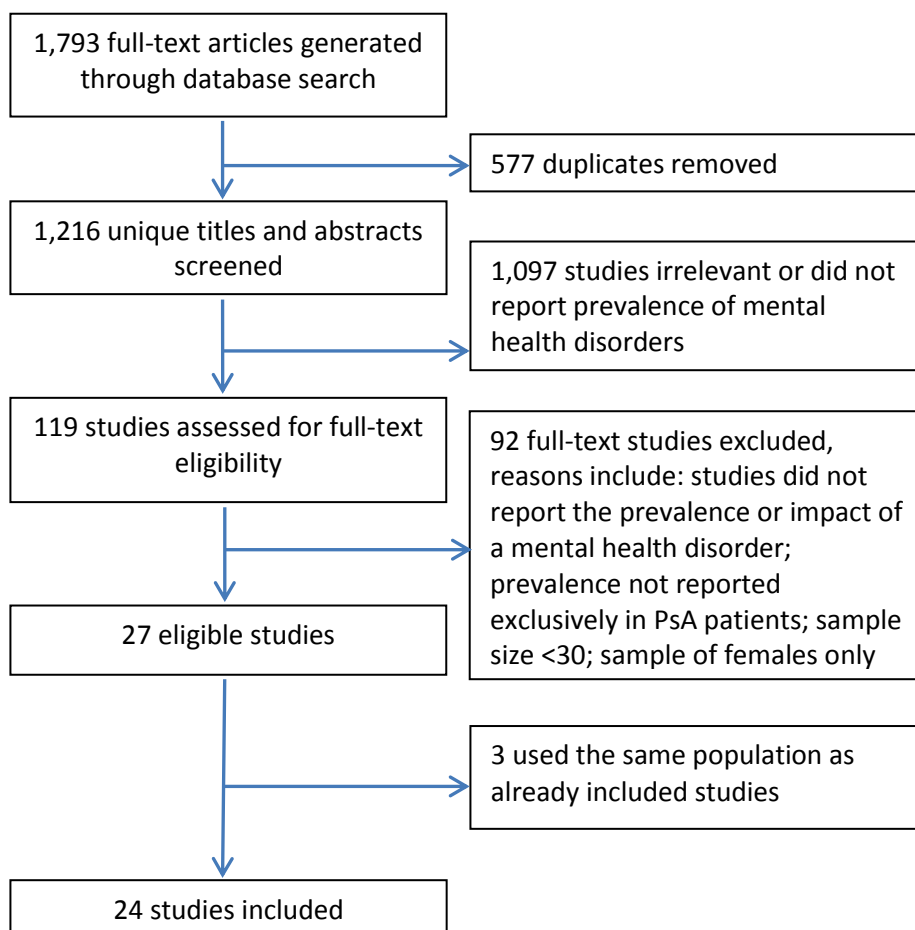


Supplementary materials

Systematic review of mental health comorbidities in psoriatic arthritis

Sizheng Steven Zhao, Natasha Miller, Nicholas Harrison, Stephen J Duffield, Mrinalini Dey, Nicola J Goodson



Supplementary figure 1. Flowchart of study selection.

Search strategy

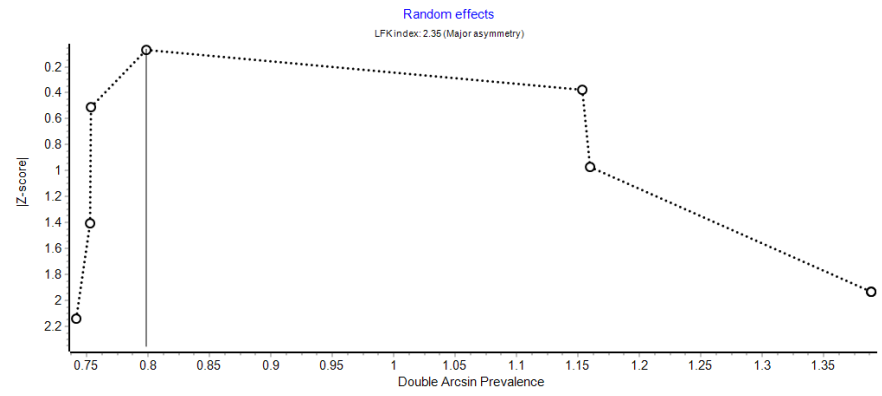
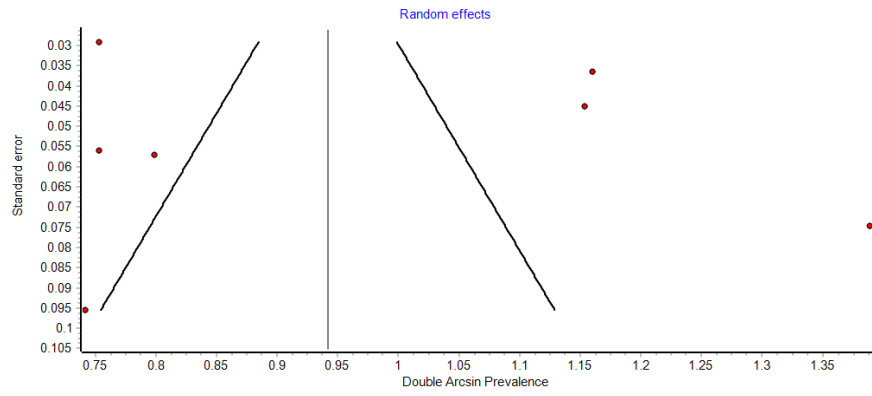
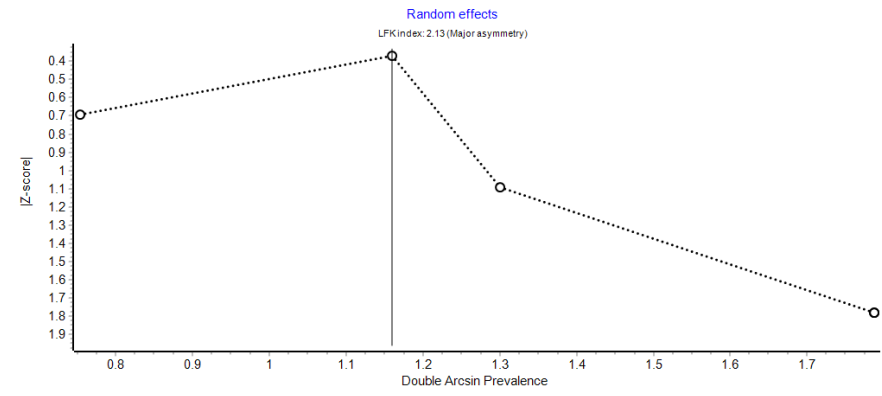
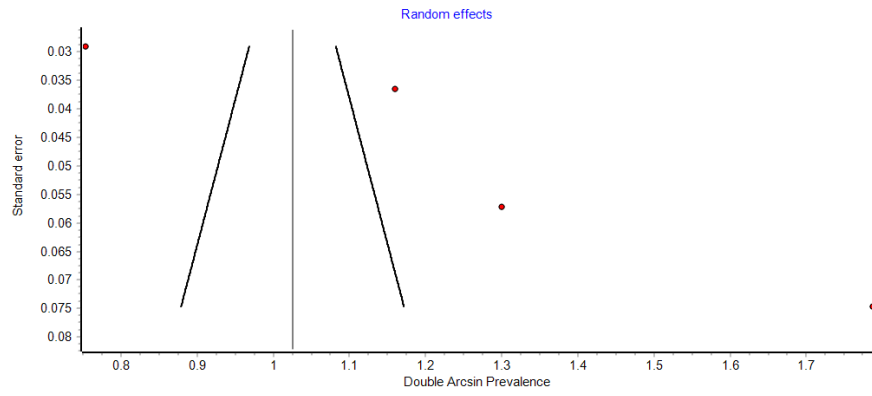
We searched PubMed, Web of Science, Scopus, PsycINFO and the Cochrane Library through February 2019, using the following search terms: (psoriatic AND (depress* OR anxiety OR psych* OR (mental AND health) OR suicid* OR (self AND harm) OR ((mental OR mood OR sleep OR eating OR sexual) AND (disorder* OR illness* OR dysfunction*)) OR ((alcohol OR substance OR drug) AND (abuse OR misuse OR dependen*))))).

We included suicidal ideation and self-harm despite these being symptoms rather than distinct mental health disorders. This was in view of the fact that they embody some of the most extreme and concerning presentations of recognised mental health disorders.

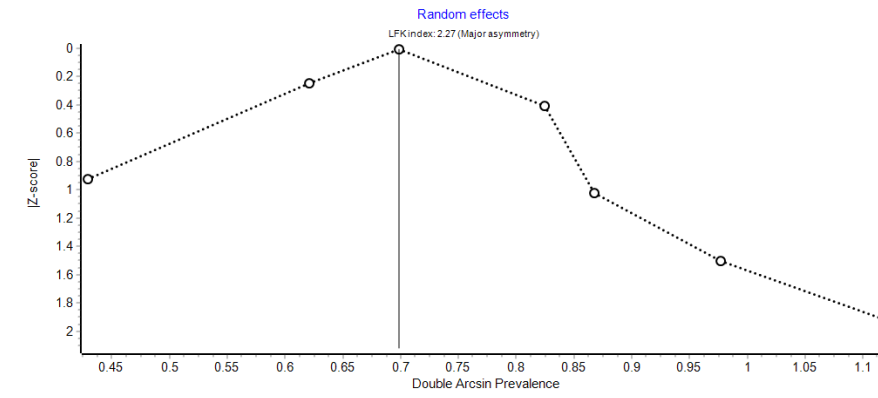
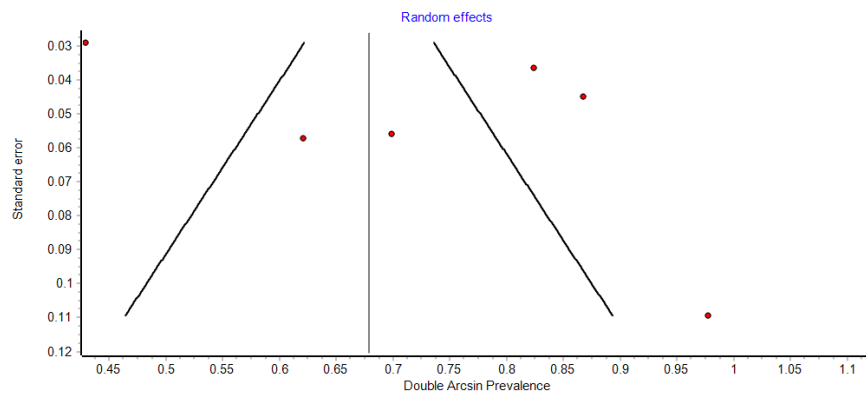
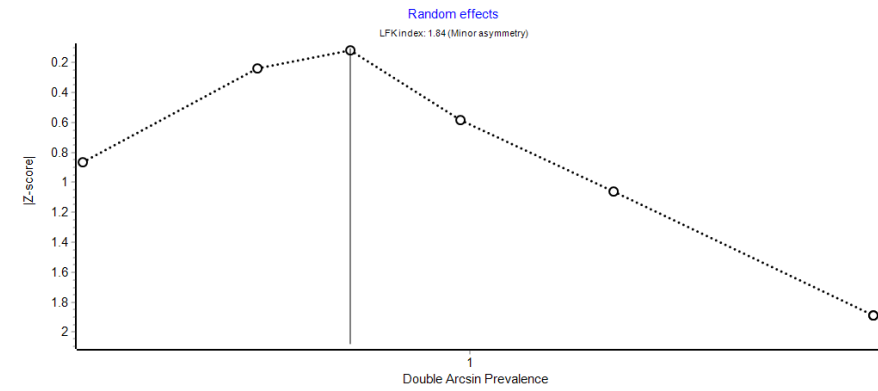
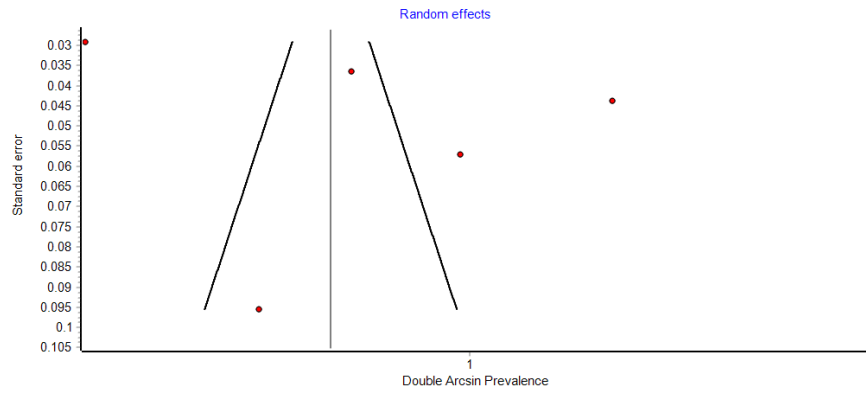
Quality assessment

Quality assessment of articles meeting inclusion criteria was performed using the Newcastle-Ottawa Scale (NOS) adapted for cross-sectional studies. Baseline data from longitudinal studies were treated as cross-sectional for the purposes of quality assessment. The NOS is a quality assessment tool for determining risk of bias in non-randomised studies. Articles are assigned up to six stars based on the following domains: representativeness of study sample (2 stars if true representation of population/random sampling, 1 star if some representation/non-random), justification of sample size (1 star), comparability with non-respondents (1 star if comparison presented) and ascertainment of exposure (1 star each for validated tool/criteria for psoriatic arthritis and mental health comorbidities).

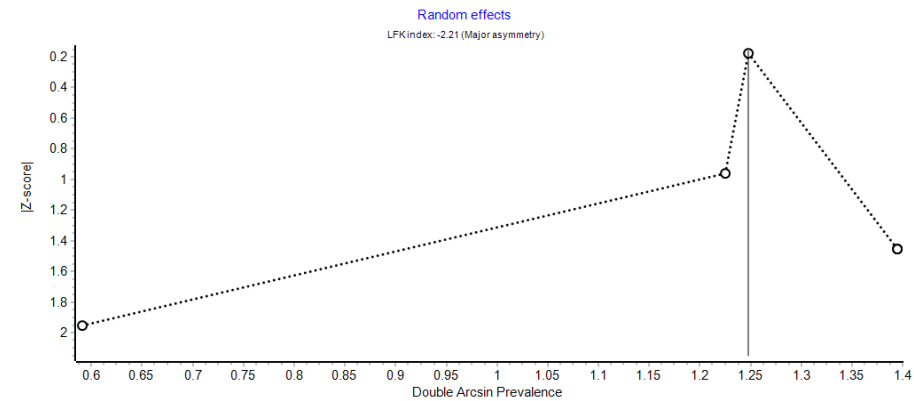
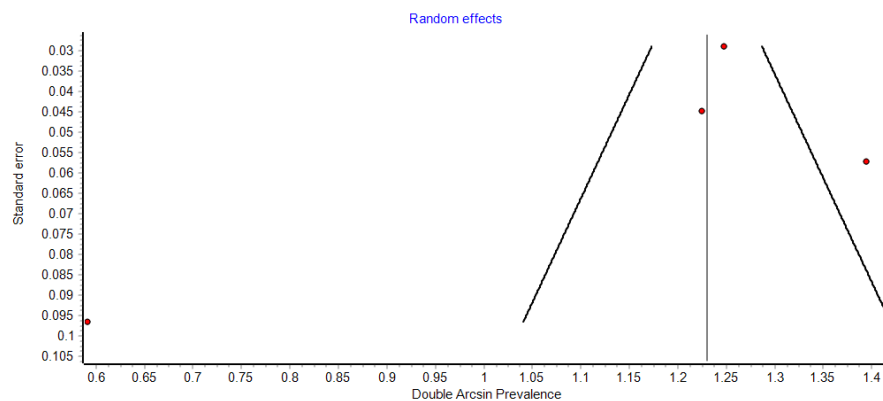
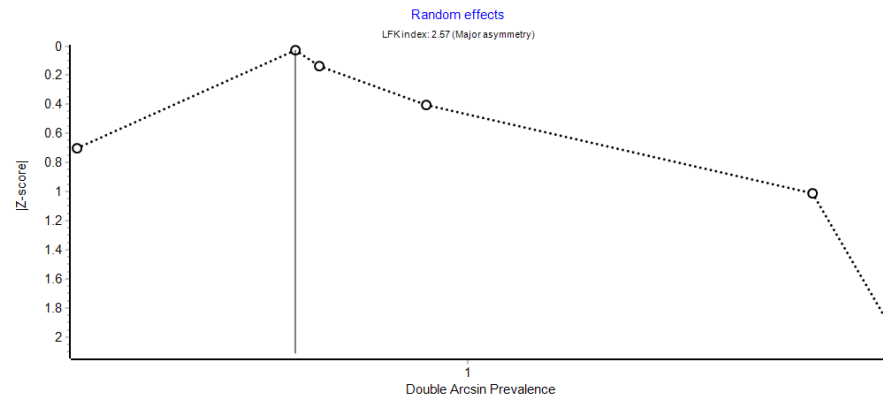
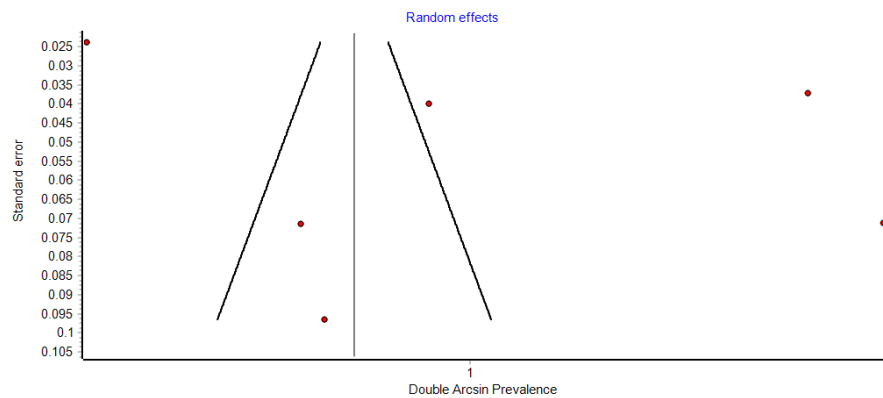
Supplementary table 1. Quality assessment using the Newcastle-Ottawa Scale					
Study	Representativeness	Sample Size	Non-respondents	Ascertainment of exposure	Total
Altobelli 2007	1	0	0	0	1
Ballegaad 2017	0	0	0	0	0
Cauli 2011	1	0	0	2	3
Davis 2011	2	0	0	0	2
Freire 2011	1	0	0	1	2
Gezer 2017	0	0	0	2	2
Gniadecki 2012	0	0	0	1	1
Howell 2018	0	0	0	1	1
Husted 2013	1	0	0	1	2
Kaine 2019	2	0	0	0	2
Khraishi 2014	1	0	0	1	2
Kotsis 2012	1	0	0	2	3
Lamb 2017	1	0	0	1	2
Löfvendahl 2017	2	0	0	0	2
McDonough 2014	1	0	1	2	4
Meesters 2014	2	0	1	1	4
Michelsen 2017	1	0	0	0	1
Papp 2014	0	0	0	1	1
Patel 2017	1	0	0	0	1
Sinnathurai 2018	1	0	0	0	1
Torre-Alonso 2014	1	1	0	1	3
Walsh 2014	1	0	0	1	2
Wong 2017	1	0	0	2	3
Wu 2016	2	0	0	0	2



Supplementary Figure 2. Major asymmetry in the funnel and Doi plots for both mild (top) and moderate anxiety (bottom) prevalence estimates



Supplementary Figure 3. Minor asymmetry in the funnel and Doi plots for mild depression (top), but major asymmetry for moderate depression (bottom)



Supplementary Figure 4. Major asymmetry in the funnel and Doi plots Prevalence of anxiety *or* depression (top) and anxiety *and* depression (bottom).