-to-face session. During this meeting, participants first completed a Mental Illness IAT and a Weight IAT. They were then assigned to one of four conditions: one of two video-based interventions, a cognitive load task, or a control condition. After this,

participants repeated both IATs and completed two Feeling Thermometers to evaluate their explicit attitudes toward obese individuals and those with mental illness. Interviewers requested that participants refrain from discussing study content with colleagues. All sessions were conducted in French, the participants' local language, and all materials and measures were provided in French. All procedures adhered to relevant ethical guidelines and regulations.

Measures

Implicit association tests (IATs)

The Implicit Association Test (IAT) is a widely used measure of implicit bias. It is a computerized task in which participants rapidly categorize positively and negatively valenced words with images or words representing different social categories. Faster associations of, for example, black faces with positive words in a Race IAT indicate lower bias, whereas slower associations indicate higher implicit bias [36].

For mental illness, stimuli were adapted from a previously validated IAT, pairing words related to mental illnesses versus physical illnesses with positive and negative words [32]. The Weight IAT used silhouette images of obese and thin individuals obtained from Project Implicit, paired with positive and negative words [37]. All words were translated from English to French. The IAT D-score was interpreted according to Project Implicit conventions: scores above 0.15 indicate slight bias, above 0.35 moderate bias, and above 0.65 strong bias. Negative scores indicate an inverse association, reflecting positive associations with obesity or mental illness relative to thinness or physical health [36, 37].

Clinical vignette

The clinical vignette was adapted from a study examining differences in pain assessment based on patient gender [38]. It was translated from Portuguese to French and modified to generate four versions: a control patient with no medical history, a patient with a BMI of 32 (obesity), a patient with a history of depressive episodes, and a patient with both obesity and depression. Participants responded to six items rating pain intensity, clinical severity, urgency, and credibility on a 1–7 scale (see Additional file 1: S1 Appendix).

Feeling thermometers

Feeling Thermometers measured participants' explicit attitudes toward obese and mentally ill individuals. Participants marked a point on an unnumbered horizontal line ranging from "warm feelings" (left) to "cold feelings" (right), with a numerical scale of 0–12 applied post hoc. Scores were segmented as follows: 0–2.75 = warm, 2.75–5.5 = slightly warm, 5.5–6.5 = neutral, 6.5–9.25 = slightly cold, and 9.25–12 = cold. Lower scores corresponded to warmer feelings, representing more positive explicit attitudes.

Interventions and cognitive load

Few interventions have been rigorously tested for reducing implicit bias against obese or mentally ill individuals, and significant effects are rare [39–44]. One promising approach is perspective-taking, designed to increase empathy toward stigmatized groups [45, 46]. Participants assigned to this condition watched 1.25-minute video clips produced by the UK National Health Service, featuring two women sharing their experiences with obesity and depression. The videos, subtitled in French, were intended to encourage physicians to empathize with these patient groups. They are publicly available here: https://www.unige.ch/medecine/ieh2/fr/recherche/groupe-samia-hurst-manjo/.

To control for potential practice effects in repeating the IATs, participants in the control condition completed a cognitive task instead: counting backwards in twos aloud for the same duration as the video interventions. Afterward, all participants retook the IATs.

Cognitive load condition

A fourth experimental group, in place of a video intervention, was assigned a cognitive load task. Participants in this group were instructed to count backwards aloud in twos while completing the second set of IATs. This condition was designed to approximate the effects of stress and time pressure, which are common in physicians' daily work and have been shown to amplify implicit biases [47, 48]. To our knowledge, no prior research has directly examined the impact of cognitive load on IAT performance. We hypothesized that participants exposed to the video interventions would show reduced implicit prejudice, while those in the cognitive load condition would exhibit increased implicit prejudice compared with the control group.

Statistical analysis

Sample size calculations were performed using G*Power, based on an a priori power analysis for a two-factor ANOVA (specialty × experience, each with two levels), targeting a medium-sized interaction effect with $\alpha = 0.05$ and power = 0.80. The analysis indicated a required total sample of N = 158 (approximately 40 participants per group).

Data were analyzed using SPSS. Descriptive statistics summarized participants' sociodemographic characteristics. Internal consistency of the questionnaire was assessed using Cronbach's alpha. Following reviewer feedback, IAT scores were treated as continuous variables for subsequent analyses. Linear regression models tested associations between gender, experience, and specialty with responses to the clinical vignette, pre-intervention IAT scores, and explicit attitudes. Separate linear regressions assessed associations between experimental conditions (video interventions, cognitive load, control) and post-intervention IAT and explicit attitude scores, controlling for gender, experience, and specialty as potential confounders. Effect sizes were calculated using Cohen's d, and statistical significance was set at $p < 0.05$ (two-tailed). All data are publicly available at https://doi.org/10.26037/yareta:md2ryexqsrchhb2fafgor6lcmm.

Results – Participants

A total of 779 physicians were contacted via email or physical mail (when email addresses were unavailable), with follow-up through a second email and a telephone call. The initial response rate was 24%. Of these, 133 eligible physicians completed both stages of the study (81.1% of those initially responding). Recruitment of less-experienced physicians proved challenging; therefore, the threshold for the "less-experienced" category was increased from <5 to <6 years of practice, allowing five initially excluded participants to be included in the second stage.

Despite these adjustments, the target number of participants was not fully achieved for less-experienced psychiatrists, resulting in only 13 participants in this category. All other groups met the target of approximately 40 participants per category. The final sample included a broad range of ages, years in practice, practice settings, and an equal gender distribution **(Table 1)**. Participants who completed only the first stage were statistically similar to those who completed both stages in terms of gender, experience, age, and specialty.

Table 1. Participant characteristics

Age (years)	Mean (SD) Median Range	39 (11) 36 24–72
Gender	Male Female	49% 51%
Years in practice	Mean (SD) Median Range	14 (11) 10 1–47
	Less than 6 More than 8	40% 60%
Speciality	Internal medicine Psychiatry	60% 40%
Site of practice	Hospital Hospital ambulatory Private practice	59% 23% 18%

Overall implicit and explicit prejudice and level of concern among physicians

Despite incomplete comparability due to different stimuli, data do suggest greater implicit prejudice towards the obese than towards the mentally ill among physicians overall (D-score 0.53 and 0.09, respectively, **Table 2**).

Table 2. Specialty, experience, and gender

	All physicians										
	Mean (SD)	**Effect size (95% CI)**	**p**	**Psychiatrists Mean (SD)**	**Internists Mean (SD)**	**Effect size (95% CI)**	**p**	**Less experienced Mean (SD)**	**More experienced Mean (SD)**	**Effect size (95% CI)**	**p**
Mental Illness IAT (D score)	0.09 (0.50)			− 0.23 (0.42)	0.31 (0.44)	1.25 (0.87–1.63)	**< 0.001**	0.14 (0.50)	0.06 (0.51)	− 0.158 (− 0.506 to 0.19)	0.398

Weight IAT (D score)	0.53 (0.36)			0.50 (0.39)	0.54 (0.34)	0.11 (− 0.236 to 0.458)	0.674	0.56 (0.33)	0.50 (0.38)	− 0.166 (− 0.514 to 0.181	0.392
Feeling Thermometer Mentally Ill (Score 0–12)*	3.96 (2.28)	0.409 (0.065–0.752)	**< 0.001**	2.69 (1.85)	4.80 (2.16)	1.033 (0.813–0.109)	**< 0.001**	4.58 (2.21)	3.55 (2.25)	− 0.461 (− 0.813 to 0.109)	**0.012**
Feeling Thermometer Obese (Score 0–12)*	4.89 (2.27)			5.11 (2.69)	4.75 (1.95)	− 0.158 (− 0.506 to 0.189)	0.374	4.85 (1.94)	4.92 (2.48)	0.031 (− 0.316 to 0.378)	0.876
Vignette overall (Total score 6–42)#	29.94 (3.34)			30.15 (3.17)	29.80 (3.47)	− 0.104 (− 0.452 to 0.243)	0.556	29.08 (3.33)	30.51 (3.24)	0.437 (0.085-0.788)	**0.014**
Vignette/Depressive patient	29.98 (3.58)	− 0.021 (− 0.361 to 0.319)	0.914	30.86 (2.93)	29.44 (3.86)	− 0.403 (− 0.754 to 0.053)	0.144	28.47 (2.93)	30.61 (3.66)	0.617 (0.041–1.194)	**0.038**
Vignette/Non-depressive patient	29.91 (3.18)			29.65 (3.28)	30.09 (3.13)	0.138 (− 0.23 to 0.485)	0.544	29.36 (3.51)	30.41 (2.78)	0.34 (− 0.01 to 0.689)	0.154
Vignette/Obese patient	29.32 (3.34)	0.39 (0.047–0.733)	0.058	29.15 (2.86)	29.43 (3.59)	0.084 (− 0.263 to 0.432)	0.734	28.97 (3.19)	29.62 (3.41)	0.196 (− 0.152 to 0.543)	0.418
Vignette/Non-obese patient	30.61 (3.28)			31.19 (3.18)	30.21 (3.33)	− 0.3 (− 0.649 to 0.049)	0.244	29.24 (3.61)	31.28 (2.93)	0.65 (0.072–1.227)	**0.018**

P values in bold are statistically significant

Implicit and explicit bias

Across all participants, the mean Mental Illness IAT score did not meet Project Implicit criteria for mental illness prejudice, whereas the mean Weight IAT score corresponded to moderate obesity prejudice [36, 37]. One-sample t-tests comparing scores to zero revealed a significant bias for the Mental Illness IAT ($p = 0.033$) and a stronger effect for the Weight IAT ($p < 0.001$).

Explicit attitudes measured with the Feeling Thermometer indicated significantly warmer feelings towards the mentally ill compared with the obese (mean scores 3.94 vs. 4.89, $p < 0.001$; **Table 2**). Responses to the clinical vignette demonstrated good internal consistency (Cronbach's alpha = 0.79), allowing the items to be analyzed collectively as a single measure of "level of concern for the fictional patient." No significant gender differences were observed across implicit or explicit measures.

Effect of specialty

Specialty was associated with differences in mental illness prejudice. Psychiatrists exhibited significantly less implicit bias against mentally ill versus physically ill patients compared with internists (mean D-scores −0.23 vs. 0.31, $p < 0.001$). According to Project Implicit scoring conventions, psychiatrists' overall mean indicated a slight positive bias, whereas internists' mean indicated a slight negative bias [36, 37]. No significant specialty differences were found for obesity prejudice (Weight IAT; **Table 2**).

On explicit measures, psychiatrists reported significantly warmer feelings toward the mentally ill than internists on the Feeling Thermometer ($p < 0.001$; **Table 2**).

Effect of experience

Experience did not significantly influence implicit bias for either Mental Illness or Weight IATs **(Table 2)**. However, more experienced physicians expressed significantly warmer explicit feelings towards the mentally ill ($p = 0.012$) and demonstrated a higher level of concern for the fictional patient overall ($p = 0.014$). When examining specific patient characteristics, experience was associated with increased concern for patients described as depressed but not obese ($p = 0.038$ and $p = 0.018$, respectively; **Table 2**). No correlation between experience and concern was observed when the patient was described as obese.

Effect of interventions and cognitive load

Neither the video interventions nor the cognitive load condition produced significant changes in implicit bias (IAT) or explicit attitudes (Feeling Thermometer) compared with the control group **(Table 3)**.

Table 3. Effects of interventions

	Control (N = 34)	Mental illness video (N = 33)			Obesity video (N = 33)			Cognitive load (N = 33)		
	Mean	Mean (SD)	Effect size (95% CI)	p	Mean (SD)	Effect size (95% CI)	p	Mean (SD)	Effect size (95% CI)	p
Mental illness IAT (D score)	0.043 (0.44)	0.031 (0.37)	− 0.029 (− 0.508 to 0.45)	0.898	0.012 (0.47)	− 0.068 (− 0.547 to 0.411)	.860	0.005 (0.38)	− 0.092 (− 0.572 to 0.387)	0.778
Weight IAT (D score)	0.382 (0.30)	0.386 (0.38)	0.012 (− 0.467 to 0.491)	0.466	0.372 (0.44)	− 0.027 (− 0.506 to 0.452)	.632	0.240 (0.30)	0.352 (− 0.131 to 0.834)	0.058
Feeling thermometer mentally Ill (Score 0–12)*	3.944 (2.10)	3.873 (2.69)	− 0.029 (− 0.508 to 0.45)	0.802	3.967 (2.22)	0.011 (− 0.468 to 0.49)	.986	4.058 (2.18)	0.053 (− 0.426 to 0.532)	0.780
Feeling thermometer obese (Score 0–12)*	4.903 (1.98)	4.958 (2.32)	0.026 (− 0.454 to 0.505)	0.848	4.321 (2.53)	− 0.257 (− 0.738 to 0.224)	.098	5.382 (2.22)	0.228 (− 0.253 to 0.798)	0.160

P values in bold are statistically significant

* Lower scores indicate warmer feelings

All interventions were compared to the control

Discussion

Our findings suggest that medical specialty is associated with both implicit and explicit mental illness prejudice, whereas no such relationship was observed for obesity prejudice. Experience did not significantly correlate with implicit bias but was linked to warmer explicit attitudes toward the mentally ill and greater concern for mentally ill patients in a clinical vignette—though not for obese patients.

Overall, physicians displayed moderate implicit bias against the obese, consistent with Project Implicit scoring [36, 37], slightly lower than the strong negative bias previously reported among physicians and the general population [29]. Evidence regarding implicit bias toward the mentally ill is less consistent, in part due to variability in the IAT measures used [23, 30, 31]. In our study, psychiatrists showed a slight positive bias, while internists showed a slight negative bias. This suggests that internists' implicit attitudes may resemble those of the general population, whereas psychiatrists exhibit reduced prejudice [32]. However, these results should be interpreted with caution given that our IAT used physical illness as the comparison category. It is also possible that internists' apparently higher bias reflects stronger positive associations with physical illness rather than greater negative associations with mental illness.

Implicit obesity bias appeared stronger than implicit mental illness bias, although direct comparisons are limited because image-based IATs (used for obesity) and word-based IATs (used for mental illness) engage different cognitive processes [49]. This pattern was mirrored in explicit measures: the vignette and Feeling Thermometer both indicated greater prejudice toward obese patients. The minimal bias toward mentally ill patients in the vignette may relate to the specific disorder chosen; depression is associated with fewer negative stereotypes than conditions such as schizophrenia [41]. Additionally, awareness campaigns against mental illness stigma may have increased physicians' sensitivity to this type of bias relative to obesity.

Psychiatrists demonstrated significantly less implicit bias toward the mentally ill than internists. The absence of an effect of experience suggests a potential self-selection mechanism: individuals entering psychiatry may already possess lower implicit bias, or their attitudes may adjust early in training. This finding has practical significance for psychiatric practice. Alternative explanations include greater familiarity or comfort with conditions within one's specialty, which may influence implicit associations [50].

Contrary to some previous studies suggesting that clinical training affects implicit prejudice [23], we found no association between experience and implicit bias. Nonetheless, more experienced physicians reported warmer explicit attitudes and greater concern for mentally ill patients, implying that experience may enhance empathic engagement and patient care. Interestingly, this effect did not extend to obese patients, which could reflect lower awareness of the consequences

of obesity prejudice or a reduced ability to counteract it through experience.

No gender differences were observed in our sample, and neither video-based interventions nor the cognitive load condition significantly influenced implicit or explicit bias.

Several limitations warrant consideration. Participants may have been more motivated to improve patient care than the general physician population, potentially introducing self-selection bias. The distinction between experienced (>8 years) and less experienced (<6 years) physicians was relatively narrow, limiting the scope of experience-related analyses. Recruitment challenges further constrained comparisons among less experienced psychiatrists. Finally, while scoring algorithms can influence IAT results under cognitive load [51], we did not explore alternative scoring methods; nonetheless, the cognitive load manipulation showed no detectable effect in any direction.

Conclusions

Specialization in psychiatry is associated with lower levels of both implicit and explicit mental illness prejudice compared to general medicine. While clinical experience does not appear to influence implicit bias, it is linked to warmer explicit attitudes toward the mentally ill and greater concern for a fictional patient, provided the patient is not described as obese.

These findings have important implications for healthcare practice. Future research should examine the interacting factors that shape implicit and explicit biases, enabling more tailored interventions for specific groups of physicians. Psychiatrists may enter their specialty with inherently lower implicit bias toward mental illness, suggesting that bias-reduction strategies for this group may need to differ from those for other specialties.

Our results also highlight the persistence and potential under-recognition of obesity-related prejudice among physicians, both implicit and explicit. Addressing this bias is critical, not only because of its ethical and social implications but also because it likely undermines patient care and therapeutic interactions. While targeted interventions for racial bias have been increasingly studied [52, 53], research on interventions for obesity prejudice remains limited. Evidence suggesting that explicit obesity bias may increase during medical training [54] underscores the urgent need for education and training strategies aimed at raising awareness and reducing obesity-related bias.

In practice, medical education should be designed to address the specific forms and levels of implicit bias present in different specialties. Tailored approaches may be required for medical trainees versus experienced physicians, combining strategies to reduce both implicit and explicit biases and to foster more equitable patient care.

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