

Supplementary Online Content

Supplementary material 1. Search strategy for all databases

Supplementary material 2. Risk of bias in included studies

Supplementary material 3. Distribution of the included surveys

Supplementary material 4. Characteristics of the participants of the included studies

Supplementary material 5. Definition of neurophobia for the studies included

Supplementary material 6. Estimated overall prevalence of neurophobia related to response rate, sample size, and definition of neurophobia

Supplementary material 7. Meta-regression models of neurophobia prevalence

Supplementary material 8. Influence analysis of neurophobia prevalence

Supplementary material 9. Estimated scores of difficulty related to participant type, geographic region, and response rate

Supplementary material 10. Estimated scores of confidence related to participant type, geographic region, response rate, and sample size

Supplementary material 11. Estimated scores of interest related to participant type, geographic region, and response rate

Supplementary material 12. Estimated scores of knowledge related to participant type, geographic region, response rate, and sample size

Supplementary material 13. Influence analysis of scores of difficulty

Supplementary material 14. Influence analysis of scores of confidence

Supplementary material 15. Influence analysis of scores of interest

Supplementary material 16. Influence analysis of scores of knowledge

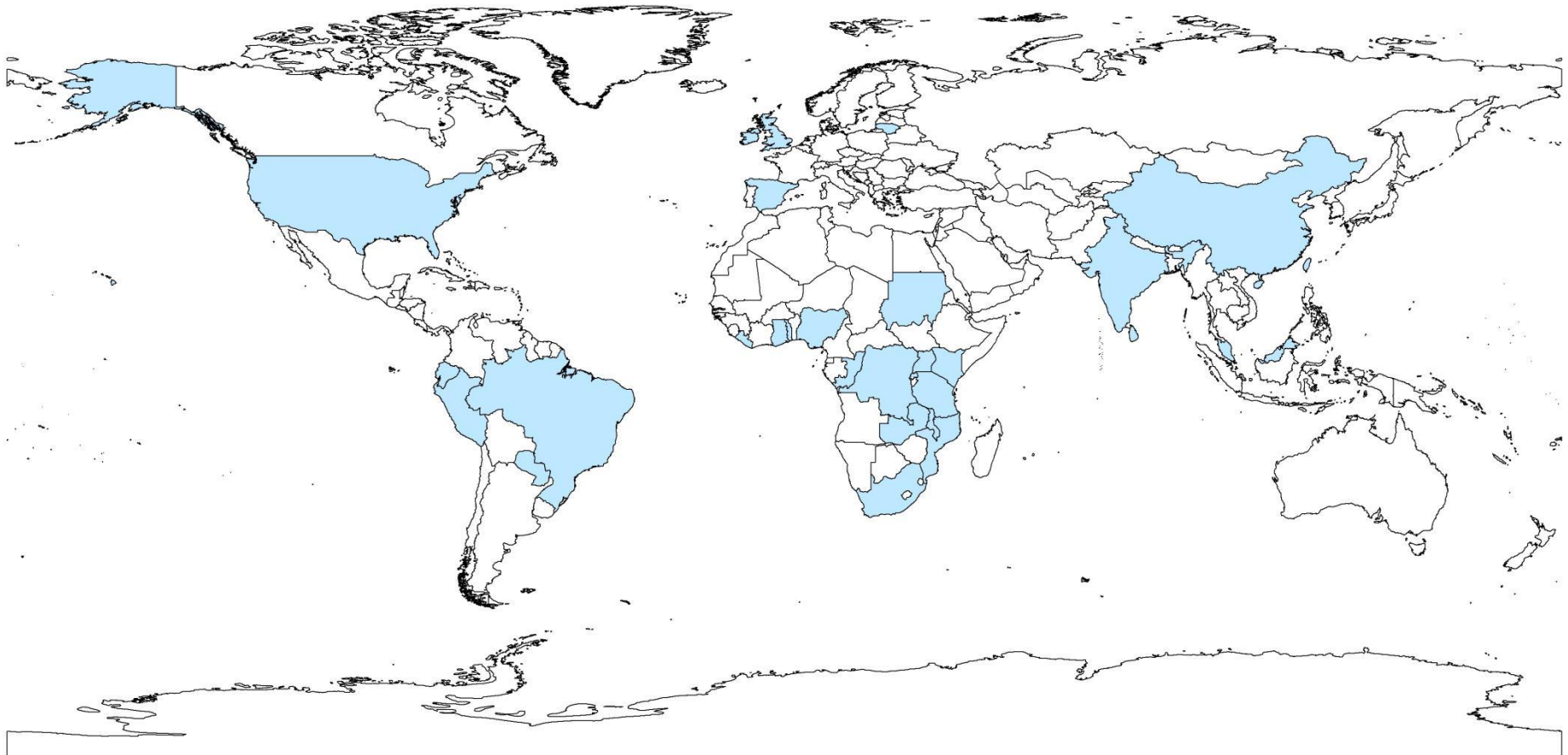
Supplementary material 1. Search strategy for all databases

Databases	Query	Results as of March 18th, 2024
PubMed	("neurophobia"[All Fields] OR "neurophobia"[MeSH Terms] OR ("neurophobic"[All Fields] OR "neurophobic"[MeSH Terms]))	104
EMBASE	('neurophobia'/exp OR neurophobia) OR ('neurophobic'/exp OR neurophobic)	202
Scopus	TITLE-ABS-KEY (neurophobia OR neurophobic)	124

Supplementary material 2. Risk of bias for each study included

Study	Close representation	True representation	Random Selection	Non-response bias minimal	Direct	Acceptable Definition	Reliable and Valid Instrument	Same Model	Short Period	Numerator and Denominator	Total score
Schon 2002	1	0	0	1	0	0	0	0	1	0	3
Flanagan 2007	1	0	0	1	0	0	0	0	0	0	2
Youssef 2009	1	0	1	1	0	0	0	0	1	0	4
Zinchuk 2010	1	0	1	1	0	0	0	0	0	0	3
Sanya 2010	1	0	0	0	0	0	0	0	1	0	2
Kam 2013	1	0	1	1	0	0	0	0	1	0	4
Matthias 2013	1	0	0	0	0	0	0	0	0	0	1
Lukas 2014	1	0	1	0	0	0	0	0	1	0	3
Pakpoor 2014	0	0	0	1	0	0	0	0	0	0	1
Zambrano 2015	1	0	1	0	0	0	0	0	1	0	3
Loftus 2016	1	0	1	1	0	0	0	0	0	0	3
Lukas 2017	1	0	1	0	0	0	0	0	0	0	2
Midik 2017	1	0	1	1	0	0	0	0	0	0	3
Morinigo 2017	1	0	1	1	0	0	0	0	1	0	4
Santos 2018	1	0	0	1	0	0	0	0	0	0	2
Chua 2020	1	0	1	1	0	0	0	0	0	0	3
Diaz 2020	1	0	1	1	0	1	0	0	0	0	4
McDonough 2022	1	0	0	1	0	0	0	0	1	0	3
Abasiyanik	1	0	0	1	0	0	0	0	0	0	2

2022											
Subir 2023	1	0	1	1	0	1	1	0	1	0	6
Saldana 2023	1	0	0	1	0	0	0	0	0	0	2
Han 2023	1	0	1	1	0	0	0	0	0	0	3
Lambea 2023	1	0	1	1	0	0	0	0	1	0	4
Jukna 2023	1	0	0	1	0	0	0	0	0	0	2



Supplementary material 3. Distribution of the included surveys

Supplementary material 4. Characteristics of the participants of the included studies

Study	No. total	UG	PG	Participants Level	Age	Male %	Specialty
Schon 2002	345	186	159	NA	NA	NA	MD, GP, house officers
Flanagan 2007	457	411	40	UGY-4: 93 UGY-5: 173 UGY-6: 145 Junior doctors: 40	NA	NA	MD, junior doctors
Youssef 2009	167	167	0	UGY-4: 90 UGY-5: 77	NA	NA	MD
Zinchuk 2010	152	98	54	UGY-3: 52 UGY-4: 46 PGY-1: 24 PGY-2: 15 PGY-3: 15	NA	NA	MD, residents in IM
Sanya 2010	302	302	0	UGY-4: 85 UGY-5: 45 UGY-6: 154	NA	60%	MD
Kam 2013	289	158	131	UGY-4: 158 Junior doctors: 131	NA	56.1%	MD, junior doctors in IM
Matthias 2013	248	148	100	NA	NA	NA	MD and non-specialist doctors
Lukas 2014	41	41	0	UGY-5: 22 UGY-6: 9 UGY-7: 10	NA	NA	MD
Pakpoor 2014	2877	2877	0	NA	22.6	38.4%	MD
Zambrano 2015	401	401	0	NA	NA	NA	MD

Loftus 2016	76	0	76	NA	NA	NA	GP
Lukas 2017	145	145	0	UGY-3: 55 UGY-4: 62 UGY-5: 28	NA	NA	MD
Midik 2017	384	0	384	NA	NA	NA	Primary care physicians
Morinigo 2017	56	0	56	NA	NA	NA	Junior doctors in IM
Santos 2018	486	486	0	UGY-2: 224 UGY-4: 167 UGY-6: 95	22.7	45.3%	MD
Chua 2020	415	0	415	PGY 1-10: 388 PGY-≥11: 27	32 ^a	28%	Family medicine specialist trainees
Diaz 2020	112	112	0	UGY-6,7	NA	NA	MD
McDonough 2022	294	197	97	NA	NA	50%	MD, junior doctors in IM and pediatrics
Abasiyanik 2022	391	391	0	UGY-4: 391	NA	23.3%	Physiotherapy and rehabilitation students
Subir 2023	1227	NA	NA	NA	NA	NA	MD, doctors
Saldana 2023	134	0	134	PGY-1: 29 PGY-2: 47 PGY-3: 28 PGY-4: 26 PGY-5: 4	28	NA	Junior doctors
Han 2023	351	218	133	UGY-5: 60 UGY-6: 65 UGY-7: 52 UGY-8: 41 PGY-1: 30	25.1	41.6%	MD, junior doctors in IM

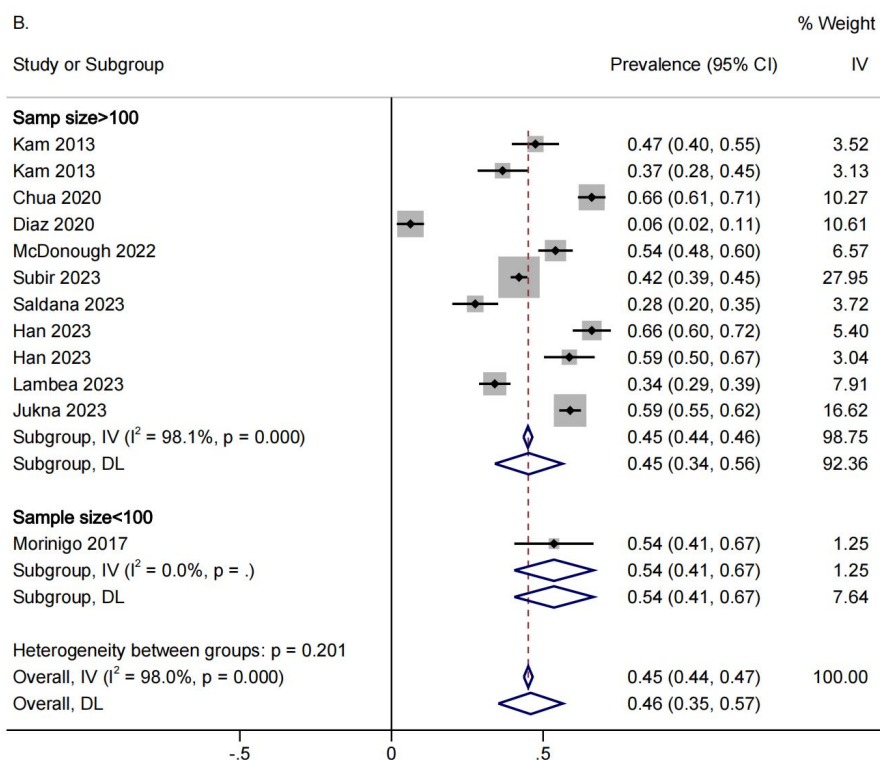
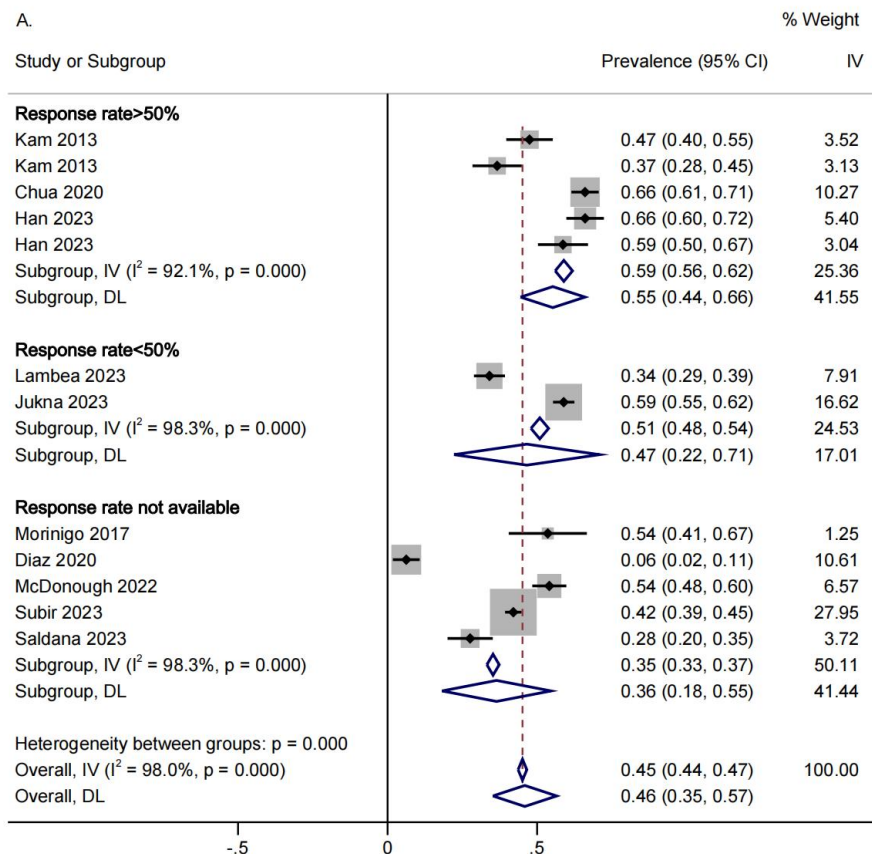
				PGY-2: 34 PGY-3: 22 PGY-4: 13 PGY-5: 16 PGY-≥6: 18			
Lambea 2023	320	320	0	UGY-2: 120 UGY-3: 123 UGY-6: 77	21 ^a	NA	MD
Jukna 2023	725	725	0	UGY-2: 197 UGY-3: 225 UGY-4: 194 UGY-5: 121 UGY-6: 115	NA	22.8%	MD

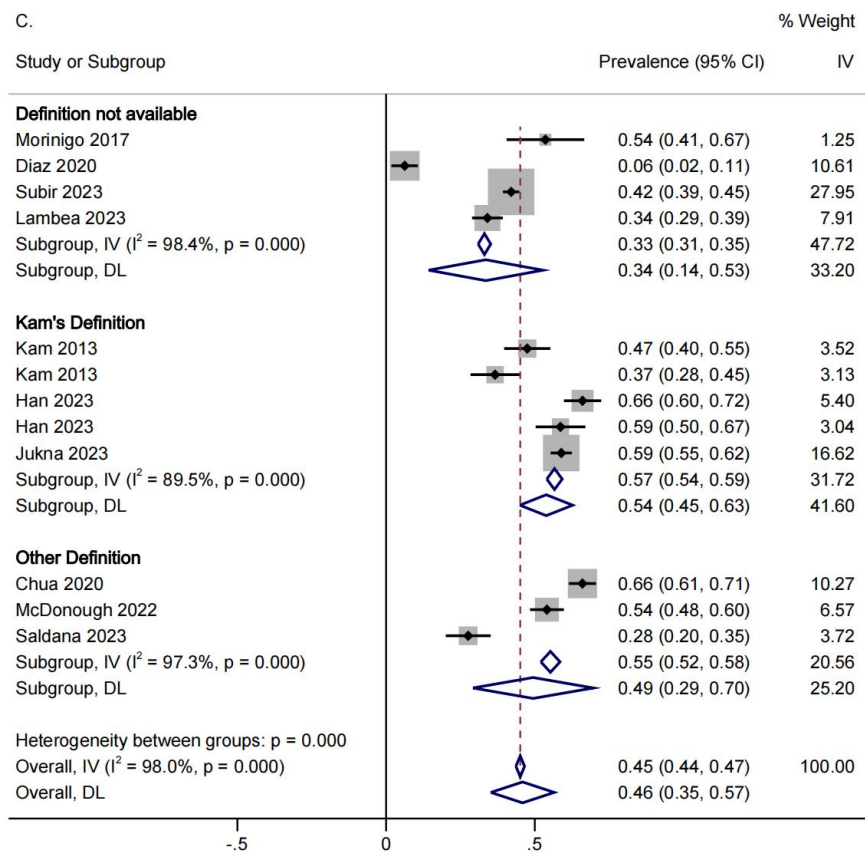
MD, medical students; IM, internal medicine; GP, general practitioners; UG, undergraduate; PG, postgraduate; UGY, undergraduate year; PGY, postgraduate year;
NA; not available.

^a Median

Supplementary material 5. Definition of neurophobia for the studies included

Study	Definition of neurophobia
Kam 2013	Neurophobia is defined as a combined confidence and difficulty score of less than or equal to 4 points. ■ Difficulty: How difficult do you think it is to learn about the following areas of medicine? 1=Very difficult; 2=Difficult; 3=Moderate; 4=Easy; 5=Very easy ■ Confidence: When you see a patient in your clinical experience with a complaint in the following area of Neurology, what do you feel? 1=Very uneasy; 2=Uneasy; 3=Averagely competent; 4=Confident; 5=Very confident
Han 2023	
Jukna 2023	
Chua 2020	A strong or relatively strong agreement that neurology is difficult, or the experience of fear towards neurology
McDonough 2022	
Saldana 2023	
Diaz 2020	These studies did not give the exact definition of neurophobia
Morinigo 2017	
Subir 2023	
Lambea 2023	



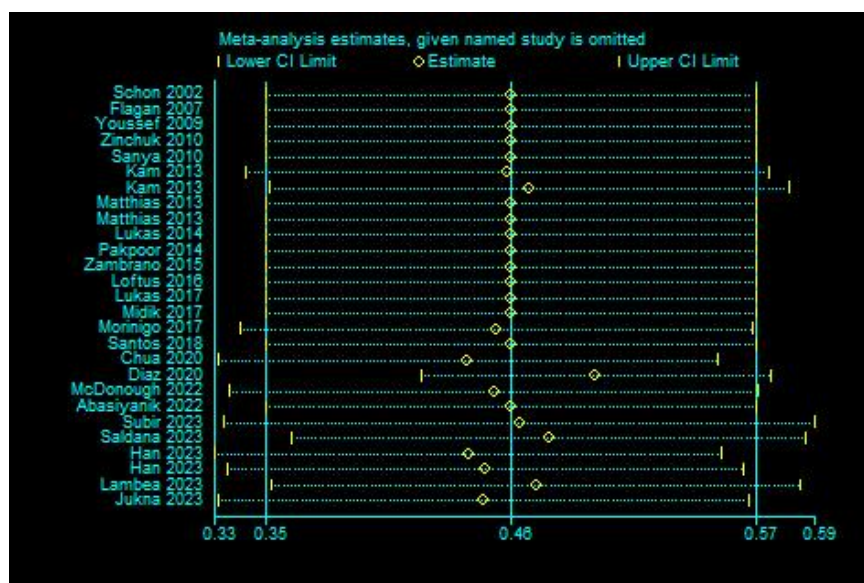


Supplementary material 6. Estimated overall prevalence of neurophobia related to (A) response rate, (B) sample size, and (C) definition of neurophobia .

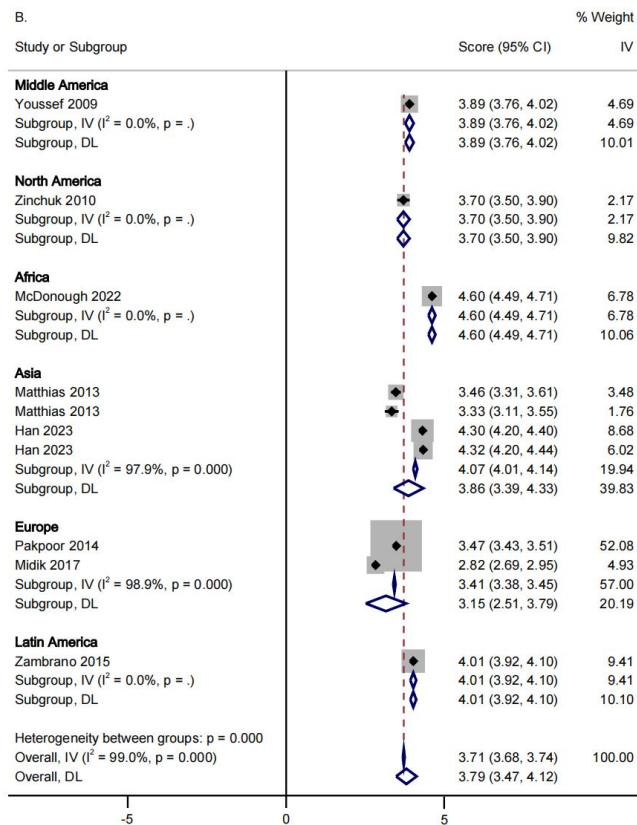
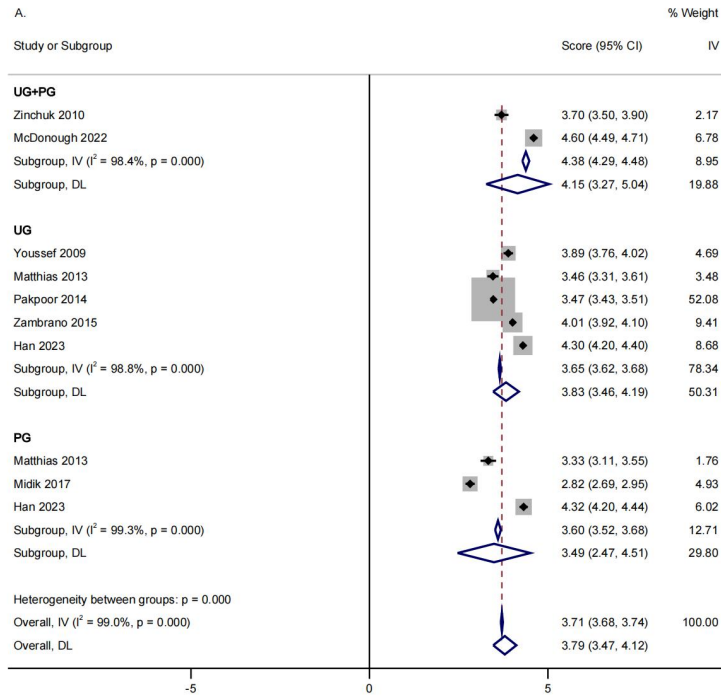
Supplementary material 7. Meta-regression models of neurophobia prevalence

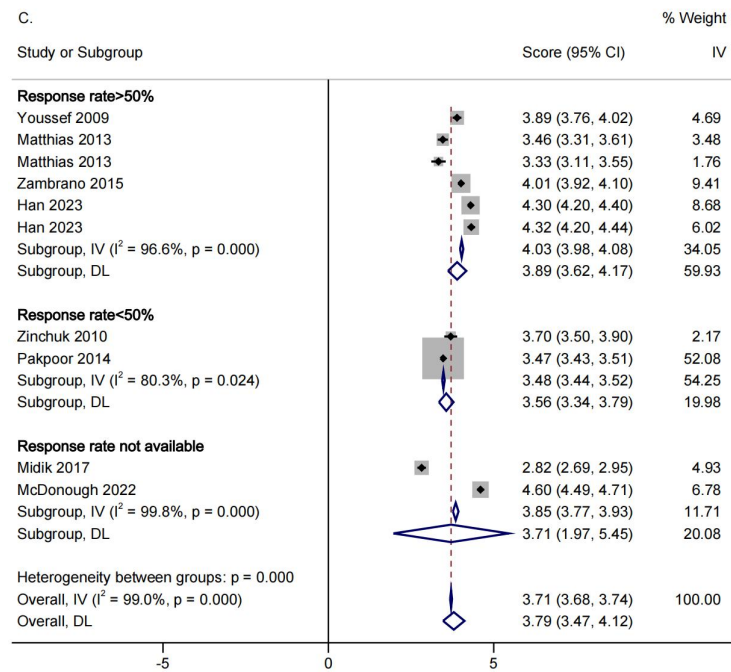
Variable	Crude					Adjusted			
	β	Standard Error	95% CI	<i>p</i> value	Adjusted R ²	β	Standard Error	95% CI	<i>p</i> value
Participants type	-0.014	0.075	-0.180 to 0.153	0.858	-9.79%	-0.038	0.050	-0.161 to 0.085	0.48
Geographic region	-0.123	0.050	-0.234 to -0.012	0.034	35.26%	-0.192	0.046	-0.305 to -0.079	0.006
Response rate	-0.077	0.070	-0.234 to 0.079	0.298	2.34%	-0.077	0.055	-0.213 to 0.059	0.214
Sample size	-0.083	0.201	-0.531 to 0.365	0.688	-7.56%	-0.443	0.158	-0.831 to -0.056	0.031
Definition of neurophobia	-0.036	0.067	-0.185 to 0.112	0.597	-6.99%	0.012	0.046	-0.103 to 0.127	0.808

CI, onfidence interval

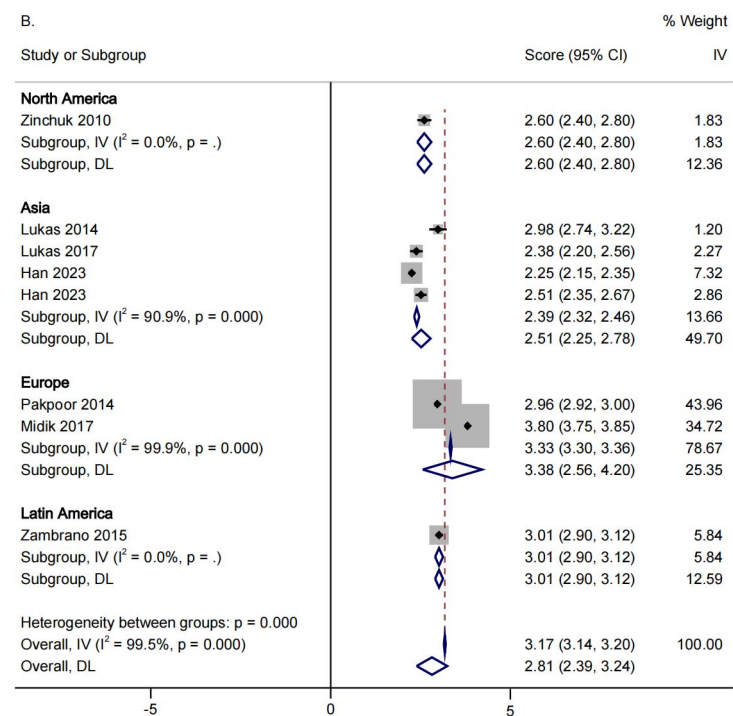
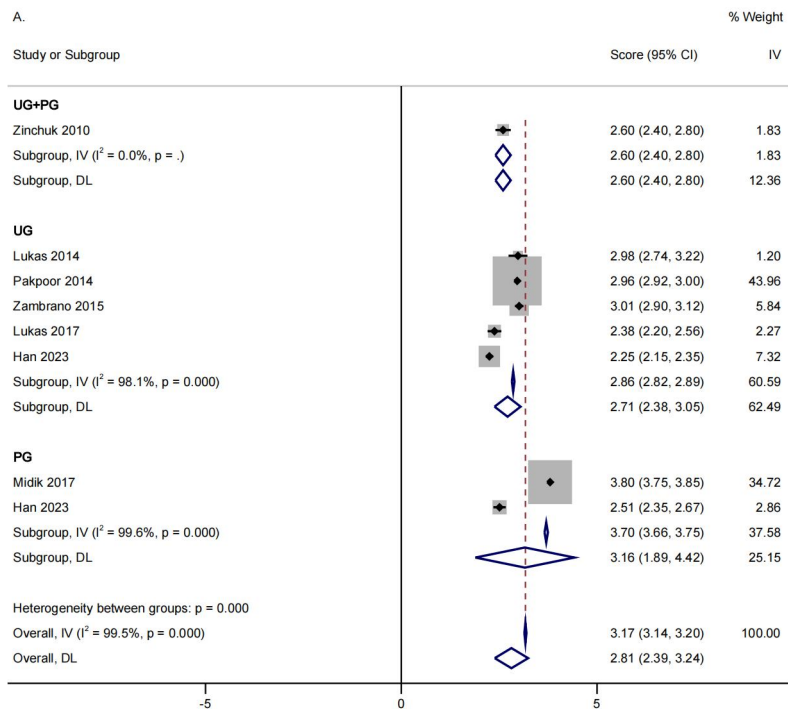


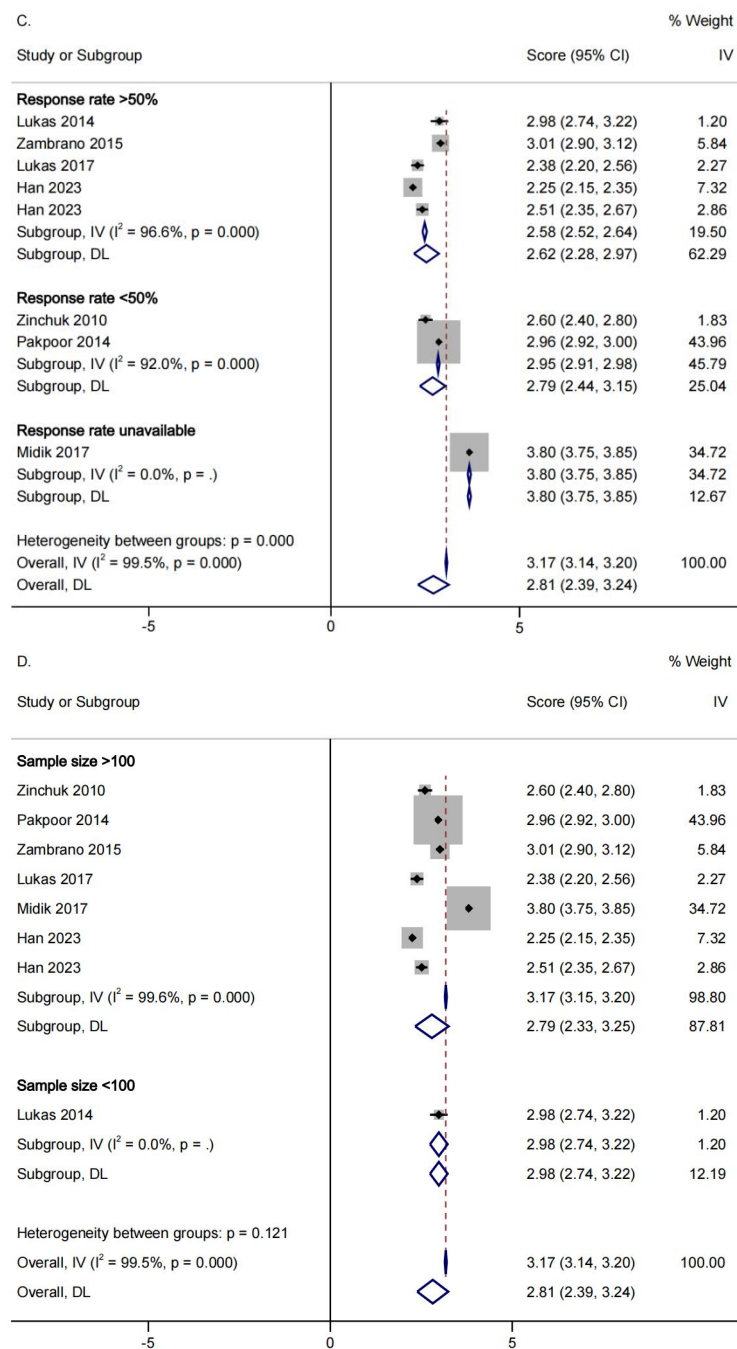
Supplementary material 8. Influence analysis of neurophobia prevalence



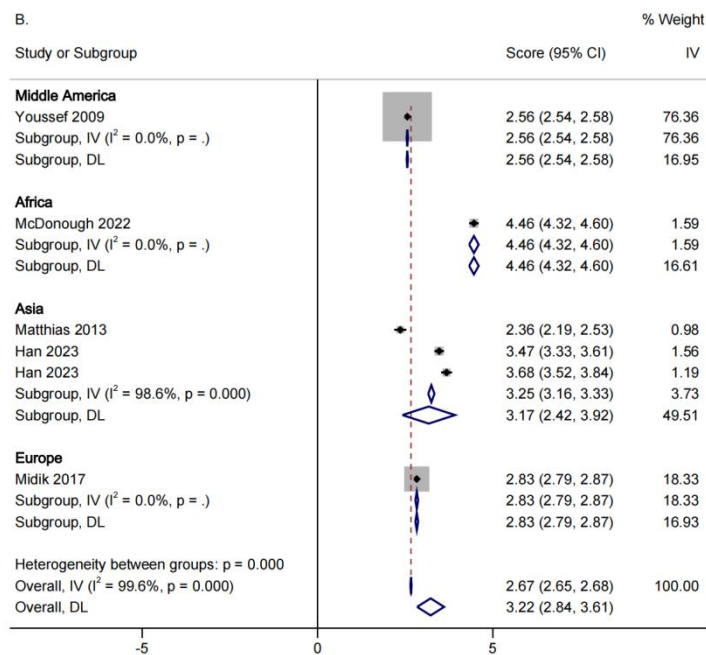
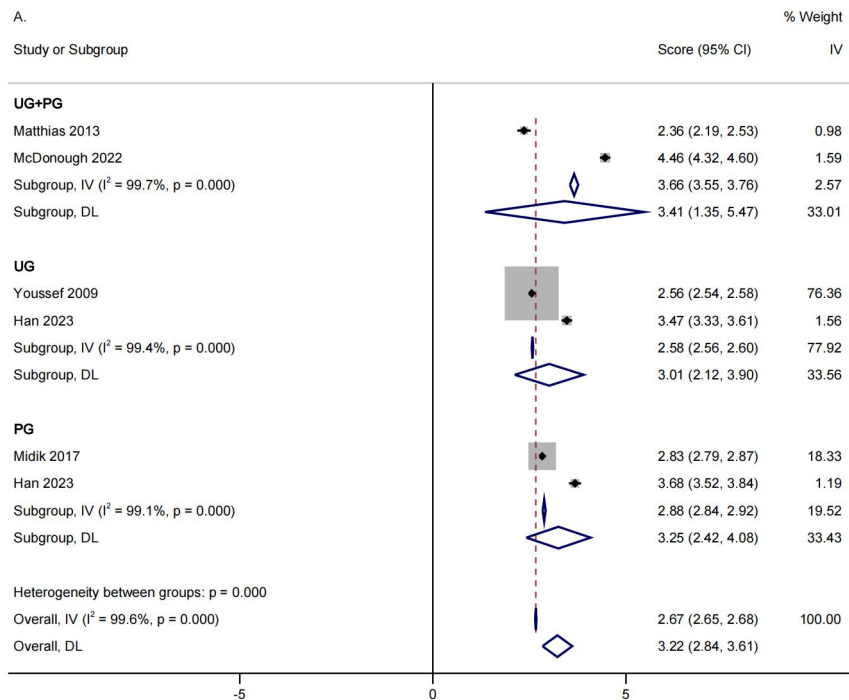


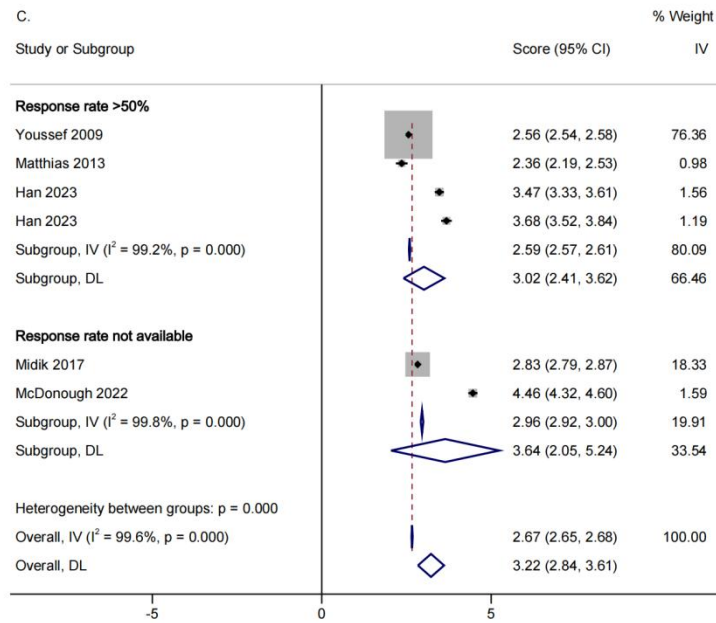
Supplementary material 9. Estimated scores of difficulty related to participant type (A), geographic region(B), and response rate (C).



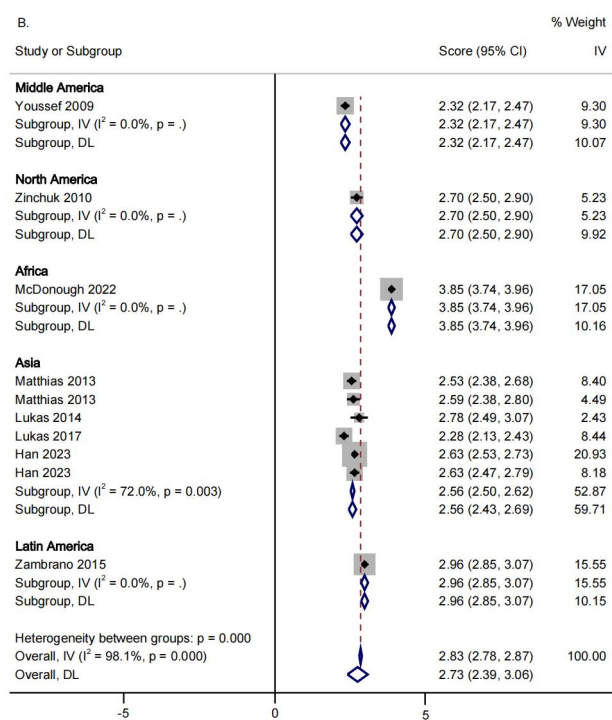
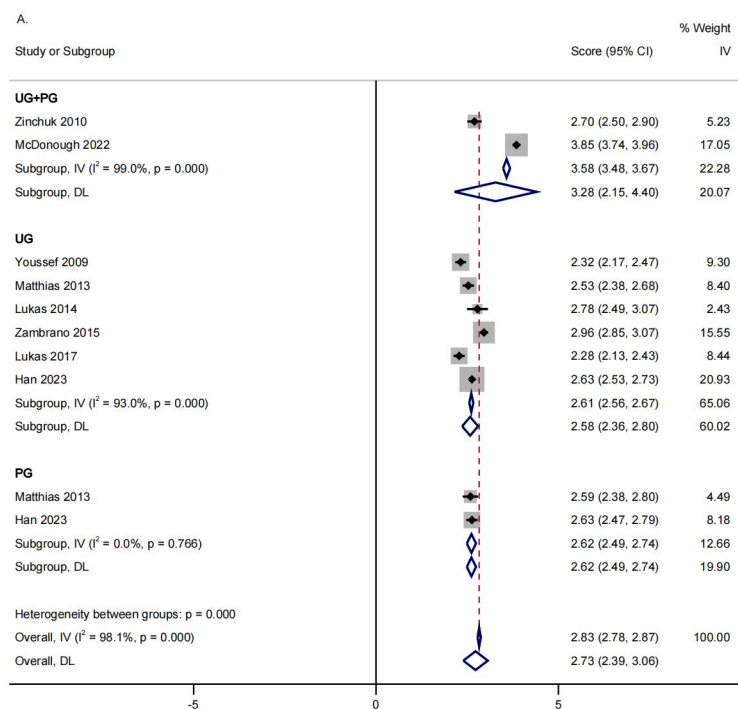


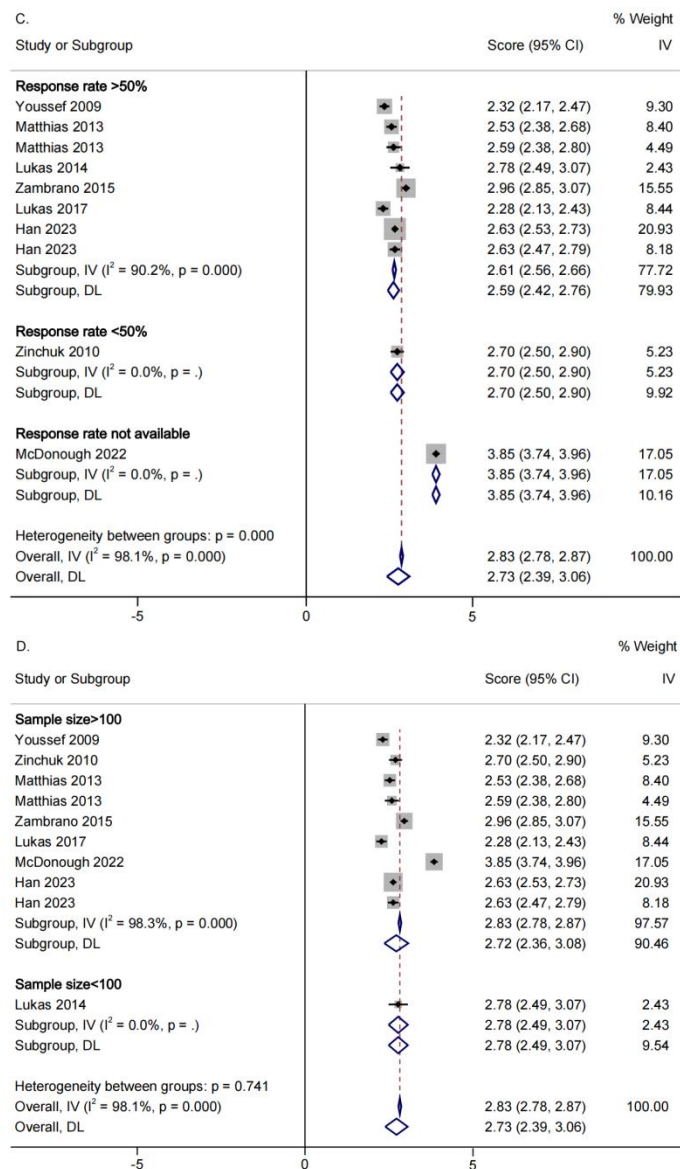
Supplementary material 10. Estimated scores of confidence related to participant type (A), geographic region(B), response rate (C), and sample size (D).



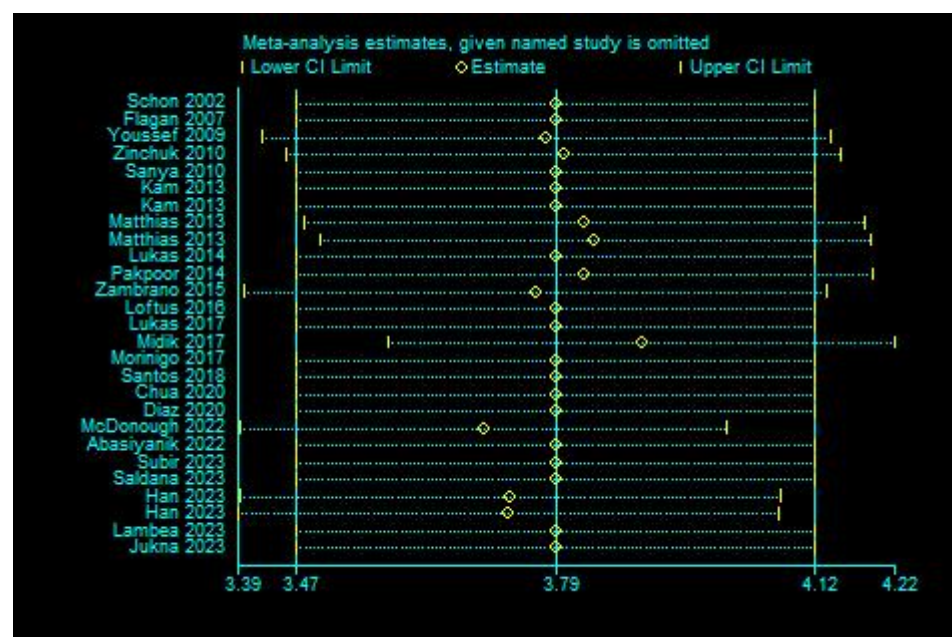


Supplementary material 11. Estimated scores of interest related to participant type (A), geographic region(B), and response rate (C).

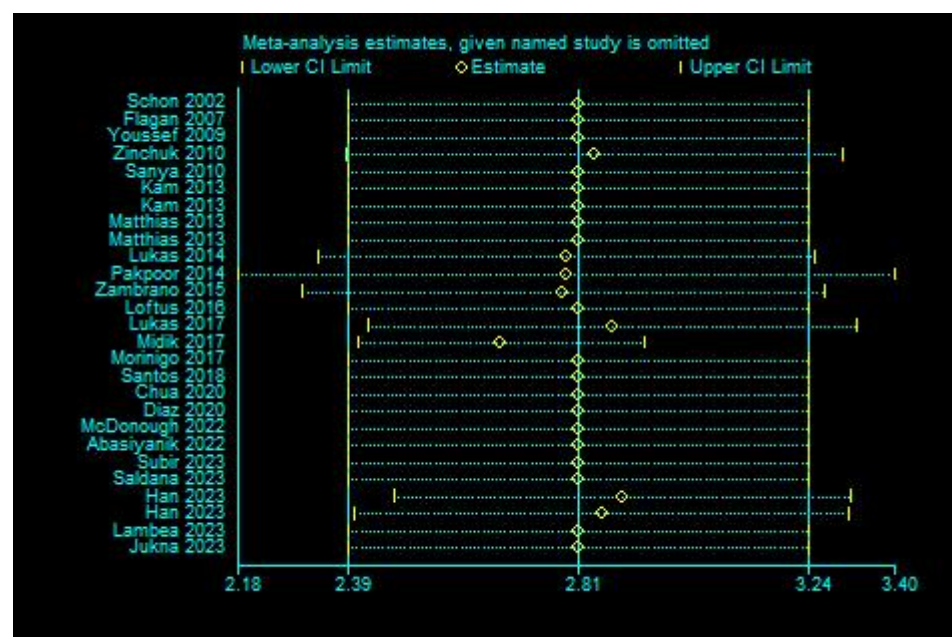




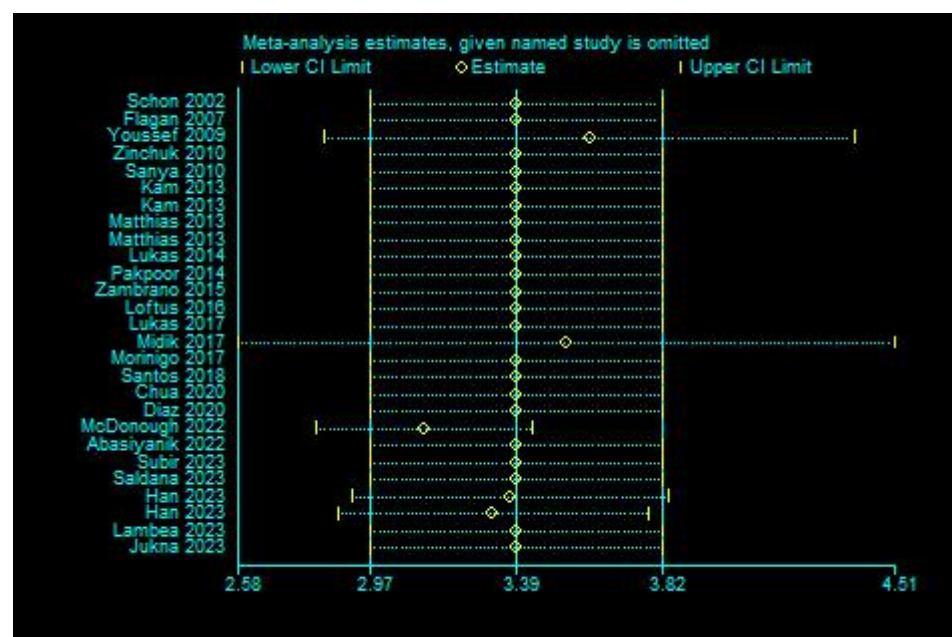
Supplementary material 12. Estimated scores of difficulty related to participant type (A), geographic region(B), response rate (C), and sample size (D).



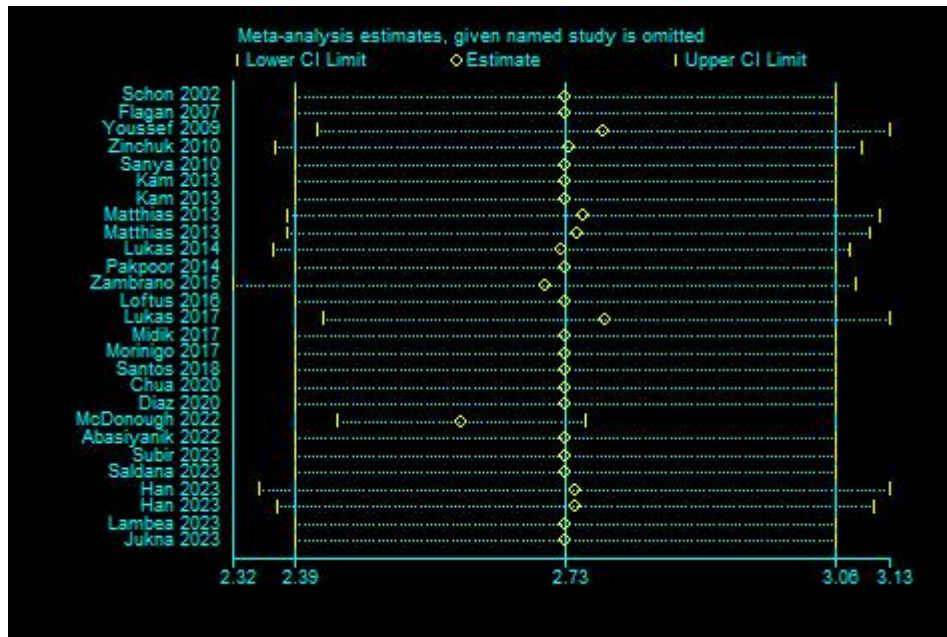
Supplementary material 13. Influence analysis of scores of difficulty



Supplementary material 14. Influence analysis of scores of confidence



Supplementary material 15. Influence analysis of scores of interest



Supplementary material 16. Influence analysis of scores of knowledge