

Table 3 Paper Characteristics

	Author(s) date Country	Type of Publication Research design/method (If applicable)	Aim(s) (If stated)	Population Professional Specialty	Concept SES Measure	Context Link HP Bias & Decision- making	Key results, findings, or information
1	Crane (1975) USA	Research Paper Vignette case studies and Questionnaire	To assess the appropriateness of social as compared to physiological criteria in deciding to treat critically ill patient.	Doctors Internal Medicine and Neurosurgery	Case studies based on occupation and employment. A Banker and an unemployed Labourer.	Yes	Doctors did differentiate between a patient with a high and low status occupation when making decisions about the aggressiveness of treatment offered. However, when asked to rank the relative influence of social characteristics upon their decisions to treat chronically ill patients, they ranked social criteria as having a low influence on their decision-making.
2	Eisenberg (1979) USA	Editorial/Comment NA	Sociologic Influences on Decision-Making by Clinicians	Doctors Specialism not specified.	This paper reviews the contributions to our understanding of sociologic influences on clinical decision- making.	NA	The bulk of the available literature implies a significant relation between social class and decisions regarding patient management. Further investigation is needed- various methods of sociologic research could be used to provide the data for these studies e.g., participant observation, record review, questionnaires, interviews, case studies, or direct recording of the interaction.
3	MacCormick et al (1990) Canada	Research Paper Vignette – Four clinical scenarios	To assess decision- making in cancer treatments using age and SES as independent variables.	Medical Students	Occupation and employment were used as a proxy for SES. In this study SES was assessed with age. and it is difficult to separate these in the results.	Yes	Personal bias of the physician plays a role in decision-making about treatment for cancer in these vignettes. It is difficult to separate age and SES these in the results. Statistically significant differences $p < 0.001$ in decisions to treat younger professional than older persons. Statistically significant differences $p < 0.001$ in decisions to treat a young mother than a young female “mentally handicapped” person.
4	Brown (1993) USA	Research Paper Interviews and focus groups. seventy-two health, social work, administrative research, and advocacy HPs	Exploration of class and confidentiality for mothers with HIV.	Multi- professional Obstetrics:	Income	Yes	Lower social class people not viewed as holding their confidentiality as a personal priority - it matters less to them. Mums with greater authority due to income, political or social standings can expect greater confidentiality compared to mothers who are less economically fortunate.
5	McKinlay et al (1996) USA	Research Paper Vignette video scenarios 1. Chest pain 2. Dyspnoea	To assess non-medical influences on decision- making.	Doctors coronary heart disease.	socioeconomic status, and health insurance coverage.	Yes	A link found between insurance coverage on cardiac diagnosis for chest pain, particularly in the older patients. Intersectionality with Age. Among the older patients, those with insurance were significantly more likely to receive the primary cardiac diagnosis than those without insurance, whereas among younger patients’ insurance had no effect.
6	McKinlay et al. (1997) USA	Research Paper Vignette cancer video scenarios involving a breast mass	To assess non-medical influences on decision- making	Doctors Breast Cancer	Patient characteristics were varied in the videotapes to indicate socioeconomic	Yes	Women of lower SES were more likely to receive less aggressive care ($p < 0.07$). physicians recommended either chemotherapy or tamoxifen to 73% of higher SES women, compared with 53% of lower SES women.

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				status: dress, grammatical style, and insurance status		Insurance and ability to pay also were associated with disparity in physician recommendations.
7 Feldman et al 1997 ML... USA	Research Paper An Experimental Technique Using Videotapes, Factorial Design, and Survey Sampling.	To assess non-medical influences on decision-making.	Doctors Secondary care	Challenging to ascertain how SES was measured or described	No	The data suggest that the physician subjects gave clinically valid answers to the questions and that the variations in clinical decision-making identified by the factorial experiment can be interpreted as generalizable differences.
8 Wolder-Leven et al 1998 USA	Editorial/Comment Social Class and Medical Decision- making	People of different classes may receive differential treatment from providers for the same health conditions due to discrimination based on class.	Doctors Specialism not specified.	Paper discusses SES measures - as indicators of class. The word class works as a shorthand to refer to a person's social location, a "lived reality," in which life chances, values, health and well-being, morbidity and mortality, and concepts of self, other, and collectively are shaped by the relationship of the individual to the social organization of production. Should stop trying to define class in terms of a set of socioeconomic indicators such as income level.	NA	it is important to recognize that giving people the same choices about medical treatments does not necessarily mean that they are being treated equally, because patients do not lead equal lives. At the point of medical decision-making it becomes clear that class-based differences can even lead to difference between life and death.
9 Parens 1998 USA	Editorial/Comment Social Class and Medical Decision- making.	Bioethicists often discuss issues of social class in relation to access to health services - bioethics literature reveals that class is rarely a focus in the analysis of medical decision-making.	Doctors Specialism not specified.	Considering a person's SES might lead to not offering treatment to a person who does not have the resources and only offering it to people with those resources. An understanding of class and its relationship to medical decision-making should be used to provide equity and not to explain away unwarranted variations in care.	NA	Health care providers need to listen to patients in unaccustomed ways, the next and much bigger step will be to think systematically about how to promote such listening particularly with time constraints on health professionals.

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10 Krupat et al 1999 USA	Research Paper Vignette – Video	To determine whether assertive patient behaviour influences physician decision-making in the treatment of older breast cancer patients.	Doctors Cancer	Socioeconomic status [as well as age, race, mobility, general health, and assertive behaviour] of the patients were varied.	Yes	Assertive behaviour on behalf of a women with lower SES helps them to get testing e.g., auxiliary node biopsy. Assertiveness led to more careful diagnostic testing for patients who came from groups that are “disadvantaged.”
11 Gordon et al 2000 USA	Research Paper Cross-sectional study design, interviews using semi-structured questionnaire of physicians and patents.	An assessment of Patient-Nephrologist discussions about kidney transplantation as a treatment option	Doctors Haemodialysis and Nephrologists	SES determined by education level, occupational level, and socioeconomic status level. All low to high rated.	Yes	Bias is not overtly discussed however finding show fewer medical explanations and less time spent with patients of Low SES. Patient age and socioeconomic status influence discussions of transplantation as a treatment option. low socioeconomic status patients were less likely to report being encouraged even after adjustment for transplant suitability.
12 Van-Ryn et al 2000 USA	Research Paper Survey data examined	The degree to which patient race and socioeconomic status effects physicians' perceptions of patients	Doctors post-angiogram care.	A three-category measure of SES was developed. The SES index was created by standardizing patient income and education and averaging the two together.	Yes	Intersectionality with race is difficult to unpick. Low SES patients viewed as less likely to be pleasant and rationale. physicians gave lower SES patients more negative ratings on personality characteristics (lack of self-control, irrationality) and level of intelligence.
13 McKinlay et al 2002 USA	Research Paper Vignette video study 1. Polymyalgia 2. Depression	To assess the influence of non-medical factors on decision-making.	Doctors Internalist and primary care	SES depicted by appearance and employment in the video vignettes	No	SES of the patient does not show any impact on decision-making.
14 Tamayo-Sarver (2003) USA	Research Paper Vignette 1. Ankle Fracture 2. Migraine Non-traumatic back pain.	To measure the Effect of Race/Ethnicity and Desirable Social Characteristics on Physicians Decisions to Prescribe Opioid Analgesics	Doctors Emergency Department	Occupation and/or relationship with a primary care provider.	Yes	Race did not impact on prescribing differences. SES and information about patient social desirability (e.g., occupation) increased the rates of prescribing for the migraine and back pain patient vignette, but this did not alter the rate for ankle fracture. There were statistically discernible increases in the rate of prescribing, 4% (p<0.04) for migraine and 6% (p<0.01) for back pain. The information on socially desirable characteristics may have affected physicians' perceived likelihood that the patient is feigning illness and surreptitiously seeking opioids.

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15 Henley et al 2004 USA	Editorial/Comment 10 steps for avoiding health disparities in your practice	Discussion about disparities and health inequalities.	Doctors Specialism not specified.	Discusses intersectionality. The evidence regarding differences in the care of patients based on race, ethnicity, gender, and socioeconomic status suggests that if this patient is a woman or African American or from a lower socioeconomic class, resultant morbidity or mortality will be higher.	NA	Recommends that minimising the effect of bias and stereotyping could be achieved for all patients by using evidence-based practice guidelines.
16 Manderbacka 2005 Finland	Research Paper Exploratory qualitative study	Trace key points in the treatment where patients gender & SES experience differences	Doctors Coronary heart disease.	Blue-collar and white-collar occupations	Yes	There was a doctor-centred model common among blue-collar workers and an increased patient centred model with shared decision-making common among those using private care 'white collar occupations. The utilization of private care is clearly concentrated in higher socioeconomic groups in Finland.
17 Arber et al 2006 UK	Research Paper A video-simulation experiment. Conducted simultaneously in both USA and UK	Patient characteristics and inequalities in doctors' diagnostic and management strategies relating to CHD.	Doctors Coronary heart disease	SES indicated by occupation and dress - middle class (schoolteacher) or working class (cleaner in UK; janitor in US). Class was also expressed by style of dress and appearance.	No	Class was not significantly associated with any aspect of doctors' information gathering or decision-making.
18 Barnhart et al 2006 USA	Research Paper Questionnaires developed from focus groups.	Can Non-medical Factors Contribute to Disparities in Coronary Heart disease treatments.	Doctors coronary heart disease	socioeconomic status discussed in terms of finance barriers - social support (ability/insurance to pay for a revascularization procedure) as judged by the physician.	Yes	People with low SES were not trusted by the physician. Patients most knowledgeable (and assertive) about the procedure, and those with resources, who were most likely to adopt a healthy lifestyle (as perceived by the physician) are most likely to receive recommendations for revascularisation.
19 Denburg et al 2006 USA	Research Paper Randomised, 2X2 factorial design clinical vignette.	The Influence of Patient Race and Social Vulnerability on Urologist Treatment Recommendations in Localized Prostate Carcinoma.	Doctors Cancer	Middle income (and married) Low Income (and widowed) therefore the variables were not distinct.	Yes	Watchful waiting offered more frequently for socially vulnerable patients (low income and widowed) - both white and black patients. Intersectionality means that low income/widowed black patients received the lowest referral for radical prostatectomy. Low income/widowed white men also received lower referral for prostatectomy.

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20	Bernheim et al 2008 USA	Research Paper A Qualitative Study semi structured interviews	Influence of Patients' Socioeconomic Status on Clinical Management Decisions.	Doctors Primary care	As described by the participants: Economic Uninsured - Unemployed- On welfare- Sociocultural- Low educational achievement- Poor social networks.	Yes	All physicians recounted circumstances in which the patient's SES did affect their clinical management decisions. Even physicians who initially asserted that all patients in their practice received identical care later described differences based on patient SES.
21	Eggly et al 2008 USA	Research Paper Video recorded outpatient interactions during which oncologists invited patients to participate in clinical trials.	Oncologists' recommendations of clinical trial participation to patients	Doctors cancer	SES determined by education: high school or less technical or trade school college or greater.	No	Data showed that people with higher education (0.07) received more recommendations than men and those with lower education. This was not statistically significant.
22	Ling Fan et al 2008 USA	Review A search of the Internet identified thousands of Web sites, documents, reports, and educational materials pertaining to health and pain disparities.	Awareness and Action for Eliminating Health Care Disparities in Pain Care: Web-Based	Multi- professional Palliative care.	Paper discusses SES	NA	Studies have explored the factors influencing the often-unintentional pervasive nature of biases and stereotyping that affect treatment decisions for managing pain. Discriminatory practices that are deep seated in biases, stereotypes, and uncertainties around communication and decision-making processes contributing to inequities in care.
23	Franks et al 2008 USA	Editorial/Comment This paper examines a hierarchy of three domains for interventions to address health inequalities downstream. 1. health system 2. provider-patient interactions 3. clinical decision- making	Upstream or fundamental causes (such as poverty, limited education, and compromised healthcare access) is essential to reduce healthcare disparities. But such approaches are not sufficient, and downstream interventions, addressing the consequences of those fundamental causes.	Doctors Specialism not specified.	Paper discusses SES	NA	Physician biases likely to contribute to disparities. Greater social and cultural distance between providers and patients increases the potential for suboptimal encounters. Patients at greater social risk for adverse health outcomes have encounters characterized by less patient participation and providers viewing those encounters more negatively.

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24	Nampiarampil et al 2009 USA	Research Paper Vignette - double-blinded randomized controlled study. 1. patient with chronic low back. 2. lower extremity pain	To assess the contribution of non-medical decision-making to the assessment and management of pain.	Doctors rehabilitation community hospitals	Medical insurance Blue Cross Vs Medicaid	Yes	Unable to unpick race and insurance status in these vignette examples. Patient ethnicity/SES differences in the prescription of morphine (p = 0.053). Patient ethnicity/SES significantly affected the rate of referral for a nerve block (P = 0.04).
25	Wilson 2009 UK	Research Paper Vignette – case scenarios. One of two patient scenarios was employed in a self-administered questionnaire	Scenarios and Questionnaires addressed pain knowledge, inferences of physical pain, general attitudes, and beliefs about pain management. The participants were required to identify the patient's pain level and make pain management decisions.	Nurses pain	The variable lifestyle/socio-economic status (SES) of the patient was manipulated; all other patient variables were kept constant. High SES - businessperson Low SES - unemployed construction worker	Yes	There was a difference in pain management between high and low SES patients - both general and CNS nurses showed inferences of patient pain and management decisions which are based on myths about Low SES addiction. There was an observed trend to be more likely to under medicate low SES over high SES patients.
26	Ceballos et al 2010 USA	Research Paper A three-page survey was mailed to physicians in one state. Case scenario of a young woman trying to get pregnant. The patient's race and social class varied across the surveys.	Surveyed about their knowledge of infertility among different demographic groups of women and examines how patient and physician characteristics may influence physicians' treatment responses to hypothetical infertile patients.	Doctors Family planning	Different educational groups were used to reflect social class differences among women.	No	Referral practices did vary related to insurance status of the patient. Physicians' reluctance to refer Medicaid patients to infertility specialists is explained as understandable given the great expense of specialized infertility services and the lack of Medicaid insurance coverage for such services.

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27 Gilbert et al 2010 Canada	Research Paper A retrospective cohort study of women with a previous Caesarean section.	Does Education Level Influence the Decision to Undergo Elective Repeat Caesarean Section Among Women with a Previous Caesarean Section.	Doctors Obstetrics	Education level was stratified.	Yes	Higher education is associated with an increased rate of elective repeat Caesarean section ($p < 0.047$ and $p < 0.03$). Whether this is due to patient differences or physician bias, physicians should be aware of this disparity and should attempt to provide unbiased informed consent for all women
28 Hajjaj et al 2010 UK	Research Paper Semi-structured qualitative interviews were conducted with clinicians working in departments of dermatology	Assessment of nonclinical influences, beyond diagnosis and severity, on clinical decision-making in dermatology.	Doctors Dermatology	Education level and financial status and treatment related costs	Yes	This paper does not offer a strong link between SES and decision-making. Sixty five percent of clinicians said that treatment-related costs that patients are likely to incur would sometimes influence their decision-making inability to afford transportation costs or cost of child minding at home. 19.6% clinicians raised education/intelligence as an issue especially relating to cases where systemic treatments with potential side-effects are required. Where there is a lack of awareness or understanding of the range of influences, there is a risk that some influences may *subconsciously* adversely impact on optimal decision.
29 Kristine Bærøe and Berit Bringedal 2011 Norway	Editorial/Comment A discussion about the conditions for acceptable and unacceptable priority settings with respect to patients' socioeconomic status.	The pattern is equal in all countries, the higher the socioeconomic status (SES) of patients, the better the health and the higher the life expectancy; health prospects are distributed along a social gradient.	Doctors Specialism not specified.	Paper discussed SES	NA	Health inequity in healthcare services by inaccurate interpretations of 'healthcare need' and biased care due to unconscious influence by patients' SES. Prioritisation of health need according to SES as a basis of equity is not ethical. Socioeconomic Factors and their impact on health should be forefront of HP thinking - raising awareness in order to prevent reinforcement of health inequity.
30 Detsky 2010 USA	Editorial/Comment HP provide services and make decisions about diagnostics, treatments, procedures etc. There are variations.	The paper discusses... ... GPs and surgeons are biased against women, people from low SES groups, and other minority groups?	Doctors Specialism not specified.	Paper discussed SES	NA	Unintentional bias, which is far more common than intentional corruption, is particularly worrisome because humans are facile with rationalizing and often are not even aware of their bias. It is difficult to overcome bias that one does not even know is there.

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31	Paul Dieppe 2011 UK	Editorial/Comment A discussion about the inequalities in the provision of surgical Interventions for people with Rheumatology conditions.	In the context of state provided healthcare - many studies have shown that older people, women, ethnic minorities, and those of lower SES are all likely to receive variations in interventions compared to well-off, middle aged white males.	Doctors Rheumatology	Paper discussed SES	NA	The paper finds significant effects of SES on both hip and knee joint replacement rates for people with Osteoarthritis. It suggests that GPs and surgeons are biased against women, low SES patients, and other minority groups.
32	Dougal et al 2010 USA	Research Paper Online national survey	the influence of SES was examined on psychotherapists cognitive attributions and counter-transferences.	Psychological therapists Mental Health	Paper discusses SES	Yes	SES impacts on counter-transference reactions and clinical judgments according to SES. Rated interpersonal behaviour of the client with higher SES has evoking feelings of dominance more so than the lower SES. CAS measurement of 'causal attribution' found no statistically significant differences related to clinical judgment
33	Haider et al 2010 USA	Research Paper Clinical vignettes. The survey included the Implicit Association Test (IAT) to assess unconscious preferences	To estimate unconscious race and social class bias among first-year medical students and investigate its relationship with assessment.	Medical students	Social class was depicted using occupation. Patient vocation is commonly used as a proxy for social class. Patient occupations were chosen using the NamPowers occupational prestige scale, which ranks occupations on a scale from 1 to 100.	No	IAT testing showed A preference toward those in the upper class among 174 students (86%). a lower-class preference in 6 (3%). Multivariable analyses for all vignettes found no significant relationship between implicit biases and clinical assessment. Analysis stratified by patient race or class did not demonstrate any statistically significant association between student IAT scores and how students assessed patients for any of the vignettes. No interaction between IAT D scores and vignette patient class (or race) was found for any of the vignettes.
34	McKinlay et al 2012 USA	Research Paper A factorial experiment using video vignettes was conducted. 1. Patient symptoms of diabetes 2. Known diabetes with emerging peripheral neuropathy.	To investigate additional causes of health care disparities in the decision-making of primary care doctors.	Doctors Primary care	Appearance altered to reflect Class. Men presented with collar and tie (upper SES) or plaid shirt and jacket (lower SES). Women presented with either blazer with broach and makeup (high SES) or sweatshirt and no makeup (lower SES).	Yes	clinical management (specifically for foot neuropathy) is influenced by patient socioeconomic status (SES). Overall, upper SES patients would receive these essential examinations compared with lower SES patients. Upper SES patients were slightly more likely to be asked questions about their medical history (P < 0.05 for history of eye disease) and were more frequently referred to ophthalmologist (P = 0.024).

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35	Shawahna et al 2012 Pakistan	Research Paper Qualitative with two observational phases. Semi-structured interviews - 2 hospitals, 2 diabetes care centres and 2 private clinics. Prescriptions were analysed for socioeconomic indicators. In the second phase, the opinions of a panel of prescribers on the influence socioeconomic indicators on prescribing behaviour were elicited.	To investigate physician's perspectives of patients' SES and the important indicators influencing prescribing behaviour.	Doctors Diabetes	participants described SES based on 'job role' and a judgment about whether the person might be able to afford treatment.	Yes	Literacy, educational background, compliance, dress, and appearance were important indicators at the time of clinical decision-making for physicians originating from urban areas. Participating physicians agreed that patient's socioeconomic status influenced their drug prescribing behaviour
36	Smith-oka 2012 Mexico	Research Paper Interviews and participant observation	To investigate Risk – motherhood in a Mexican public hospital.	Multi- professional Doctors, Midwives, and Nurses. Obstetrics	Income and area of residence	Yes	Good mothers are married, knowledgeable, follows norms. Bad mothers are unmarried, uneducated, deviant. These views thought to reflect the paternalistic class structure of Mexican society. Explicit bias of low SES single mothers evident in this research - linked again to cooperation. Pressure for sterilisation Vs the use of an IUD in low SES women.

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37	Lay-Yee et al 2013 NZ	Research Paper Sample of 9272 encounters at 185 family practices. Each practitioner was asked to provide data on themselves and on their practice, and to report on every fourth of their patients (a 25% sample) in each of two week-long periods separated by an interval of six months. The questionnaire recorded data about the patient, his or her problems and their management.	social disparities in health are pervasive features of health care systems. studying inter-practitioner variation in clinical activity across four payment types in New Zealand primary care system.	Doctors Primary Care	deprivation level - NZ multi-index of deprivation used quintiles 1-5	Yes	There was greater variability of practitioner decision-making for socially disadvantaged patients found in fee-for service settings. Practitioners may have difficulty processing relevant clinical information for socially disadvantaged patients, and this greater degree of uncertainty may in turn be reflected in more variable decision-making. While there was little evidence in this primary care sample of systematic bias in clinical activity level by patient social group, practitioner variability was much more marked for patients drawn from ethnically and socio-economically disadvantaged background.
38	Haider et al 2014 USA	Research Paper Participants completed nine clinical vignettes, each with three trauma/acute care surgery management questions. social class IAT assessments were completed by each participant. Multivariable, ordered logistic regression to test IAT on decision-making.	To assess Unconscious race and class bias and its association with decision-making by trauma and acute care surgeons	Doctors Trauma	Social class stated in Vignette.	No	90.7% demonstrated an implicit preference toward upper social class persons. Biases were not statistically significantly associated with clinical decision-making So despite high levels of implicit bias this did not alter the decisions made by the physician in a statistically significant way.

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39	Haider et al 2015 USA	Research Paper Prospective Vignette study conducted among surgical RNs. Implicit association tests (IATs) for social class and race. Ordered logistic regression	To assess unconscious Race and Class Biases among Registered Nurses.	Nurses Surgery	patients' race or social class were randomly altered. Social class vignettes used patients' occupations as proxies for their social status.	No	93.47% demonstrated an implicit preference toward upper social class persons. Participants were more likely to think that a lower SES with anxiety did not understand the procedure and needed to be re-consented. Intersectionality detected between race and SES and the use of post-surgical restraints and sedation. Implicit biases among RNs did not correlate with clinical decision-making. Presence of an unconscious bias was not associated with any overall differences in vignette-based clinical assessment and decision-making.
40	Haider et al 2015 USA	Research Paper Clinical vignettes, each with 3 management questions. Ordered logistic regression analysis on the Implicit Association Test (IAT) scores and used multivariable analysis to determine whether implicit bias was associated with the vignette responses.	To assess the relationship between unconscious bias and clinical decision-making	Doctors Surgery	The paper does not state how SES was communicated via the vignette style study.	No	Although implicit biases of race and social class were present among most of the trauma and acute care clinician respondents, these biases were not associated with clinical decision-making. Clinicians were less likely to order an MRI of the cervical spine for patients with neck tenderness after a motor vehicle crash for low SES patients - this is hypothesised to be linked to health insurance status.
41	John-Henderson 2015 USA	Editorial/Comment Implicit bias of SES discussed along with as implicit bias of race, gender, suicidal ideation, and obesity).	Implicit cognition implications for global health	Doctors Mental health	paper discusses the use of the MacArthur SES scale - which is a self-rated 'place a cross on the ladder to indicate your position' scale	NA	Biases and discussed alongside resilience. The paper recommends an investigation into why some HPs make biased decisions and some do not. This could reduce the overall impact of implicit biases on health, both at the level of the individual and by positively affecting the relationship between patient and physician.
42	Williams et al 2015 USA	Research Paper Vignette based study - surveyed seniors at 84 medical schools. two clinically equivalent management options for a set of cardiac patient vignettes. examined variations in student recommendations.	Investigation of variations in medical student recommendations based on patient race, gender, and socioeconomic status.	Doctors coronary heart disease	Patient SES was determined solely by the Hollingshead Occupational Scale and was fixed for each individual vignette but varied across the set of eight cardiac vignettes.	Yes	Patient SES was a strong and significant predictor of student recommendations. With some intersectionality - when the patient was presented as being in the lowest SES group (SES 1-2), students were more likely to recommend procedures for black patients, and least likely to do so for white female patients. Judgmental attitudes from providers, even if not explicitly expressed, negatively affect physician-patient trust.

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43 Castaneda-Guarderas et al 2016 USA	Editorial/Comment A discussion about shared decision-making with vulnerable Populations in the Emergency Department.	This paper considers the future research agenda needed to examine shared decision-making with vulnerable populations of people who present to emergency departments in the U.S.	Doctors Specialism not specified.	Discussed in terms of Socioeconomic Disadvantage uneducated unemployed uninsured	NA	Shared decision-making in the ED setting among patients with socioeconomic challenges may be inhibited by a perceived power differential between physicians and their patients, beyond that experienced by more affluent patients.
44 Elholm Madsen et al 2016 Denmark	Research Paper An experimental factorial vignette survey was used. Four different vignettes describing fictitious patient cases with different SES variables were randomly allocated to therapists working in somatic hospitals.	To investigate whether occupational therapists and physiotherapists are influenced by the patient's SES	Occupational Therapist Somatic care	Employment status and educational level were used as a proxy for SES. a white collar-worker (lawyer employed and unemployed) a blue collar-worker (janitor employed or unemployed);	No	There were no statistically significant associations between the patient's SES and the judgements related to the patient's rehabilitation OR the rehabilitation effort given in phase one or towards providing equal treatment in a therapeutic situation.
45 Popescu et al 2016 USA	Research Paper Retrospective 1995 - 2007 data collected from the SEER programme. Key interests were race and SES.	to understand whether between-physician and within physician variations play a role in cancer care disparities among seniors with breast and colorectal cancer enrolled in a national cancer surveillance program.	Doctors Cancer	Measured SES using patients' zip code median household income, categorized into deciles. SEER files contain several zip code and census tract-level SES variables.	Yes	Patients residing in high-income zip codes were more likely to receive treatment than patients residing in low-income zip codes (e.g., 69%, 53%, and 65% top decile income patients received BCS, chemotherapy, and radiation vs. 46%, 48%, and 43% bottom decile income patients).

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46 Fitzgerald et al 2017 International	Systematic Review PubMed, PsychINFO, PsychARTICLE and CINAHL were searched for peer-reviewed articles published between 1st March 2003 and 31st March 2013. Two reviewers assessed the eligibility of the identified papers based on precise content and quality criteria. The references of eligible papers were examined to identify further eligible studies.	To assess publications examining implicit bias in healthcare professionals.	Multi- professional NA	SES	Yes	All studies found evidence for SES implicit biases among physicians and nurses. Class may trump race in some circumstances so that being high SES is more salient than being non-white. Based on the available evidence, physicians, and nurses manifest implicit biases to a similar degree as the general population. Biases also exist for age, mental illness, weight, having AIDS, brain injured patients perceived to have contributed to their injury, intravenous drug users and disability.
47 Murphy et al 2017 USA	Editorial/Comment A discussion about socially at-risk populations in relation to health disparities.	Increasingly, it is recognized that disparities are driven not by differences in biology or individual patient characteristics, but rather by social determinants, or the conditions of the environments in which people live.	Doctor Specialism not specified.	Paper discusses socioeconomic position	NA	Bias manifests itself in behaviours that impede relationship building. Physicians with higher levels of general bias are more likely to talk slowly, have greater verbal dominance, and have less patient-centred dialogue. Implicit bias influences diagnosis, treatment recommendations, questions asked of the patient, and diagnostic tests ordered.

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48 Pettit et al 2017 USA	Research Paper High-fidelity simulation - randomly assigned to participate in a simulation of acute coronary syndrome. Students were blinded to study objectives. quantitative data were obtained on the number of times students performed the following patient actions: acknowledged patient by name, asked about pain, conversed, and touching the patient.	To test the effect of socioeconomic status bias on Medical Student–Patient interactions using an Emergency Medicine Simulation.	Medical Students	Mannequin - low SES depicted by a homeless person - dirt covered t-shirt and trousers. Mannequin - High SES depicted by executive dress - button down collar suit and tie etc.	Yes	Data demonstrate that Medical Students were more likely to ask the simulated patient with high SES about pain control (p = 0.04) and more likely to touch the low SES patient (p = 0.01). Paper discusses touch as a mechanism to communicate compassion - put could also be a display of power. Decision-making does not appear to be different - patient received aspirin and was sent for a cardiac catheterization in both groups.
49 Goddu et al 2018 USA	Research Paper Randomized vignette study of two chart notes employing stigmatizing versus neutral language to describe the same hypothetical patient, a 28-year-old man with sickle cell disease.	To assess if words matter... to assess if Stigmatizing Language aids in the transmission of Bias in the medical record	Medical Students	Vignette language portraying the patient negatively with irrelevant or unnecessary indicators of lower socioeconomic status such as hanging out with friends outside McDonald's.	Yes	Language may play a powerful role in influencing clinician attitudes and behaviour. Less aggressive pain management employed with the hypothetical patient who had low SES.
50 Brandao et al 2019 Portugal	Research Paper Two experimental Vignette studies	To investigate classism in pain care and the role of patient socioeconomic status on nurse's pain assessment and management practices	Nurse Pain	SES was manipulated by level of education and occupational activity	Yes	Overall, the higher-SES patient was perceived as having more intense pain than the lower-SES patients. The low-SES patient's pain was perceived as less credible than the high-SES patient's pain when distress cues were present. Patient SES influenced some of the nurses' pain assessments but not their management practices.

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51 Gonzales et al 2019 USA	Research Paper A telephone interviews incorporating Logistic regression models that assessed associations between race/ethnicity/education, medical discrimination, clinician mistrust, and treatment decision-making with concordance	To assess the associations between race/ethnicity/education, medical discrimination, clinician mistrust, and treatment decision-making and guideline concordance.	Doctors Cancer	Education level	Yes	Intersectionality. Socioeconomic factors influenced guidelines concordance. They found educational disparities in breast cancer treatment. Non-college-educated Black women had lower odds of guideline-concordant care vs. college-educated White women.
52 Hirsh et al 2019 USA	Research Paper Vignette style study. A randomized controlled trial.	To test a virtual perspective-taking intervention to reduce race and SES disparities in pain care	Doctors Pain	SES was represented visually by work attire: low SES patients - fast food uniform, and high SES – a business suit.	Yes	Statistically reliable treatment bias during the pain treatment decision-making pre-intervention. Forty seven percent of providers who were biased at baseline did not show a statistically reliable treatment bias one week later.
53 Vlietstra et al 2020 UK	Research Paper Vignette – participants randomised to one of two video vignettes. Representing a psychological assessment session with either a ‘lower’ or ‘upper’ class client.	To assess for SES variations in clinical reasoning, namely diagnosis, risk assessment and treatment, and to measure class self-awareness.	Psychological therapeutic professionals Working in the NHS	Class The accent and dress of the client were varied to elicit class stereotypes.	No	There was little difference in clinical reasoning between the two class conditions. The paper acknowledges that the dress variations did not portray class cues accurately or strongly enough to evoke a difference.
54 Anastas et al 2020 USA	Research Paper Vignette - 12 computer-simulated patients with chronic back pain that varied by race and SES (low/high). IAT also employed.	To assess provider attitudes on Chronic Pain Care Decisions.	Doctors pain	SES was indicated by occupation and depicted by clothing.	Yes	Strong implicit preference for high SES over low SES individuals. There were significant race × SES interaction effects on provider ratings of pain interference, distress, and workplace accommodations.

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55 Bynum 2020 USA	Research Paper Four doctors from two Community Health Centres convenient sample because they offer services to uninsured people	To assess the doctor's (Asthma Management) perceptions of uninsured patients.	Doctors primary care	Uninsured	Yes	3 out of the 4 Doctors indicated that low SES patients have issues with medication compliance. All the participants indicated that access to affordable medication due to patients' SES was a barrier. Paper states that it might be possible to improve physicians' decision-making through techniques that minimize biases.
56 Crandlemire 2020 Canada	Editorial/Comment A discussion about the literature regarding healthcare disparities for people with low SES and the role of unconscious biases held among healthcare providers.	Unconscious Bias in Nursing is more likely activated and more prevalent during high pressure or time sensitive scenarios, when people are busy and tired, or when decisions need to be made and there is missing or ambiguous information.	Nurses Specialism not specified.	SES	NA	Decision-making is influenced by both positive and negative attitudes toward people due to unconscious or conscious biases held by healthcare providers which can affect patient care outcomes.
57 Diniz et al 2020 International (different countries)	Research Paper A Mixed methods study. Video vignette: Two women, each doing two different pain-inducing movements. After watching the vignette nurses were asked to: 1. Associate five characteristics to the women. 2. write a brief story to describe 'the woman's pain and how it affects life recommending a treatment.	Examined how nurses' perceptions of pain patients' SES were associated with (more or less) dehumanizing inferences about their pain and different treatment recommendations.	Nurses Pain	The video vignette women SES was determined using the MacArthur Scale of Subjective Social Status (based on appearance). Low and middle SES women chosen for the videos.	Yes	Words associated with the middle SES women were - calm, friendly, informed, anxious, sociable. Words associated with the lower SES women were - withdrawn, tough, passive, hardworking, worried, poorly informed. Treatment decisions are similar except the low SES patient is referred to psychoeducation- because of a perceived lack of competence.

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58 Veesart et al 2020 US	Editorial/Comment A discussion about unconscious bias and how it might impact on nursing care.	Everyone has a cultural lens through which we view the world, which can sometimes create biases. Often, the decisions we make are directly influenced by those biases, even when we espouse other beliefs.	Nurses Specialism not specified.	SES	NA	Making decisions based on prejudices can have devastating impacts on nursing care. The first step in addressing this is self-awareness. Bias decisions often occur under stressful situations
59 Beyer et al 2021 UK	Systematic review Included works published between January 2004 and April 2020. PubMed, Embase and Cochrane Central databases	To assess the current evidence for factors that influence treatment decision-making in localized kidney Cancer	Multi-Professional cancer	socio economic status and education status - as reported in the primary papers.	Yes	Education status, socioeconomic status, a family history of cancer, and cancer anxiety can be barriers to treatment decisions in kidney cancer. SES and economic variables were identified as barriers to treatment decisions.
60 Chase 2021 USA	Editorial/Comment A discussion regarding health disparities research and the negative stereotypes and attitudes that providers can hold toward certain patient groups.	Biased interactions with providers are a dynamic two-way process that can influence patients' satisfaction and trust in the health care provider. Leading to impairments in the patient's health outcomes.	Multi-professional Cancer	SES	NA	Advantageous and standard-of-care treatments may not be recommended to certain patients because physicians believe that those patients may not adhere to them. When faced with limited time to adequately assess the patient's problem, physicians may rely on their implicit stereotypes to make hasty decisions.

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61	Khidir et al 2021 USA	Research Paper Cross-sectional analysis of a sample taken from 100% of Medicare claims for emergency department (ED) visits. ED visits from January 1, 2016, through December 31, 2019. Decision about admission or discharge were analysed according to race, Medicaid, and low income.	To estimate the consistency of ED physician admission propensities across categories of patient sex, race and ethnicity, and Medicaid enrolment.	Doctors Emergency care	insurance status - low income.	No	Doctors who are more or less likely to admit patients from the ED are more or less likely to do so regardless of SES. No evidence of SES bias and decision-making about admission established.
62	Manzer et al 2021 USA	Research Paper Qualitative Interviews	To assess bias through the case of contraception.	Multi-professional Family Planning.	SES and Class	Yes	Participants link pregnancy risk to women of low SES. Differences in contraception advice found. HPs more likely to steer patients of low SES toward long-acting contraception - can last 1 year or more, rather than prioritizing patients' preferences. HP Bias decision-making may be exacerbated by the fast-paced, high-stress environments and lack of time.
63	Agerstrom et al 2021 Sweden	Research Paper A retrospective multiple regression analysis study. Data extracted from Swedish LISA database	To examine SES disparities in In Hospital Cardiac Arrest (IHCA) treatment and survival. Assessing SES at the patient level and controlling other variables to assess impact of SES.	Multi-professional Cardiac Care	SES proxy used highest level of completed education and annual income.	Yes	Patients with lower SES, low income and low education were all significantly associated with more delay, and lower levels of immediate and long-term survival. People with high SES are more likely to have their heart rhythm monitored prior to the IHCA, despite having better health (less comorbidity). Heart Rhythm monitoring was significantly associated with less delay and increased immediate survival and 30-day survival.

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64	Bernardes et al 2021 Portugal	Research Paper Vignette: Drawing on a social psychological model of dehumanization. Two online experimental studies were conducted. vignettes/images depicting 2 cases of women with chronic low-back pain, followed by videos of them performing a pain-inducing movement.	To test the effect of patient socioeconomic status on pain assessment and management. Also, whether patient dehumanization and perceived life hardship mediated these effects.	Multi-professional Pain	SES was manipulated: level of education (incomplete high school education Vs degree) and occupation (factory worker Vs Judge).	Yes	Medical students: pain assessment was less comprehensive for low SES. They rated the low SES patient as having slightly lower pain intensity during movement but perceived her as more credible and with higher pain-related disability. Nurses: pain assessment was less comprehensive for higher SES. Nurses reported being slightly more willing to offer individualized care to the low SES patient. Lower SES patients were perceived as being more disabled by the pain.
65	Kirkham et al 2022 UK	Editorial/Comment A discussion about the Department of Health funded evaluation of the MIDIRS about Informed Choice leaflet. Stereotyping can be a defence mechanism which assisted midwives in coping with the pressures of work.	Midwives sometimes misjudged women's ability and willingness to participate in their maternity care and, therefore, women can be negatively labelled about things like housing tenure or social class [or age].	Midwives Maternity	Social class discussed	NA	SES stereotyping judgements affect Midwives behaviour. Low SES Women's silence reinforced the staff's perception that 'they don't want information.' It may also enable busy clinics to move at an 'efficient' and 'reasonable' pace.
66	Bruno et al 2022 Canada	Research Paper Prospective cross-sectional study from five primary care practices. A randomized controlled trial of a diabetes goal setting and shared decision-making plan.	To assess if SES is associated with empathic communication and decision quality in Diabetes Care.	Multi-professional Diabetes	Patient self-reported their ethnicity, education level and income prior to the trial.	No	Shared decision-making was not impacted by low education or income.

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67 Torres et al 2022 USA	Review Literature review	To assess implicit biases among healthcare providers, the influence of implicit biases on providers' medical judgments and communication, and the mechanisms by which this impaired patient-physician communication affects patients' health outcomes and disease prognoses.	Doctors Gynaecology Oncology	Paper discusses SES	NA	SES and insurance status impacts on unequal care and quality of care. SES associated with non-adherence to clinical guidelines.