Table S1: PRISMA 2009 Checklist

Section/topic	#	Checklist item	Reported on page #
		TITLE	
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
		ABSTRACT	
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	1
		INTRODUCTION	
Rationale	3	Describe the rationale for the review in the context of what is already known.	2-3
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	3-5
		METHODS	
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	3
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	4-5
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	4-5
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Supplementary material (SM) 2
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	5-6
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	6
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	6
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	6
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	6-7
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	6-7
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	6

Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	6-7
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	Figure 1/ SM 4
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	Tables 1-3; Figure 2 and SM 3,6&7
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	SM 5
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	Tables 1-3
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	Not applicable
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	SM 5
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	SM 7
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	19-22
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	22-23
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	23
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	Not applicable

The PRISMA for Abstracts checklist

TITLE	CHECKLIST ITEM	REPORTED ON PAGE #
1. Title:	Identify the report as a systematic review, meta-analysis, or both.	1
BACKGROUND		
2. Objectives:	The research question including components such as participants, interventions, comparators, and outcomes.	1
METHODS		
3. Eligibility criteria:	Study and report characteristics used as criteria for inclusion.	1
4. Information sources:	Key databases searched and search dates.	1
5. Risk of bias:	Methods of assessing risk of bias.	1
RESULTS		
6. Included studies:	Number and type of included studies and participants and relevant characteristics of studies.	1
7. Synthesis of results:	Results for main outcomes (benefits and harms), preferably indicating the number of studies and participants for each. If meta-analysis was done, include summary measures and confidence intervals.	1
8. Description of the effect:	Direction of the effect (i.e. which group is favoured) and size of the effect in terms meaningful to clinicians and patients.	Not applicable
DISCUSSION		
9. Strengths and Limitations of evidence:	Brief summary of strengths and limitations of evidence (e.g. inconsistency, imprecision, indirectness, or risk of bias, other supporting or conflicting evidence)	1
10. Interpretation:	General interpretation of the results and important implications	1
OTHER		
11. Funding:	Primary source of funding for the review.	None
12. Registration:	Registration number and registry name.	PROSPERO CRD42017076736

Appendix S2: Search strategy

P (population) – All physicians in the Eastern Mediterranean Region; I (intervention) – Not applicable; C (comparator) – Not applicable; O (outcome) – Burnout and its sub-components as measured by Maslach Burnout Inventory; T (timing) – up to December 2019; S (setting) – Any setting in any of the Eastern Mediterranean Region countries.

Search strategy for Pubmed 30 June 2020

Records identified: 502 – No filter / No language and time restrictions

((("Burnout, Psychological"[Mesh] OR Burn-out[Text Word] OR "Burn out"[Text Word] OR Burnout[Text Word] OR "Caregiver Exhaustion"[Text Word] OR depersonalisation[Text Word] OR "personal accomplishment"[Text Word] OR "emotional exhaustion"[Text Word])) AND (("Qatar"[Mesh] OR "Bahrain"[Mesh] OR "Oman"[Mesh] OR "Saudi Arabia"[Mesh] OR "Kuwait"[Mesh] OR "United Arab Emirates"[Mesh] OR "Yemen"[Mesh] OR "Egypt"[Mesh] OR "Jordan"[Mesh] OR "Lebanon"[Mesh] OR "Syria"[Mesh] OR "Iraq"[Mesh] OR "Iran"[Mesh] OR "Somalia"[Mesh] OR "Afghanistan"[Mesh] OR "Libya"[Mesh] OR "Morocco"[Mesh] OR "Tunisia"[Mesh] OR "Djibouti"[Mesh] OR "Sudan"[Mesh] OR "South Sudan"[Mesh] OR "Pakistan"[Mesh] OR "Africa, Northern"[Mesh] OR "Africa, Eastern"[Mesh] OR "middle east"[Mesh] OR "Arabs"[Mesh] OR "UAE"[Text Word] OR "U.A.E"[Text Word] OR Emirat*[Text Word] OR "United Arab Emirates"[Text Word] OR Qatar*[Text Word] OR Oman*[Text Word] OR (Saudi[Text Word] AND Arabia*[Text Word]) OR Saudi*[Text Word] OR Kuwait*[Text Word] OR Bahrain*[Text Word] OR Yemen*[Text Word] OR Egypt*[Text Word] OR Jordan*[Text Word] OR Leban*[Text Word] OR Syria*[Text Word] OR Iraq*[Text Word] OR "West Bank"[Text Word] OR Gaza*[Text Word] OR Palestin*[Text Word] OR Iran*[Text Word] OR Somali*[Text Word] OR Afghan*[Text Word] OR Libya*[Text Word] OR Morocc*[Text Word] OR Tunis*[Text Word] OR Djibouti*[Text Word] OR Sudan*[Text Word] OR South Sudan*[Text Word] OR Pakistan*[Text Word] OR (North[Text Word] AND Africa*[Text Word]) OR North-Africa*[Text Word] OR ("Africa"[Text Word] AND "Northern"[Text Word]) OR "Northern Africa"[Text Word] OR "East Africa"[Text Word] OR ("Africa"[Text Word] AND "Eastern"[Text Word]) OR "Maghreb"[Text Word] OR "Maghrib"[Text Word] OR Arab*[Text Word] OR Bedouin*[Text Word] OR "Gulf Cooperation Council"[Text Word] OR "GCC"[Text Word] OR "Middle East"[Text Word])))

Search strategy for Embase 30 June 2020

Records identified: - 523 No filter / No language and time restrictions

(Burnout.mp. or exp burnout/ or Burn-out.mp. Or Burn out.mp. Or Caregiver Exhaustion.mp. Or depersonalisation.mp. Or personal accomplishment.mp. Or emotional exhaustion.mp.) AND (exp Middle East/ or exp North Africa/ or exp Arab/ or exp Djibouti/ or exp Pakistan/ or exp Sudan/ or exp South Sudan/ or exp Iran/ or exp Afghanistan/ or exp Somalia/ or exp Bahrain/ or exp Egypt/ or exp Jordan/ or exp Kuwait/ or exp Lebanon/ or exp Libya/ or exp Iraq/ or exp Morocco/ or exp Oman / or exp Qatar/ or exp Saudi Arabia/ or exp Syria / or exp Tunisia / or exp United Arab Emirates/ or exp Yemen/ or exp Palestine or Middle East.mp. or North Africa.mp. or EMRO.mp. or Eastern Mediterranean.mp. or Arab.mp. or Arabs.mp. or Arab World.mp. or Iran*.mp. or Afghan*.mp. or Somali*.mp. or Bahrain*.mp. or Djibouti.mp. or Egypt*.mp. or Jordan*.mp. or Kuwait*.mp. or Leban*.mp. or Libya*.mp. or Iraq*.mp. or Morocc*.mp. or Oman*.mp. or Pakistan*.mp. or Qatar*.mp. or Saudi*.mp. or Sudan*.mp. or Syria*.mp. or Tunisia*.mp. or United Arab Emirates.mp. or Emirat*.mp. or West Bank.mp. or Ghaza*.mp. or Gaza*.mp. or Palestin*.mp. or Yemen*.mp. or UAE.mp. or KSA.mp.)

Search strategy for Psycinfo 30 June 2020

Records identified 598: – No filter / No language and time restrictions

(DE "Arabs" OR MA qatar OR bahrain OR oman OR "Saudi arabia" OR saudi OR Kuwait OR Arabia* OR "united arab emirates" OR yemen OR egypt OR jordan OR lebanon OR syria OR Iraq OR libya OR morocco OR tunisia OR djibouti OR sudan OR "South sudan" OR pakistan OR "North africa" OR "northern africa" OR "east africa" OR "eastern africa" OR bedouin OR maghreb OR maghrib OR "gulf cooperation council" OR GCC OR SU qatar OR bahrain OR oman OR "Saudi arabia" OR saudi OR Kuwait OR Arabia* OR "united arab emirates" OR yemen OR egypt OR jordan OR lebanon OR syria OR Iraq OR Iran OR Afghanistan OR Somalia OR libya OR morocco OR tunisia OR djibouti OR sudan OR "South sudan" OR pakistan OR "North africa" OR "northern africa" OR "east africa" OR "eastern africa" OR bedouin OR maghreb OR maghrib OR "gulf cooperation council" OR GCC) OR (TX UAE OR TX U.A.E OR TX Emirat* OR TX United Arab Emirates OR TX Qatar* OR TX Oman* OR TX Saudi Arabia* OR TX Saudi* OR TX Kuwait* OR TX Bahrain* OR TX Yemen* OR TX Egypt* OR TX Jordan* OR TX Leban* OR TX Syria* OR TX Iraq* OR TX West Bank OR TX Gaza* OR TX Palestin* OR TX Iran* OR TX Somali* OR TX Afghan* OR TX Libya* OR TX Morocc* OR TX Tunis* OR TX Djibouti* OR TX Sudan* OR TX South Sudan* OR TX Pakistan* OR TX North Africa* OR TX North-Africa* OR TX "Northern Africa" OR TX "East Africa" OR TX "Eastern Africa" OR TX Maghreb OR TX Maghrib OR TX Arab* OR TX Bedouin* OR TX "Gulf Cooperation Council" OR TX GCC OR TX "Middle East") OR (TX UAE OR TX U.A.E OR TX Emirat* OR TX United Arab Emirates OR TX Qatar* OR TX Oman* OR TX Saudi Arabia* OR TX Saudi* OR TX Kuwait* OR TX Bahrain* OR TX Yemen* OR TX Egypt* OR TX Jordan* OR TX Leban* OR TX Syria* OR TX Iraq* OR TX West Bank OR TX Gaza* OR TX Palestin* OR TX Libya* OR TX Morocc* OR TX Tunis* OR TX Djibouti* OR TX Sudan* OR TX South Sudan* OR TX Pakistan* OR TX North Africa* OR TX North-Africa* OR TX "Northern Africa" OR RX "East Africa" OR TX "Eastern Africa" OR TX Maghreb OR TX Maghrib OR TX Arab* OR TX Bedouin* OR TX "Gulf Cooperation Council" OR TX GCC OR TX "Middle East") AND (DE "Occupational Stress" OR DE "Compassion Fatigue" OR TX "Compassion fatigue" OR burnout OR "burn out" OR burn-out OR "burn-out" OR "Caregiver Exhaustion" OR depersonalisation OR depersonalization OR "personal accomplishment" OR "emotional exhaustion")

Table S3: Characteristics of included studies

Study No	Author Name	Year of Publication	Study Quality	Country	Study Period	Response Rate (%)	Sample Size	Gender (%)	Mean Age (yrs)
1	Abbas, Ahmad [1]	2019	Good	Egypt	1 April - 30 Oct 2017	NA	147	NA	29.47± 5.49
2	AbdAllah, AM [2]	2019	Poor	Egypt	Jan 2017 - Apr 2018.	NA	168	M: 58.3 F: 41.7	27.46 ± 0.82
3	Abdo, SA [3]	2016	Good	Egypt	01 Nov- 30 Apr 2013	89.8	239	M: 27.7 F: 72.3	31.0 ± 6.0
4	Abdulaziz, Salman [4]	2009	Poor	Saudi Arabia	May-2015	NA	205	M: 65.85 F: 34.15	NA
5	Abdulrahman, Mahera [5]	2018	Poor	United Arab Emirates	May -Dec 2016	68	302	M: 21 F: 79	NA
6	Abyad, Abdulrazak [6]	2016	Poor	Middle East (Iran, Saudi Arabia, Kuwait, Lebanon, Iraq,)	NA	71	500	M: 54 F: 46	47.4
7	Agha, Adnan [7]	2014	Fair	Saudi Arabia	Aug -Oct 2012	NR	96	M: 66.7 F: 33.3	NA
8	Ahmadpanah, Mohammad [8]	2015	Fair	Iran	Jan-Dec 2011	NA	100	M: 71 F: 29	32±5.06

9	Al Dabbagh, Abdul Munem [9]	2019	Fair	Iraq	Apr-June 2017	95.7	134	M: 35.1 F: 64.8	NA
10	A Al Subhi, Abdulrahman [10]	2020	Good	Oman	Apr 2018 -Apr 2019	100	343	M: 37.9 F: 61.8	29
11	Al-Dubai,Sami Abdo Radman [11]	2010	Fair	Yemen	Dec 2006- July 2007	70.4	563	M: 59.5 F: 40.5	33.3 ±5.7
12	AL-Haddad, Ahmed [12]	2020	Fair	Saudi Arabia	Mar 2018-Aug 2019	80.7	226	M: 68.1 F: 31.9	NA
13	Al-Hashemi, Tharaya [13]	2019	Poor	Oman	Mar-May 2017	96	190	M: 21.6 F: 78.4	NA
14	Al-Sareai, N.S [14]	2013	Poor	Saudi Arabia	Oct 2010- Jun 2011	94.9	370	M: 81.9 F: 18.1	39.8
15	Al-Youbi, Reem A [15]	2013	Poor	Saudi Arabia	3 consecutive months in 2010	65	130	F: 55 M: 58	30 ± 5
16	Aldrees, Turki [16]	2013	Good	Saudi Arabia	Oct-Nov 2010	74	348	M: 72 F: 28	35
17	Aldrees, Turki [17]	2015	Fair	Saudi Arabia	Mar-May 2013	69	85	M: 67 F: 33	29

18	Aldress, Turki [18]	2017	Fair	Saudi Arabia	Apr-2015	60	38	M: 74 F: 26	28 ±1.9
19	Alhaffar, Bahaa Aldin [19]	2019	Fair	Syria	NA	87.3	3350	F: 44.10 M: 55.9	NA
20	Alotaibi, Abdulaziz Khalid [20]	2019	Poor	Saudi Arabia	Jan-2018	70	117	M: 53.85 F: 46.15	NA
21	Alqahtani, Abdulghani M [21]	2019	Poor	Saudi Arabia	NA	NA	95	NA	NA
22	Alsaawi, Abdulmoshen [22]	2014	Fair	Saudi Arabia	NA	74	53	M: 85 F: 15	NA
23	Alsaawi, Abdulmoshen [23]	2019	Fair	Saudi Arabia	2015	60.8	265	M: 84.2 F: 15.8	NA
24	Alsheikh, Khalid A [24]	2019	Poor	Saudi Arabia	Sept- Oct 2018	47.2	142	M: 90.1 F: 9.9	28.4 ±2.5
25	Alyamani, Alwaleed [25]	2018	Poor	Saudi Arabia	15 May 2018-31 May 2018	66.67	200	M: 60 F: 40	28
26	Arvandi, Zeinab [26]	2016	Poor	Iran	NA	NA	143	M: 50.3 F: 49.6	46.7±6.7
27	Ashkar, Khalil [27]	2010	Poor	Lebanon	20 May-20 Jun 2008	75	155	M: 55.5 F: 44.5	NA
28	Bany Hamdan, Abdullah [28]	2019	Fair	Saudi Arabia	June 2016-June 2017	62.8	55	M: 39.5 F: 60.5	NA

29	Belayachi, Jihane [29]	2016	Poor	Morocco	April-Oct 2010	NA	198	M: 41.4 F: 58.6	29.3 ±3.2
30	Ben Zid, A; 2018 [30]	2018	Good	Tunisia	<2017	76.8	149	F: 58.4 M: 41.6	29
31	Benbrahim, Zineb; 2019 [31]	2019	Poor	Morocco	Jan-18	25	100	M: 25 F: 75	NA
32	Bin Dahmash, Abdulmajeed; 2019 [32]	2019	Poor	Saudi Arabia	Mar-18	83.8	31	M: 55.2 F: 44.8	NA
33	Chaudhruy,Muhammad Ashraf; 2015 [33]	2015	Poor	Pakistan	Mar - Sep 2014.	NA	133	M: 49.6 F: 50.4	35.10 ± 11.16.
34	El Kettani, Assiya; 2017 [34]	2017	Good	Morocco	NA	63.7	191	M: 20.9 F: 79.1	26.7
35	Fauzia, A Khan; 2019 [35]	2019	Good	Pakistan	2017	74.5	447	M: 66.9 F: 33.1	NA
36	Farahat, Taghreed Mohamed; 2016 [36]	2016	Poor	Egypt	Aug 2014 - Apr 2015	91.6	76	M: 47 F: 53	33.7
37	Farahat, Tagraeed Mohamed; 2017 [37]	2017	Poor	Egypt	Aug 2014 -May 2015	91.6	76	M: 52.6 F: 47.4	33.7
38	Ghaida M.J, Al-Shoraian; 2011 [38]	2011	Poor	Kuwait	Aug 2010-Mar2011	52.9	200	M: 44 F: 56	NA
39	Hamdan, Motasem; 2017 [39]	2017	Fair	Palestine	Jul-Sept 2013	74.5	142	M: 76.8 F: 27.3	NA
40	Hameed, Tahir Kamal; 2018 [40]	2018	Fair	Saudi Arabia	2013-2014	43	181	M: 41.4 F: 58.6	NA
41	Hasan, Husain Isa; 2015 [41]	2015	Good	Bahrain	NA	87.7	202	M: 60.7 F: 39.9	30-40 ±9
42	Hussein, H. Y; 2015 [42]	2015	Poor	United Arab Emirates	NA	NA	102	M: 29.4 F: 70.6	NA

43	I, Kacem; 2017[43]	2017	Good	Tunisia	2011	52.6	342	M: 47.4 F: 52.6	NA
44	Jadoo, Saad Ahmed Ali [44]	2018	Poor	Iraq	Jan-Jun2014	87.3	576	M: 46.2 F: 53.8	40.43 ±8.59
45	Jalili, Mohammad [45]	2013	Poor	Iran	Mar- Apr 2008	88	165	M: 91.5 F: 8.5	33.6
46	Jamjoom, Roaa S [46]	2018	Poor	Saudi Arabia	May-16	64	32	M: 6.3 F: 93.7	NA
47	Khalil, Ashkar [47]	2018	Poor	Lebanon	20 May-20 Jun 2008	75	155	M: 55.5 F: 44.5	NA
48	Kalani, Simin Dokht [48]	2017	Unclear	Iran	NA		104	NA	NA
49	Khan, Khadija Asim [49]	2020	Poor	Pakistan	Jan-Jun 2017	NA	55	M: 7.3 F: 92.7	44.89 ± 8.50
50	Kotb, Amany Ali [50]	2014	Poor	Egypt	NA	NA	171	M: 44.44 F: 55.56	NA
51	Liaqat, Naeem [51]	2019	Poor	Pakistan	Jan- Feb 2017	36.6	40	M: 85 F: 15	44.89 ± 8.50
52	Mohamed, Alorabi [52]	2019	Poor	Egypt	NA	90	47	M: 44.7 F: 55.3	NA
53	M, Oumaya [53]	2009	Unclear	Tunisia	NA	85.6	113	NA	NA
54	M, Taei [54]	2010	Unclear	Iran	2009	NA	150	NA	NA
55	Mohammed, Almhana Abdulhussein Abdulzahra [55]	2019	Unclear	Iraq	NA	84	296	NA	NA

56	Malik, Awais Amjad [56]	2016	Poor	Pakistan	NA	66.5	133	M: 73.7 F: 26.3	NA
57	Marzouki, Hani [57]	2019	Poor	Saudi Arabia	Decr 2016 - Jun 2017	77	77	NA	43.8 ± 9.2
58	Massou, Salah [58]	2013	Good	Morocco	2009	NA	154	NA	NA
59	Mazhar, Syeda Batool; 2019 [59]	2019	Good	Pakistan	Oct 2016- Jan 2017	100	365	M: 65 F: 35	28.68 ± 4.58
60	Mhamdi, Salah; 2018 [60]	2018	Good	Tunisia	2014	72.19	35	NA	40.83
61	Moein, Neda; 2018 [61]	2018	Unclear	Iran	2017-2018	NA	155	M: 29 F: 71	35.3±8.5
62	Mohammed,Khalid Abdul-Moez; 2014 [62]	2014	Poor	Egypt	2012	64.6	84	M: 54.8	NA
63	Mohammed, Sura Bahjat; 2018 [63]	2018	Poor	Iraq	2016	92	310	M: 49.7 F: 50.3	34.75 ± 7.5
64	Mortada, Eman M; 2012 [64]	2012	Poor	Egypt	Jan- April 2012	NA	250	M: 53.6 F: 46.4	36.9 ± 8.9
65	Ok, Abd EL Latief; 2018[65]	2018	Poor	Egypt	Oct- Dec 2016	NA	134	NA	39.45± 10.30
66	Omr, Amr S; 2019 [66]	2019	Poor	Qatar	NA	NA	65	NA	NA
67	Osman, Doaa MM; 2019 [67]	2019	Poor	Egypt	May-July 2017	86*	NA	NA	NA
68	Sadat-Ali, Mir; 2005 [68]	2005	Poor	Saudi Arabia	Sept 2003-Oct 2004	67.6	69	NA	45.72 ± 6.82
69	Salem, Mohamed; 2018 [69]	2018	Poor	Qatar	NA	90	144	M: 64.29 F: 35.71	NA

70	Salem, Rana; 2018 [70]	2018	Good	Lebanon	NA	73	51	M: 68.6 F: 31.4	NA
71	Selaihem, Ahmed Abdullah [71]	2013	Poor	Saudi Arabia	April 2010.	72	144	M: 61.1 F: 38.9	37.08 ± 8.48
72	Shams, Tarek [72]	2013	Poor	Egypt	Mar-June 2011	73	134	M: 73.5 F: 26.5	NA
73	Sheikhmoonesi, Fatemeh [73]	2017	Poor	Iran	2012	60	106	M: 50.9 F: 49.10	NA
74	Sherbiny, E -E [74]	2017	Poor	Saudi Arabia	July-Aug 2014	80	140	M: 31.4 F: 68.6	NA
75	Soltanifar, Atefeh [75]	2018	Fair	Iran	Dec 2016 - Jan 2017	75	77	F: 100	NA
76	Yousef, I. M [76]	2006	Good	Egypt	NA	72.4	84	M: 76.2 F: 23.8	NA
77	Zarei, Ehsan [77]	2019	Fair	Iran	2018	NA	66	NA	NA
78	Zubairi, Akbar Jaleel [78]	2016	Poor	Pakistan	1st -31st May 2013	34	82	M:54 F: 46	NA

M-Male **F**-Female **N/A**-Not available

Appendix S4: List of excluded studies

1. Abarghouei MR, Sorbi MH, Abarghouei M, Bidaki R, Yazdanpoor S. A study of job stress and burnout and related factors in the hospital personnel of Iran. Electronic physician. 2016;8(7):2625-2632
2. Abdulla L, Al-Qahtani DM, Al-Kuwari MG. Prevalence and determinants of burnout syndrome among primary healthcare physicians in Qatar. South African Family Practice. 2011;53(4):380-383.
3. Abdulghani HM, Al-Harbi MM, Irshad M. Authors' reply: Financial stress during medical residency training: An experience from Iran. Neuropsychiatric Disease and Treatment. 2016;12:489.
4. Abdulghafour YA, Bo-hamra AM, Al-Ri MS, Kamel MI, El-Shazly MK. Burnout syndrome among physicians working in primary health care centers in Kuwait. Alexandria Journal of Medicine. 2011;47(4):351-357.
5. Abu-Mughaiseeb A, Ali MH, Al Zarrad F. Burn-out syndrome Synonym: Al-Ofool syndrome Work- related stress in health workers and others. Arab Journal of Psychiatry. 2002;13(2):118-121.
6. Adler AB, Adrian A, L a, et al. Professional Stress and Burnout in U.S. Military Medical Personnel Deployed to Afghanistan. Military medicine. 2017;182(3):e1669-e1676.
7. Afana A, Ghannam J, Ho EY, Al-Khal A, Al-Arab B, Bylund CL. Burnout and sources of stress among medical residents at Hamad Medical Corporation, Qatar. Eastern Mediterranean health journal = La revue de sante de la Mediterranee orientale = al-Majallah al-sihhiyah li-sharq al-mutawassit. 2017;23(1):40-45.
8. Agoub M, Elyazaji M, Battas O. Épuisement professionnel et sources de stress au travail chez les soignants - Professional burn out and sources of stress among health care workers. Annales Médico-Psychologiques. 2000;158(9):687-692.
9. Ahmad W, Ashraf H, Talat A, et al. Association of burnout with doctor-patient relationship and common stressors among postgraduate trainees and house officers in Lahore-a cross-sectional study. PeerJ. 2018;6:e5519.
10. Ahmadi SAA, Ahmadi F, Tavreh N. The relationship between organizational citizenship behavior and burnout in public organization in west Azarbayejan province. Interdisciplinary Journal of Contemporary Research in Business. 2011;2(11):147-156.
11. Ahmady S, Changiz T, Masiello I, Brommels M. Organizational role stress among medical school faculty members in Iran: dealing with role conflict. BMC medical education. 2007;7:14.
12. Ahmed I, Banu H, Al-Fageer R, Al-Suwaidi R. Cognitive emotions: depression and anxiety in medical students and staff. Journal of critical care. 2009;24(3):e1-7.
13. Aksoy DY, Durusu Tanriover M, Unal S, et al. Burnout syndrome during residency in internal medicine and pediatrics in a country without working time directive. International journal of health care quality assurance. 2014;27(3):223-230.
14. Al Breiki MH, Al Muqbali M. Well-being among medical students in clinical years at a private college in Oman: Cross sectional study (7526). Swiss Archives of Neurology, Psychiatry and Psychotherapy. 2019;70:50S
15. Alkhalifa F, Abdul Raheem F, Hassan Y, Al-Saddah J, Alabbad J. Comparison of burnout among surgery residents and attending surgeons. Diseases of the Colon and Rectum. 2019;62(6):e113-e114
16. Al Nuhait M, Al Harbi K, Al Jarboa A, et al. Sickness presenteeism among health care providers in an academic tertiary care center in Riyadh. Journal of infection and public health. 2017;10(6):711-715.
17. Al Ubaidi et al. A Study on the Prevalence of Burnout Among Primary Care Physicians on the Kingdom of Bahrain. Journal of the Bahrain Medical Society. 2020; 32(2):8-16

18. Al-Alawi M, Al-Sinawi H, Al-Qubtan A, et al. Prevalence and determinants of burnout Syndrome and Depression among medical students at Sultan Qaboos University: A cross-sectional analytical study from Oman. Archives of environmental & occupational health. 2019;74(3):130-139.
19. Al-Dubai SAR, Rampal KG. Psychological morbidity and sources of job stress among doctors in Yemen. ASEAN Journal of Psychiatry. 2012;13(1):20-30.
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Figure S5: PRISMA Flowchart

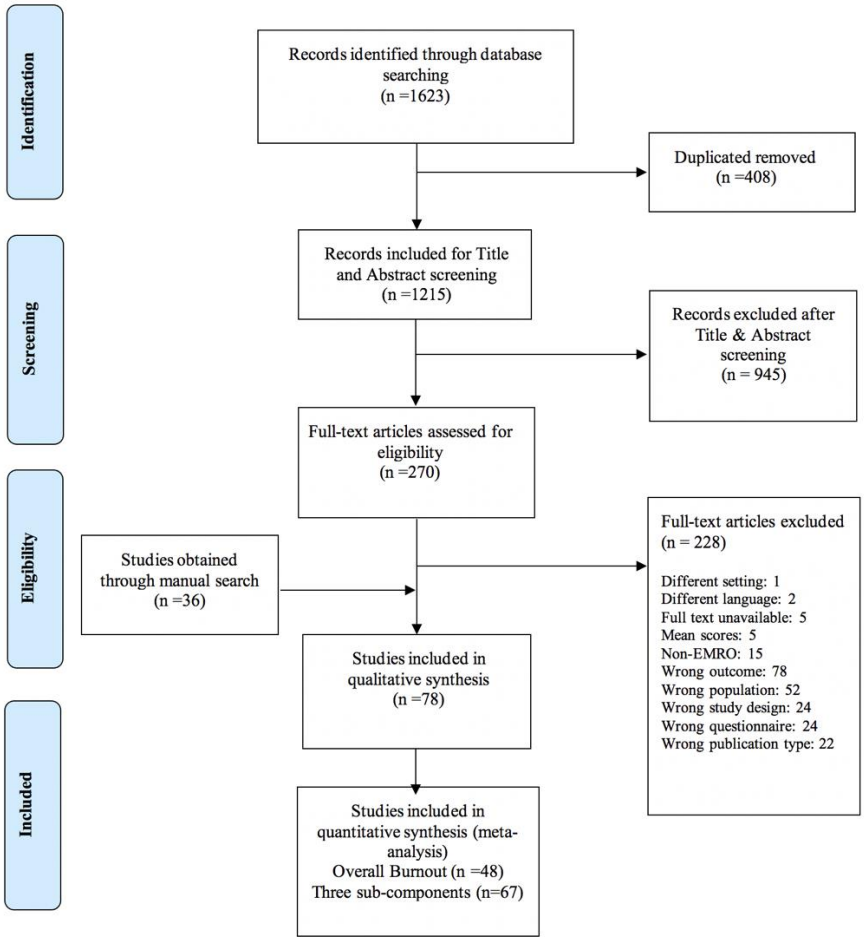


Table S6: Quality assessment of the individual studies

Study No	Included study citation	Was the research question or objective in this paper clearly stated? (1)	Was the study population clearly specified and defined? (2)	Was the participation rate of eligible persons at least 50%? (3)	Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants? (4)	Was a sample size justification, power description, or variance and effect estimates provided? (5)	Were all the subjects selected or recruited from the same or similar populations (including the same time period)? (6)	Rating
1.	Abbas, Ahmad; 2019[1]	Y	Y	Y	Y	Y	Y	Good
2.	AbdAllah, AM; 2019 [2]	Y	Y	Y	N	Y	Y	Poor
3.	Abdo, SA; 2015 [3]	Y	Y	Y	Y	Y	Y	Good
4.	Abdulaziz, Salman; 2009 [4]	Y	Y	N/A	N	N	Y	Poor
5.	Abdulrahman, Mahera; 2018 [5]	Y	Y	Y	N	N	Y	Poor
6.	Abyad, Abdulrazak; 2016 [6]	Y	Y	Y	N	N	Y	Poor
7.	Agha, Adnan; 2014 [7]	Y	Y	Y	Y	N	Y	Fair
8.	Ahmadpanah, Mohammad; 2015 [8]	Y	Y	N/A	Y	N	Y	Fair
9.	Al-Dabbagh, Abdul Munem; 2019 [9]	Y	Y	Y	Y	N	Y	Fair
10.	A.Al-Subhi, Abdulrahman; 2020 [10]	Y	Y	Y	Y	Y	Y	Good
11.	Al-Dubai,Sami Abdo Radman; 2010[11]	Y	Y	Y	Y	N	Y	Fair
12.	Al-Haddad, Ahmed; 2020 [12]	Y	Y	Y	Y	N	Y	Fair
13.	Al-Hashemi, Tharaya; 2019 [13]	Y	Y	Y	N	Y	Y	Poor
14.	Al-Sareai, N.S; 2013 [14]	Y	Y	Y	N	N	Y	Poor

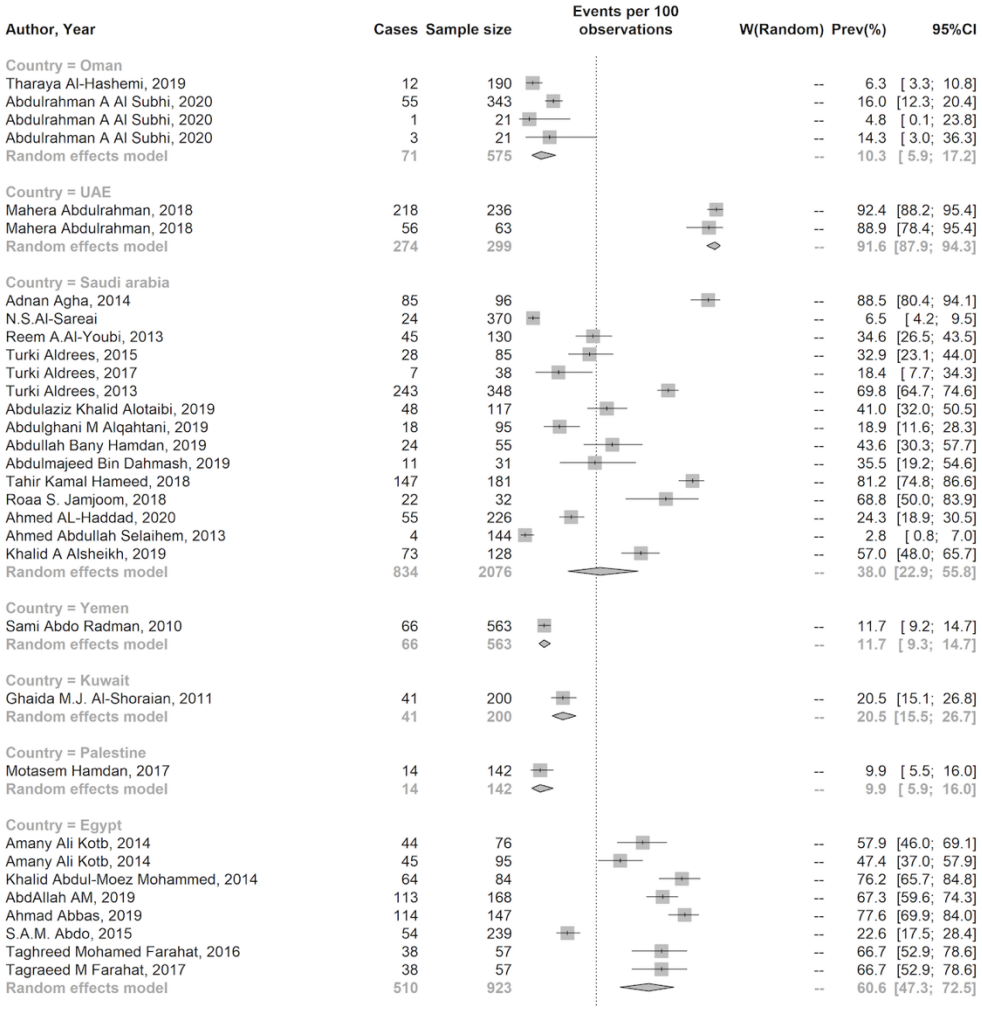
15.	Al-Youbi, Reem A; 2013 [15]	Y	Y	Y	N	N	Y	Poor
16.	Aldrees, Turki; 2013[16]	Y	Y	Y	Y	Y	Y	Good
17.	Aldrees, Turki; 2015 [17]	Y	Y	Y	Y	N	Y	Fair
18.	Aldress, Turki; 2017 [18]	Y	Y	Y	Y	N	Y	Fair
19.	Alhaffar, Bahaa Aldin; 2019 [19]	Y	Y	Y	Y	N	Y	Fair
20.	Alotaibi, Abdulaziz Khalid; 2019 [20]	Y	Y	Y	N	N	Y	Poor
21.	Alqahtani, Abdulghani M; 2019 [21]	Y	Y	N/A	N	N	Y	Poor
22.	Alsaawi, Abdulmoshen; 2014 [22]	Y	Y	Y	Y	N	Y	Fair
23.	Alsaawi, Abdulmoshen; 2019 [23]	Y	Y	Y	Y	N	Y	Fair
24.	Alsheikh, Khalid A; 2019 [24]	Y	Y	N	N	N	Y	Poor
25.	Alyamani, Alwaleed; 2018 [25]	Y	Y	Y	N	N	Y	Poor
26.	Arvandi, Zeinab; 2016 [26]	Y	Y	N/A	N	N	Y	Poor
27.	Ashkar, Khalil; 2010 [27]	Y	Y	Y	N	N	Y	Poor
28.	Bany Hamdan, Abdullah; 2019 [28]	Y	Y	Y	Y	N	Y	Fair
29.	Belayachi, Jihane; 2016 [29]	Y	Y	N/A	N	N	Y	Poor
30.	Ben Zid, A; 2018 [30]	Y	Y	Y	Y	N	Y	Good
31.	Benbrahim, Zineb; 2019 [31]	Y	Y	N	N	N	Y	Poor
32.	Bin Dahmash, Abdulmajeed; 2019 [32]	Y	Y	Y	N	N	Y	Poor
33.	Chaudhruy,Muhammad Ashraf; 2015 [33]	Y	Y	Y	N	N	Y	Poor
34.	El Kettani, Assiya; 2017 [34]	Y	Y	Y	Y	N	Y	Good

35.	Fauzia, A Khan; 2019 [35]	Y	Y	Y	Y	Y	Y	Good
36.	Farahat, Taghreed Mohamed; 2016 [36]	Y	Y	Y	N	N	Y	Poor
37.	Farahat, Tagraeed Mohamed; 2017 [37]	Y	Y	Y	N	N	Y	Poor
38.	Ghaida M.J, Al-Shoraian; 2011 [38]	Y	Y	Y	N	N	Y	Poor
39.	Hamdan, Motasem; 2017 [39]	Y	Y	Y	Y	N	Y	Fair
40.	Hameed, Tahir Kamal; 2018 [40]	Y	Y	N	Y	N	Y	Fair
41.	Hasan, Husain Isa; 2015 [41]	Y	Y	Y	Y	Y	Y	Good
42.	Hussein, H. Y; 2015 [42]	Y	Y	N/A	N	N	Y	Poor
43.	I, Kacem; 2017 [43]	Y	Y	Y	Y	N	Y	Good
44.	Jadoo, Saad Ahmed Ali; 2018 [44]	Y	Y	Y	N	N	Y	Poor
45.	Jalili, Mohammad; 2013 [45]	Y	Y	Y	N	N	Y	Poor
46.	Jamjoom, Roaa S; 2018 [46]	Y	Y	Y	N	N	Y	Poor
47.	Khalil, Ashkar; 2018 [47]	Y	Y	N	N	N	Y	Poor
48.	Kalani, Simin Dokht; 2017[48]	Y	Y	N	N/A	N/A	Y	Unclear
49.	Khan, Khadija Asim; 2020 [49]	Y	Y	Y	N	N	Y	Poor
50.	Kotb, Amany Ali; 2014 [50]	Y	Y	N/A	N	N	Y	Poor
51.	Liaqat, Naeem; 2019 [51]	Y	Y	N	N	N	Y	Poor
52.	Mohamed, Alorabi; 2019 [52]	Y	Y	Y	N	N	Y	Poor
53.	M, Oumaya; 2009 [53]	Y	Y	Y	N/A	N/A	N/A	Unclear
54.	M, Taei; 2010 [54]	Y	Y	N	N/A	N/A	Y	Unclear
55.	Mohammed,Almhana Abdulhussein Abdulzahra; 2019 [55]	Y	Y	Y	N/A	N/A	N/A	Unclear
56.	Malik, Awais Amjad; 2016 [56]	Y	Y	Y	N	N	Y	Poor

57.	Marzouki, Hani; 2019 [57]	Y	Y	Y	N	N	Y	Poor
58.	Massou, Salah; 2013 [58]	Y	Y	Y	Y	N	Y	Good
59.	Mazhar, Syeda Batool; 2019 [59]	Y	Y	Y	Y	Y	Y	Good
60.	Mhamdi, Salah; 2018 [60]	Y	Y	Y	Y	N	Y	Good
61.	Moein, Neda; 2018 [61]	Y	Y	N/A	Y	N	Y	Unclear
62.	Mohammed,Khalid Abdul-Moez; 2014 [62]	Y	Y	Y	N	Y	Y	Poor
63.	Mohammed, Sura Bahjat; 2018 [63]	Y	Y	Y	N	Y	Y	Poor
64.	Mortada, Eman M; 2012 [64]	Y	Y	Y	N	Y	Y	Poor
65.	Ok, Abd EL Latief; 2018 [65]	Y	Y	Y	N	Y	Y	Poor
66.	Omr, Amr S; 2019 [66]	Y	Y	Y	N	N	Y	Poor
67.	Osman, Doaa MM; 2019 [67]	Y	Y	Y	N	N	Y	Poor
68.	Sadat-Ali, Mir; 2005 [68]	Y	Y	Y	N	N	Y	Poor
69.	Salem, Mohamed; 2018 [69]	Y	Y	Y	N	N	Y	Poor
70.	Salem, Rana; 2018 [70]	Y	Y	Y	Y	N	Y	Good
71.	Selaihem, Ahmed Abdullah; 2013 [71]	Y	Y	Y	N	N	Y	Poor
72.	Shams, Tarek; 2013 [72]	Y	Y	Y	N	N	Y	Poor
73.	Sheikhmoonesi, Fatemeh; 2017 [73]	Y	Y	Y	N	N	Y	Poor
74.	Sherbiny, El -E; 2017 [74]	Y	Y	Y	N	N	Y	Poor
75.	Soltanifar, Atefeh; 2018 [75]	Y	Y	Y	Y	N	Y	Fair
76.	Yousef, I. M; 2006 [76]	Y	Y	Y	Y	Y	Y	Good
77.	Zarei, Ehsan; 2019 [77]	Y	Y	Y	Y	N	Y	Fair
78.	Zubairi, Akbar Jaleel; 2016 [78]	Y	Y	N	N	N	Y	Poor

Y-Yes N-No N/A- Not applicable

Figure S7: Forest plot showing pooled prevalence across countries



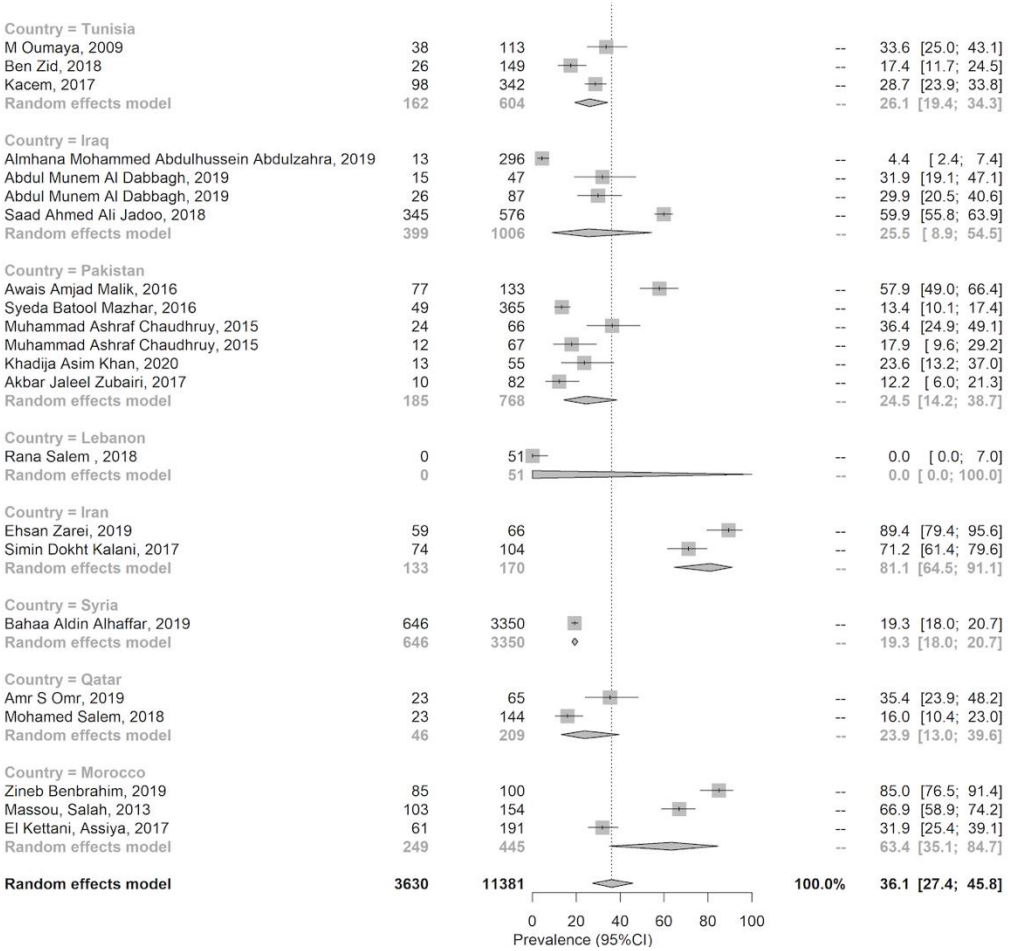

Country = Tunisia
M Oumaya, 2009 38 113 -- 33.6 [25.0; 43.1]
Ben Zid, 2018 26 149 -- 17.4 [11.7; 24.5]
Kacem, 2017 98 342 -- 28.7 [23.9; 33.8]
Random effects model 162 604 -- 26.1 [19.4; 34.3]
Country = Iraq
Almhana Mohammed Abdulhussein Abdulzahra, 2019 13 296 -- 4.4 [2.4; 7.4]
Abdul Munem Al Dabbagh, 2019 15 47 -- 31.9 [19.1; 47.1]
Abdul Munem Al Dabbagh, 2019 26 87 -- 29.9 [20.5; 40.6]
Saad Ahmed Ali Jadoo, 2018 345 576 -- 59.9 [55.8; 63.9]
Random effects model 399 1006 -- 25.5 [8.9; 54.5]
Country = Pakistan
Awais Amjad Malik, 2016 77 133 -- 57.9 [49.0; 66.4]
Syeda Batool Mazhar, 2016 49 365 -- 13.4 [10.1; 17.4]
Muhammad Ashraf Chaudhruy, 2015 24 66 -- 36.4 [24.9; 49.1]
Muhammad Ashraf Chaudhruy, 2015 12 67 -- 17.9 [9.6; 29.2]
Khadija Asim Khan, 2020 13 55 -- 23.6 [13.2; 37.0]
Akbar Jaleel Zubairi, 2017 10 82 -- 12.2 [6.0; 21.3]
Random effects model 185 768 -- 24.5 [14.2; 38.7]
Country = Lebanon
Rana Salem , 2018 0 51 -- 0.0 [0.0; 7.0]
Random effects model 0 51 -- 0.0 [0.0; 100.0]
Country = Iran
Ehsan Zarei, 2019 59 66 -- 89.4 [79.4; 95.6]
Simin Dokht Kalani, 2017 74 104 -- 71.2 [61.4; 79.6]
Random effects model 133 170 -- 81.1 [64.5; 91.1]
Country = Syria
Bahaa Aldin Alhaffar, 2019 646 3350 -- 19.3 [18.0; 20.7]
Random effects model 646 3350 -- 19.3 [18.0; 20.7]
Country = Qatar
Amr S Omr, 2019 23 65 -- 35.4 [23.9; 48.2]
Mohamed Salem, 2018 23 144 -- 16.0 [10.4; 23.0]
Random effects model 46 209 -- 23.9 [13.0; 39.6]
Country = Morocco
Zineb Benbrahim, 2019 85 100 -- 85.0 [76.5; 91.4]
Massou, Salah, 2013 103 154 -- 66.9 [58.9; 74.2]
El Kettani, Assiya, 2017 61 191 -- 31.9 [25.4; 39.1]
Random effects model 249 445 -- 63.4 [35.1; 84.7]
Random effects model 3630 11381 100.0% 36.1 [27.4; 45.8]
0 20 40 60 80 100
Prevalence (95%CI)

Table S8: Age and Gender wise prevalence of Burnout in the Middle East

Included Study Citation	Quality Assessment	Country	Age	Gender	Study Period	Response rate (%)	Category	Specialty/ Subcategory	Instrument cut-offs			Std cut offs used used	OB Definition category	Sample size	OB Prevalence (%)	EE Prevalence (%)	DP Prevalence (%)	PA Prevalence (%)
									EE	DP	PA	Y/N	1*-10*					
AbdAllah, AM; 2019 [2]	Poor	Egypt	.	M and F	1st of Jan 2017 - Apr of 2018.	.	SMP	All (Surgical Specialists and Medical Specialists)	.	.	.	Unclear	1	70	44.25	.	.	.
Al-Dabbagh, Abdul Munem; 2019 [9]	Fair	Iraq	<30 yrs:12 (9.0%) 30-39yrs:64 (47.7%) ≥40yrs:58 (43.3%)	M and F	Apr-June 2017	95.7	GMP	General medical practitioners (Family medical practitioners, General practitioners)	.	.	.	Unclear	NA	134	.	68.66	41.04	26.12
Al-Dabbagh, Abdul Munem; 2019 [9]	Fair	Iraq	.	M and F	Apr-June 2017	95.7	GMP	General medical practitioners (Family medical practitioners, General practitioners)	.	.	.	Unclear	NA	87	29.89	.	.	.
Al-Dabbagh, Abdul Munem; 2019 [9]	Fair	Iraq	.	M and F	Apr-June 2017	95.7	GMP	General medical practitioners (Family medical practitioners, General	.	.	.	Unclear	NA	47	31.91	.	.	.

								practitioners)										
Alsaawi, Abdulmoshen, 2019 [23]	Fair	Saudi Arabia	<25 yrs:2 (0.8%) 25–34 yrs: 161(60.8%) 35–44 yrs:76 (28.7%) 45–55 yrs:20 (7.5%) ≥55 yrs:6 (2.3%)	M and F	2015	60.8	SMP	Surgical Specialists (Emergency medicine)	≥3	≥2	≤4.1	N	NA	265	.	35.85	50.94	40.38
El - Sherbiny E, 2017 [74]	Poor	Saudi Arabia	.	M and F	Jul-Aug 2014	80	SMP	Surgical Specialists (Intensive care Physicians)	>30	>12	<33	N	1	8	12.50	62.50	12.50	37.50
Salem, Rana; 2018 [70]	Good	Lebanon	25-30yrs:9 (17.6%) 30-40 yrs:14 (27.5%) 40-60 yrs:22 (43.1%) >60:6 (11.8%)	M and F	.	73	SMP	Medical specialists (Oncology)	>27	>13	<30	N	1	51	0.00	33.33	13.73	68.63

A Al Subhi, Abdulrahman; 2020 [10]	Good	Oman	Mean:29 yrs	M and F	Apr 2018 to Apr 2019	100	SMP	Medical Specialists (Internal Medicine, Community medicine), OBGYN	>27	>13	<31	N	2	343	16.03	17.78	42.57	40.82
Abbas, Ahmad; 2019 [1]	Good	Egypt	Mean:29.47±5.49 years range:17–49 years	M and F	1 April - 30 Oct 2017	.	SMP	Surgical Specialists (Intensive care Physicians)	.	.	.	Unclear	1	147	77.55	38.78	70.07	51.02
AbdAllah, AM; 2019 [2]	Poor	Egypt	Range:25-29 Mean± SD: 27.46 (0.82).	M and F	1st of Jan 2017 - Apr of 2018.	.	SMP	All (Surgical Specialists and Medical Specialists)	.	.	.	Unclear	1	168	67.26	52.98	64.29	75.00
AbdAllah, AM; 2019 [2]	Poor	Egypt	.	M	1st of Jan 2017 - Apr of 2018.	.	SMP	All (Surgical Specialists and Medical Specialists)	.	.	.	Unclear	1	98	83.72	.	.	.
AbdAllah, AM; 2019 [2]	Poor	Egypt	.	F	1st of Jan 2017 - Apr of 2018.	.	SMP	All (Surgical Specialists and Medical Specialists)	.	.	.	Unclear	1	70	44.3	.	.	.
Abdo, SA; 2015 [3]	Good	Egypt	Mean:31.0 (6.0) yrs	M and F	01 Nov-30 Apr 2013	89.8	SMP	All	>27	>13	<31	N	3	239	22.59	39.75	22.59	99.16

Abdulaziz, Salman; 2009 [4]	Poor	Saudi Arabia	21-25 yrs: 19 (9.27%) 26-30 yrs: 162 (79.02%) 31-35 yrs: 21 (10.24%) 36 yrs +: 3 (1.46%)	M and F	May 2005	.	All	All	≥27	≥13	<31	N	NA	205	.	54.15	23.90	69.76
Abdulrahman, Mahera; 2018 [5]	Poor	UAE	.	M and F	May and Dec 2016	68	All	All	≥ 27	≥ 10	.	Y	Unclear	286	.	75.52	83.56	74.23
Abdulrahman, Mahera; 2018 [5]	Poor	UAE	.	F	May and Dec 2016	68	All	All	≥ 27	≥ 10	.	Y	Unclear	236	92.37	.	.	.
Abdulrahman, Mahera; 2018 [5]	Poor	UAE	.	M	May and Dec 2016	68	All	All	≥ 27	≥ 10	.	Y	Unclear	63	88.89	.	.	.
Abyad, Abdulrazak; 2016 [6]	Poor	Middle East (Iran, Saudi Arabia, Kuwait, Lebanon, Iraq,)	Mean: 47.4 years	M and F	.	71	GMP	General medical practitioners (Family medical practitioners)	>27	>10	<33	N	NA	500	.	44.00	30.00	28.80
Agha, Adnan; 2014 [7]	Fair	Saudi Arabia	<29 yrs:21 30-39 yrs:48 40-50 yrs:27	M and F	Aug - Oct 2012	NA	SMP	All	.	.	.	Y	2	96	88.54	68.75	63.54	38.54

Ahmadpanah, Mohammad; 2015 [8]	Fair	Iran	Range:26-49 yrs Mean :32±5.06	M and F	Jan-Dec 2011	NA	GMP	General Practitioners	Unclear	Unclear	Unclear	Unclear	Unclear	100	.	15.00	15.00	10.00
Ahmed AL-Haddad, 2020 [12]	Fair	Saudi Arabia	25 <35 yrs:128 35 <45 yrs:59 45 <50 yrs:26 %0 and above :13	M and F	Mar 2018-Aug 2019	80.7	All	All	.	.	.	Unclear	1	226	24.34	47.35	51.33	40.27
Al-Dubai, Sami Abdo Radman; 2010 [11]	Fair	Yemen	Mean: 33.3 ±5.7 yrs Range: 25-55 yrs	M and F	Dec 2006-July 2007	70.4	Medical doctors undefined	All	≥ 27	≥ 13	≤ 31	N	1	563	11.72	63.23	19.36	41.56
Al-Hashemi, Tharaya; 2019 [13]	Poor	Oman	(18–29):36 (18.9%) (30–39):95 (50.0%) (40–49):48 (25.3%) ≥50: 11 (6.3%)	M and F	Mar-May 2017	96	GMP	General medical practitioners (Primary health care physicians)	≥ 26	≥ 9	≤ 33	N	1	190	6.32	17.89	38.42	21.58
Al-Sareai, N.S; 2013 [14]	Poor	Saudi Arabia	26-60 yrs Mean:39.8 yrs	M and F	Oct 2010-Jun 2011	94.9	GMP	All	≥ 26	≥ 9	≤ 33	N	1	370	6.49	29.46	15.68	19.73
Al-Sareai, N.S; 2013 [14]	Poor	Saudi Arabia	.	M	Oct 2010-Jun 2011	94.9	GMP	All	≥ 26	≥ 9	≤ 33	N	1	303	.	31.02	16.50	19.80

Al-Sareai, N.S; 2013 [14]	Poor	Saudi Arabia	.	F	Oct 2010-Jun 2011	94.9	GMP	All	≥ 26	≥ 9	≤ 33	N	1	67	.	22.39	11.94	19.40
Al-Youbi, Reem A; 2013 [15]	Poor	Saudi Arabia	Range:25-45 yrs Mean 30 ± 5yrs	M and F	3 consecutive months in 2010	65	SMP	General Paediatricians	.	.	.	Unclear	1	130	34.62	.	.	.
Al-Youbi, Reem A; 2013 [15]	Poor	Saudi Arabia	.	M	3 consecutive months in 2010	65	SMP	General Paediatricians	.	.	.	Unclear	1	58	39.66	.	.	.
Al-Youbi, Reem A; 2013 [15]	Poor	Saudi Arabia	.	F	3 consecutive months in 2010	65	SMP	General Paediatricians	.	.	.	Unclear	1	72	30.56	.	.	.
Aldrees, Turki; 2013 [16]	Good	Saudi Arabia	Mean:35 yrs	M and F	Oct and Nov 2010	74	All	All	≥27	≥13	<31	N	2	348	69.83	54.02	34.77	33.33
Aldrees, Turki; 2013 [16]	Good	Saudi Arabia	.	F	Oct and Nov 2010	74	All	All	.	.	.	N	2	96	79.17	.	.	.
Aldrees, Turki; 2013 [16]	Good	Saudi Arabia	.	M	Oct and Nov 2010	74	All	All	.	.	.	N	2	252	66.27	.	.	.
Aldrees, Turki; 2015 [17]	Fair	Saudi Arabia	Mean:29 yrs Range:25-40 yrs	M and F	Mar-May 2013	69	SMP	Medical Specialists (Oto-rhino-laryngology)	≥ 27	≥ 10	≥ 40	N	7	85	44.71	62.35	55.29	16.47

Aldrees, Turki; 2015 [17]	Fair	Saudi Arabia	Mean:29 yrs Range:25-40 yrs	M and F	Mar-May 2013	69	SMP	Medical Specialists (Oto-rhino-laryngology)	≥ 27	≥ 10	≥ 40	N	1	85	32.94	62.35	55.29	16.47
Aldrees, Turki; 2017 [18]	Fair	Saudi Arabia	28 ±1.9 yrs Range:25-32	M and F	Apr 2015	60	SMP	Surgical Specialists (Plastic Surgery)	≥ 27	≥ 13	≤ 31	N	7	38	47.37	71.05	50.00	28.95
Aldrees, Turki; 2017 [18]	Fair	Saudi Arabia	28 ±1.9 yrs Range:25-32	M and F	Apr 2015	60	SMP	Surgical Specialists (Plastic Surgery)	≥ 27	≥ 13	≤ 31	N	1	38	18.42	71.05	50.00	28.95
Alhaffar, Bahaa Aldin; 2019 [19]	Fair	Syria	21–25 yrs:1139 (34%) 26–30 yrs: 1994 (59.50%) 31–35 yrs: 217 (6.50%)	M and F	.	87.3	GMP	General medical practitioners (General practitioners)	>27	>9	<33	N	1	3350	19.28	77.88	54.60	13.67
Alhaffar, Bahaa Aldin; 2019 [19]	Fair	Syria	.	F	.	87.3	GMP	General medical practitioners (General practitioners)	>27	>9	<33	N	1	1477	.	71.63	54.03	12.12
Alhaffar, Bahaa Aldin; 2019 [19]	Fair	Syria	.	M	.	87.3	GMP	General medical practitioners (General practitioners)	>27	>9	<33	N	1	1873	.	82.81	54.99	14.90

Alotaibi, Abdulaziz Khalid; 2019 [20]	Poor	Saudi Arabia	.	M and F	Jan 2018	70	SMP	Surgical Specialists (Ophthalmology)	≥27	≥ 13	≤31	N	2	117	41.03	37.61	17.09	31.62
Alqahtani, Abdulghani M; 2019 [21]	Poor	Saudi Arabia	.	.	NA	NA	SMP	Surgical Specialists (Emergency medicine)	≥26	≥ 9	≤33	N	1	95	18.95	81.05	24.21	27.37
Alsaawi, Abdulmoshen, 2014 [22]	Fair	Saudi Arabia	35-44yrs:30 (56%)	M and F	.	74	SMP	Surgical Specialists (Emergency medicine)	≥27	≥10	≤33	Y	NA	53	.	39.62	39.62	32.08
Alsheikh, Khalid A; 2019 [24]	Poor	Saudi Arabia	Mean:28.4 (±2.5) years	M and F	Sept-Oct 2018	47.2	SMP	Surgical Speciality (Orthopaedics)	≥27	≥13	≤31	N	NA	142	.	50.00	39.44	39.44
Alsheikh, Khalid A; 2019 [24]	Poor	Saudi Arabia	.	M	Sept-Oct 2018	47.2	SMP	Surgical Speciality (Orthopaedics)	≥27	≥13	≤31	N	NA	128	57.03	.	.	.
Alsheikh, Khalid A; 2019 [24]	Poor	Saudi Arabia	.	F	Sept-Oct 2018	47.2	SMP	Surgical Speciality (Orthopaedics)	≥27	≥13	≤31	N	NA	14	50.00	.	.	.
Alyamani, Alwaleed; 2018 [25]	Poor	Saudi Arabia	Mean:28 yrs	M and F	15 May 2018 and 31 May 2018	66.67	SMP	All	>29	>11	<33	N	NA	200	.	12.50	51.00	31.50
Arvandi, Zeinab; 2016 [26]	Poor	Iran	46.7±6.7 yrs	M and F	NA	NA	SMP	All	.	.	.	NA	NA	143	.	28.67	5.59	36.36

Bany Hamdan, Abdullah, 2019 [28]	Fair	Saudi Arabia	.	M and F	June 2016-June 2017	62.8	SMP	Medical specialists (Oncology)	.	.	.	Unclear	Unclear	55	44.00	.	.	.
Belayachi, Jihane; 2016 [29]	Poor	Morocco	Mean:29.3 ±3.2	M and F	April-Oct 2010	NA	All	All	.	.	.	Unclear	Unclear	198	.	83.84	16.67	13.13
Ben Zid, A; 2018 [30]	Good	Tunisia	Mean (SD):29 yrs (2.36) 25-40 yrs	M and F	<2017	76.8	SMP	All	.	.	.	.	1	149	17.45	.	.	.
Benbrahim, Zineb; 2019 [31]	Poor	Morocco	.	M and F	Jan 2018	25	SMP	Medical Specialists (Oncology)	.	.	.	Unclear	1	100	85.00	57.00	44.00	20.00
Benbrahim, Zineb; 2019 [31]	Poor	Morocco	.	M	Jan 2018	25	SMP	Medical Specialists (Oncology)	.	.	.	Unclear	1	25	88.00	.	.	.
Benbrahim, Zineb; 2019 [31]	Poor	Morocco	.	F	Jan 2018	25	SMP	Medical Specialists (Oncology)	.	.	.	Unclear	1	75	84.00	.	.	.
Bin Dahmash, Abdulmajeed; 2019 [32]	Poor	Saudi Arabia	25-27 yrs:12 (41.4%) 28-30 yrs:12 (41.4%) 31-33 yrs:5 (17.2%)	M and F	Mar 2018	83.8	SMP	Surgical Specialists (Plastic Surgery)	>26	>12	<32	N	7	31	35.48	67.74	38.71	54.84
Chaudhruy, Muhammad Ashraf; 2015 [33]	.	Pakistan	Mean:35.10 ± 11.16.	M and F	Mar-Sept 2014.	.	GMP	General medical practitioners (General practitioners)	≥27	≥13	≥39	N	Unclear	133	.	21.80	16.54	25.56

Chaudhruy, Muhammad Ashraf; 2015 [33]	Poor	Pakistan	.	M	Mar - Sept 2014.	.	GMP	General medical practitioners (General practitioners)	≥27	≥13	≥40	N	1	66	36.36	.	.	.
Chaudhruy, Muhammad Ashraf; 2015	Poor	Pakistan	.	F	Mar - Sept 2014.	.	GMP	General medical practitioners (General practitioners)	≥27	≥13	≥41	N	1	67	17.91	.	.	.
Doaa MM Osman, 2019 [67]	Poor	Egypt	.	M and F	May - July 2017	86*	GMP	General medical practitioners (Medical Doctors)	≥27	≥13	≤21	N	NA	134	.	59.70	38.81	10.45
El Kettani, Assiya, 2017 [34]	Good	Morocco	Mean:26.7 yrs	M and F	2013-2014	63.7	SMP	All	>29	>11	<34	N	1	191	31.94	.	.	.
Farahat, Taghreed Mohamed; 2016 [36]	Poor	Egypt	Mean:33.7 yrs	F	Aug 2014 - May of 2016	91.6	All	All	.		.	Unclear	Unclear	40	51.20	.	.	.
Farahat, Taghreed Mohamed; 2016 [36]	Poor	Egypt	Mean:33.7 yrs	M	Aug 2014 - May of 2017	91.6	All	All	.		.	Unclear	Unclear	36	48.80	.	.	.
Farahat, Tagraeed Mohamed; 2017 [37]	Poor	Egypt	.	F	Aug 2014 - May of 2019	91.6	All	All	>27	>13	<31	N	Unclear	40	.	77.50	77.50	47.50
Farahat, Tagraeed Mohamed; 2017 [37]	Poor	Egypt	.	M	Aug 2014 - May of 2020	91.6	All	All	>27	>13	<31	N	Unclear	36	.	69.44	77.78	41.67

Fauzia A Khan, 2019 [35]	Good	Pakistan	.	M and F	2017	74.5	SMP	Surgical specialists (Anaesthesiology)	>30	>12	≤ 33	N	NA	447	.	39.37	68.46	50.34
Fauzia A Khan, 2019 [35]	Good	Pakistan	.	M	2017	74.5	SMP	Surgical specialists (Anaesthesiology)	>30	>12	≤ 33	N	NA	299	.	41.14	70.23	49.83
Fauzia A Khan, 2019 [35]	Good	Pakistan	.	F	2017	74.5	SMP	Surgical specialists (Anaesthesiology)	>30	>12	≤ 33	N	NA	148	.	35.81	64.86	51.35
Ghaida M.J. Al-Shoraian, 2011[38]	Poor	Kuwait	.	M and F	Aug 2010-Mar 2011	52.90	GMP	General medical practitioners (Family medical practitioners, Primary health care physicians)	≥27	≥10	≤33	Y	1	200	20.50	.	.	.
Ghaida M.J. Al-Shoraian, 2011 [38]	Poor	Kuwait	.	M and F	Aug 2010-Mar 2011	52.90	GMP	General medical practitioners (Family medical practitioners, Primary health care physicians)	≥27	≥10	≤33	Y	2	200	26.50	.	.	.

Ghaida M.J. Al-Shoraian, 2011[38]	Poor	Kuwait	.	M and F	Aug 2010-Mar 2011	52.90	GMP	General medical practitioners (Family medical practitioners, Primary health care physicians)	≥27	≥10	≤33	Y	10	200	22.00	.	.	.
Ghaida M.J. Al-Shoraian, 2011 [38]	Poor	Kuwait	<40 yrs:37 ≥ 40yrs:58	M and F	Aug 2010-Mar 2011	52.90	GMP	General medical practitioners (Primary health care physicians)	≥27	≥10	≤33	Y	1	95	36.84	63.16	65.26	61.05
Ghaida M.J. Al-Shoraian, 2011 [38]	Poor	Kuwait	<40 yrs:77 ≥ 40yrs:28	M and F	Aug 2010-Mar 2011	52.90	GMP	General medical practitioners (Family medical practitioners)	≥27	≥10	≤33	Y	1	105	5.71	19.05	27.62	33.33
Hamdan, Motasem; 2017 [39]	Fair	Palestine	.	M and F	Jul-Sept 2013	74.5	SMP	Surgical Specialists (Emergency medicine)	≥27	≥10	≤33	Y	1	142	9.86	71.83	31.69	31.69

Hameed, Tahir Kamal; 2018 [40]	Fair	Saudi Arabia	.	M and F	2013-2014	43	SMP	All (Surgical Specialists and Medical Specilaists)	≥27	≥ 10	.	Unclear	4	181	81.22	62.43	70.72	66.85
Hameed, Tahir Kamal; 2018 [40]	Fair	Saudi Arabia	.	M	2013-2014	43	SMP	All (Surgical Specialists and Medical Specilaists)	≥27	≥ 10	.	Unclear	4	75	73.33	.	.	.
Hameed, Tahir Kamal; 2018 [40]	Fair	Saudi Arabia	.	F	2013-2014	43	SMP	All (Surgical Specialists and Medical Specilaists)	≥27	≥ 10	.	Unclear	4	106	85.85	.	.	.
Hasan, Husain Isa; 2015 [41]	2015	Bahrain	Mean ±SD :30-40 ±9	M and F	.	87.7	SMP	All	.	.	.	Unclear	NA	202	.	43.07	26.73	22.28
Hasan, Husain Isa; 2015 [41]	2015	Bahrain	.	M	.	87.7	SMP	All	.	.	.	Unclear	NA	122	.	39.34	28.69	54.10
Hasan, Husain Isa; 2015 [41]	2015	Bahrain	.	F	.	87.7	SMP	All	.	.	.	Unclear	NA	79	.	49.37	24.05	48.10
Hussein, H. Y; 2015 [42]	Poor	UAE	<30 yrs:5 (4.9%) 30-40 yrs:38 (37.3%) >40 yrs:59 (57.8%)	M and F	.	.	GMP	General Medical Practitioners (Family medical practitioners)	.	.	.	Unclear	NA	102	.	42.16	13.73	22.55

I, Kacem; 2017[43]	Good	Tunisia	23-25:77 (22.5%) 26-30:245 (71.6%) >30:20 (5.8%)	M and F	.	52.7	GMP	Medical Interns	>29	>11	<34	N	1	342	28.65	.	.	.
I, Kacem; 2017 [43]	2017	Tunisia	.	M	.	52.7	GMP	Medical Interns	>29	>11	<34	N	1	162	30.25	.	.	.
I, Kacem; 2017 [43]	2017	Tunisia	.	F	.	52.7	GMP	Medical Interns	>29	>11	<34	N	1	180	27.22	.	.	.
Jadoo, Saad Ahmed Ali; 2018 [44]	Poor	Iraq	Mean ±SD: 40.43 ±8.59 Range:27-56 yrs ≥40 yrs:291 (50.5%) < 40 yrs:285 (49.5%)	M and F	Jan-Jun 2014	87.3	GMP	General medical practitioners (Medical Doctors)	≥27	.	.	Unclear	8	576	59.90	.	.	.
Jalili, Mohammad; 2013 [45]	Poor	Iran	Mean:33.6 yrs	M and F	Mar-Apr 2008	88	SMP	Surgical Specialists (Emergency medicine)	>27	>10	<33	Y	NA	158	.	36.71	38.75	76.13
Jamjoom, Roaa S; 2018 [46]	Poor	Saudi arabia	NA	M and F	May 2016	64%	SMP	General Paediatricians	>27	≥10	≤ 33	Y	1	32	68.75	43.75	71.88	40.63
Kalani, Simin Dokht; 2017 [48]	Unclear*	Iran	.	M and F	.	.	SMP	All	.	.	.	Unclear	Unclear	104	71.15	.	.	.
Khalil Ashkar, 2018 [47]	Poor	Lebanon	<40 yrs:51 (33.6%)	M and F	01 Aug-20 Sept 2013	30.20	SMP	All (Surgical Specialists and	≥27	>9	<33	N	NA	156	.	37.18	12.82	14.10

			≥40 yrs:101 (37.1%0					Medical Specilaists)										
Khalil Ashkar, 2018 [47]	Poor	Lebanon	.	M	01 Aug-20 Sept 2013	30.20	SMP	All (Surgical Specialists and Medical Specilaists)	≥27	>9	<33	N	NA	95	.	33.68	14.74	15.79
Khalil Ashkar, 2018 [47]	Poor	Lebanon	.	F	01 Aug-20 Sept 2013	30.20	SMP	All (Surgical Specialists and Medical Specilaists)	≥27	>9	<33	N	NA	56	.	44.64	10.71	10.71
Khalil, Ashkar; 2010 [27]	Poor	Lebanon	24-30 yrs: 141 (91%) >30 yrs:14 (9%)	M and F	20 May - 20 Jun 2008	75	All	All	>27	>9	<33	N	NA	155	.	67.74	47.10	37.42
Khalil, Ashkar; 2010 [27]	Poor	Lebanon	.	M	20 May - 20 Jun 2008	75	All	All	>27	>9	<33	N	NA	86	.	61.63	44.19	30.23
Khalil, Ashkar; 2010 [27]	Poor	Lebanon	.	F	20 May - 20 Jun 2008	75	All	All	>27	>9	<33	N	NA	69	.	75.36	50.72	46.38
Khan, Khadija Asim; 2020 [49]	Poor	Pakistan	Mean:44.89 ± 8.50 Range:32-56 yrs	M and F	Jan-Jun 2017	.	SMP	OBGYN	≥27	≥ 10	≤33	Y	10	55	23.64	43.64	41.82	16.36
Kotb, Amany Ali; 2014 [50]	Poor	Egypt	.	M	.	.	All	All	≥27	≥13	≤ 31	N	6	76	57.89	.	.	.
Kotb, Amany Ali; 2014 [50]	Poor	Egypt	.	F	.	.	All	All	≥27	≥13	≤ 31	N	6	95	47.37	.	.	.

Liaqat, Naeem; 2019 [51]	Poor	Pakistan	Mean:44.89 ± 8.50 Range:31-58 yrs	M and F	Jan - Feb, 2017	36.6	SMP	Surgical Specialists (other types of surgery)	.	.	.	Unclear	NA	40	.	17.50	12.50	40.00
Liaqat, Naeem; 2019 [51]	Poor	Pakistan	.	M	Jan-Feb 2017	36.6	SMP	Surgical Specialists (other types of surgery)	.	.	.	Unclear	NA	34	.	17.65	14.71	35.29
Liaqat, Naeem; 2019 [51]	Poor	Pakistan	.	F	Jan-Feb 2017	36.6	SMP	Surgical Specialists (other types of surgery)	.	.	.	Unclear	NA	6	.	16.67	0.00	66.67
M Oumaya, 2009 [53]	Unclear*	Tunisia	.	M and F	.	85.6	GMP	General medical practitioners (Primary health care physicians)	.	.	.	Unclear	Unclear	113	33.63	35.40	21.24	39.82
M, Taei, 2010 [54]	Unclear*	Iran	.	M and F	2009	.	GMP	General Practitioners	.	.	.	Unclear	Unclear	150	.	27.33	94.67	74.00
Malik, Awais Amjad; 2016 [56]	Poor	Pakistan	.	M and F	.	66.5	SMP	Surgical Specialists	.	.	.	Unclear	10	133	57.89	50.38	49.62	53.38
Malik, Awais Amjad; 2016 [56]	Poor	Pakistan	.	M	.	66.5	SMP	Surgical Specialists	.	.	.	Unclear	10	98	48.98	.	.	.
Malik, Awais Amjad; 2016 [56]	Poor	Pakistan	.	F	.	66.5	SMP	Surgical Specialists	.	.	.	Unclear	10	35	34.29	.	.	.

Marzouki, Hani; 2019 [57]	Poor	Saudi Arabia	Mean:43.8 (±9.2)	M and F	Dec 2016 - Jun 2017	77	GMP	General medical practitioners (General practitioners)	>30	>12	<33	N	NA	77	.	9.09	23.38	42.86
Massou, Salah, 2013 [58]	Good	Morocco	.	M and F	.	.	SMP	Surgical specialists	>29	>11	<34	N	Unclear	154	66.88	48.05	20.78	42.86
Mazhar, Syeda Batool; 2019 [59]	Good	Pakistan	Mean:28.68 ±4.58 yrs 20-29:244, 66.9% 30-39:105, 28.8% >40: 14, 3.8	M and F	01 Oct 2016-31 Jan 2017	100	SMP	All	>27	>13	<31	N	1	365	13.42	38.36	27.40	56.99
Mazhar, Syeda Batool; 2019 [59]	Good	Pakistan	.	F	01 Oct 2016-31 Jan 2017	100	SMP	All	>27	>13	<31	N	1	238	.	41.18	.	.
Mazhar, Syeda Batool; 2019 [59]	Good	Pakistan	.	M	01 Oct 2016-31 Jan 2017	100	SMP	All	>27	>13	<31	N	1	127	.	33.07	.	.
Mhamdi, Salah, 2018 [60]	Good	Tunisia	Mean:40.83 yrs	M and F	7/6/05	72.19	SMP	Surgical Specialists (Anaesthesiology)	>29	>11	<34	N	NA	35	.	20.00	17.14	31.43
Moein, Neda; 2018 [61]	Unclear*	Iran	Mean:35.3 ±8.5 years	M and F	2017-2018	.	GMP	General Medical Practitioners (Family medical practitioners)	≥27	≥13	≥31	N	NA	NA	.	22.58	3.23	28.39

Mohamed, Alorabi; 2019 [52]	Poor	Egypt	<40yrs:33 (70.2%) >40 yrs:14 (29.8%)	M and F	.	90	SMP	Medical specialists (Oncology)	.	.	.	Unclear	NA	47	.	72.34	48.94	38.30
Mohammed, Almhana Abdulhussein Abdulzahra; 2019 [55]	Unclear*	Iraq	.	M and F	.	84	GMP	General medical practitioners (Medical Doctors)	.	.	.	Unclear	Unclear	296	4.39	52.70	14.19	26.01
Mohammed, Khalid Abdul-Moez; 2014 [62]	Poor	Egypt	.	M	2012	64.6	GMP	General medical practitioners (General practitioners)	.	.	.	Unclear	10	84	76.19	80.95	64.29	52.38
Mohammed, Sura Bahjat; 2018 [63]	Poor	Iraq	Mean:34.75 ± 7.5	M and F	2016	92	GMP	General medical practitioners (General practitioners)	≥27	≥10	≤16	N	NA	.	.	0	78.71	17.42
Mortada, Eman M; 2012 [64]	Poor	Egypt	Mean:36.9 ± 8.9 years	M and F	Jan - April 2012	.	SMP	All	≥27	≥ 10	≤33	Y	NA	250	.	37.6	27.60	17.20
Ok, Abd EL Latief, 2018 [65]	Poor	Egypt	Range:20 - 58 yrs. Mean: 39.45± 10.30	M and F	Oct-Dec 2016	.	SMP	All (Surgical Specialists and Medical Specilaists)	≥30	≥12	≤33	N	NA	134	.	55.97	58.21	23.13
Omr, Amr S; 2019 [66]	Poor	Qatar	.	M and F	.	.	SMP	Surgical Specialists (Intensive care Physicians)	>27	.	.	N	8	65	35.38	35.38		

Sadat-Ali, Mir; 2005 [68]	Poor	Saudi Arabia	Avg:45.72 ±6.82 Range:33-57 yrs	M and F	Sept 2003 - Oct 2004	67.6	SMP	Surgical Speciality (Orthopaedics)	.	.	.	Unclear	NA	102	.	34.31	40.20	11.76
Salem, Mohamed; 2018 [69]	Poor	Qatar	<40 yrs:39 (31.45%) ≥40 yrs:85 (68.55%)	M and F	.	90	GMP	General Medical Practitioners (Family medical practitioners)	≥27	≥13	≤31	N	10	144	15.97	11.81	29.17	58.33
Salem, Mohamed; 2018 [69]	Poor	Qatar	.	M	.	90	GMP	General Medical Practitioners (Family medical practitioners)	≥27	≥13	≤31	N	10	90	14.44	.	.	.
Salem, Mohamed; 2018 [69]	Poor	Qatar	.	F	.	90	GMP	General Medical Practitioners (Family medical practitioners)	≥27	≥13	≤31	N	10	49	20.41	.	.	.
Selaihem, Ahmed Abdullah; 2013 [71]	Poor	Saudi Arabia	Mean ±SD:37.08 ± 8.48 Range:25 to 62 years	M and F	Apr 2010.	72	GMP	General medical practitioners (Primary health care physicians)	>26	>9	<34	N	10	144	39.58	.	.	.
Selaihem, Ahmed Abdullah; 2013 [71]	Poor	Saudi Arabia	Mean ±SD:37.08 ± 8.48 Range:25 to 62 years	M and F	Apr 2010.	72	GMP	General medical practitioners (Primary health care physicians)	>26	>9	<34	N	1	144	2.78	.	.	.

Selaihem, Ahmed Abdullah; 2013 [71]	Poor	Saudi Arabia	Mean ±SD:37.08 ± 8.48 Range:25 to 62 years	M and F	Apr 2010.	72	GMP	General medical practitioners (Primary health care physicians)	>26	>9	<34	N	2	144	33.33	.	.	.
Selaihem, Ahmed Abdullah; 2013 [71]	Poor	Saudi Arabia	Mean ±SD:37.08 ± 8.48 Range:25 to 62 years	M and F	Apr 2010.	72	GMP	General medical practitioners (Primary health care physicians)	>26	>9	<34	N	NA	144	.	53.47	38.89	44.44
Selaihem, Ahmed Abdullah; 2013 [71]	Poor	Saudi Arabia	.	M	Apr 2010.	72	GMP	General medical practitioners (Primary health care physicians)	>26	>9	<34	N	NA	88	.	51.14	40.91	25.00
Selaihem, Ahmed Abdullah; 2013 [71]	Poor	Saudi Arabia	.	F	Apr 2010.	72	GMP	General medical practitioners (Primary health care physicians)	>26	>9	<34	N	NA	56	.	57.14	35.71	33.93
Shams, Tarek; 2013 [72]	Poor	Egypt	.	M and F	Mar-June 2011	73	SMP	Surgical specialists (Anaesthesiology)	.	.	.	Unclear	NA	134	.	45.52	41.04	42.54
Shams, Tarek; 2013 [72]	Poor	Egypt	.	M	Mar-June 2011	73	SMP	Surgical specialists (Anaesthesiology)	.	.	.	Unclear	NA	99	.	46.46	41.41	42.42
Shams, Tarek; 2013 [72]	Poor	Egypt	.	F	Mar-June 2011	73	SMP	Surgical specialists (Anaesthesiology)	.	.	.	Unclear	NA	35	.	42.86	40.00	42.86

Sheikhmoonesi, Fatemeh; 2017 [73]	Poor	Iran	.	M and F	2012	60	SMP	All	≥27	≥10	≤33	Y	1	106	.	4.72	16.04	28.30
Sheikhmoonesi, Fatemeh; 2017 [73]	Poor	Iran	.	M	2012	60	SMP	All	≥27	≥10	≤33	Y	NA	54	.	3.70	16.67	38.89
Sheikhmoonesi, Fatemeh; 2017 [73]	Poor	Iran	.	F	2012	60	SMP	All	≥27	≥10	≤33	Y	NA	52	.	5.77	15.38	55.77
Soltanifar, Atefeh; 2018 [75]	Fair	Iran	30-48 yrs Median:36 yrs	F	Dec 2016 - Jan 2017	75	SMP	Surgical Specialists (Emergency medicine)	≥ 27	≥ 10	≤ 33	Y	NA	77	.	42.86	11.69	19.48
Yousef I M Hosny, 2006 [76]	Good	Egypt	.	M and F	.	72.4	.	.	≥27	≥ 13	≤31	N	NA	84	.	75	60.71	27.38
Yousef I M Hosny, 2006 [76]	Good	Egypt	.	M	.	72.4	.	.	≥27	≥ 13	≤31	N	NA	64	.	75	62.50	28.13
Yousef I M Hosny, 2006 [76]	Good	Egypt	.	F	.	72.4	.	.	≥27	≥ 13	≤31	N	NA	20	.	75	55.00	25.00
Zarei, Ehsan; 2019 [77]	Fair	Iran	.	M and F	2018		GMP	General medical practitioners (General practitioners)	>27	>10	<31	N	1	66	89.39	.	.	.
Zubairi, Akbar Jaleel; 2016 [78]	Poor	Pakistan	.	M and F	1st - 31st May 2013	34	SMP	All	.	.	.	Unclear	2	82	74.39	59.76	37.80	31.71
Zubairi, Akbar Jaleel; 2016 [78]	Poor	Pakistan	.	M and F	1st - 31st May 2013	34	SMP	All	.	.	.	Unclear	1	82	12.20	.	.	.

Zubairi, Akbar Jaleel; 2016 [78]	Poor	Pakistan	.	M and F	1st - 31st May 2013	34	SMP	All	.	.	.	Unclear	10	82	41.46	.	.	.

Gender: **M**-Male, **F**-Female
Category: **GMP**- Generalist Medical Practitioners, **SMP**- Specialist Medical Practitioners
Standard cut-off used- **Y**-Yes, **N**-No, **N/A**- Not Applicable
OB Definition Category:

1- High EE and High DP and Low PA
2- Any of the 3 (High EE or High DP or Low PA)
3- High EE+Low PA
4- High EE+ High DP
5- High DP or Low PA
6- High EE + (High DP or Low PA)
7- Low PA
8- High EE
9- High DP
10- 2 of the 3

Appendix S9: Metanalaysis Outputs

```
#Burnout: DP domain
###############################################################################
DP: Prevalence in the EMR
###############################################################################

Number of studies combined: k = 70

                        proportion          95%-CI
Fixed effect model      0.4245 [0.4164; 0.4327]
Random effects model    0.3783 [0.3183; 0.4422]
Prediction interval             [0.0620; 0.8485]

Quantifying heterogeneity:
 tau^2 = 1.2190; tau = 1.1041; I^2 = 97.9%; H = 6.90

Test of heterogeneity:
      Q d.f. p-value           Test
 1922.83   69       0       Wald-type
 2572.40   69       0 Likelihood-Ratio


###############################################################################
DP: Prevalence by country
###############################################################################

Number of studies combined: k = 70

Results for subgroups (random effects model):
                                  k proportion          95%-CI
Country = Oman                    2     0.4109 [0.3698; 0.4532]
Country = Iran                    7     0.2081 [0.0586; 0.5258]
Country = UAE                     2     0.4750 [0.0741; 0.9110]
Country = Saudi arabia            8     0.4294 [0.3015; 0.5674]
Country = Yemen                   1     0.1936 [0.1630; 0.2283]
Country = Saudi Arabia            11     0.3953 [0.3029; 0.4958]
```

Country = Lebanon	3	0.2191 [0.0942; 0.4309]
Country = Morocco	3	0.2547 [0.1486; 0.4009]
Country = Pakistan	8	0.3202 [0.2015; 0.4678]
Country = Kuwait	2	0.4582 [0.2171; 0.7207]
Country = Palestine	1	0.3169 [0.2457; 0.3978]
Country = Egypt	13	0.5782 [0.4490; 0.6975]
Country = Tunisia	2	0.2027 [0.1455; 0.2751]
Country = Iraq	3	0.4294 [0.1505; 0.7617]
Country = Syria	1	0.5460 [0.5291; 0.5628]
Country = Middle-East (Iran, Saudi Arabia ...	1	0.3000 [0.2614; 0.3416]
Country = Bahrain	1	0.2673 [0.2108; 0.3326]
Country = Qatar	1	0.2917 [0.2233; 0.3710]

	tau^2	tau	Q	I^2
Country = Oman	0	0	0.87	0.0%
Country = Iran	3.6677	1.9151	199.30	97.8%
Country = UAE	3.0101	1.7350	111.91	98.3%
Country = Saudi arabia	0.5690	0.7544	77.98	91.7%
Country = Yemen	--	--	0.00	--
Country = Saudi Arabia	0.4440	0.6663	205.14	94.3%
Country = Lebanon	0.6890	0.8301	46.31	91.8%
Country = Morocco	0.3140	0.5604	26.73	89.0%
Country = Pakistan	0.7300	0.8544	198.93	95.4%
Country = Kuwait	0.6009	0.7752	27.01	92.7%
Country = Palestine	--	--	0.00	--
Country = Egypt	0.8475	0.9206	213.50	95.4%
Country = Tunisia	0	0	0.28	0.0%
Country = Iraq	1.6072	1.2678	209.16	98.4%
Country = Syria	--	--	0.00	--
Country = Middle-East (Iran, Saudi Arabia ...	--	--	0.00	--
Country = Bahrain	--	--	0.00	--
Country = Qatar	--	--	0.00	--

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	406.22	17	< 0.0001

```
##############################################################################
DP: Prevalence in the EMR by cut off
##############################################################################

Number of studies combined: k = 70

Results for subgroups (random effects model):
                    k proportion          95%-CI  tau^2    tau      Q   I^2
DP_cutoff = Lower    7     0.3123 [0.2073; 0.4409] 0.5248 0.7244 270.44 96.9%
DP_cutoff = 10      13     0.4722 [0.3282; 0.6209] 1.1805 1.0865 393.12 96.7%
DP_cutoff = .       24     0.3963 [0.2813; 0.5241] 1.6054 1.2670 521.21 97.5%
DP_cutoff = Higher  26     0.3368 [0.2571; 0.4270] 0.9358 0.9674 518.20 97.1%

Test for subgroup differences (random effects model):
                    Q d.f. p-value
Between groups   3.41    3  0.3326



##############################################################################
DP: Prevalence in the EMR by Gender
##############################################################################

Number of studies combined: k = 25

Results for subgroups (random effects model):
                  k proportion          95%-CI  tau^2    tau      Q   I^2
Gender = Female  12     0.3448 [0.2203; 0.4950] 1.1055 1.0514 162.24 95.6%
Gender = Male    13     0.4034 [0.2814; 0.5388] 0.9443 0.9718 291.15 97.0%

Test for subgroup differences (random effects model):
                    Q d.f. p-value
Between groups   0.35    1  0.5527


##############################################################################
DP: Prevalence in the EMR by professional category
##############################################################################
```

Number of studies combined: k = 98

Results for subgroups (random effects model):

	k	proportion	95%-CI	tau^2	tau	Q	I^2
Category = GMP	32	0.4178	[0.3185; 0.5244]	1.4777	1.2156	832.10	99.2%
Category = SMP	66	0.4282	[0.3782; 0.4796]	0.6752	0.8217	847.20	95.3%

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	0.03	1	0.8622

##
DP: Prevalence in the EMR by profesional subcategory
##

Number of studies combined: k = 98

Results for subgroups (random effects model):

	k	proportion	95%-CI	tau^2	tau	Q	I^2
Subcat = General Practitioners	31	0.4248	[0.3224; 0.5340]	1.5018	1.2255	814.85	99.2%
Subcat = Surgical Specialists	40	0.4332	[0.3594; 0.5102]	0.9236	0.9610	648.17	96.5%
Subcat = Medical Specialists	17	0.4107	[0.3466; 0.4780]	0.2789	0.5281	107.03	89.6%
Subcat = General Paediatricians	4	0.4415	[0.2988; 0.5945]	0.3237	0.5690	15.95	84.7%
Subcat = OBGYN	4	0.3790	[0.2432; 0.5369]	0.3600	0.6000	35.05	86.2%
Subcat = Other specialists not elsewhere ...	1	0.2500	[0.1442; 0.3974]	--	--	0.00	--
Subcat = Psychiatrists	1	0.6049	[0.4952; 0.7051]	--	--	0.00	--

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	15.97	6	0.0139

```
##############################################################################
DP: Prevalence in the EMR by specialty
##############################################################################
Number of studies combined: k = 66

Results for subgroups (random effects model):
                                          k proportion          95%-CI
Specialty = Emergency medicine                7     0.3226 [0.2376; 0.4213]
Specialty = Oto-rhino-laryngology             3     0.5012 [0.4177; 0.5846]
Specialty = Plastic Surgery                   3     0.4673 [0.3750; 0.5619]
Specialty = Ophthalmology                     2     0.3792 [0.1193; 0.7336]
Specialty = Anaesthesiology                  14     0.5096 [0.4082; 0.6103]
Specialty = Medical Interns                   1     0.7093 [0.6591; 0.7549]
Specialty = Not reported                     19     0.4108 [0.3018; 0.5293]
Specialty = Oncology                          4     0.3706 [0.2335; 0.5323]
Specialty = Orthopaedics                      2     0.3975 [0.3380; 0.4603]
Specialty = General Surgery                   2     0.4464 [0.2617; 0.6471]
Specialty = Internal Medicine                 2     0.4074 [0.2295; 0.6135]
Specialty = Dermatology                       1     0.5556 [0.4464; 0.6596]
Specialty = Radiology                         1     0.4526 [0.3833; 0.5239]
Specialty = Neurology                         1     0.5062 [0.3987; 0.6131]
Specialty = other types of surgery            2     0.1351 [0.0743; 0.2333]
Specialty = Internal Medicine, Community me ...   1     0.4257 [0.3743; 0.4786]
Specialty = Intensive care Physicians         1     0.7007 [0.6219; 0.7692]


                                          tau^2    tau      Q   I^2
Specialty = Emergency medicine           0.2785 0.5277  47.95 88.5%
Specialty = Oto-rhino-laryngology        0.0403 0.2008   5.41 45.2%
Specialty = Plastic Surgery                   0      0   1.12  0.0%
Specialty = Ophthalmology                1.1401 1.0678  56.28 96.5%
Specialty = Anaesthesiology              0.5440 0.7376 135.17 93.9%
Specialty = Medical Interns                 --     --   0.00    --
Specialty = Not reported                 1.0524 1.0258 232.57 95.3%
Specialty = Oncology                     0.3739 0.6115  15.42 84.9%
Specialty = Orthopaedics                      0      0   0.01  0.0%
Specialty = General Surgery              0.3116 0.5582  18.43 89.3%
```

Specialty = Internal Medicine 0.3280 0.5727 20.50 90.4%
Specialty = Dermatology -- -- 0.00 --
Specialty = Radiology -- -- 0.00 --
Specialty = Neurology -- -- 0.00 --
Specialty = other types of surgery 0 0 0.08 0.0%
Specialty = Internal Medicine, Community me ... -- -- 0.00 --
Specialty = Intensive care Physicians -- -- 0.00 --

Test for subgroup differences (random effects model):
Q d.f. p-value
Between groups 146.87 16 < 0.0001

##########
DP: Prevalence in Egypt
##########
> Country level

Number of studies combined: k = 13

proportion 95%-CI
Fixed effect model 0.4871 [0.4623; 0.5120]
Random effects model 0.5782 [0.4490; 0.6975]
Prediction interval [0.1426; 0.9186]

Quantifying heterogeneity:
tau^2 = 0.8475; tau = 0.9206; I^2 = 95.4%; H = 4.66

Test of heterogeneity:
Q d.f. p-value Test
213.50 12 < 0.0001 Wald-type
264.37 12 < 0.0001 Likelihood-Ratio

> Prevalence by gender

Number of studies combined: k = 7

Results for subgroups (random effects model):

```
                k proportion          95%-CI  tau^2    tau     Q   I^2
Gender = Male     4     0.6104 [0.4745; 0.7311] 0.2395 0.4894 17.95 78.5%
Gender = Female   3     0.5863 [0.3859; 0.7618] 0.3673 0.6060 10.35 70.9%

Test for subgroup differences (random effects model):
                  Q d.f. p-value
Between groups   0.04    1  0.8416


##############################################################################
DP: Prevalence in Iraq
##############################################################################

> Country level
Number of studies combined: k = 3

                    proportion          95%-CI
Fixed effect model       0.4608 [0.4252; 0.4969]
Random effects model     0.4294 [0.1505; 0.7617]
Prediction interval             [0.0000; 1.0000]

Quantifying heterogeneity:
 tau^2 = 1.6072; tau = 1.2678; I^2 = 98.4%; H = 8.00

Test of heterogeneity:
     Q d.f.  p-value            Test
 209.16    2 < 0.0001       Wald-type
 277.08    2 < 0.0001 Likelihood-Ratio

##############################################################################
DP: Prevalence in Pakistan
##############################################################################

Number of studies combined: k = 8

                    proportion          95%-CI
Fixed effect model       0.4329 [0.4061; 0.4601]
Random effects model     0.3202 [0.2015; 0.4678]
Prediction interval             [0.0482; 0.8143]
```

Quantifying heterogeneity:
tau^2 = 0.7300; tau = 0.8544; I^2 = 95.4%; H = 4.66

Test of heterogeneity:

Q	d.f.	p-value	Test
198.93	7	< 0.0001	Wald-type
231.97	7	< 0.0001	Likelihood-Ratio

> Prevalence by gender

Number of studies combined: k = 4

Results for subgroups (random effects model):

	k	proportion	95%-CI	tau^2	tau	Q	I^2
Gender = Male	2	0.4007	[0.0942; 0.8111]	1.6747	1.2941	27.33	93.0%
Gender = Female	2	0.1934	[0.0029; 0.9517]	5.2976	2.3016	0.00	82.9%

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	0.18	1	0.6745

##
DP: Prevalence in Saudi Arabia
##
> Country level

Number of studies combined: k = 19

	proportion	95%-CI
Fixed effect model	0.3940	[0.3761; 0.4122]
Random effects model	0.4086	[0.3316; 0.4904]
Prediction interval		[0.1307; 0.7606]

Quantifying heterogeneity:
tau^2 = 0.4942; tau = 0.7030; I^2 = 93.8%; H = 4.01

Test of heterogeneity:
     Q d.f. p-value   Test
 283.78   18 < 0.0001   Wald-type
 328.91   18 < 0.0001 Likelihood-Ratio

> Prevalence by gender

Results for subgroups (random effects model):
                k proportion   95%-CI tau^2   tau   Q   I^2
Gender = Male   2   0.2652 [0.1312; 0.4631] 0.3591 0.5992 22.15 91.0%
Gender = Female   2   0.2178 [0.0936; 0.4289] 0.4058 0.6370 9.05 78.7%

Test for subgroup differences (random effects model):
                  Q d.f. p-value
Between groups   0.15   1 0.7006

##
DP: Prevalence in Iran
##
> Country level

Number of studies combined: k = 7

                    proportion   95%-CI
Fixed effect model   0.2896 [0.2607; 0.3202]
Random effects model   0.2081 [0.0586; 0.5258]
Prediction interval   [0.0013; 0.9809]

Quantifying heterogeneity:
 tau^2 = 3.6677; tau = 1.9151; I^2 = 97.8%; H = 6.68

Test of heterogeneity:
     Q d.f. p-value   Test
 199.30   6 < 0.0001   Wald-type
 456.95   6 < 0.0001 Likelihood-Ratio

> Prevalence by gender

Number of studies combined: k = 3

Results for subgroups (random effects model):
	k	proportion	95%-CI	tau^2	tau	Q	I^2
Gender = Female	2	0.1318	[0.0835; 0.2018]	0	0	0.37	0.0%
Gender = Male	1	0.1667	[0.0891; 0.2903]	--	--	0.00	--

Test for subgroup differences (random effects model):
	Q	d.f.	p-value
Between groups	0.38	1	0.5385

##
DP: Prevalence in Morocco
##

Number of studies combined: k = 3

	proportion	95%-CI
Fixed effect model	0.2412	[0.2039; 0.2827]
Random effects model	0.2547	[0.1486; 0.4009]
Prediction interval		[0.0001; 0.9993]

Quantifying heterogeneity:
 tau^2 = 0.3140; tau = 0.5604; I^2 = 89.0%; H = 3.02

Test of heterogeneity:
Q	d.f.	p-value	Test
26.73	2	< 0.0001	Wald-type
26.37	2	< 0.0001	Likelihood-Ratio

#Burnout: EE domain

```
##############################################################################
EE: Prevalence in the EMR
##############################################################################

Number of studies combined: k = 70

                         proportion          95%-CI
Fixed effect model       0.5190 [0.5108; 0.5272]
Random effects model     0.4426 [0.3799; 0.5072]
Prediction interval               [0.0826; 0.8750]

Quantifying heterogeneity:
 tau^2 = 1.1722; tau = 1.0827; I^2 = 97.9%; H = 6.84

Test of heterogeneity:
      Q d.f. p-value           Test
 2147.42   69       0       Wald-type
 3160.52   69       0 Likelihood-Ratio


##############################################################################
EE: Prevalence by country
##############################################################################

Number of studies combined: k = 70

Results for subgroups (random effects model):
                                    k proportion          95%-CI
Country = Oman                      2     0.1782 [0.1480; 0.2131]
Country = Iran                      7     0.2309 [0.1449; 0.3473]
Country = UAE                       2     0.6037 [0.3580; 0.8063]
Country = Saudi arabia              8     0.6141 [0.5092; 0.7094]
Country = Yemen                     1     0.6323 [0.5917; 0.6712]
Country = Saudi Arabia             11     0.3705 [0.2670; 0.4875]
Country = Lebanon                   3     0.4653 [0.2934; 0.6459]
```

```
Country = Morocco                                3     0.6497 [0.4429; 0.8123]
Country = Pakistan                               7     0.3822 [0.2852; 0.4896]
Country = Kuwait                                 2     0.3889 [0.1366; 0.7190]
Country = Palestine                              1     0.7183 [0.6389; 0.7861]
Country = Egypt                                 13     0.6076 [0.5122; 0.6954]
Country = Tunisia                                2     0.3106 [0.1942; 0.4572]
Country = Iraq                                   3     0.0778 [0.0004; 0.9437]
Country = Syria                                  1     0.7788 [0.7644; 0.7925]
Country = Middle-East (Iran, Saudi Arabia ...    1     0.4400 [0.3971; 0.4839]
Country = Qatar                                  2     0.2101 [0.0904; 0.4158]
Country = Bahrain                                1     0.4307 [0.3641; 0.4999]


                                        tau^2    tau      Q   I^2
Country = Oman                                0      0   0.00  0.0%
Country = Iran                           0.5359 0.7320  44.51 92.2%
Country = UAE                            0.4961 0.7044  35.23 94.4%
Country = Saudi arabia                   0.3102 0.5569  51.19 86.3%
Country = Yemen                             --     --   0.00    --
Country = Saudi Arabia                   0.6198 0.7873 167.47 95.9%
Country = Lebanon                        0.3807 0.6170  34.07 90.4%
Country = Morocco                        0.5258 0.7251  49.14 93.9%
Country = Pakistan                       0.3019 0.5494  44.07 91.5%
Country = Kuwait                         0.9553 0.9774  36.86 94.7%
Country = Palestine                         --     --   0.00    --
Country = Egypt                          0.4484 0.6696 128.11 92.1%
Country = Tunisia                        0.0161 0.1270   2.83 12.9%
Country = Iraq                          18.5482 4.3068   9.47 99.7%
Country = Syria                             --     --   0.00    --
Country = Middle-East (Iran, Saudi Arabia ...       --     --   0.00    --
Country = Qatar                          0.4377 0.6616  14.81 86.7%
Country = Bahrain                           --     --   0.00    --

Test for subgroup differences (random effects model):
                    Q d.f.  p-value
Between groups   857.49   17 < 0.0001


################################################################################
```

EE: Prevalence in the EMR by cut off
##

Number of studies combined: k = 70

Results for subgroups (random effects model):
                k proportion   95%-CI tau^2   tau   Q   I^2
EE_cutoff = Lower   5   0.4920 [0.2719; 0.7153] 1.1246 1.0605 120.66 96.9%
EE_cutoff = 27   24   0.4011 [0.2755; 0.5412] 1.9326 1.3902 436.05 98.4%
EE_cutoff = .   23   0.4958 [0.4084; 0.5836] 0.7044 0.8393 320.04 95.4%
EE_cutoff = Higher 18   0.4102 [0.3080; 0.5209] 0.8782 0.9371 1108.94 97.9%

Test for subgroup differences (random effects model):
                Q d.f. p-value
Between groups   2.14   3 0.5448

Details on meta-analytical method:
- Random intercept logistic regression model
- Maximum-likelihood estimator for tau^2
- Logit transformation
- Clopper-Pearson confidence interval for individual studies
- Continuity correction of 0.5 in studies with zero cell frequencies
  (only used to calculate individual study results)

##
EE: Prevalence in the EMR by Gender
##

Number of studies combined: k = 27

                  proportion   95%-CI
Random effects model   0.4746 [0.3750; 0.5763]
Prediction interval   [0.0911; 0.8907]

Quantifying heterogeneity:
 tau^2 = 1.0967; tau = 1.0472; I^2 = 97.5%; H = 6.34

Quantifying residual heterogeneity:
 I^2 = 97.2% [96.6%; 97.7%]; H = 5.95 [5.38; 6.57]

Test of heterogeneity:
      Q d.f. p-value   Test
 886.79   26 < 0.0001   Wald-type
1106.79   26 < 0.0001 Likelihood-Ratio

Results for subgroups (random effects model):
                k proportion   95%-CI tau^2   tau   Q   I^2
Gender = Female 13   0.4826 [0.3512; 0.6166] 0.9165 0.9573 242.41 96.0%
Gender = Male   14   0.4666 [0.3232; 0.6157] 1.2610 1.1230 642.26 97.7%

Test for subgroup differences (random effects model):
                   Q d.f. p-value
Between groups   0.02   1 0.8768

##
EE: Prevalence in the EMR by profesional category
##

Number of studies combined: k = 80

Results for subgroups (random effects model):
                k proportion   95%-CI tau^2   tau   Q   I^2
Category = GMP 25   0.4179 [0.2754; 0.5756] 2.5606 1.6002 1170.30 99.1%
Category = SMP 55   0.4978 [0.4358; 0.5599] 0.8275 0.9097 1236.81 95.5%

Test for subgroup differences (random effects model):
                   Q d.f. p-value
Between groups   0.86   1 0.3546

##
EE: Prevalence in the EMR by professional subcategory
##
Number of studies combined: k = 80

Results for subgroups (random effects model):
                                    k proportion   95%-CI tau^2   tau
Subcat = General Practitioners   23   0.4076 [0.2596; 0.5744] 2.6443 1.6261
Subcat = Surgical Specialists   31   0.4803 [0.4022; 0.5594] 0.7508 0.8665

```
Subcat = Medical Specialists                16     0.5254 [0.3944; 0.6530] 1.1149 1.0559
Subcat = General Paediatricians              3     0.6157 [0.4118; 0.7856] 0.4580 0.6768
Subcat = OBGYN                               4     0.5207 [0.3272; 0.7081] 0.6072 0.7792
Subcat = General Paediatricians              1     0.4762 [0.3567; 0.5985]     --     --
Subcat = Other specialists not elsewhere ...   1     0.1591 [0.0778; 0.2979]     --     --
Subcat = Psychiatrists                       1     0.6667 [0.5575; 0.7604]     --     --
                                        Q   I^2
Subcat = General Practitioners            1101.49 99.1%
Subcat = Surgical Specialists              708.53 95.3%
Subcat = Medical Specialists               463.31 96.6%
Subcat = General Paediatricians             30.31 88.3%
Subcat = OBGYN                              46.80 91.4%
Subcat = General Paediatricians              0.00    --
Subcat = Other specialists not elsewhere ...    0.00    --
Subcat = Psychiatrists                      0.00    --

Test for subgroup differences (random effects model):
                 Q d.f. p-value
Between groups   27.95    7  0.0002

################################################################################
EE: Prevalence in the EMR by Specialty
################################################################################

Number of studies combined: k = 55

Results for subgroups (random effects model):
                                      k proportion          95%-CI
Specialty = Emergency medicine                7     0.5926 [0.4048; 0.7568]
Specialty = Oto-rhino-laryngology             2     0.7032 [0.5849; 0.7995]
Specialty = Plastic Surgery                   2     0.6957 [0.5778; 0.7924]
Specialty = Ophthalmology                     2     0.5894 [0.3014; 0.8269]
Specialty = Anaesthesiology                   6     0.3946 [0.2747; 0.5286]
Specialty = Medical Interns                   1     0.4157 [0.3647; 0.4685]
Specialty = Not reported                     18     0.4204 [0.3303; 0.5162]
Specialty = Oncology                          4     0.5753 [0.4304; 0.7083]
Specialty = Orthopaedics                      2     0.4245 [0.3196; 0.5368]
Specialty = General Surgery                   2     0.5826 [0.2154; 0.8764]
Specialty = Neurology                         1     0.8519 [0.7570; 0.9139]
```

```
Specialty = Internal Medicine                  2     0.6030 [0.3410; 0.8168]
Specialty = Dermatology                        1     0.7654 [0.6612; 0.8451]
Specialty = Radiology                          1     0.6474 [0.5769; 0.7120]
Specialty = other types of surgery             1     0.1750 [0.0858; 0.3241]
Specialty = Internal Medicine, Community me ...  1     0.1778 [0.1409; 0.2220]
Specialty = Intensive care Physicians          2     0.3774 [0.3146; 0.4445]

                                      tau^2    tau      Q   I^2
Specialty = Emergency medicine               1.0044 1.0022 153.62 96.2%
Specialty = Oto-rhino-laryngology            0.0811 0.2847   4.61 57.2%
Specialty = Plastic Surgery                  0      0   0.09  0.0%
Specialty = Ophthalmology                    0.7199 0.8485  45.54 95.7%
Specialty = Anaesthesiology                  0.3728 0.6106  29.32 84.7%
Specialty = Medical Interns                    --     --   0.00    --
Specialty = Not reported                     0.6288 0.7930 191.55 91.8%
Specialty = Oncology                         0.2877 0.5363  17.66 81.8%
Specialty = Orthopaedics                     0.0703 0.2652   5.88 66.2%
Specialty = General Surgery                  1.3369 1.1563  70.29 97.2%
Specialty = Neurology                          --     --   0.00    --
Specialty = Internal Medicine                0.5733 0.7572  40.40 95.1%
Specialty = Dermatology                        --     --   0.00    --
Specialty = Radiology                          --     --   0.00    --
Specialty = other types of surgery             --     --   0.00    --
Specialty = Internal Medicine, Community me ...    --     --   0.00    --
Specialty = Intensive care Physicians        0      0   0.22  0.0%

Test for subgroup differences (random effects model):
                    Q d.f.  p-value
Between groups   240.49   16 < 0.0001

################################################################################
EE: Prevalence in Egypt
################################################################################
> Country level

Number of studies combined: k = 13

                    proportion          95%-CI
Fixed effect model       0.5264 [0.5015; 0.5511]
```

Random effects model 0.6076 [0.5122; 0.6954]
Prediction interval [0.2498; 0.8780]

Quantifying heterogeneity:
tau^2 = 0.4484; tau = 0.6696; I^2 = 92.1%; H = 3.57

Test of heterogeneity:
Q d.f. p-value Test
128.11 12 < 0.0001 Wald-type
145.30 12 < 0.0001 Likelihood-Ratio

> Prevalence by Gender

Number of studies combined: k = 7

Results for subgroups (random effects model):
k proportion 95%-CI tau^2 tau Q I^2
Gender = Male 4 0.6888 [0.5415; 0.8057] 0.3293 0.5738 26.19 81.5%
Gender = Female 3 0.6588 [0.4547; 0.8172] 0.3835 0.6193 10.43 70.1%

Test for subgroup differences (random effects model):
Q d.f. p-value
Between groups 0.07 1 0.7983

##
EE: Prevalence in Iraq
##

Number of studies combined: k = 3

proportion 95%-CI
Fixed effect model 0.3351 [0.3020; 0.3700]
Random effects model 0.0778 [0.0004; 0.9437]
Prediction interval [0.0000; 1.0000]

Quantifying heterogeneity:
tau^2 = 18.5482; tau = 4.3068; I^2 = 99.7%; H = 19.82

Test of heterogeneity:
      Q d.f. p-value   Test
   9.47   2   0.0088   Wald-type
 367.75   2 < 0.0001 Likelihood-Ratio

##
EE: Prevalence in Iran
##
> Country level

Number of studies combined: k = 7

                    proportion   95%-CI
Fixed effect model   0.2565 [0.2288; 0.2862]
Random effects model   0.2309 [0.1449; 0.3473]
Prediction interval   [0.0381; 0.6948]

Quantifying heterogeneity:
 tau^2 = 0.5359; tau = 0.7320; I^2 = 92.2%; H = 3.57

Test of heterogeneity:
     Q d.f. p-value   Test
 44.51   6 < 0.0001   Wald-type
 61.60   6 < 0.0001 Likelihood-Ratio

> Prevalence by Gender

Number of studies combined: k = 3

Results for subgroups (random effects model):
                k proportion   95%-CI tau^2   tau   Q   I^2
Gender = Female   2   0.1835 [0.0356; 0.5777] 1.4999 1.2247 15.43 88.1%
Gender = Male   1   0.0370 [0.0093; 0.1364]   --   -- 0.00   --

Test for subgroup differences (random effects model):
                  Q d.f. p-value
Between groups   2.28   1 0.1312

```
##############################################################################
EE: Prevalence in Morocco
##############################################################################

Number of studies combined: k = 3

                    proportion          95%-CI
Fixed effect model       0.6571 [0.6121; 0.6994]
Random effects model     0.6497 [0.4429; 0.8123]
Prediction interval              [0.0000; 1.0000]

Quantifying heterogeneity:
 tau^2 = 0.5258; tau = 0.7251; I^2 = 93.9%; H = 4.05

Test of heterogeneity:
     Q d.f.  p-value            Test
 49.14    2 < 0.0001       Wald-type
 56.14    2 < 0.0001 Likelihood-Ratio

##############################################################################
EE: Prevalence in Pakistan
##############################################################################

> Country level

Number of studies combined: k = 7

                    proportion          95%-CI
Fixed effect model       0.3920 [0.3654; 0.4193]
Random effects model     0.3822 [0.2852; 0.4896]
Prediction interval              [0.1186; 0.7398]

Quantifying heterogeneity:
 tau^2 = 0.3019; tau = 0.5494; I^2 = 91.5%; H = 3.44

Test of heterogeneity:
     Q d.f.  p-value            Test
 44.07    6 < 0.0001       Wald-type
 48.62    6 < 0.0001 Likelihood-Ratio
```

> Prevalence by gender

Number of studies combined: k = 5

Results for subgroups (random effects model):
	k	proportion	95%-CI	tau^2	tau	Q	I^2
Gender = Male	3	0.3315	[0.2341; 0.4459]	0.0879	0.2966	7.98	67.9%
Gender = Female	2	0.3912	[0.3437; 0.4408]	0	0	1.10	0.0%

Test for subgroup differences (random effects model):
	Q	d.f.	p-value
Between groups	0.93	1	0.3341

##
EE: Prevalence in Saudi Arabia
##
> Country level

Number of studies combined: k = 19

	proportion	95%-CI
Fixed effect model	0.4492	[0.4309; 0.4677]
Random effects model	0.4700	[0.3734; 0.5689]
Prediction interval		[0.1223; 0.8495]

Quantifying heterogeneity:
tau^2 = 0.7282; tau = 0.8533; I^2 = 95.8%; H = 4.88

Test of heterogeneity:
Q	d.f.	p-value	Test
275.78	18	< 0.0001	Wald-type
349.30	18	< 0.0001	Likelihood-Ratio

> Prevalence by gender

Number of studies combined: k = 4

Results for subgroups (random effects model):
	k	proportion	95%-CI	tau^2	tau	Q	I^2
Gender = Male	2	0.3979	[0.2687; 0.5432]	0.1476	0.3842	11.71	82.9%
Gender = Female	2	0.3827	[0.1745; 0.6451]	0.5244	0.7241	14.76	86.8%

Test for subgroup differences (random effects model):
	Q	d.f.	p-value
Between groups	0.01	1	0.9184

##
EE: Prevalence in Lebanon
##
> Country level

Number of studies combined: k = 3

Quantifying heterogeneity:
tau^2 = 0.3807; tau = 0.6170; I^2 = 90.4%; H = 3.24

Test of heterogeneity:
Q	d.f.	p-value	Test
34.07	2	< 0.0001	Wald-type
36.09	2	< 0.0001	Likelihood-Ratio

> Prevalence by gender

Number of studies combined: k = 4

Results for subgroups (random effects model):
	k	proportion	95%-CI	tau^2	tau	Q	I^2
Gender = Male	2	0.4739	[0.2872; 0.6682]	0.2893	0.5379	13.76	85.7%
Gender = Female	2	0.6118	[0.3822; 0.8006]	0.3813	0.6175	11.82	83.5%

Test for subgroup differences (random effects model):
	Q	d.f.	p-value
Between groups	0.79	1	0.3740

#Burnout: PA domain

```
##############################################################################
PA: Prevalence in the EMR
##############################################################################


Number of studies combined: k = 70

                    proportion          95%-CI
Fixed effect model      0.3314 [0.3237; 0.3392]
Random effects model    0.3657 [0.3150; 0.4195]
Prediction interval             [0.0804; 0.7917]

Quantifying heterogeneity:
 tau^2 = 0.8801; tau = 0.9382; I^2 = 96.9%; H = 5.72

Test of heterogeneity:
      Q d.f. p-value            Test
 1878.95   69       0        Wald-type
 2657.18   69       0 Likelihood-Ratio


##############################################################################
PA: Prevalence in the EMR by country
##############################################################################

Number of studies combined: k = 70

Results for subgroups (random effects model):
                                    k proportion          95%-CI
Country = Oman                      2     0.3068 [0.1891; 0.4565]
Country = Iran                      7     0.3686 [0.1987; 0.5788]
Country = UAE                       2     0.4808 [0.1574; 0.8211]
Country = Saudi arabia              8     0.3239 [0.2627; 0.3917]
Country = Yemen                     1     0.4156 [0.3756; 0.4568]
Country = Saudi Arabia             13     0.3539 [0.2625; 0.4573]
Country = Lebanon                   3     0.3706 [0.1513; 0.6605]
```

```
Country = Morocco                                3     0.2342 [0.1230; 0.4001]
Country = Pakistan                               7     0.3886 [0.2832; 0.5056]
Country = Kuwait                                 2     0.4690 [0.2845; 0.6624]
Country = Palestine                              1     0.3169 [0.2457; 0.3978]
Country = Egypt                                 13     0.4614 [0.2717; 0.6629]
Country = Tunisia                                2     0.3784 [0.3039; 0.4590]
Country = Iraq                                   2     0.2605 [0.2212; 0.3040]
Country = Syria                                  1     0.1367 [0.1255; 0.1488]
Country = Middle-East (Iran, Saudi Arabia ...    1     0.2880 [0.2500; 0.3293]
Country = Bahrain                                1     0.2228 [0.1707; 0.2853]
Country = Qatar                                  1     0.5833 [0.5013; 0.6610]


                                  tau^2    tau      Q   I^2
Country = Oman                   0.1920 0.4382  19.56 89.9%
Country = Iran                   1.2835 1.1329 182.56 96.7%
Country = UAE                    1.2973 1.1390  70.88 97.2%
Country = Saudi arabia           0.1150 0.3391  19.92 69.0%
Country = Yemen                     --     --   0.00    --
Country = Saudi Arabia           0.5889 0.7674 264.13 95.4%
Country = Lebanon                1.0588 1.0290  48.48 95.4%
Country = Morocco                0.4306 0.6562  39.39 91.1%
Country = Pakistan               0.3598 0.5998  66.44 92.9%
Country = Kuwait                 0.2885 0.5371  14.99 86.9%
Country = Palestine                 --     --   0.00    --
Country = Egypt                  2.2601 1.5034 245.44 97.7%
Country = Tunisia                   0      0   0.80  0.0%
Country = Iraq                      0      0   0.00  0.0%
Country = Syria                     --     --   0.00    --
Country = Middle-East (Iran, Saudi Arabia ...    --     --   0.00    --
Country = Bahrain                   --     --   0.00    --
Country = Qatar                     --     --   0.00    --

Test for subgroup differences (random effects model):
                    Q d.f.  p-value
Between groups   422.81   17 < 0.0001


################################################################################
```

PA: Prevalence in the EMR by cut off
##

Number of studies combined: k = 70

Results for subgroups (random effects model):

	k	proportion	95%-CI	tau^2	tau	Q	I^2
PA_cutoff = 33	16	0.2761	[0.2224; 0.3372]	0.2935	0.5417	196.48	89.3%
PA_cutoff = .	25	0.3799	[0.3017; 0.4648]	0.7473	0.8645	511.54	95.6%
PA_cutoff = Lower	24	0.4320	[0.3181; 0.5536]	1.4373	1.1989	1008.71	98.6%
PA_cutoff = Higher	5	0.3161	[0.2247; 0.4243]	0.2251	0.4744	26.79	83.2%

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	7.63	3	0.0543

##
PA: Prevalence in the EMR by gender
##

Number of studies combined: k = 25

Results for subgroups (random effects model):

	k	proportion	95%-CI	tau^2	tau	Q	I^2
Gender = Female	12	0.3208	[0.2297; 0.4279]	0.5722	0.7564	252.89	91.9%
Gender = Male	13	0.3285	[0.2555; 0.4109]	0.3704	0.6086	303.05	92.5%

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	0.01	1	0.9053

##
PA: Prevalence in the EMR by professional category
##
Number of studies combined: k = 92

Results for subgroups (random effects model):

	k	proportion	95%-CI	tau^2	tau	Q	I^2
Category = GMP	31	0.2829	[0.2279; 0.3452]	0.6333	0.7958	892.82	97.2%
Category = SMP	61	0.2994	[0.2464; 0.3584]	1.0606	1.0298	1272.43	96.6%

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	0.16	1	0.6910

##

PA: Prevalence in the EMR by professional subcategory

##

Number of studies combined: k = 92

ts for subgroups (random effects model):

	k	proportion	95%-CI	tau^2	tau
Subcat = General Practitioners	31	0.2829	[0.2279; 0.3452]	0.6333	0.7958
Subcat = Surgical Specialists	38	0.3984	[0.3379; 0.4622]	0.6110	0.7817
Subcat = Medical Specialists	16	0.1885	[0.1185; 0.2863]	1.1504	1.0726
Subcat = General Paediatricians	3	0.1914	[0.0965; 0.3441]	0.3911	0.6254
Subcat = OBGYN	3	0.1259	[0.0926; 0.1689]	0	0
Subcat = Psychiatrists	1	0.0370	[0.0120; 0.1086]	--	--

	Q	I^2
Subcat = General Practitioners	892.82	97.2%
Subcat = Surgical Specialists	654.57	95.0%
Subcat = Medical Specialists	281.16	95.6%
Subcat = General Paediatricians	13.62	80.5%
Subcat = OBGYN	0.89	0.0%
Subcat = Psychiatrists	0.00	--

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	66.38	5	< 0.0001

```
##############################################################################
PA: Prevalence in the EMR by specialty
##############################################################################

Number of studies combined: k = 61

Results for subgroups (random effects model):
                                                k proportion          95%-CI
Specialty = Emergency medicine                  7     0.3259 [0.1961; 0.4893]
Specialty = Oto-rhino-laryngology               3     0.1514 [0.1122; 0.2012]
Specialty = Plastic Surgery                     3     0.3664 [0.2443; 0.5086]
Specialty = Ophthalmology                       2     0.4213 [0.2878; 0.5674]
Specialty = Anaesthesiology                     13    0.4621 [0.4238; 0.5009]
Specialty = Medical Interns                     1     0.5320 [0.4791; 0.5842]
Specialty =                                     15    0.2682 [0.1508; 0.4307]
Specialty = Oncology                            4     0.2511 [0.0709; 0.5958]
Specialty = Orthopaedics                        2     0.2315 [0.0899; 0.4790]
Specialty = General Surgery                     2     0.1841 [0.1177; 0.2764]
Specialty = Internal Medicine                   2     0.1472 [0.1254; 0.1720]
Specialty = Dermatology                         1     0.1358 [0.0768; 0.2288]
Specialty = Radiology                           1     0.0579 [0.0323; 0.1015]
Specialty = Neurology                           1     0.0494 [0.0187; 0.1243]
Specialty = other types of surgery              2     0.3784 [0.2756; 0.4933]
Specialty = Internal Medicine, Community me ...  1     0.4082 [0.3574; 0.4610]
Specialty = Intensive care Physicians           1     0.5102 [0.4298; 0.5901]

                                                tau^2    tau      Q   I^2
Specialty = Emergency medicine                 0.8007 0.8948 129.89 95.1%
Specialty = Oto-rhino-laryngology                 0      0   0.72  0.0%
Specialty = Plastic Surgery                    0.1393 0.3732   6.14 52.0%
Specialty = Ophthalmology                      0.1547 0.3933  14.26 86.1%
Specialty = Anaesthesiology                    0.0302 0.1738  25.29 50.4%
Specialty = Medical Interns                      --     --   0.00    --
Specialty = Not reported                       1.9353 1.3912 339.52 96.7%
Specialty = Oncology                           2.1465 1.4651  52.86 95.3%
Specialty = Orthopaedics                       0.5868 0.7660  20.29 90.4%
Specialty = General Surgery                    0.0820 0.2864   6.69 66.3%
Specialty = Internal Medicine                     0      0   0.21  0.0%
Specialty = Dermatology                          --     --   0.00    --
```

Specialty = Radiology -- -- 0.00 --
Specialty = Neurology -- -- 0.00 --
Specialty = other types of surgery 0 0 0.17 0.0%
Specialty = Internal Medicine, Community me ... -- -- 0.00 --
Specialty = Intensive care Physicians -- -- 0.00 --

Test for subgroup differences (random effects model):
Q d.f. p-value
Between groups 383.98 16 < 0.0001

##
PA: Prevalence in Egypt
##

> Country level

Number of studies combined: k = 13

proportion 95%-CI
Fixed effect model 0.4665 [0.4418; 0.4914]
Random effects model 0.4614 [0.2717; 0.6629]
Prediction interval [0.0268; 0.9638]

Quantifying heterogeneity:
tau^2 = 2.2601; tau = 1.5034; I^2 = 97.7%; H = 6.66

Test of heterogeneity:
Q d.f. p-value Test
245.44 12 < 0.0001 Wald-type
626.00 12 < 0.0001 Likelihood-Ratio

> Prevalence by gender

Number of studies combined: k = 7

Results for subgroups (random effects model):
k proportion 95%-CI tau^2 tau Q I^2
Gender = Male 4 0.4135 [0.3274; 0.5052] 0.0777 0.2787 8.55 55.3%

Gender = Female 3 0.4105 [0.3164; 0.5117] 0 0 2.76 0.0%

Test for subgroup differences (random effects model):
Q d.f. p-value
Between groups 0.00 1 0.9653

##
PA: Prevalence in Iraq
##

Number of studies combined: k = 3

proportion 95%-CI
Fixed effect model 0.2243 [0.1957; 0.2558]
Random effects model 0.2265 [0.1808; 0.2799]
Prediction interval [0.0134; 0.8631]

Quantifying heterogeneity:
tau^2 = 0.0374; tau = 0.1935; I^2 = 60.3%; H = 1.59

Test of heterogeneity:
Q d.f. p-value Test
7.62 2 0.0222 Wald-type
7.86 2 0.0196 Likelihood-Ratio

##
PA: Prevalence in Pakistan
##

> Country level

Number of studies combined: k = 7

proportion 95%-CI
Fixed effect model 0.4693 [0.4418; 0.4970]
Random effects model 0.3886 [0.2832; 0.5056]
Prediction interval [0.1075; 0.7703]

Quantifying heterogeneity:

tau^2 = 0.3598; tau = 0.5998; I^2 = 92.9%; H = 3.75

Test of heterogeneity:
Q d.f. p-value Test
66.44 6 < 0.0001 Wald-type
76.29 6 < 0.0001 Likelihood-Ratio

> Prevalence by gender

Number of studies combined: k = 3

Results for subgroups (random effects model):
k proportion 95%-CI tau^2 tau Q I^2
Gender = Male 2 0.4835 [0.4302; 0.5371] 0 0 2.53 0.0%
Gender = Female 1 0.5135 [0.4333; 0.5930] -- -- 0.00 --

Test for subgroup differences (random effects model):
Q d.f. p-value
Between groups 0.37 1 0.5433

##
PA: Prevalence in Saudi Arabia
##

> Country level

Number of studies combined: k = 21

proportion 95%-CI
Fixed effect model 0.3538 [0.3373; 0.3706]
Random effects model 0.3446 [0.2804; 0.4151]
Prediction interval [0.1123; 0.6861]

Quantifying heterogeneity:
tau^2 = 0.4400; tau = 0.6633; I^2 = 93.0%; H = 3.79

Test of heterogeneity:
Q d.f. p-value Test

```
 290.32  20 < 0.0001       Wald-type
 330.83  20 < 0.0001 Likelihood-Ratio

> Prevalence by gender

Number of studies combined: k = 4

Results for subgroups (random effects model):
                k proportion          95%-CI  tau^2    tau    Q   I^2
Gender = Male     2     0.2097 [0.1722; 0.2529]      0      0 1.11  0.0%
Gender = Female   2     0.2602 [0.1722; 0.3729] 0.0580 0.2408 3.28 39.8%

Test for subgroup differences (random effects model):
                  Q d.f. p-value
Between groups   0.91    1  0.3407

################################################################################
PA: Prevalence in Morocco
################################################################################>


Number of studies combined: k = 3

                    proportion          95%-CI
Fixed effect model      0.2478 [0.2102; 0.2897]
Random effects model    0.2342 [0.1230; 0.4001]
Prediction interval             [0.0000; 0.9998]

Quantifying heterogeneity:
 tau^2 = 0.4306; tau = 0.6562; I^2 = 91.1%; H = 3.35

Test of heterogeneity:
     Q d.f.  p-value            Test
 39.39    2 < 0.0001       Wald-type
 41.73    2 < 0.0001 Likelihood-Ratio

################################################################################
PA: Prevalence in Iran
################################################################################
```

> Country level

Number of studies combined: k = 7

```
                    proportion          95%-CI
Fixed effect model       0.4289 [0.3967; 0.4617]
Random effects model     0.3686 [0.1987; 0.5788]
Prediction interval              [0.0251; 0.9298]

Quantifying heterogeneity:
 tau^2 = 1.2835; tau = 1.1329; I^2 = 96.7%; H = 5.51

Test of heterogeneity:
      Q d.f.  p-value            Test
 182.56    6 < 0.0001        Wald-type
 228.32    6 < 0.0001 Likelihood-Ratio
```

> Prevalence by gender

Number of studies combined: k = 3

Results for subgroups (random effects model):

	k	proportion	95%-CI	tau^2	tau	Q	I^2
Gender = Female	2	0.3541	[0.1467; 0.6363]	0.6215	0.7883	16.95	88.5%
Gender = Male	1	0.3889	[0.2691; 0.5238]	--	--	0.00	--

Test for subgroup differences (random effects model):

	Q	d.f.	p-value
Between groups	0.05	1	0.8200

##
PA: Prevalence in Lebanon
##

> Country level

Number of studies combined: k = 3

```
                    proportion          95%-CI
Fixed effect model       0.3177 [0.2718; 0.3674]
Random effects model     0.3706 [0.1513; 0.6605]
Prediction interval              [0.0000; 1.0000]

Quantifying heterogeneity:
 tau^2 = 1.0588; tau = 1.0290; I^2 = 95.4%; H = 4.66

Test of heterogeneity:
     Q d.f.  p-value            Test
 48.48    2 < 0.0001        Wald-type
 57.24    2 < 0.0001 Likelihood-Ratio


> Prevalence by gender

Number of studies combined: k = 4

Results for subgroups (random effects model):
                k proportion          95%-CI  tau^2    tau     Q   I^2
Gender = Male     2     0.2236 [0.1385; 0.3403] 0.1112 0.3334  5.23 62.3%
Gender = Female   2     0.2492 [0.0755; 0.5744] 0.9044 0.9510 15.93 88.1%

Test for subgroup differences (random effects model):
                  Q d.f. p-value
Between groups   0.03    1  0.8545
```

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