Supplemental Materials

THE EFFECT OF DISCRIMINATION ON MENTAL HEALTH: A META-ANALYSIS

OF THE CAUSAL EVIDENCE

Table S1

Full Search Strategies for all Databases

Search no.	Searches	Results
	PsycINFO and PsycArticles (EBSCOhost) search strategy	
1	DE "Stigma" OR DE "Labeling" OR DE "Prejudice" OR DE "Stereotyped Attitudes" OR DE "Social Discrimination" OR DE "Racism" OR DE "Sexism" OR DE "Bullying" OR DE "Stranger Reactions" OR DE "Teasing" OR DE "Victimization" OR DE "Self-Stigma" OR DE "Hate Crimes" OR DE "Intersectionality" OR DE "Minority Stress" OR DE "Social Disadvantage" OR DE "Homosexuality (Attitudes Toward)" OR DE "Sex Discrimination" OR DE "Transgender (Attitudes Toward)" OR DE "Gender Role Attitudes" OR DE "AntiSemitism" OR DE "Religious Prejudices" OR DE "Racial and Ethnic Attitudes" OR DE "Race and Ethnic Discrimination" OR DE "Racial Bias" OR DE "Employment Discrimination" OR DE "Social Class Bias" OR DE "Obesity (Attitudes Toward)" OR DE "Disability Discrimination" OR DE "Ageism" OR DE "Age Discrimination" OR DE "Mental Health Stigma"	97,077
2	DE "Mental Health" OR DE "Well Being" OR DE "Life Satisfaction" OR DE "Stress" OR DE "Anxiety" OR DE "Distress" OR DE "Depression (Emotion)" OR DE "Self-Esteem" OR DE "Self-Worth" OR DE "Self-Efficacy" OR DE "Emotions" OR DE "Internalization" OR DE "Externalization" OR DE "Anger" OR DE "Fear" OR DE "Frustration" OR DE "Emotional States" OR DE "Negative Emotions" OR DE "Positive Emotions" OR DE "Adjustment" OR DE "Affective Disorders" OR DE "Mental Disorders" OR DE "Acute Stress" OR DE "Perceived Stress" OR DE "Psychological Stress" OR DE "Social Stress" OR DE "Stress Reactions"	707,038
3	S1 AND S2	18,316
4	AB ("experiment*" OR "trial" OR "quasi-experiment* OR" field study" OR "lab study")	
5	S3 AND S4	1,098
6	S5 [Language: English and German; Population Group: Human]	1,055
	PSYNDEX (EBSCOhost) search strategy	
1	DE "Stigma" OR DE "Labeling" OR DE "Prejudice" OR DE "Stereotyped Attitudes" OR DE "Social Discrimination" OR DE "Racism" OR DE "Sexism" OR DE "Bullying" OR DE "Stranger Reactions" OR DE "Teasing" OR DE "Victimization" OR DE "Self-Stigma" OR DE "Hate Crimes" OR DE "Intersectionality" OR DE "Minority Stress" OR DE "Social Disadvantage" OR DE "Homosexuality (Attitudes Toward)" OR DE "Sex Discrimination" OR DE "Transgender (Attitudes Toward)" OR DE "Gender Role Attitudes" OR DE "AntiSemitism" OR DE "Religious Prejudices" OR DE "Racial and Ethnic Attitudes" OR DE "Race and Ethnic Discrimination" OR DE "Racial Bias" OR DE "Employment Discrimination" OR DE "Social Class Bias" OR DE "Obesity (Attitudes Toward)" OR DE "Disability Discrimination" OR DE "Ageism" OR DE "Age Discrimination" OR DE "Mental Health Stigma"	10,424

Search no.	Searches	Results
2	DE "Mental Health" OR DE "Well Being" OR DE "Life Satisfaction" OR DE "Stress" OR DE "Anxiety" OR DE "Distress" OR DE "Depression (Emotion)" OR DE "Self-Esteem" OR DE "Self-Worth" OR DE "Self-Efficacy" OR DE "Emotions" OR DE "Internalization" OR DE "Externalization" OR DE "Anger" OR DE "Fear" OR DE "Frustration" AND DE "Emotional States" OR DE "Negative Emotions" OR DE "Positive Emotions" OR DE "Adjustment" OR DE "Affective Disorders" OR DE "Mental Disorders" OR DE "Acute Stress" OR DE "Perceived Stress" OR DE "Psychological Stress" OR DE "Social Stress" OR DE "Stress Reactions"	54,784
3	S1 AND S2	1,345
4	[Methodology: experimental study]	
5	S3 AND S4	76
6	S5 [Language: English and German]	76

Web of Science/Social Sciences Citation Index (Clarivate Analytics) search strategy

1	TI = ("*stigma*" OR "labeling" OR "prejudice*" OR "stereotype*" OR "discriminat*" OR "unfair treatment" OR "bias*" OR "rejection" OR "*aggression" OR "devaluation" OR "racism" OR "sexism" OR "discounting" OR "teasing" OR "bullying" OR "victimization" OR "hate crimes" OR "intersectionality" OR "minority stress" OR "social disadvantage" OR "homophobia" OR "anti-gay" OR "sexual orientation" OR "transgender" OR "gender role attitudes" OR "antisemitism" OR "anti-muslim" OR "ageism" OR "ableism")	131,734
2	TI = ("mental health" OR "psychological health" OR "well being" OR "well-being" OR "coping" OR "life satisfaction" OR "happiness" OR "*stress*" OR "self-esteem" OR "self-efficacy" OR "anger" OR "depress*" OR "sadness" OR "anxiety" OR "affect*" OR "mood" OR "internalizing" OR "externalizing" OR "self-worth" OR "adjustment" OR "emotion*" OR "mental disorders")	598,187
3	S1 AND S2	15,119
4	CATEGORIES: (PSYCHOLOGY EXPERIMENTAL)	
5	S3 AND S4	960
6	S5 [Language: English or German]	959

Sociological Abstracts and Dissertation & Theses Global (ProQuest) search strategy

1	MAINSUBJECT.EXACT ("Discrimination" OR "Stigma" OR "Labeling" OR "Prejudice" OR "Stereotypes" OR "Racism" OR "Sexism" OR "Aggression" OR "Victimization" OR "Rejection" OR "Bias" OR "Hate Crime" OR "Minority Groups" OR "Aggression" OR "Sex Stereotypes" OR "Misogyny" OR "Heterosexism" OR "Homophobia" OR "Classism" OR "Employment Discrimination" OR "Ageism" OR "Anti-Semitism")	115,963
2	MAINSUBJECT.EXACT ("Mental Health" OR "Well Being" OR "Life Satisfaction" OR "Psychological Distress" OR "Empowerment" OR "Stress" OR "Anxiety" OR "Depression (Psychology)" OR "Self Esteem" OR "Emotions" OR "Internalization" OR "Happiness" OR "Frustration" OR "Adjustment" OR "Emotions" OR "Fear" OR "Psychological Stress" OR "Affective Illness" OR "Anger" OR "Psychological Distress")	150,525

Search no.	Searches	Results
3	S1 AND S2	12,472
4	AB ("experiment*" OR "trial" OR "quasi-experiment*" OR "field study" OR "lab study")	
5	S3 AND S4	655
6	S5 [Language: English or German]	640

Academic Search Premier (EBSCOhost) search strategy

| 1 | DE "PERCEIVED discrimination" OR DE "SOCIAL stigma" OR DE "PREJUDICES" OR DE "AGGRESSION (Psychology)" OR DE "STIGMATIZATION" OR DE "STEREOTYPES" OR DE "STEREOTYPES" OR DE "OTHERING" OR DE "INTERSECTIONALITY" OR DE "MINORITIES" OR DE "BULLYING" OR DE "DISCRIMINATION (Sociology)" OR DE "AGE discrimination" OR DE "AIDS phobia" OR DE "APPEARANCE discrimination" OR DE "BIPHOBIA" OR DE "CASTE discrimination" OR DE "COVERT discrimination" OR DE "DISCRIMINATION against caregivers" OR DE "DISCRIMINATION against people with AIDS" OR DE "DISCRIMINATION against people with disabilities" OR DE "DISCRIMINATION against people with mental illness" OR DE "DISCRIMINATION against the homeless" OR DE "DISCRIMINATION against unmarried couples" OR DE "DISCRIMINATION in banking" OR DE "DISCRIMINATION in capital punishment" OR DE "DISCRIMINATION in education" OR DE "DISCRIMINATION in financial services" OR DE "DISCRIMINATION in insurance" OR DE "DISCRIMINATION in justice administration" OR DE "DISCRIMINATION in law enforcement" OR DE "DISCRIMINATION in medical care" OR DE "DISCRIMINATION in mental health services" OR DE "DISCRIMINATION in municipal services" OR DE "DISCRIMINATION in public accommodations" OR DE "DISCRIMINATION in restaurants" OR DE "DISCRIMINATION in sports" OR DE "DISCRIMINATION in taxation" OR DE "DISCRIMINATION in the advertising industry" OR DE "DISCRIMINATORY language" OR DE "EMPLOYMENT discrimination" OR DE "EROTOPHOBIA" OR DE "ETHNIC discrimination" OR DE "HOMOPHOBIA" OR DE "HOUSING discrimination" OR DE "INDIRECT discrimination" OR DE "MICROAGGRESSIONS" OR DE "RACE discrimination" OR DE "RELIGIOUS discrimination" OR DE "REVERSE discrimination" OR DE "SEGREGATION" OR DE "SEX discrimination" OR DE "SPECIESISM" OR DE "TOKENISM" OR DE "TRANSPHOBIA" OR DE "DISCRIMINATION against overweight persons" OR DE "DISCRIMINATION in higher education" OR DE "SEX discrimination in education" OR DE "SEX discrimination in employment" OR DE "PREJUDICES" OR DE "ABLEISM" OR DE "AGEISM" OR DE "ANTI-Americanism" OR DE "ANTI-Arabism" OR DE "ANTI-Asian racism" OR DE "ANTI-Catholicism" OR DE "ANTI-Japanism" OR DE "ANTI-Mormonism" OR DE "ANTISEMITISM" OR DE "BIAS (Law)" OR DE "CLASSISM" OR DE "COLORISM" OR DE "CULTURAL prejudices" OR DE "ETHNOCENTRISM" OR DE "GENDERISM" OR DE "ISLAMOPHOBIA" OR DE "NATIVISM" OR DE "RACISM" OR DE "SEXISM" OR DE | 187,053 |

Search no.	Searches	Results
	"ABLEISM" OR DE "AGEISM" OR DE "HOMOPHOBIA" OR DE "ATTITUDES toward homosexuality" OR DE "XENOPHOBIA" OR DE "DISCRIMINATION -- Religious aspects"	
2	DE "EMOTIONS" OR DE "AFFECT (Psychology)" OR DE "MENTAL health" OR DE "SELF-esteem" OR DE "SELF-efficacy" OR DE "EXTERNALIZATION (Psychology)" OR DE "PSYCHOLOGICAL well-being" OR DE "ANGER" OR DE "FEAR" OR DE "PSYCHOLOGICAL adaptation" OR DE "AFFECTIVE disorders" OR DE "MENTAL illness" OR DE "PSYCHOLOGICAL stress" OR DE "ACUTE stress disorder" OR DE "ANXIETY" OR DE "FRUSTRATION" OR DE "PSYCHOLOGICAL stress -- Research" OR DE "HAPPINESS"	426,000
3	S1 AND S2	15,422
4	AB ("experiment*" OR "trial" OR "quasi-experiment* OR" field study" OR "lab study")	
5	S3 AND S4	897
6	S5 [Language: English, German]	882
PsyArXiv and SocArXiv (OSFPREPRINTS) search strategy		
1	title: ("*stigma*" OR "attitude*" OR "labelling" OR "prejudice*" OR "stereotyp*" OR "discriminat*" OR "unfair treatment" OR "rejection" OR "bias*" OR "teasing" OR "bullying" OR "victimization" OR "racism" OR "sexism" OR "aggression" OR "devaluation" OR "hate crimes" OR "intersectionality" OR "minority stress" OR "social disadvantage" OR "homophobia" OR "anti-gay" OR "sexual orientation" OR "transgender" OR "gender role attitudes" OR "antisemitism" OR "anti-muslim" OR "ageism" OR "ableism") AND ("mental health" OR "well being" OR "well-being" OR "life satisfaction" OR "quality of life" OR "stress*" OR "self-esteem" OR "self-efficacy" OR "depress*" OR "anxiety" OR "psychological health" OR "coping" OR "mood" OR "affect*" OR "happiness" OR "anger" OR "sadness" OR "internalizing" OR "externalizing" OR "self-worth" OR "adjustment" OR "emotion*" OR "mental disorders") AND ("experiment*" OR "trial" OR "quasi-experiment*" OR "field study" OR "lab study") [Active Filters: PsyArXiv, SocArXiv]	107

Note. DE = descriptors (specific subject terms); S = search; AB = abstract; TI = title.

Table S2

Coding Manual

Variable	Coding system
Block 1: Study	
General information	
Date form completed [date]	Write down the date you completed the form (*dd/mm/yyyy*)
ID of person extracting data [coderID]	Name or ID (e.g., initials) of the person extracting the data
Study characteristics	
Manuscript ID [manuscriptID]	Assign a unique identification number to each manuscript (1, 2, 3, 4, etc.)
Bibliographic reference [citat]	Complete citation in APA form
Author [author]	Name of the (first) author of the paper (e.g., "Schmitt et al." or "Brownell")
Year [year]	Year of publication. If two separate records are being used to code a single study, code the more formally published record's publication year
Type of publication [pubtype]	Specify what type of publication the study is: 1 = Journal article 2 = Doctoral dissertation 3 = Thesis 4 = Book or book chapter 5 = Conference paper 6 = Technical report 7 = Preprint 8 = Other (specify)
Notes [notes1]	Notes and comments about Block 1. If any peculiarities, other interesting aspects, or ambiguities in the data extraction have occurred, please specify
Block 2: Experiment	
Study ID [studyID]	Assign a unique ID to each experiment. If multiple experiments are reported, each gets its own new ID and line in the coding scheme
Study design [design]	Specify the research design of the study in terms of the data that make up the effect size 1 = Semiexperimental (e.g., field experiment, quasiexperiment) 2 = Experimental (experiment with random assignment) 3 = Experimental but random assignment not explicitly mentioned 4 = Other (e.g., combination of longitudinal and experimental, etc.)
Study quality	Please familiarize yourself with the document "DIAD_Supplement" for information on the assessment of the following study-quality questions
Fit between concepts and operations: Intervention [fit_intervention]	Were the participants treated in a way that is consistent with the definition of the intervention? 1 = Yes 0 = No NA = Unknown/Not applicable
Fit between concepts and operations: Outcome measure [fit_outcome]	Were the outcomes measured in a way that is consistent with the proposed effects of the intervention? 1 = Yes 0 = No NA = Unknown/Not applicable
Clarity of causal inference: Fair comparison [inference_comparison]	Were the participants in the group receiving the intervention comparable to the participants in the comparison group? 1 = Yes 0 = No

Variable	Coding system
	NA = Unknown/Not applicable
Generality of findings: Inclusive sampling [generality_sample]	Did the sample contain participants with the necessary characteristics to be considered part of the target population? 1 = Yes 0 = No NA = Unknown/Not applicable
Precision of outcome estimation: Effect sizes and standard errors [precision_effect]	Were effect sizes and their standard errors accurately estimated? 1 = Yes 0 = No NA = Unknown/Not applicable
Precision of outcome estimation: Statistical reporting [precision_reporting]	Were the statistical tests adequately reported? 1 = Yes 0 = No NA = Unknown/Not applicable
Study quality [quality]	Overall DIAD score (count the number of "Yes," 0 to 6)
Notes [notes2]	Notes and comments about Block 2. If any peculiarities, other interesting aspects, or ambiguities in the data extraction have occurred, please specify
Block 3: Sample	
Sample ID [sampleID]	Assign a unique ID to each (sub)sample. If one study examines multiple (sub)samples, each gets its own new number and line in the coding scheme
Sample size [n]	Number of subjects/participants
Region of data collection [region]	Please name the region where the data collection took place (e.g., North America, Europe) 1 = North America 2 = Australia 3 = Europe 4 = Asia 5 = Other
Age group of the sample [ageGROUP]	Specify the age group of the sample: 1 = Infants (0–2) 2 = Children (2–12) 3 = Adolescents (13–17) 4 = Young adults (18–25) 5 = Adults (25–65) 6 = Older adults (65+) 7 = Mixed, cannot tell
Mean age of sample [age]	Specify the approximate or exact mean age of the total sample. Code the best information available; estimate mean age from grade levels if necessary
Predominant sex of sample [sex]	Write the % of participants who self-identified as female/woman in the sample. If nonbinary or transgender was assessed, provide detailed information
Predominant ethnicity of sample [ethnicityWHITE]	Write the % of participants who self-identified as White in the sample
Ethnicity of participants [ethnicity]	Write the reported information about the ethnicities (e.g., Latinx) of the sample
Education [education]	Write the reported information about the education level of the sample
Education classified [eduCLASS]	Categorize the education level of the sample data into groups that apply to more than 50% of the individuals: 1 = Low education (ISCED 0–2; the typical cumulative duration is 9 years but may range from 8 to 11 years) 2 = Medium education (ISCED 3–4; 11–14 years of education) 3 = High education (ISCED 5–8; > 14 years of education)

Variable	Coding system
	4 = University students
	5 = Pupils
	6 = Less than 50% of participants within a certain category
Coping strategies [coping]	If available, write a brief description or give details of the definition and measurement of examined coping strategies used
Group status [groupstatus]	Relative status of the ingroup targeted by discrimination. Please classify group status as marginalized when the sample possessed a social identity that is historically marginalized and subject to the induced discrimination type in the study. For example, when discrimination type is sexism, samples including participants identifying as men should be categorized as non-marginalized, samples including participants identifying as women as marginalized, and samples including men and women as "mixed group status"; when samples include participants identifying as men and a marginalized identity (e.g., being part of an ethnic minority), the classification of the sample is non-marginalized. All samples from studies on discrimination targeting non-marginalized identities, such as specific university study majors, should be classified as non-marginalized. 1 = Historically relatively disadvantaged, marginalized identity 2 = Historically more advantaged, non-marginalized identity 3 = Mixed group status in the sample (participants with marginalized and participants without marginalized identity)
Notes [notes3]	Notes and comments about Block 3. If any peculiarities, other interesting aspects, or ambiguities in the data extraction have occurred, please specify
Block 4: Effect size	
Effect size ID [esID]	Assign each effect size within a study its unique number. Number multiple effect sizes within a study sequentially, e.g., 1, 2, 3, 4, etc.; each gets its own ID and line in the coding scheme
Source of effect size [esPAGE]	Page number where the data for this effect size were found; please mark the location in the PDF document of the study
Mean of treatment group [treatment_MEAN]	Mean of the mental health outcome of the treatment (discriminated against) group (posttreatment)
Standard deviation of treatment group [treatment_SD]	Standard deviation of the mental health outcome of the treatment (= discriminated against) group (posttreatment)
Size of treatment group [treatment_N]	Sample size of the treatment (= discriminated against) group
Mean of control group [control_MEAN]	Mean of the mental health outcome of the control group (posttreatment)
Standard deviation of control group [control_SD]	Standard deviation of the mental health outcome of the control group (posttreatment)
Size of control group [control_N]	Sample size of the control group
F value [F]	F value of the comparison of the treatment and the control group (df for the numerator must equal 1)
t value [t]	t value of the comparison of the treatment and the control group
p value [p]	p value of Cohen's d or of the information used to calculate d
Effect size [d]	Cohen's d of the effect of discrimination on mental health outcome. If no Cohen's d coefficient is reported, specify the information in the next items and type NA in this item
Computed d [comp_d]	Please calculate d with the available information and the Practical Meta-Analysis Effect Size Calculator: https://campbellcollaboration.org/research-resources/effect-size-calculator.html Always report the direction of the discrimination effect (e.g., if discrimination leads to a lower score of the dependent variable, d needs

Variable	Coding system
	to be negative). If the only available information is that there was no significant effect, please type "0" and report it in variable [nonsign]
Lower limit of *d* confidence interval [CI_lower]	Lower limit of the 95% confidence interval (CI) of *d*. If no CI is reported, please use the information provided by the Practical Meta-Analysis Effect Size Calculator
Upper limit of *d* confidence interval [CI_upper]	Upper limit of the 95% confidence interval (CI) of *d*. If no CI is reported, please use the information provided by the Practical Meta-Analysis Effect Size Calculator
Variance of *d* [v]	Variance of *d*. If no variance is reported, please use the information provided by the Practical Meta-Analysis Effect Size Calculator
Type of information to compute *d* [info_dTYPE]	If there is a Cohen's *d* coefficient reported in the last item type NA; if the bivariate relationship between the variables is not specified with Cohen's *d* in the previous item, specify what information you used to calculate *d*. Please use the following list for your description: 1 = Means and standard deviations 2 = *t* test 3 = *F* test (2 groups) 4 = *p* value 5 = *r* (correlation coefficient) 6 = Other (specify in the next item)
Description of other information [other_d]	If you answered "6" in the previous item, please describe the information used to calculate *d*
Confidence rating in effect size computation [conf_d]	Please rate your confidence in the effect size computation: 1 = Highly estimated (have *N* and crude *p* value only, e.g., $p < .10$, or other limited information) 2 = Some estimation (have complex but complete statistics, some uncertainty about precision or accuracy of information) 3 = Slight estimation (must use significance testing statistics rather than descriptive statistics but have complete statistics of conventional sort, e.g., *t* or *F* value) 4 = No estimation (have descriptive data such as means, standard deviations, etc. and can calculate the effect size directly)
Built means [means]	If you built means from control/experimental (sub)groups, please give more information here
Discrimination Categorized independent variable [ivDOMAIN]	Assign the independent variable to one of the intergroup contexts of discrimination: 1 = Sexism 2 = Racism 3 = Body-related discrimination (e.g., weight) 4 = Status-related discrimination (e.g., academic identities) 5 = Ageism 6 = Heterosexism 7 = Other (specify in the next item)
Description of other information [other_ivDOMAIN]	If you answered "7" in the previous item, please describe the type of discrimination
Setting of discrimination manipulation [ivSETTING]	Describe the social setting in which discrimination is manipulated: 1 = Employment 2 = Education/university 3 = Health care 4 = Interpersonal relationships 5 = (Social) Media 6 = Overall/in general/in everyday life 7 = Other (specify in the next item)
Description of other information [other_ivSETTING]	If you answered "7" in the previous item, please describe the setting

Variable	Coding system
Manipulation type [ivTYPE_info]	Describe in full detail how discrimination was manipulated and what comparison was used. Use the following categories to guide your answer, but give detailed information on the manipulation and context here (indicate the category in the next item): Single-event discrimination: negative outcome with attribution to discrimination vs. 1 = Personal attribution 2 = External attribution Single-event discrimination: discrimination stressor vs. 3 = Neutral control condition 4 = Nondiscriminatory other stressor Pervasive discrimination against the ingroup vs. 5 = Single-event, rare, and isolated discrimination against the ingroup 6 = Pervasive discrimination against an outgroup 7 = Neutral control condition Other 8 = Other single event 9 = Other pervasive discrimination 10 = Other
Type of discrimination manipulation [ivTYPE]	Categorize the type of discrimination manipulation that was examined in this study (if necessary, give a more details in the next item): 1 = Single-event attribution to discrimination vs. personal 2 = Single-event attribution to discrimination vs. external 3 = Single-event discrimination vs. neutral control condition 4 = Single-event discrimination vs. other stressor 5 = Pervasive discrimination vs. single event 6 = Pervasive discrimination against ingroup vs. against outgroup 7 = Pervasive discrimination vs. neutral control condition 8 = Other single-event discrimination 9 = Other pervasive discrimination 10 = Other
Description of other information [other_ivTYPE]	If you answered "other" (8, 9, 10) in the previous item, please describe the discrimination manipulation type
Research paradigm [paradigm]	Categorize the research paradigm that was utilized to induce discrimination (if necessary, give more details in the next item): Direct experience paradigms 1 = Experiencing an event 2 = Task performance after induction of stereotype threat Salience induction paradigms 3 = Autobiographical recall 4 = Make general stereotypes toward one's group salient Vicarious experience paradigms 5 = Imagination 6 = Reading text 7 = Viewing images/pictures 8 = Watching video clip 9 = Hearing audio clip 10 = Mixed (specify in the next item)
Description of research paradigm [paradigm_info]	If necessary, give more information on the research paradigm here
Type of exposure [exposure]	Describe the type of exposure: 1 = Actual or real-life exposure 2 = Imagined or scenario exposure
Target of discrimination [target]	Describe the target of induced discrimination. Please use the following list for your description: Personal discrimination

Variable	Coding system
	1 = Single-event study with negative feedback (e.g., test performance, not selected for a job/team)
	2 = Single-event study with (micro-)aggression (verbal or physical); experiencing or imagining discriminatory events directed toward the self
	Group-level discrimination
	3 = Single-event study with vicarious discrimination (e.g., read a vignette about a discriminatory event experienced by one individual of the ingroup)
	4 = Pervasive discrimination against the ingroup
	5 = Stereotype threat or activation
	Other
	6 = Other (specify in the next item)
Description of other information [other_target]	If you answered "6" in the previous item, please describe the target of induced discrimination
Description of all manipulation checks [ivCHECK_info]	Describe all reported manipulation check(s) in detail
Description of discrimination-related manipulation checks [ivCHECK_content_info]	Give a brief summary or categorization of the manipulation checks used that relate to the experimental induction of discrimination compared to the control group (e.g., attributions to discrimination, perceived extent of prejudice, or salience of stereotype). Type "not reported" if none was reported
Discrimination-related manipulation check [ivCHECK]	Indicate whether a significant discrimination-related manipulation check was
	1 = Reported
	0 = Not reported
Description of participation-related manipulation check [ivCHECK_participation_info]	Give a brief summary or categorization of the manipulation checks used that relate to the participation of individuals (e.g., suspicion probe, attention or comprehension checks, or compliance with instructions). Type "not reported" if none was reported
Participation-related manipulation check [ivCHECK_participation]	Indicate whether a significant participation-related manipulation check was
	1 = Reported
	0 = Not reported
Mental health outcome	
Time elapsed [time]	Report all information on the time elapsed between the experimental procedures and the assessment of mental health
Categorized outcome variable [dvDOMAIN]	Assign the outcome variable to one of the groups of different mental health outcomes:
	1 = Self-esteem
	2 = Well-being and quality of life/life satisfaction
	3 = Depressed affect
	4 = Anxiety
	5 = Psychological distress
	6 = Positive affect/mood
	7 = Negative affect/mood
	8 = Externally directed negative emotions (e.g., anger, hostility)
	9 = Self-/internally directed negative emotions (e.g., shame, guilt)
	10 = Other (specify in the next item)
Description of other information [other_dvDOMAIN]	If you answered "10" in the previous item, please describe the mental health outcome type
Measurement of the outcome [dvMEASURE]	Describe the method (questionnaire, scale, etc.) by which mental health was measured
Measurement type of the outcome [dvTYPE]	Categorize the type of measurement being performed on the outcome:

Variable	Coding system
	1 = Acute, short-term, and immediate changes in mental health states or symptoms
	2 = Chronic, long-term, and persistent mental health outcomes
	3 = Other (specify)
Notes [notes4]	Notes and comments about Block 4. If any peculiarities or ambiguities in the extraction of the data have occurred, please specify

Note. Missing values were coded as NA (not available). The names of the variables are written in brackets [VARIABLE NAME]. ISCED = International Standard Classification of Education (UNESCO Institute for Statistics, 2012).

Table S3

Intercoder Reliability for Extracted Data

Variable (measurement level)	Cases (*N*)	Krippendorff's α	Percentage agreement
Study level	73		
Publication year (interval)		1.00	97.3%
Experiment level	93		
Study quality			
Fit intervention (nominal)		1.00	100%
Fit outcome (nominal)		0.80	92.5%
Inference comparison (nominal)		0.70	84.9%
Generality sample (nominal)		1.00	100%
Precision effect (nominal)		1.00	100%
Precision reporting (nominal)		0.82	91.4%
Sample level	117		
Sample size (interval)		0.99	97.4% [a]
Group status (nominal)		0.98	99.1%
Age (interval)		1.00	100% [a]
Gender ratio (interval)		0.99	98.2% [a]
Education level (nominal)		0.87	95.6%
Ethnicity (interval)		1.00	95.0% [a]
Coping strategy (nominal)		Undefined[b]	Undefined[b]
Effect-size level	245		
Effect size *d* (interval)		0.98	97.9% [c]
Discrimination type (nominal)		0.99	99.6%
Social setting (nominal)		0.86	89.8%
Manipulation type (nominal)		0.89	92.2%
Manipulation check (nominal)		0.93	96.3%
Research paradigm (nominal)		0.88	89.8%
Mental health outcome (nominal)		0.98	98.0%

Note. Two coders independently extracted the data from primary studies.

[a] An extended percentage agreement (tolerance) of 1% was used (i.e., scores that differ by 1% are interpreted as agreeing), because different formulas to calculate and round the values were used.

[b] Because no data for coping strategies were available, Krippendorff's α and percentage agreement are undefined for this variable.

Table S4

Assessment of Methodological Quality of Primary Experiments

1.1. Fit between concepts and operations: Intervention
Were the participants treated in a way that is consistent with the definition of the intervention?
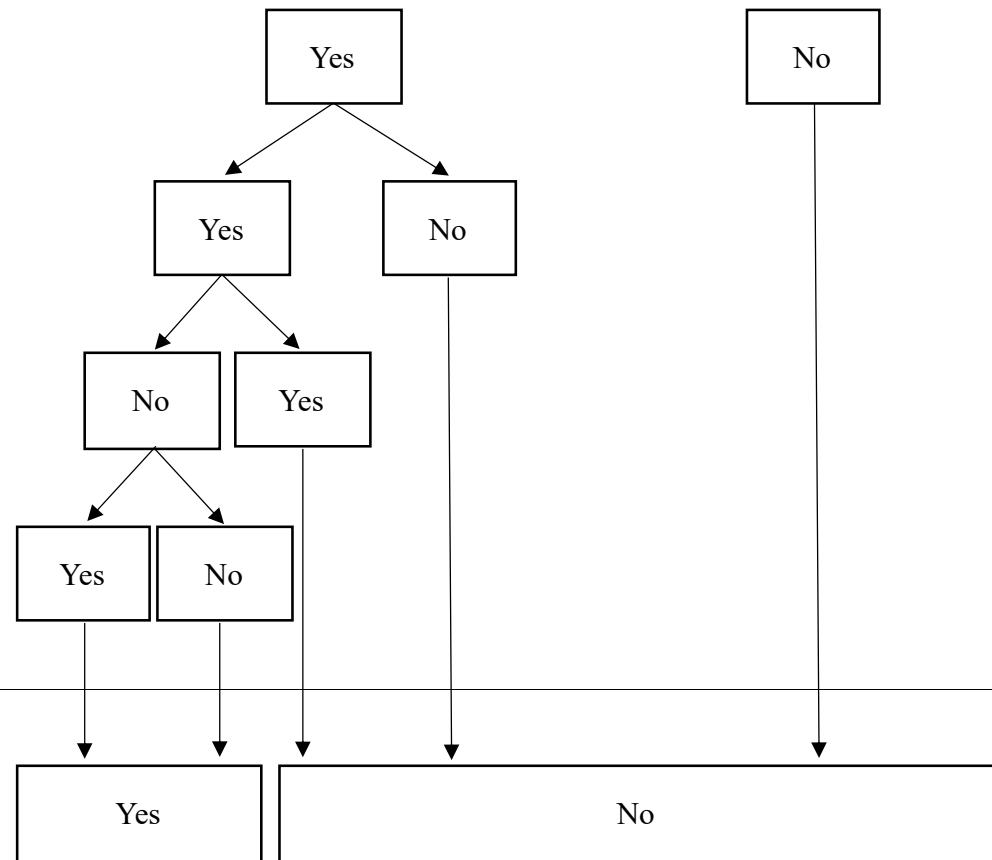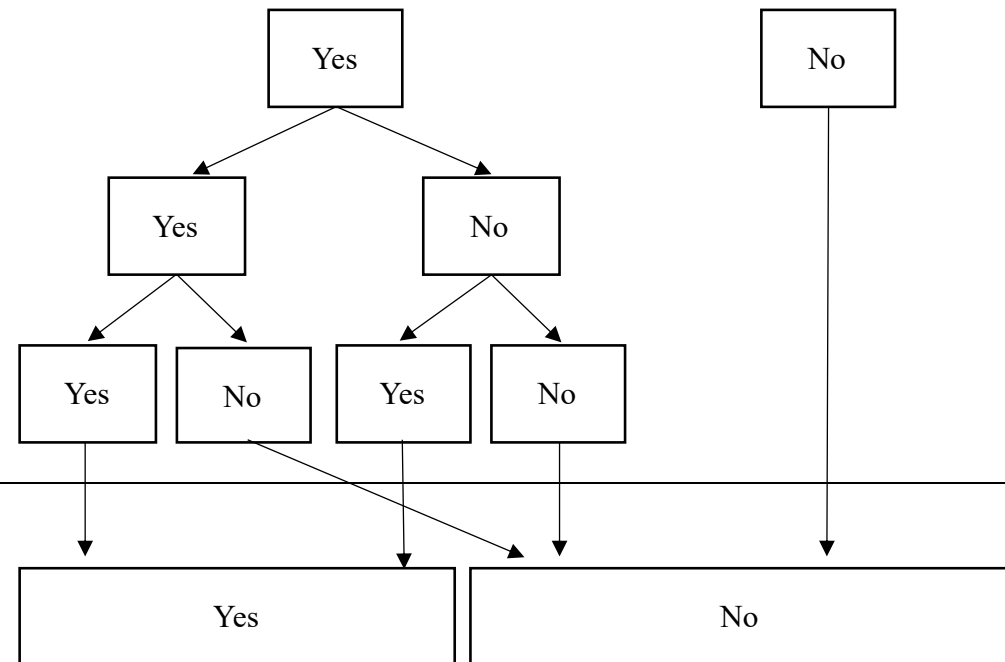[Decisions for responses in a study with multiple interventions are based on majority decisions with ≥ 70% for "yes"]

1.1.1. Does the intervention reflect commonly held or theo-
retically derived characteristics about what it should contain?
The intervention should induce discrimination through unfair treatment, social rejec-
tion based on social group membership, stereotype activation or threat, or attribution
of negative events to discrimination.

1.1.2. Was the intervention described at a level of detail that
would allow its replication by other implementers?

1.1.3. Was there evidence that the group receiving the inter-
vention might also have experienced a changed expectancy,
novelty, and/or disruption effect not also experienced by the
control group (or vice versa)?

1.1.4 Was there evidence that the intervention was imple-
mented in a manner similar to the way it was defined?

Evaluation of the response pattern:

1.2. Fit between concepts and operations: Outcome measure

Were the outcomes measured in a way that is consistent with the proposed effects of the intervention?

[Decisions for responses in a study with multiple outcome measures are based on majority decisions with ≥ 50% for "yes"]

1.2.1. Do items on the outcome measure appear to represent the content of interest?

1.2.2. Were the scores on the outcome measure acceptably reliable (e.g., Cronbach's α ≥ .70)?

1.2.3. Was the outcome measure properly aligned to the intervention condition?

Evaluation of the response pattern:

2.1. Clarity of causal inference: Fair comparison

Were the participants in the group receiving the intervention comparable to the participants in the comparison group?

[Decisions for responses in a study with multiple comparisons are based on majority decisions with ≥ 70% for "yes"]

2.1.1. Was random assignment used to place participants into conditions? (If yes, skip the next question)

| Yes | | No |

2.1.2. For quasiexperiments: Were adequate equating procedures used to recreate the selection model?

| Yes | No |

2.1.3. Was there differential attrition between intervention and comparison groups (i.e., > 10% dropout in one group in relation to the other)?

| No | Yes |

2.1.4. Was there severe attrition overall (i.e., > 20% dropout in total)?

| No | Yes | No | Yes |

Evaluation of the response pattern:

| Yes | No |
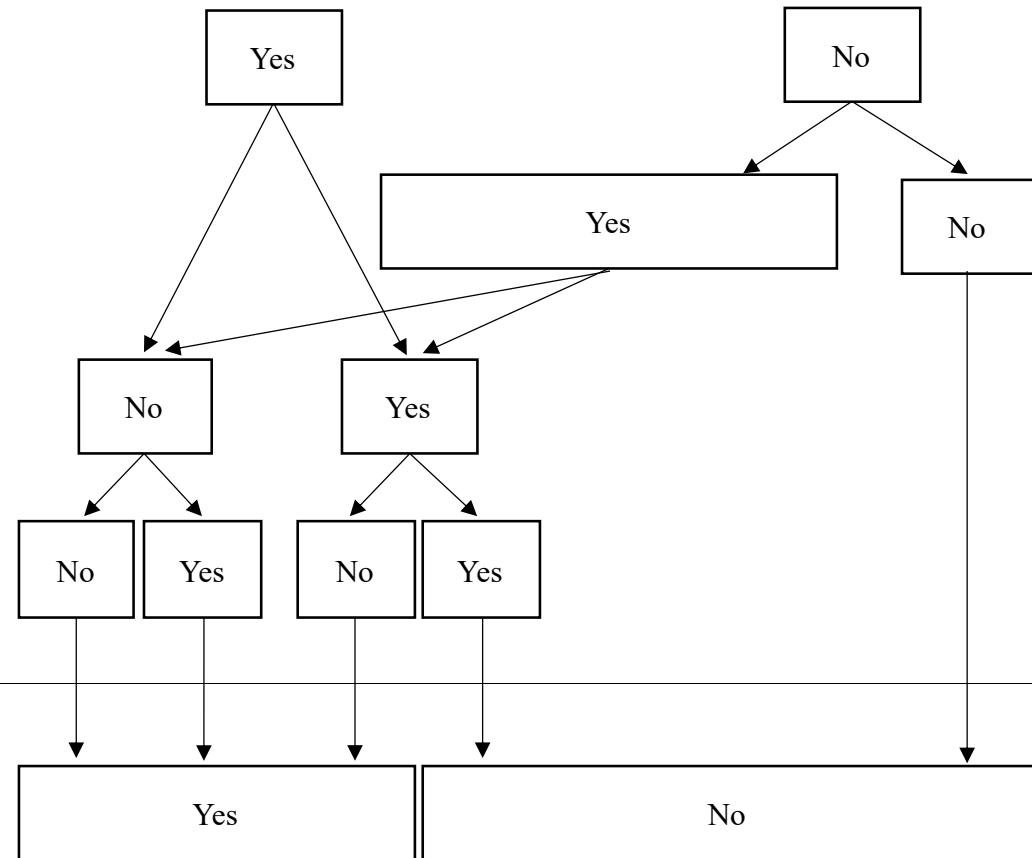
3.1. Generality of findings: Inclusive sampling

Did the study include variation on participants, settings, outcomes, and occasions representative of the intended beneficiaries?

[Decisions for responses in a study with multiple comparisons are based on majority decisions with ≥ 50% for "yes"]

3.1.1. Did the sample contain participants with the necessary characteristics to be considered part of the target population?
The decision is based on the definition of discrimination as an aspect of stigma: requires at least one sample with marginalized or mixed group status.

3.1.2. To what extent did the sample capture variation among participants on important characteristics of the target population?
The decision is based on the sampling strategy: requires probability sampling or in case of nonprobability sampling a comparable distribution of factors such as age, gender or ethnic identity, or socioeconomic status to relevant surveys of the subgroup.

3.1.4. To what extent were important classes of outcome measures included in the study?

3.1.5. Did the study measure the outcome at a time appropriate for capturing the intervention's effect?

3.1.6. Was the study conducted during the time frame appropriate for extrapolating to current conditions?
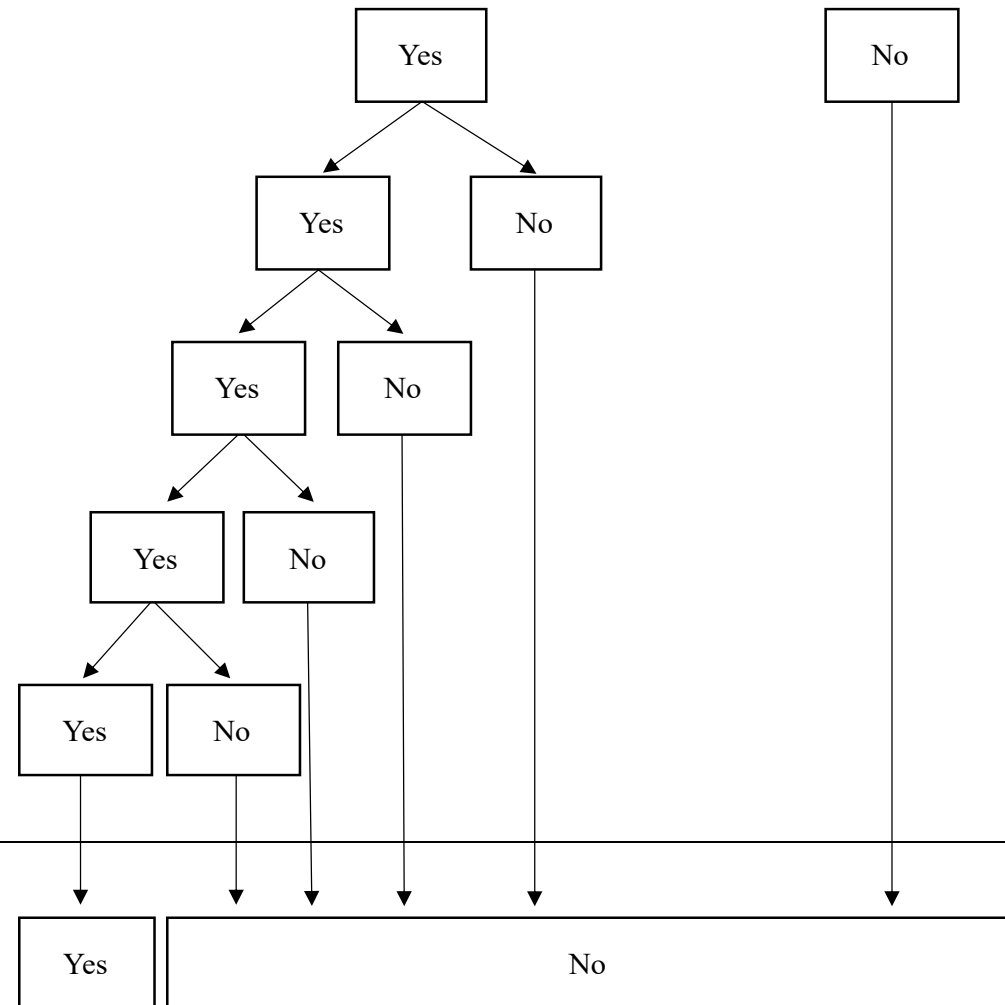
Evaluation of the response pattern:

4.1. Precision of outcome estimation: Effect sizes and standard errors

Were effect sizes and their standard errors accurately estimated?

[Decisions for responses in a study with multiple effect sizes are based on majority decisions with ≥ 70% for "yes"]

4.1.1. Was the assumption of independence met, or could dependence (including dependence arising from clustering) be accounted for in estimates of effect sizes and their standard errors or prevented by random assignment?

4.1.2. Were the sample sizes adequate to provide sufficiently precise estimates of effect sizes (i.e., sample size ≥ 30 in control/experimental condition)? (If yes, skip the next question)

4.1.3. Did the statistical properties of the data (e.g., distributional and variance assumptions, if any, presence of outliers) allow for valid estimates of the effect sizes?

4.1.4. Were the outcome measures sufficiently reliable to allow adequately precise estimates of the effect sizes (i.e., reporting of mean and standard deviation)?
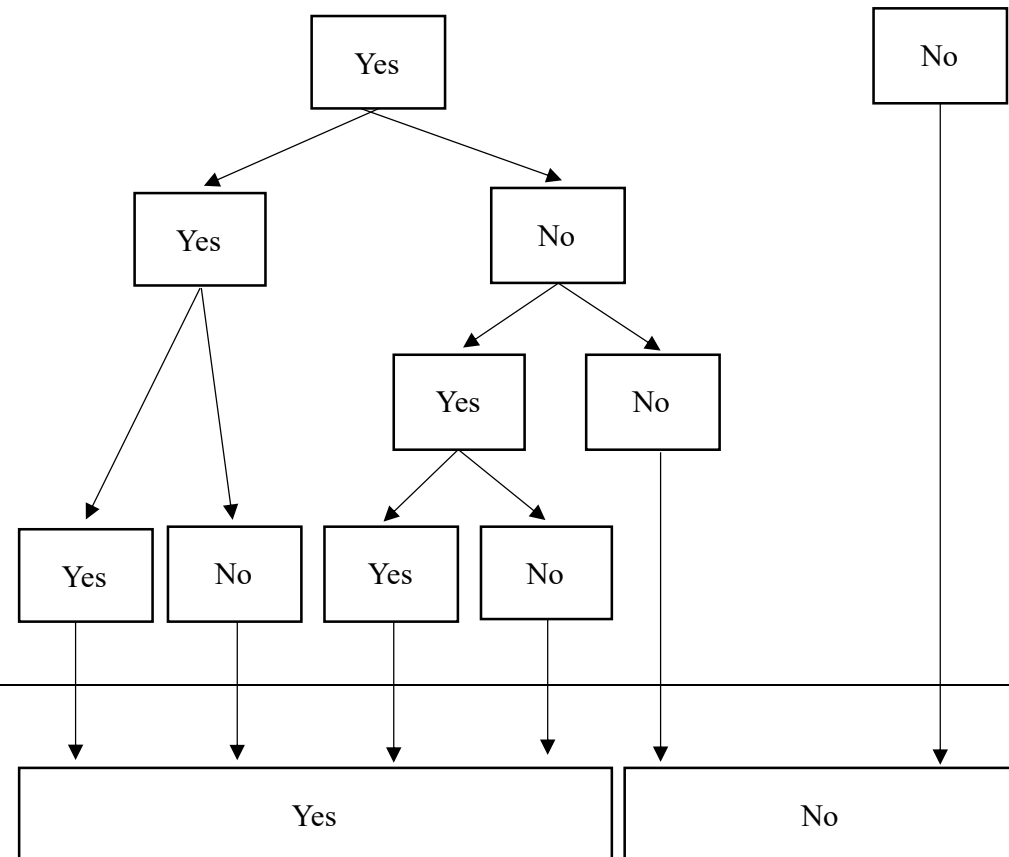
Evaluation of the response pattern:

4.2. Precision of outcome estimation: Statistical reporting
Were the statistical tests adequately reported?

4.2.1. To what extent were sample sizes reported (or estimable) from statistical information presented?
[Decision based on majority with ≥ 70% for "yes"]

4.2.2. To what extent could directions of effects be identified for important measured outcomes?
[Decision based on majority with ≥ 50% for "yes"]

4.2.3. To what extent could effect sizes be estimated for important measured outcomes (focus on the ratio of extracted effect sizes to the number of mental health outcomes measured)?
[Decision based on majority with ≥ 50% for "yes"]

4.2.4. Could estimates of effect sizes be computed using a standard formula (or its algebraic equivalent)?
[Decision based on majority with ≥ 50% for "yes"]

Evaluation of the response pattern:
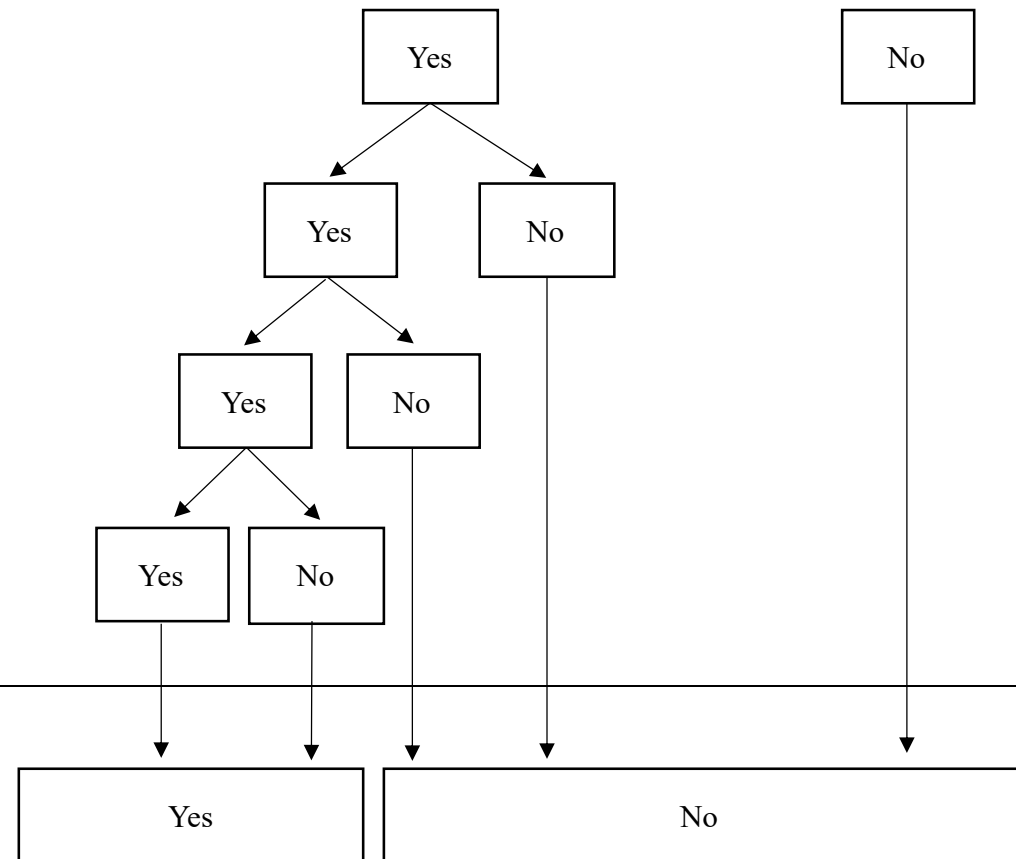
Note. Adapted version of the Study Design and Implementation Assessment Device (Study DIAD) by Valentine and Cooper (2008). The methodological quality was calculated by adding up the overall number of "yes"-evaluations of the quality factors. Quality scores ranged from 0 (all "no") to 6 (all "yes"). The term "intervention" refers to manipulation of social discrimination. NA = Not available.

Table S5

Overview of Included Studies: Publication Type, Region, Group Status, Discrimination Manipulation, Mental Health Outcome, and Number of Effect Sizes

Study	Publication	Region	Group status	Discrimination					Mental health outcome
				Discrimination type	Setting	Manipulation type	Research paradigm	Manipulation check	
Adams et al. (2006)	Journal	North America	Marginalized (3) Non-marginalized (1)	Sexism (4)	Education (4)	Single-event vs. personal (4)	Experiencing an event (4)	Significant (4)	Self-esteem (4)
Alinor (2021)	Dissertation	North America	Marginalized (1)	Racism (1)	Employment (1)	Single-event vs. neutral (1)	Experiencing an event (1)	Not reported (1)	Negative affect (1)
Alvarez (2019)	Dissertation	North America	Marginalized (2)	Racism (2)	Education (2)	Single-event vs. personal (2)	Experiencing an event (2)	Not reported (2)	Anxiety (2)
Armenta et al. (2017)	Journal	North America	Marginalized (3)	Ageism (3)	Employment (3)	Single-event vs. personal (3)	Imagination (3)	Significant (3)	Self-esteem (3)
Arriola et al. (2021)	Journal	North America	Marginalized (1)	Racism (1)	In general (1)	Single-event vs. other stressor (1)	Autobiographical recall (1)	Not reported (1)	Psychological distress (1)
Aubie & Jarry (2009)	Journal	Europe	Marginalized (2)	Body-related (2)	In general (2)	Single-event vs. neutral (2)	Reading text (2)	Not reported (2)	Negative affect (2)
Barreto et al. (2004)	Journal	Europe	Marginalized (1) Non-marginalized (2)	Sexism (2) Status-related (1)	Education (3)	Pervasive vs. outgroup (3)	Reading text (3)	Not reported (3)	Negative affect (3)
Baysu & Phalet (2019)	Journal	Europe	Marginalized (2)	Racism (2)	Education (2)	Single-event vs. neutral (2)	Task performance after induction of stereotype threat (2)	Not reported (2)	Self-esteem (1) Anxiety (1)
Blume (2020)	Dissertation	North America	Marginalized (2)	Racism (2)	In general (2)	Single-event vs. other stressor (2)	Autobiographical recall (2)	Not reported (2)	Positive affect (1) Negative affect (1)
Bradley-Geist et al. (2015)	Journal	North America	Marginalized (2)	Sexism (2)	Employment (2)	Single-event vs. neutral (2)	Reading text (2)	Not reported (2)	Self-esteem (2)
Brenchley (2012)	Dissertation	North America	Mixed group status (4)	Body-related (4)	In general (4)	Single-event vs. neutral (4)	Experiencing an event (4)	Not reported (4)	Depressed affect (1) Anxiety (2) Other-directed emotions (1)
Brown et al. (2010)	Journal	North America	Mixed group status (4)	Sexism (4)	In general (4)	Single-event vs. personal (4)	Experiencing an event (4)	Significant (4)	Self-esteem (4)
Chavez et al. (2019)	Journal	North America	Marginalized (4)	Racism (4)	Political advertisement (4)	Pervasive vs. neutral (4)	Reading text and viewing images (4)	Significant (4)	Well-being (1) Psychological distress (1) Positive affect (1) Negative affect (1)
Cheng (2020)	Journal	Asia	Marginalized (1)	Ageism (1)	In general (1)	Single-event vs. other stressor (1)	Make stereotypes toward one's group salient (1)	Significant (1)	Anxiety (1)
Cotting (2003)	Dissertation	North America	Marginalized (14)	Sexism (7) Racism (7)	Education (14)	Single-event vs. neutral (14)	Task performance after induction of stereotype threat (14)	Not reported (14)	Anxiety (4) Positive affect (2) Negative affect (4)

Study	Publication	Region	Group status	Discrimination					Mental health outcome
				Discrimination type	Setting	Manipulation type	Research paradigm	Manipulation check	
Coudin & Alexopoulos (2010)	Journal	Europe	Marginalized (2)	Ageism (2)	In general (2)	Pervasive vs. neutral (2)	Make stereotypes toward one's group salient (2)	Not reported (2)	Other-directed emotions (2) Self-directed emotions (2) Self-esteem (1) Negative affect (1)
Crandall et al. (2000)	Journal	North America	Marginalized (1)	Sexism (1)	Education (1)	Single-event vs. neutral (1)	Reading text (1)	Significant (1)	Self-esteem (1)
Cunningham et al. (2012)	Journal	North America	Marginalized (2)	Sexism (2)	Employment (2)	Single-event vs. other stressor (2)	Experiencing an event (1) Reading text (1)	Not reported (2)	Psychological distress (2)
Désert et al. (2013)	Journal	Europe	Marginalized (1)	Sexism (1)	In general (1)	Single-event vs. other stressor (1)	Task performance after induction of stereotype threat (1)	Not reported (1)	Anxiety (1)
Dion (1975)	Journal	North America	Marginalized (1)	Sexism (1)	Interpersonal relationships (1)	Single-event vs. personal (1)	Experiencing an event (1)	Significant (1)	Self-esteem (1)
Dion & Earn (1975)	Journal	North America	Marginalized (2)	Antisemitism (2)	Interpersonal relationships (2)	Single-event vs. personal (2)	Experiencing an event (2)	Significant (2)	Self-esteem (1) Psychological distress (1) Anxiety (1)
Eniç & Tosun (2021)	Journal	Asia	Marginalized (8)	Sexism (8)	Employment (8)	Single-event vs. neutral (8)	Imagination (8)	Significant (8)	Positive affect (3) Negative affect (1) Other-directed emotions (1) Self-directed emotions (2)
Fisher (2020)	Dissertation	North America	Marginalized (10)	Sexism (10)	In general (10)	Single-event vs. personal (5) Other (5)	Experiencing an event (10)	Significant (10)	Self-esteem (4) Psychological distress (2) Positive affect (2) Other-directed emotions (2)
Foster & Tsarfati (2005)	Journal	North America	Marginalized (2)	Sexism (2)	Education (2)	Single-event vs. personal (2)	Experiencing an event (2)	Significant (2)	Well-being (2)
Gibbons et al. (2010)	Journal	North America	Marginalized (3)	Racism (3)	Employment (3)	Other (3)	Imagination (3)	Not reported (3)	Depressed affect (1) Anxiety (1) Other-directed emotions (1)
Gibbons et al. (2012)	Journal	North America	Marginalized (2)	Racism (2)	Employment (2)	Single-event vs. neutral (1) Single-event vs. other stressor (1)	Imagination (2)	Not reported (2)	Other-directed emotions (2)
Goepfert et al. (2019)	Journal	Europe	Marginalized (3)	Sanism (3)	(Social) Media (3)	Single-event vs. neutral (3)	Viewing video clip (3)	Significant (3)	Self-esteem (1) Positive affect (1) Negative affect (1)
Hansen & Sassenberg (2011)	Journal	Europe	Non-marginalized (2)	Status-related (2)	Education (2)	Single-event vs. external (2)	Imagination (2)	Significant (2)	Other-directed emotions (1) Self-directed emotions (1)
Hansen et al. (2006)	Journal	Europe	Marginalized (8) Non-marginalized (6)	Sexism (8) Status-related (6)	Education (4) Employment (6) In general (4)	Single-event vs. personal (7) Single-event vs. external (7)	Imagination (10) Autobiographical recall (4)	Significant (14)	Other-directed emotions (7) Self-directed emotions (7)
He et al. (2020)	Journal	Asia	Non-marginalized (1)	Meta-stereotypes in doctors-patients relationship (1)	Health care (1)	Single-event vs. neutral (1)	Make stereotypes toward one's group salient (1)	Not reported (1)	Anxiety (1)

| Study	Publication	Region	Group status	Discrimination type	Setting	Manipulation type	Research paradigm	Manipulation check	Mental health outcome
				Discrimination					
Hoyt & Blascovich (2010)	Journal	North America	Marginalized (4)	Sexism (4)	Employment (4)	Single-event vs. neutral (4)	Make stereotypes toward one's group salient (4)	Significant (4)	Self-esteem (2) Depressed affect (2)
Hoyt et al. (2007)	Journal	North America	Marginalized (1) Mixed group status (1)	Racism (2)	Employment (2)	Single-event vs. personal (2)	Experiencing an event (2)	Significant (2)	Well-being (2)
Huynh et al. (2017)	Journal	North America	Marginalized (2)	Racism (2)	Education (1) Interpersonal relationships (1)	Single-event vs. neutral (2)	Hearing audio clip (2)	Not reported (2)	Negative affect (2)
Kaiser et al. (2004)	Journal	North America	Marginalized (1)	Sexism (1)	In general (1)	pervasive vs. outgroup (1)	Reading text (1)	Significant (1)	Well-being (1)
Kankesan (2012)	Dissertation	North America	Marginalized (2)	Racism (2)	Employment (2)	Single-event vs. personal (2)	Imagination (2)	Significant (2)	Positive affect (1) Negative affect (1)
Keller & Dauenheimer (2003)	Journal	Europe	Marginalized (5)	Sexism (5)	Education (5)	Single-event vs. neutral (5)	Task performance after induction of stereotype threat (5)	Not reported (5)	Anxiety (1) Positive affect (2) Negative affect (2)
Lee et al. (2011)	Journal	NA	Marginalized (2)	Sexism (2)	In general (2)	Single-event vs. neutral (2)	Task performance after induction of stereotype threat (2)	Not reported (2)	Anxiety (2)
Lee-Won et al. (2017)	Journal	North America	Marginalized (2)	Racism (2)	(Social) Media (2)	Single-event vs. neutral (2)	Reading text (2)	Significant (2)	Other-directed emotions (1) Self-directed emotions (1)
Lemonaki et al. (2015)	Journal	Europe	Marginalized (2)	Sexism (2)	In general (2)	Pervasive vs. neutral (2)	Reading text (2)	Significant (2)	Other-directed emotions (1) Self-directed emotions (1)
Levy et al. (2022)	Journal	North America	Marginalized (4) Non-marginalized (4)	Ageism (8)	Health care (8)	Single-event vs. neutral (8)	Make stereotypes toward one's group salient (8)	Not reported (8)	Anxiety (4) Positive affect (4)
Lin (2012)	Dissertation	North America	Marginalized (4)	Racism (4)	In general (4)	Single-event vs. neutral (2) Pervasive vs. neutral (2)	Imagination (4)	Significant (4)	Positive affect (2) Negative affect (2)
Ma et al. (2022)	Journal	Asia	Marginalized (1)	Sexism (1)	In general (1)	Single-event vs. neutral (1)	Make stereotypes toward one's group salient (1)	Not reported (1)	Anxiety (1)
Magallares et al. (2011)	Journal	Europe	Marginalized (3)	Body-related (3)	Employment (3)	Pervasive vs. neutral (3)	Reading text (3)	Significant (3)	Self-esteem (1) Well-being (1) Other-directed emotions (1)
Major et al. (1998)	Journal	North America	Marginalized (4)	Racism (4)	In general (4)	Single-event vs. personal (4)	Experiencing an event (4)	Significant (4)	Self-esteem (4)
Major et al. (2003)	Journal	North America	Non-marginalized (1)	Sexism (1)	Education (1)	Single-event vs. personal (1)	Experiencing an event (1)	Significant (1)	Self-esteem (1)
Major et al. (2003)	Journal	North America	Mixed group status (8)	Sexism (8)	Education (8)	Single-event vs. personal (4) Single-event vs. external (4)	Imagination (8)	Significant (8)	Depressed affect (2) Anxiety (2) Other-directed emotions (2) Self-directed emotions (2)
McCoy & Major (2003)	Journal	North America	Marginalized (5)	Sexism (2) Racism (3)	In general (5)	Single-event vs. personal (2) Pervasive vs. outgroup (3)	Experiencing an event (2) Reading text (3)	Significant (5)	Self-esteem (1) Depressed affect (2) Other-directed emotions (2)
Meegan & Kashima (2010)	Journal	Australia	Non-marginalized (2)	Racism (4)	Education (4)	Pervasive vs. single (4)	Reading text (4)	Significant (4)	Self-esteem (2) Depressed affect (2)

Study	Publication	Region	Group status	Discrimination					Mental health outcome
				Discrimination type	Setting	Manipulation type	Research paradigm	Manipulation check	
Mendes et al. (2008)	Journal	North America	Marginalized (3) Non-marginalized (3)	Racism (6)	Education (6)	Single-event vs. personal (6)	Experiencing an event (6)	Significant (6)	Positive affect (2) Other-directed emotions (2) Self-directed emotions (2)
Mills (2016)	Dissertation	North America	Non-marginalized (1)	Linguicism (local accent) (1)	In general (1)	Single-event vs. neutral (1)	Autobiographical recall (1)	Not reported (1)	Self-esteem (1)
Owuamalam & Zagefka (2014)	Journal	Europe	Marginalized (1)	Racism (1)	In general (1)	Pervasive vs. neutral (1)	Make stereotypes toward one's group salient (1)	Not reported (1)	Self-esteem (1)
Pacilli et al. (2019)	Journal	Europe	Marginalized (1)	Sexism (1)	Employment (1)	Single-event vs. neutral (1)	Reading text (1)	Significant (1)	Anxiety (1)
Paterson et al. (2019)	Journal	Europe NA	Marginalized (8)	Heterosexism (8)	In general (8)	Single-event vs. other stressor (8)	Reading text (8)	Significant (8)	Anxiety (2) Other-directed emotions (2) Self-directed emotions (4)
Pinel (2004)	Journal	North America	Marginalized (2)	Sexism (2)	Education (2)	Single-event vs. personal (2)	Experiencing an event (2)	Significant (2)	Self-esteem (2)
Platow et al. (2005)	Journal	Australia	Mixed group status (2)	Status-related (2)	Employment (2)	Single-event vs. neutral (2)	Reading text (2)	Significant (2)	Self-esteem (2)
Rodriguez et al. (2016)	Journal	North America	Non-marginalized (5)	Body-related (5)	In general (5)	Single-event vs. neutral (5)	Experiencing an event (5)	Significant (5)	Self-esteem (1) Depressed affect (1) Anxiety (1) Negative affect (1) Other-directed emotions (1)
Schmader et al. (2015)	Journal	North America	Marginalized (6)	Racism (6)	(Social) Media (6)	Single-event vs. neutral (6)	Make stereotypes toward one's group salient (6)	Significant (6)	Self-esteem (2) Positive affect (1) Other-directed emotions (1) Self-directed emotions (2)
Schmitt (2003)	Dissertation	North America	Non-marginalized (5)	Sexism (5)	Education (5)	Single-event vs. personal (3) Single-event vs. external (2)	Imagination (5)	Significant (5)	Other-directed emotions (2) Self-directed emotions (3)
Schmitt et al. (2003)	Journal	North America	Marginalized (6)	Sexism (6)	Education (2) Employment (4)	Single-event vs. external (2) Pervasive vs. single (2) Other (2)	Reading text (2) Experiencing an event (4)	Significant (6)	Self-esteem (4) Positive affect (2)
Schmuck et al. (2017)	Journal	Europe	Marginalized (1)	Islamophobia (1)	Political advertisement (1)	Single-event vs. neutral (1)	Reading text and viewing images (1)	Significant (1)	Self-esteem (1)
Shenton-Bewsh et al. (2016)	Journal	North America	Non-marginalized (2)	Body-related (2)	In general (2)	Single-event vs. neutral (1) Single-event vs. other stressor (1)	Reading text (2)	Not reported (2)	Self-esteem (2)
Spaccatini & Roccato (2021)	Journal	Europe	Marginalized (4)	Sexism (4)	Employment (4)	Single-event vs. neutral (4)	Reading text (4)	Significant (4)	Depressed affect (2) Anxiety (2)
Stepanova et al. (2019)	Journal	North America	Mixed group status (4)	Mixed (4)	In general (4)	Single-event vs. neutral (2) Single-event vs. other stressor (2)	Autobiographical recall (4)	Not reported (4)	Psychological distress (2) Negative affect (2)

Study	Publication	Region	Group status	Discrimination					Mental health outcome
				Discrimination type	Setting	Manipulation type	Research paradigm	Manipulation check	
Stroebe et al. (2010)	Journal	Europe	Marginalized (2)	Racism (2)	Education (2)	Single-event vs. personal (2)	Experiencing an event (2)	Not reported (2)	Negative affect (2)
Sunny et al. (2017)	Journal	North America	Marginalized (1) Non-marginalized (1)	Sexism (2)	Education (2)	Single-event vs. neutral (2)	Task performance after induction of stereotype threat (2)	Not reported (2)	Anxiety (2)
Swift et al. (2013)	Journal	Europe	Marginalized (1)	Ageism (1)	In general (1)	Single-event vs. neutral (1)	Task performance after induction of stereotype threat (1)	Significant (1)	Anxiety (1)
Triana et al. (2019)	Journal	North America	Mixed group status (1)	Sexism (1)	Employment (1)	Single-event vs. external (1)	Reading text (1)	Not reported (1)	Anxiety (1)
Tropp (2003)	Journal	North America	Marginalized (2) Non-marginalized (2)	Racism (2) Random group status (2)	Education (2) In general (2)	Single-event vs. neutral (4)	Experiencing an event (4)	Not reported (4)	Anxiety (2) Other-directed emotions (2)
Van Breen & Barreto (2022)	Journal	Europe	Marginalized (2)	Sexism (2)	Employment (2)	Pervasive vs. neutral (2)	Reading text (2)	Significant (2)	Other-directed emotions (2)
Van Dyk et al. (2021)	Journal	North America	Marginalized (9)	Heterosexism (9)	In general (9)	Single-event vs. neutral (9)	Viewing video clip (9)	Not reported (9)	Psychological distress (1) Negative affect (5) Other-directed emotions (2) Self-directed emotions (1)
Weiss et al. (2013)	Journal	Europe	Marginalized (2)	Ageism (2)	In general (2)	Single-event vs. neutral (2)	Make stereotypes toward one's group salient (2)	Not reported (2)	Self-esteem (2)
West (2019)	Journal	Europe	Marginalized (2)	Racism (2)	In general (2)	Single-event vs. neutral (2)	Autobiographical recall (2)	Significant (2)	Positive affect (1) Negative affect (1)
Wong-Padoongpatt et al. (2017)	Journal	North America	Marginalized (3)	Racism (3)	Education (3)	Single-event vs. neutral (3)	Experiencing an event (3)	Not reported (3)	Self-esteem (2) Psychological distress (1)

Note. Group status was classified as marginalized when the sample possessed a social identity that was historically marginalized and subject to the induced discrimination type in the study. For example, when discrimination type was sexism, samples including participants identifying as men were categorized as non-marginalized, samples including participants identifying as women as marginalized, and samples including men and women as "mixed"; when samples included participants identifying as men and a marginalized identity (e.g., being part of an ethnic minority), the classification of the sample was non-marginalized. All samples from studies on discrimination targeting non-marginalized identities, such as specific university study majors, were classified as non-marginalized. Other-directed emotions encompass externally directed negative emotions

of hostility and anger. The numbers in parentheses represent the number of respective effect sizes. For detailed information on each effect size,

please see the comprehensive dataset in the Open Science Framework (https://osf.io/5fqa2/). NA = Not available.

Figure S1

Distribution of Age and Gender Among Effect Sizes

(a)

(b)
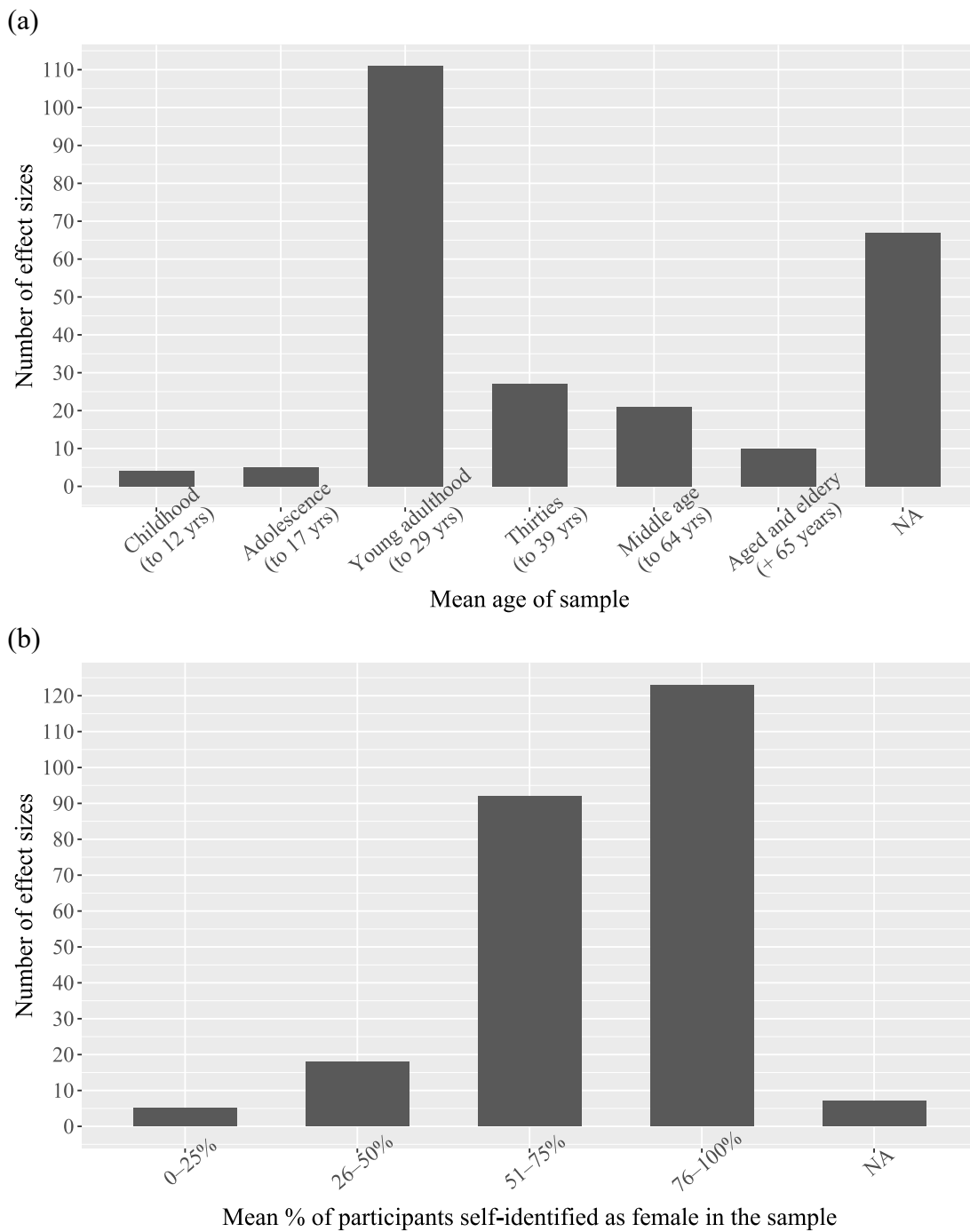
Note. Distribution of (a) age (mean age of participants in the sample) and (b) gender (proportion of participants who self-identified as female in the sample) in relation to the corresponding number of effect sizes. NA refers to missing values.

Table S5

Research Paradigms by Manipulation Type

Research paradigm	Manipulation type								
	Single event					Pervasive discrimination			
	vs. personal attribution (k = 57)	vs. external attribution (k = 19)	vs. neutral control (k = 111)	vs. nondiscrimina-tory stress (k = 19)	Other [a] (k = 8)	vs. single event (k = 6)	vs. pervasive outgroup (k = 7)	vs. neutral control (k = 16)	vs. external attribution (k = 2)
Direct experience									
Experiencing an event	39	2	17	1	5	0	0	0	2
Stereotype threat and task	0	0	26	2	0	0	0	0	0
Salience induction									
Autobiographical recall	2	2	5	4	0	0	0	0	0
Salience of stereotypes	0	0	22	1	0	0	0	3	0
Vicarious experience									
Imagination	16	14	11	1	3	0	0	2	0
Reading text	0	1	15	10	0	6	7	7	0
Viewing images/pictures	0	0	12	0	0	0	0	0	0
Watching video clip	0	0	2	0	0	0	0	0	0
Hearing audio clip	0	0	0	0	0	0	0	0	0
Mixed: reading and images	0	0	1	0	0	0	0	4	0

Note. k represents the number of effect sizes.

[a] Includes single-event manipulations compared to a mean of neutral and nondiscriminatory stressor conditions (k = 3 from one experiment where data was not sufficient to include pair-wise comparisons) and compared to a control condition with a lower level of discrimination than that in the experimental groups (k = 5 from one experiment).

Figure S2

Distribution of the Specific Mental Health Outcomes Among Effect Sizes
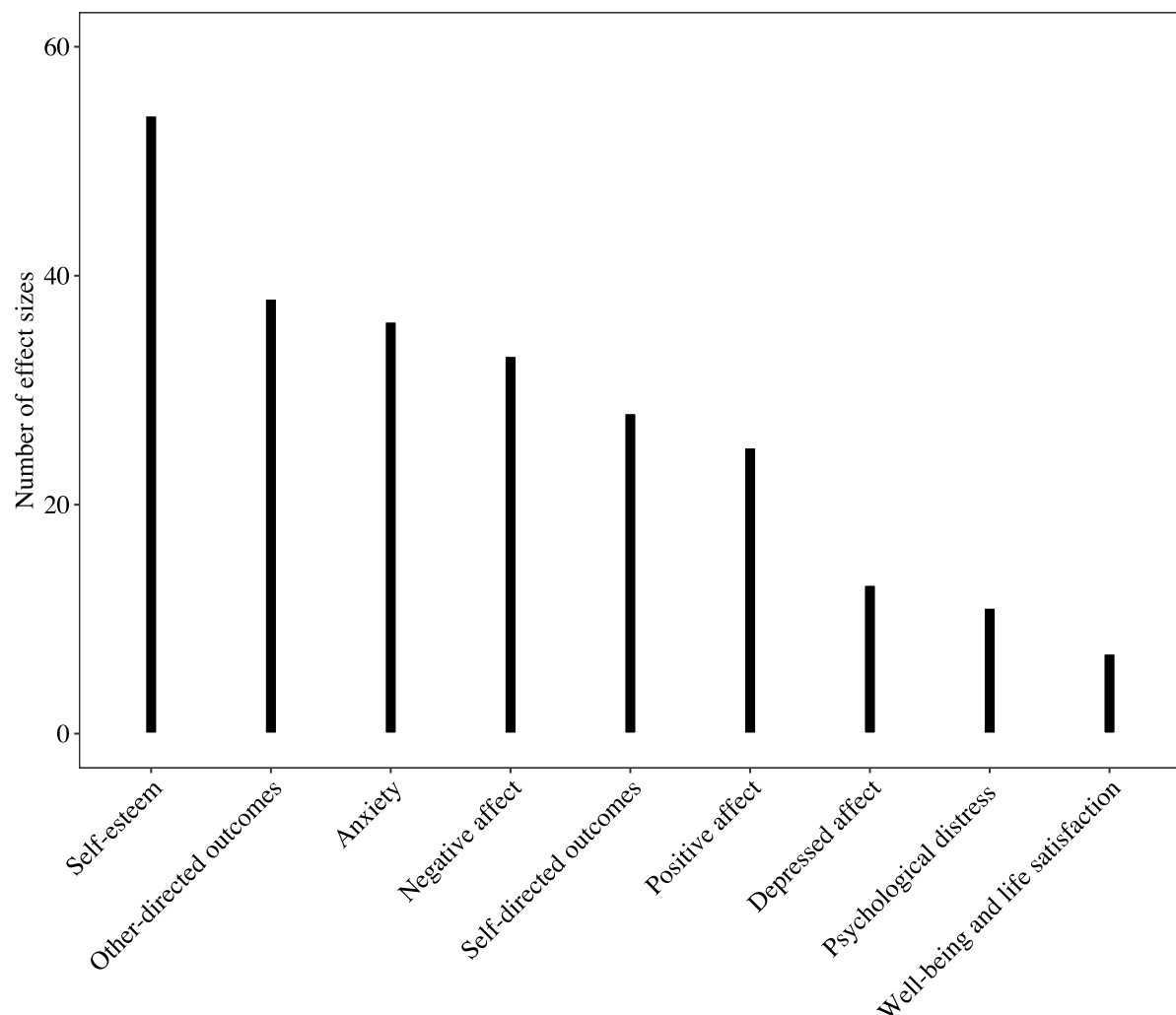
Note. The other-directed outcomes category consists of externalizing negative emotions including (other-directed) anger ($k = 26$), hostility ($k = 10$), and measures of anger and hostility ($k = 2$). The self-directed outcomes category consists of self-directed negative emotions including self-directed anger ($k = 8$), self-directed affect ($k = 7$), shame ($k = 4$), guilt ($k = 3$), disappointment ($k = 2$), self-blame ($k = 2$), humiliation ($k = 1$), being despised ($k = 1$). Mental health outcomes were mainly assessed as acute (89%); both acute and more chronic measures are combined in this figure.

Figure S3

Funnel Plots for the Exploratory Subgroup Analyses

(1) Funnel plots for separate meta-analyses for the different manipulation types

(a) Single-event vs. personal attribution   (b) Single-event vs. external attribution   (c) Single-event vs. neutral control condition   (d) Single-event vs. nondiscriminatory stressor
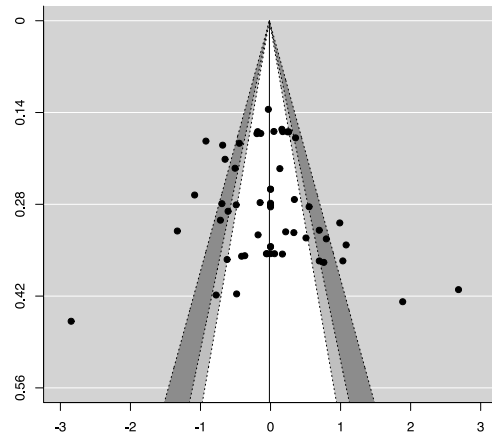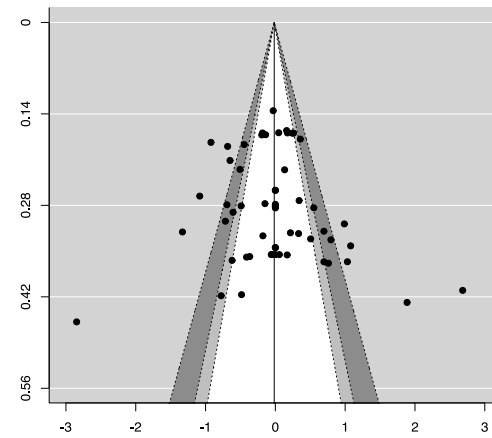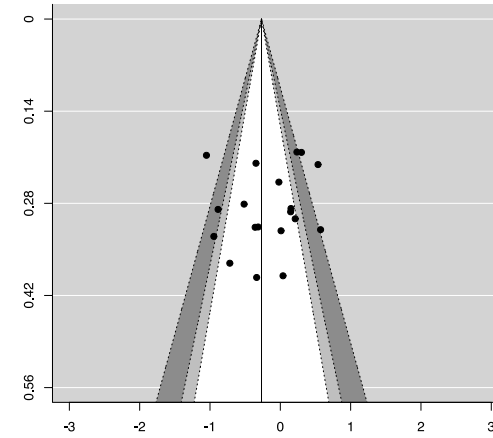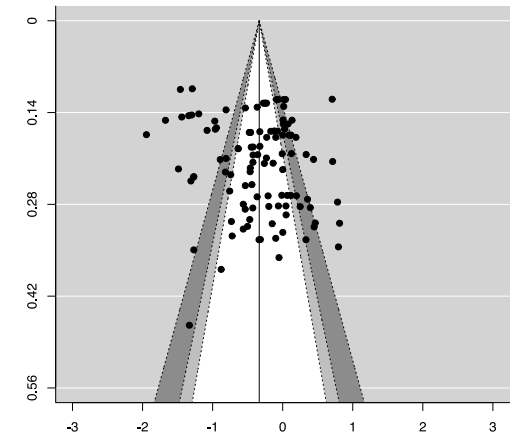
(e) Pervasive vs. neutral control condition
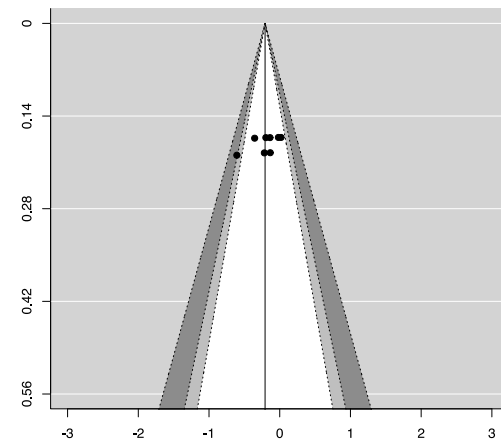
(2) Funnel plots for separate meta-analyses for the different research paradigms

(a) Direct experience paradigms
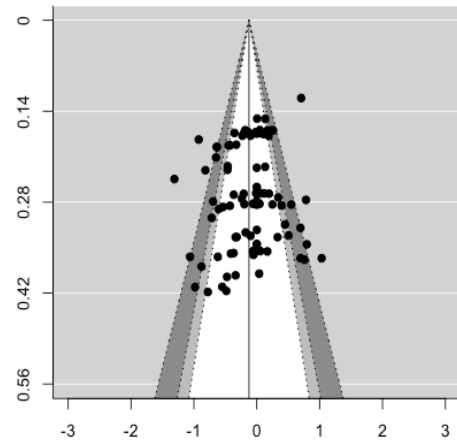
(b) Salience induction paradigms
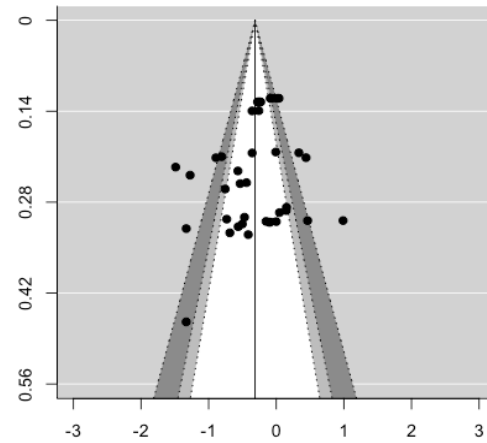
(c) Vicarious experience paradigms
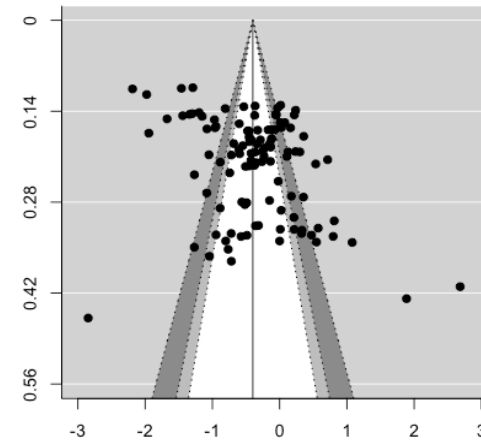
(3) Funnel plots for separate meta-analyses for studies investigating samples with different group status

(a) Marginalized
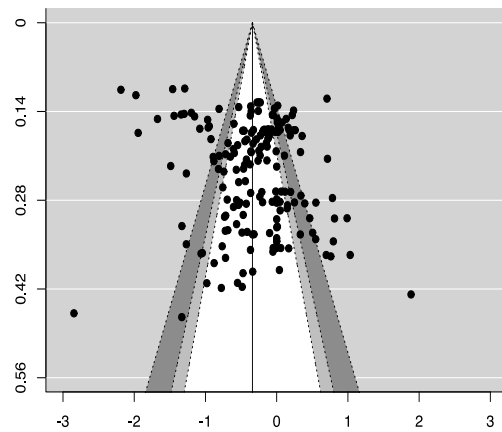
(b) Non-marginalized group status
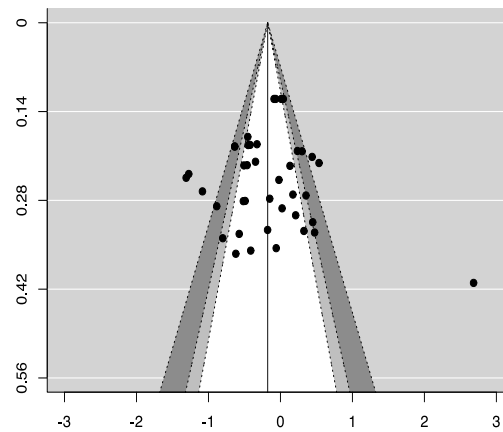
(4) Funnel plots for separate meta-analyses for the different discrimination types

(a) Sexism
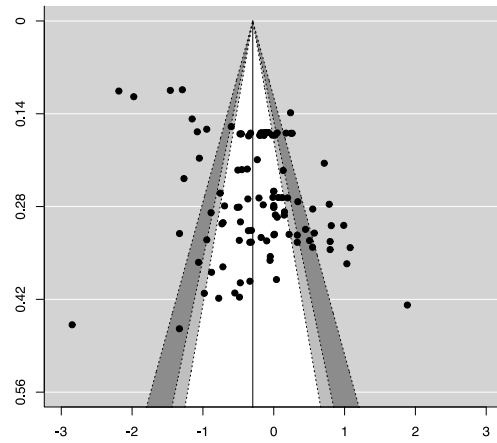
(b) Racism
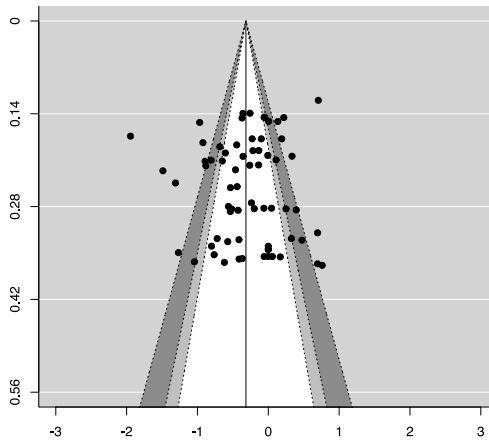
(c) Body-related discrimination
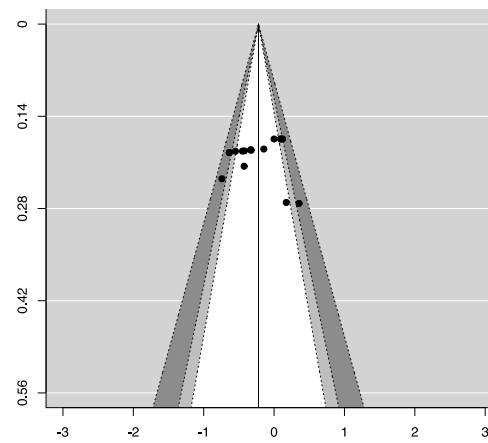
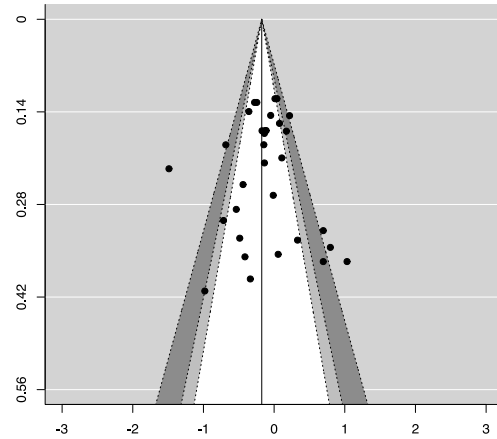(d) Status-related discrimination
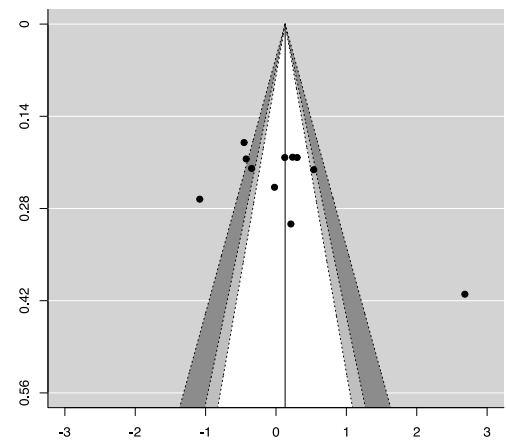
(e) Ageism
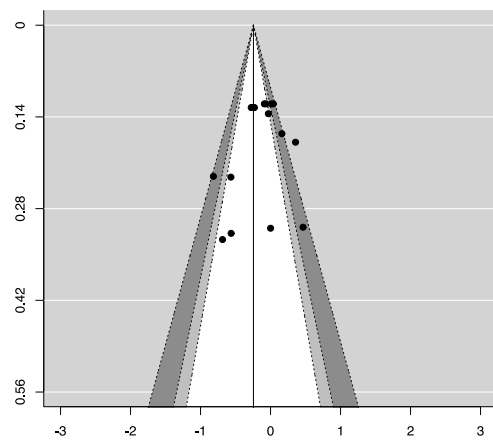
(f) Heterosexism
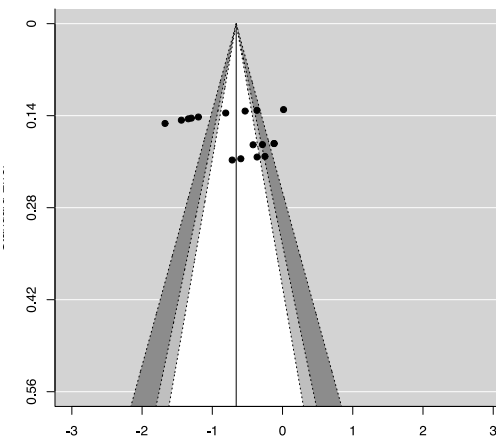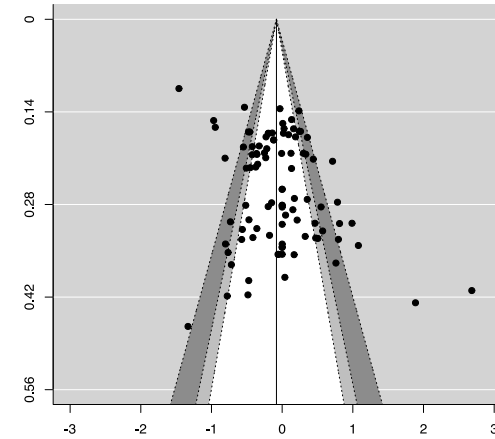
(g) Other forms of discrimination
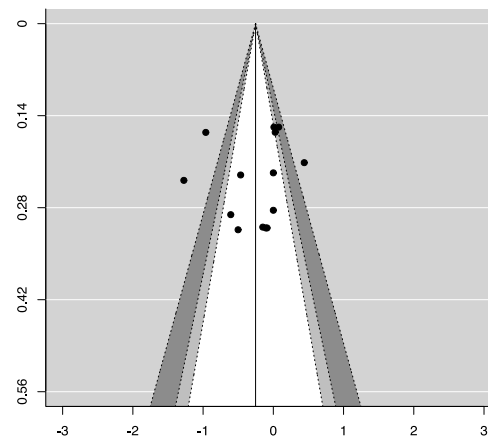
(5) Funnel plots for separate meta-analyses for the different mental health outcome types
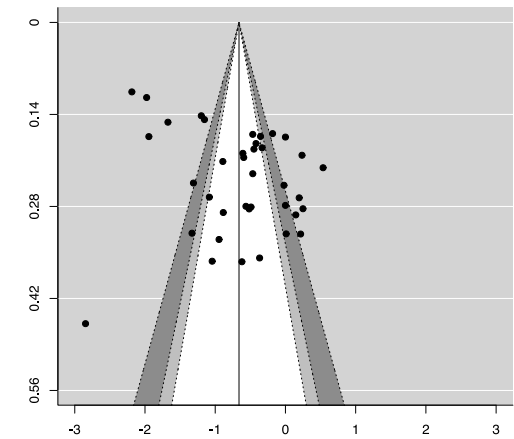
(a) Well-being-related mental health outcomes (b) Distress-related mental health outcomes (c) Self-directed mental health outcomes (d) Other-directed mental health outcomes
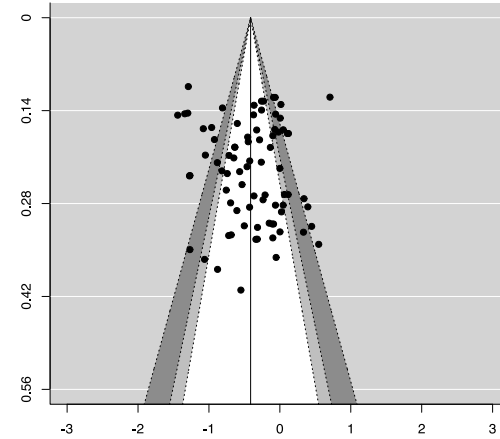
Note. Funnel plots for the effects of subsets for (1) different types of manipulation, (2) different research paradigms, (3) different group statuses, (4) discrimination types, and

(5) different mental health outcome types. Please note that separate meta-analyses could be estimated only for subsets with more than 10 effect sizes. The *y*-axis represents the

standard error, the *x*-axis the effect sizes Hodges's *g*. The diagonal lines represent 95% confidence intervals of the probability that effect sizes differ from the mean effect size:

White region *p* > .10, light-gray region *p* = .10 to .05, dark-gray region *p* = .05 to .01., region outside of the funnel plot *p* < .01.

Table S6

Exploratory Subgroup Analyses: Separate Three-Level Meta-Analyses for Research Paradigms

and Types of Mental Health Outcomes in Subsets of Manipulation Types

Variable	k	g	95% CI	σ^2_1	σ^2_2	Residual heterogeneity
Research paradigms in different manipulation types						
Subset of single-event discrimination compared to personal and external attributions						
Direct experience [a]	41	-0.06	[-0.24, 0.11]	0.04	0.06	$Q(40) = 97.37$***
Salience induction [b]	4	-0.01	[-1.53, 1.51]	0.82	0.00	$Q(3) = 28.00$***
Vicarious experience [c]	31	-0.07	[-0.40, 0.26]	0.71	0.00	$Q(30) = 229.42$***
Subset of single-event discrimination compared to neutral control and nondiscriminatory stressors						
Direct experience [a]	46	-0.17	[-0.39, 0.06]	0.04	0.12	$Q(45) = 164.97$***
Salience induction [b]	32	-0.36***	[-0.54, -0.17]	0.12	0.02	$Q(31) = 125.19$***
Vicarious experience [c]	52	-0.42**	[-0.71, -0.13]	0.13	0.26	$Q(51) = 604.92$***
Subset of pervasive discrimination						
Direct experience [a]	2	-0.72	[-4.34, 2.90]	0.00	0.00	$Q(1) = 0.79$
Salience induction [b]	3	-0.36	[-1.24, 0.52]	0.02	0.00	$Q(2) = 2.37$
Vicarious experience [c]	26	-0.52**	[-0.91, -0.14]	0.17	0.25	$Q(25) = 530.00$***
Mental health outcomes in different manipulation types						
Subset of single-event discrimination						
Well-being-related [d]	26	-0.17	[-0.42, 0.08]	0.03	0.16	$Q(25) = 97.17$***
Distress-related [e]	73	-0.41***	[-0.55, -0.27]	0.10	0.09	$Q(72) = 531.15$***
Self-directed [f]	82	-0.05	[-0.20, 0.09]	0.13	0.09	$Q(81) = 501.74$***
Other-directed [g]	33	-0.55***	[-0.79, -0.31]	0.39	0.00	$Q(32) = 283.69$***
Subset of pervasive discrimination						
Well-being-related [d]	6	-0.14	[-0.52, 0.24]	0.01	0.05	$Q(5) = 10.98^\dagger$
Distress-related [e]	7	-0.47*	[-0.81, -0.12]	0.03	0.03	$Q(6) = 14.91$*
Self-directed [f]	13	-0.24†	[-0.50, .01]	0.09	0.00	$Q(12) = 30.38$**
Other-directed [g]	5	-1.17*	[-2.22, -0.12]	0.01	0.52	$Q(4) = 95.39$***

Note. For exploratory subgroup analyses, separate meta-analyses under random effects

assumption were conducted for the different types of manipulation, the effect of different

types of discrimination on mental health, and for the effect of discrimination on different

types of mental health outcomes. Separate meta-analyses with fewer than 10 effect sizes are

displayed for completeness and should only be interpreted with caution. k = number of effect

sizes; g = Hedges's g; CI = confidence interval; σ^2_1 = variance within studies (Level 2); σ^2_2 =

variance between studies (Level 3).

[a] Direct experience of discrimination, stereotype threat followed by performing a task.

[b] Autobiographical recall, making general stereotypes about one's group salient.

[c] Imagination, study material (text, images, video, audio) that includes discrimination-related information.

[d] Well-being, life satisfaction, positive affect.

[e] Psychological distress, negative affect, anxiety.

[f] Self-esteem, depressed affect, other internally directed emotions such as shame or guilt.

[g] Externally directed negative emotions such as hostility and anger.

[†]$p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Figure S4

GRADE Ratings Assessing the Quality of the Body of Evidence Contributing to the Effect

Estimates of the Meta-Analysis

RCT level evidence: HIGH ⊕⊕⊕⊕

1. Risk of bias and limitations of study design: Likely
Action: Downgrading of one level ⊖
Reason: The spectrum of participants was not representative of subgroups experiencing different types of discrimination nor were probability sampling methods used in primary studies. With few exceptions, primary studies did not consider inappropriate exclusions and severe attrition in analysis and discussion of results.

2. Indirectness: Unlikely
Action: No downgrading
Reason: All included trials were relevant to the meta-analytic question, no indirect comparators were used, and all studies reported successful manipulation of discrimination and mental health as outcomes.

3. Inconsistency of results: Likely
Action: Downgrading of one level ⊖
Reasons: Systematic heterogeneity between effect sizes was substantial, $I^2 > 50\%$.

4. Imprecision: Unlikely
Action: No downgrading
Reason: Number of participants is large with $N < 400$, 95% confidence interval of the mean effect does not cross the line of no effect and is relatively narrow.

5. Publication bias (and selective reporting): Not suspected
Action: No downgrading
Reason: Visual funnel plot inspection showed a positive skewed distribution of effect sizes but no significant evidence of asymmetry. The methodological quality assessment suggests no selective outcome reporting.

Overall quality of evidence rating: Moderate ⊕⊕⊖⊖

Interpretation

Moderate ⊕⊕⊖⊖   The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different

Note. GRADE = Grading of recommendations, assessment, development, and evaluation approach (Schünemann et al., 2013); RCT = randomized controlled trial; ⊕ high level of evidence; ⊖ downgrading of evidence levels.