

**Supplementary Table 1 Searching strategy**

Source	Search strategy
<b>PubMed</b> (National Library of Medicine, including Pre-MEDLINE and non-MEDLINE, through 11 June 2024)	#1 (((((((psychological distress[MeSH Terms]) OR (distress[Title/Abstract])) OR (psychological distress[Title/Abstract])) OR (psychological status[Title/Abstract])) OR (emotional distress[Title/Abstract])) OR (emotional status[Title/Abstract])) OR (distress thermometer emotional distress[Title/Abstract])) OR (psychological assessment [Title/Abstract])) OR (stress, psychological[Title/Abstract])  #2((((((((((((breast neoplasm[MeSH Terms]) OR (neoplasms, breast[Title/Abstract])) OR (neoplasm, breast[Title/Abstract])) OR (breast tumors[Title/Abstract])) OR (breast tumor[Title/Abstract])) OR (tumor, breast[Title/Abstract])) OR (tumors, breast[Title/Abstract])) OR (breast carcinoma[Title/Abstract])) OR (carcinoma, breast[Title/Abstract])) OR (carcinomas, breast[Title/Abstract])) OR (breast carcinomas[Title/Abstract])) OR (breast cancer[Title/Abstract])) OR (cancer, breast[Title/Abstract])) OR (cancers, breast[Title/Abstract])) OR (breast cancers[Title/Abstract])  #1 AND #2
<b>Web of science</b> (Medline, Biosis, and Clarivate, through 11 June 2024)	#1 (((((((((TS=(psychological distress)) OR TS=(distress)) OR TI =(psychological distress)) OR TI =(distress)) OR AB=(stress, psychological)) OR TI =(emotional stress)) OR TI =(emotional status))) OR TI =(psychological status))  #2 (((((((((((((TS=(Breast Neoplasms)) OR AB=(Breast Cancer)) OR AB=(Cancer, Breast)) OR TI=(Breast Cancers)) OR AB=(Cancers, Breast)) OR AB=(Tumors, Breast)) OR TI=(Breast Tumors)) OR TI =(Breast Neoplasm)) OR TI =(Breast Tumor)) OR AB=(Neoplasms, Breast)) OR AB=(Tumor, Breast)) OR AB=(Neoplasm, Breast)) OR AB=(Carcinomas, Breast)) OR AB=(Carcinoma, Breast)) OR TI=(Breast Carcinoma)) OR TI=(Breast Carcinomas)  #1 AND #2
<b>Embase</b> (Elsevier, through 11 June 2024)	#1 'distress syndrome'/exp OR 'distress':ti,ab,kw OR ' stress, psychological':ti,ab,kw OR ' emotional stress':ti,ab,kw OR ' emotional status ':ti,ab,kw OR ' psychological status':ti,ab,kw  #2 'breast tumor'/exp OR 'breast neoplasms':ti,ab,kw OR 'neoplasms, breast':ti,ab,kw OR 'breast neoplasm':ti,ab,kw OR 'neoplasm, breast':ti,ab,kw OR 'breast tumors':ti,ab,kw OR 'tumor, breast':ti,ab,kw OR 'tumors, breast':ti,ab,kw OR 'breast carcinoma':ti,ab,kw OR 'carcinoma, breast':ti,ab,kw OR 'carcinomas, breast':ti,ab,kw OR 'breast carcinomas':ti,ab,kw OR 'breast cancer':ti,ab,kw OR 'cancer, breast':ti,ab,kw OR 'cancers, breast':ti,ab,kw OR 'breast cancers':ti,ab,kw  #1 AND #2
<b>Cochrane library</b> (The Cochrane	#1 (psychological distress OR distress OR emotional stress OR emotional status):ti,ab,kw  #2 (Breast Neoplasms OR Breast Cancer OR Breast Tumor OR Breast Tumors OR

Central Register of Breast Carcinoma OR Breast Carcinomas OR neoplasms, breast OR tumor, breast  
Controlled Trials OR tumors, breast OR carcinoma, breast):ti,ab,kw  
through 11 June  
2024)

#1 AND #2

**CNKI** (心理困扰 OR 心理痛苦 OR 心理痛苦温度计) AND (乳腺癌 OR 乳腺肿  
(Through 11 June 瘤 OR 乳房肿瘤)  
2024)

**Wan-Fang** (心理困扰 + 心理痛苦 + 心理痛苦温度计) AND (乳腺癌 + 乳腺肿瘤 +  
(Through 11 June 乳房肿瘤)  
2024)

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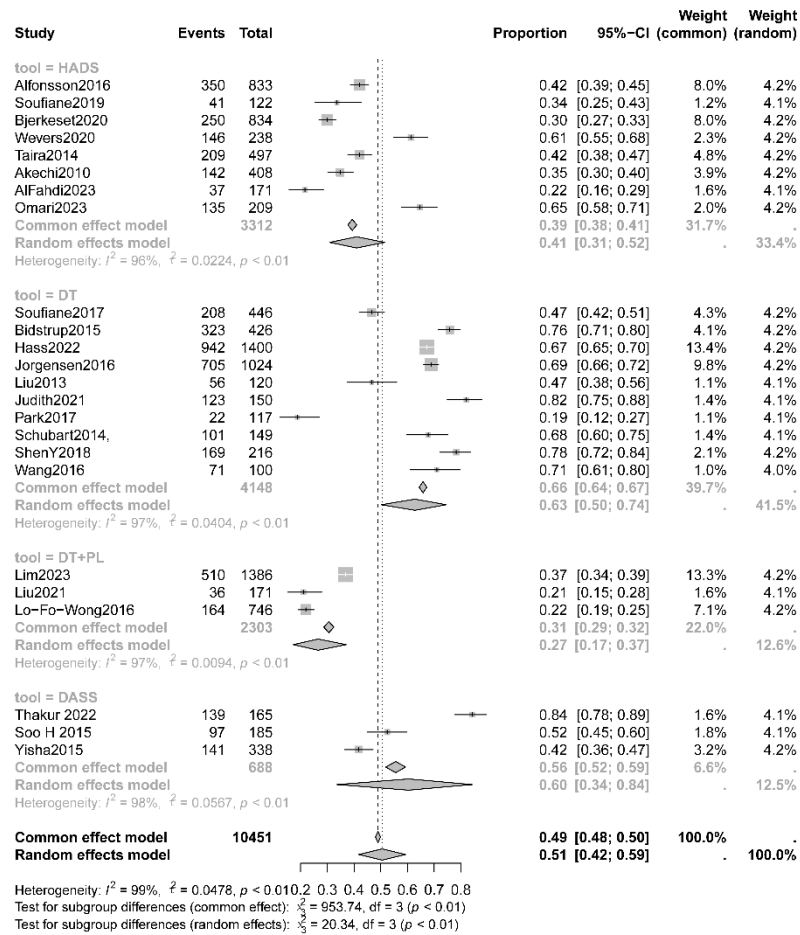
**Supplementary Table 2 Quality assessment of the included cross-section studies**

<b>Study</b>	<b>Define the source of information</b>	<b>List inclusion and exclusion criteria</b>	<b>Indicate time period used for identifying patients</b>	<b>Indicate whether or not subjects were consecutive if not population-based</b>	<b>Indicate if evaluators of subjective components of study were masked to other aspects of the status of the participants</b>	<b>Describe any assessments undertaken for quality assurance purposes</b>	<b>Explain any patient exclusions from analysis</b>	<b>Describe how confounding was assessed</b>	<b>If applicable, explain how missing data were handled in the analysis</b>	<b>Summarize patient response rates and completeness of data collection</b>	<b>The percentage or number of patients for which incomplete data</b>	<b>Total</b>
Alfonsson2016	1	0	0	0	1	1	1	0	1	1	0	6
Soufiane2017	1	1	1	1	1	1	0	1	0	0	0	7
Soufiane2019	1	1	1	1	1	1	1	0	0	1	1	9
Bidstrup2015	1	1	1	1	1	1	0	0	0	1	1	8
Bjerkeset2020	1	1	1	1	1	1	1	0	1	1	1	10
Faller2017	1	1	0	0	1	1	0	0	1	1	1	7
Judith2021	1	1	1	1	1	1	0	1	0	0	0	7
Thakur 2022	1	1	1	1	1	1	1	1	0	1	1	10
Schubart2014,	1	1	1	1	1	1	1	0	0	1	1	9
Wevers2020	1	1	1	1	1	1	0	0	0	1	1	8
Soo H 2015	1	1	0	0	1	1	0	0	0	1	1	6
Taira2014	1	1	1	1	1	1	1	0	0	1	1	9
Akechi2010	1	1	1	1	1	1	1	0	0	1	1	9
Wang2016	1	1	1	1	1	1	0	0	0	0	0	6

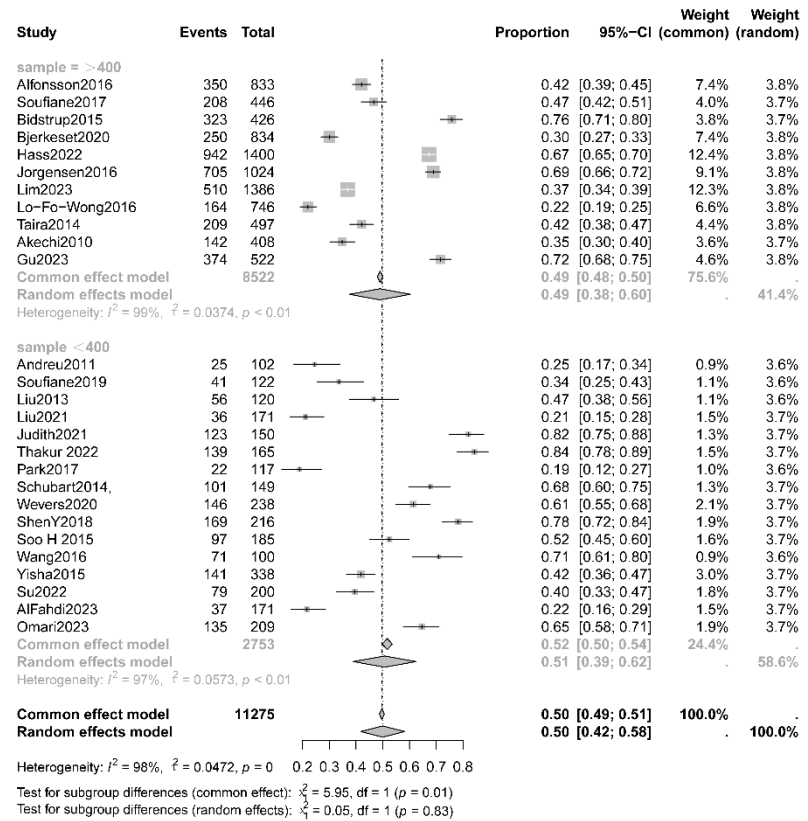
**Supplementary Table 2 Quality assessment of the included cross-section studies (continued)**

Wang2020	1	1	1	1	1	1	0	0	0	1	1	8
Warmoth2020	1	1	0	1	1	1	0	1	0	0	0	6
Yisha2015	1	1	0	1	1	1	0	1	0	1	0	7
Younis2020	1	1	0	1	1	1	0	0	0	1	0	6
Su2022	1	1	1	1	1	1	1	0	1	1	1	10
Alcorso2015	1	1	0	0	1	1	1	0	0	1	1	7
Phoosuwan2021	1	1	0	0	1	1	0	1	0	0	1	6
Yu2018	1	1	1	1	1	1	0	1	0	0	0	7
AlFahdi2023	1	1	1	1	1	1	1	0	0	1	1	9
Gu2023	1	1	1	1	1	1	0	0	0	1	1	8
Omari2023	1	1	1	1	1	1	1	0	1	0	0	8



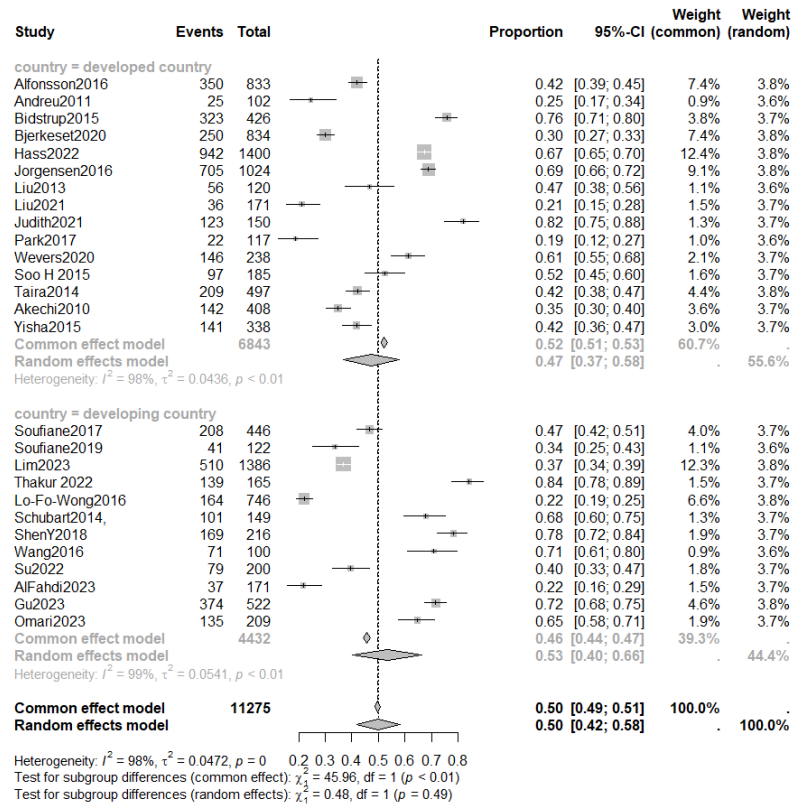


(Tools)

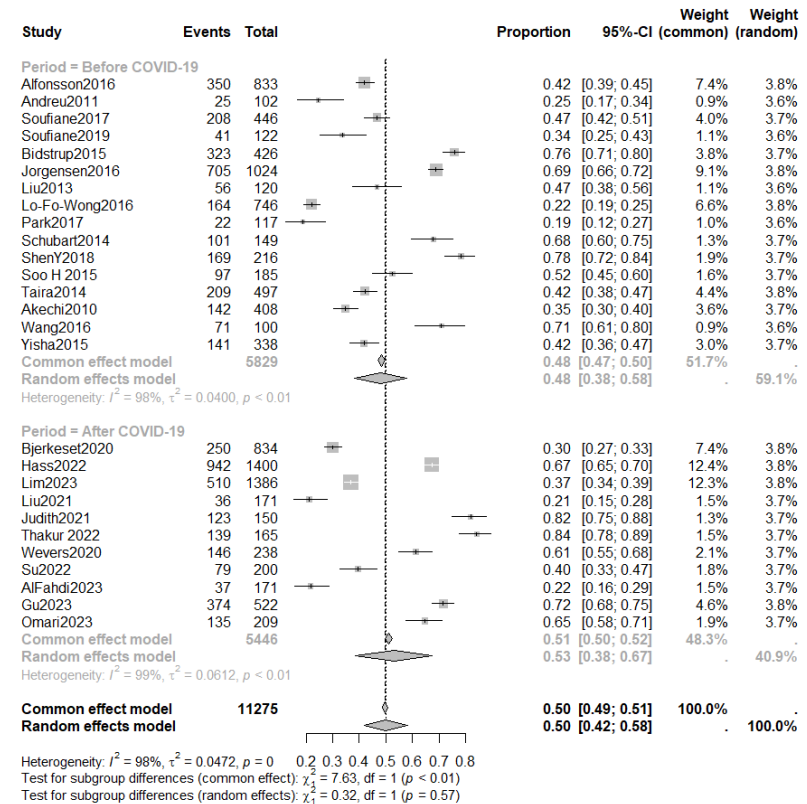


(Sample)

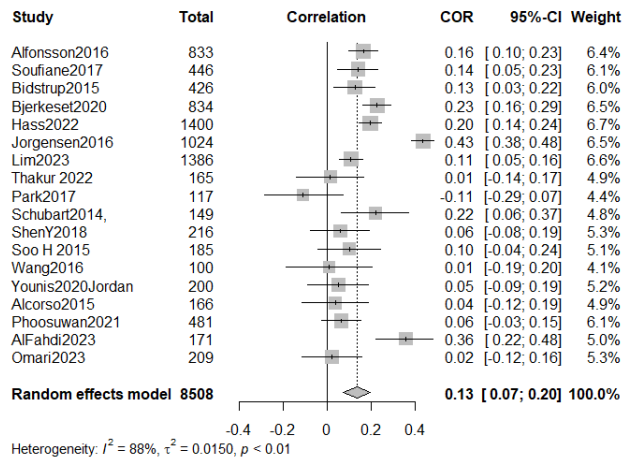
Supplementary Figure 1 The forest plot of the pooled prevalence of psychological distress based on tools and sample



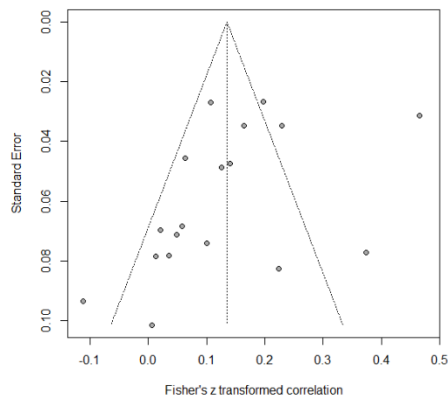
**Supplementary Figure 2** The forest plot of the pooled prevalence of psychological distress based on period



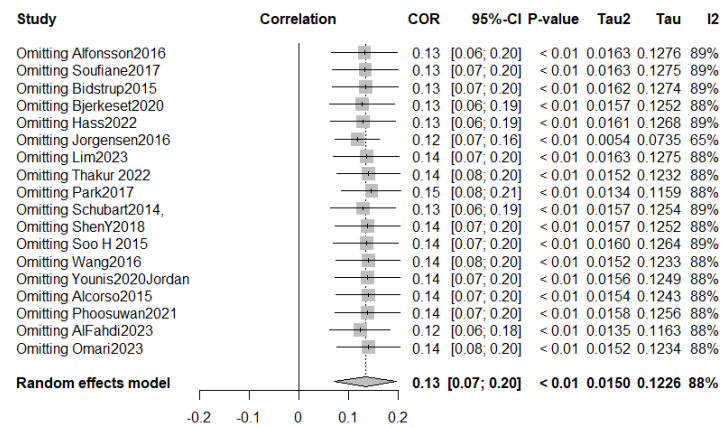
**Supplementary Figure 3** The forest plot of the pooled prevalence of psychological distress based on country



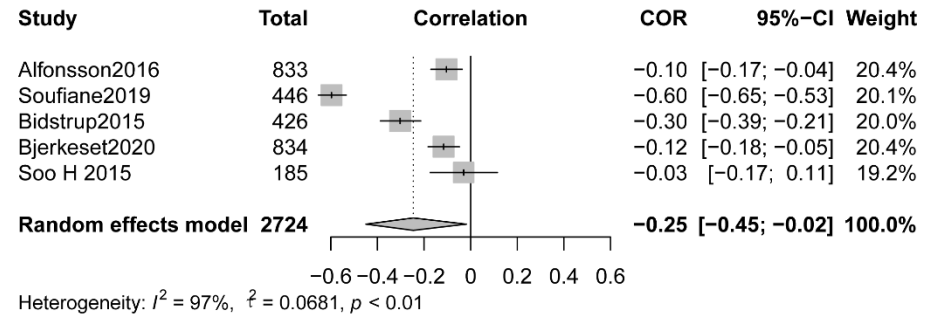
Supplementary Figure 4 Forest plot of the correlate between age and psychological distress



Supplementary Figure 6 Funnel plot of the correlate between age and psychological distress

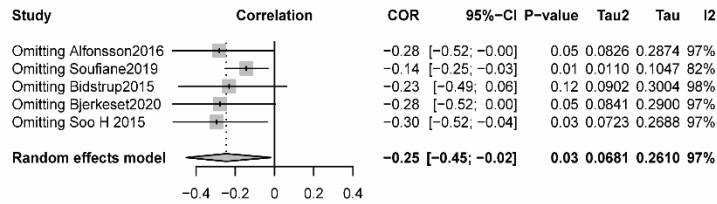


Supplementary Figure 5 Sensitivity analysis of the correlate between age and psychological distress

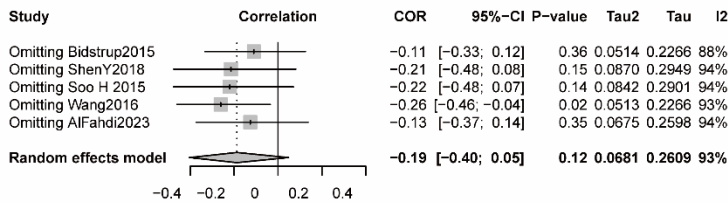


Supplementary Figure 7 Forest plot of the correlate between marital status and psychological distress

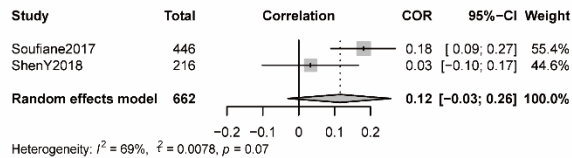




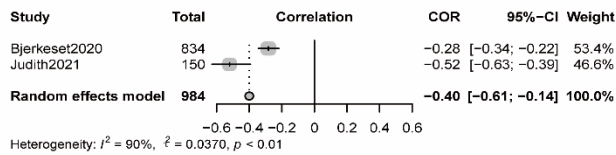
Supplementary Figure 8 sensitivity analysis of the correlate between marital and psychological distress



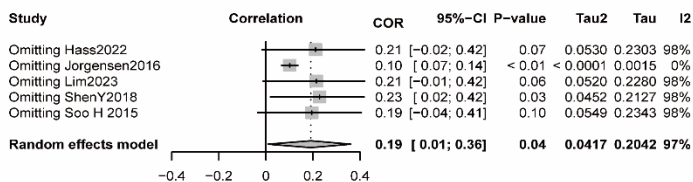
Supplementary Figure 10 sensitivity analysis of the correlate between education and psychological distress



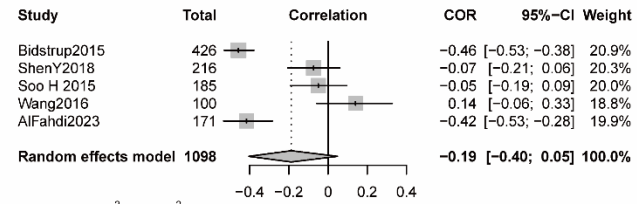
Supplementary Figure 12 Forest plot of the correlate between financial situation and psychological distress



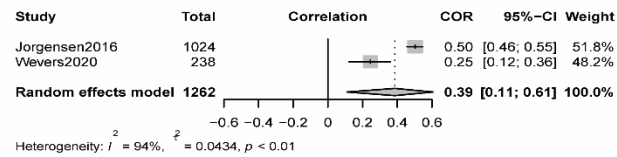
Supplementary Figure 14 Forest plot of the correlate between full-employment and psychological distress



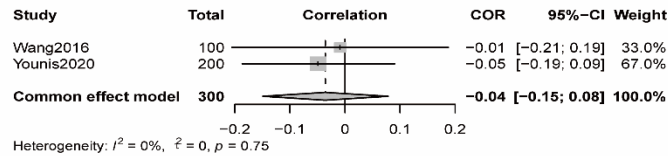
Supplementary Figure 16 sensitivity analysis of the correlate between the time since diagnosis and psychological distress



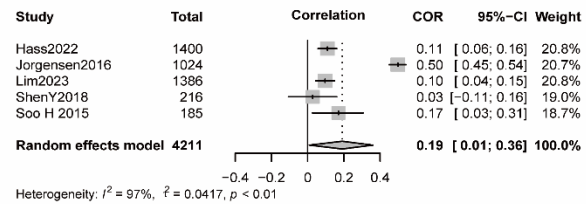
Supplementary Figure 9 Forest plot of the correlate between education and psychological distress



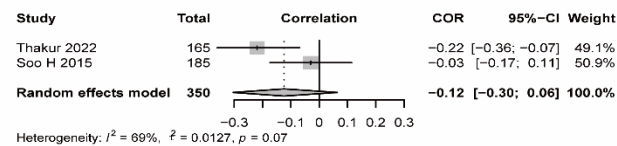
Supplementary Figure 11 Forest plot of the correlate between having children and psychological distress



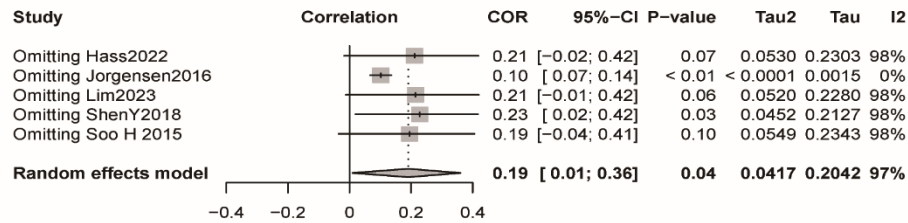
Supplementary Figure 13 Forest plot of the correlate between having insured and psychological distress



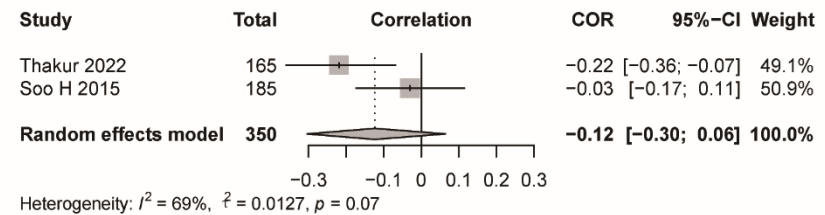
Supplementary Figure 15 Forest plot of the correlate between the time since diagnosis and psychological distress



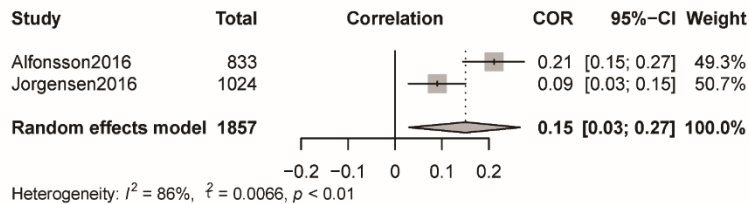
Supplementary Figure 17 Forest plot of the correlate between the time of completion treatment and psychological distress



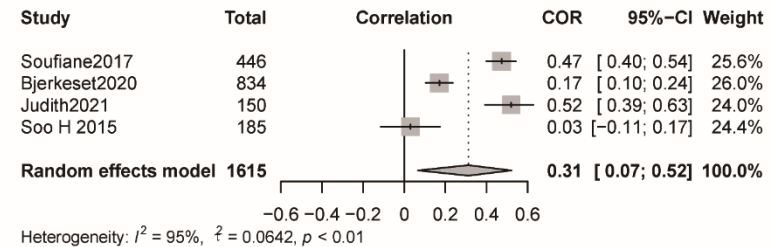
Supplementary Figure 16 sensitivity analysis of the correlate between the time since diagnosis and psychological distress



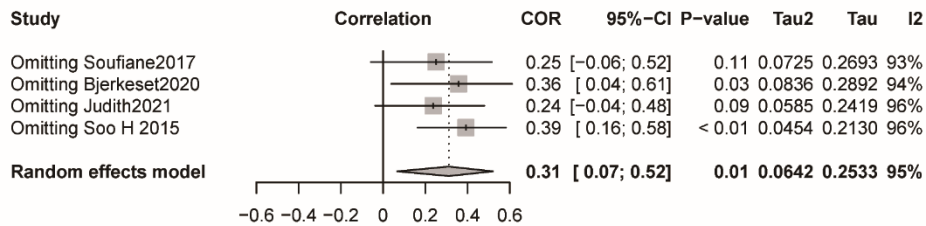
Supplementary Figure 17 Forest plot of the correlate between the time of completion treatment and psychological distress



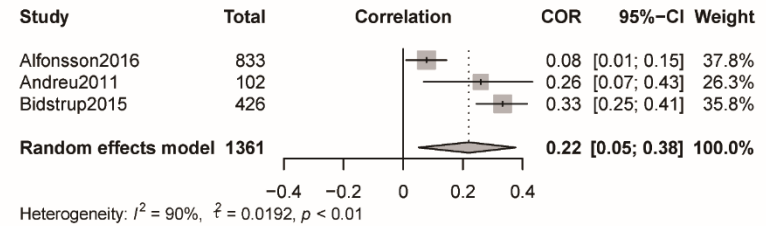
Supplementary Figure 18 Forest plot of the correlate between previous treatment and psychological distress



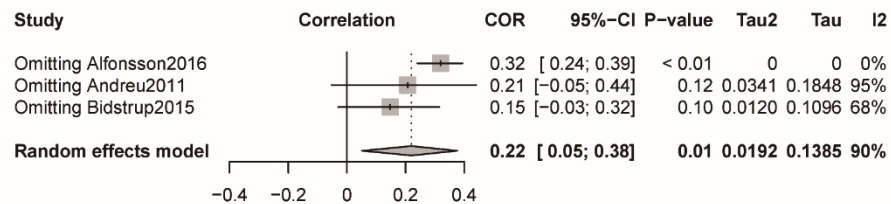
Supplementary Figure 19 Forest plot of the correlate between distant metastasis and psychological distress



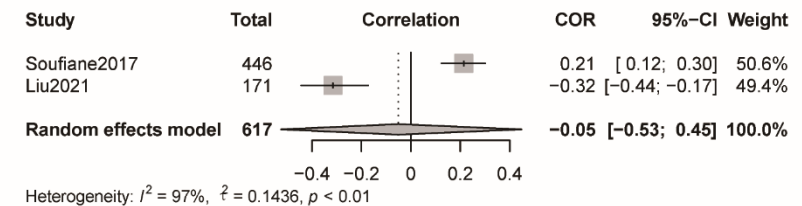
Supplementary Figure 20 Sensitivity analysis of the correlate between distant metastasis and psychological distress



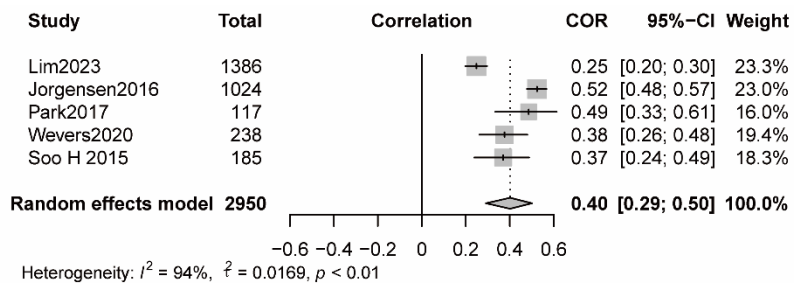
Supplementary Figure 21 Forest plot of the correlate between chemotherapy and psychological distress



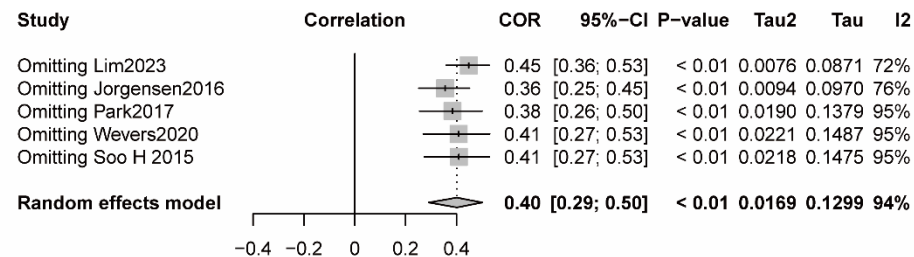
Supplementary Figure 22 Sensitivity analysis of the correlate between chemotherapy and psychological distress



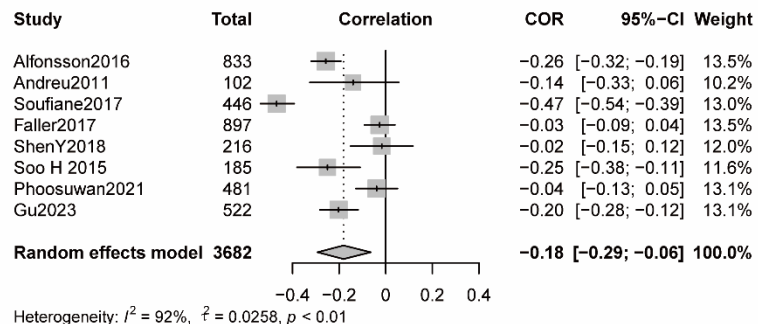
Supplementary Figure 23 Forest plot of the correlate between surgery and psychological distress



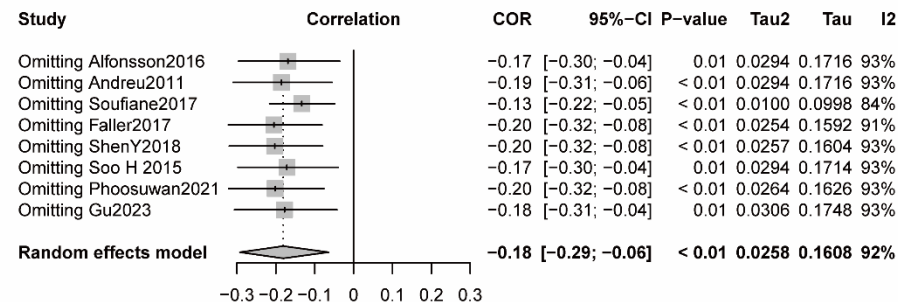
Supplementary Figure 24 Forest plot of the correlate between prior emotional status and psychological distress



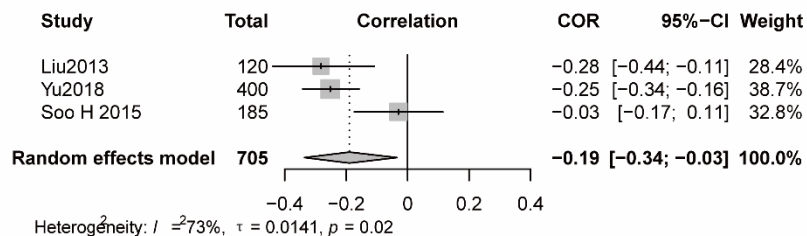
Supplementary Figure 25 Sensitivity analysis of the correlate between prior emotional status and psychological distress



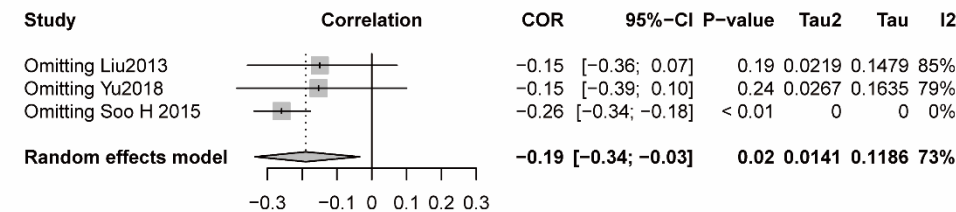
Supplementary Figure 26 Forest plot of the correlate between social support and psychological distress



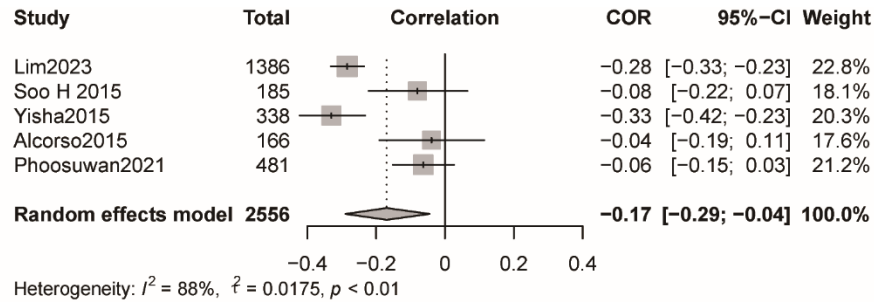
Supplementary Figure 27 Sensitivity analysis of the correlate between prior social support and psychological distress



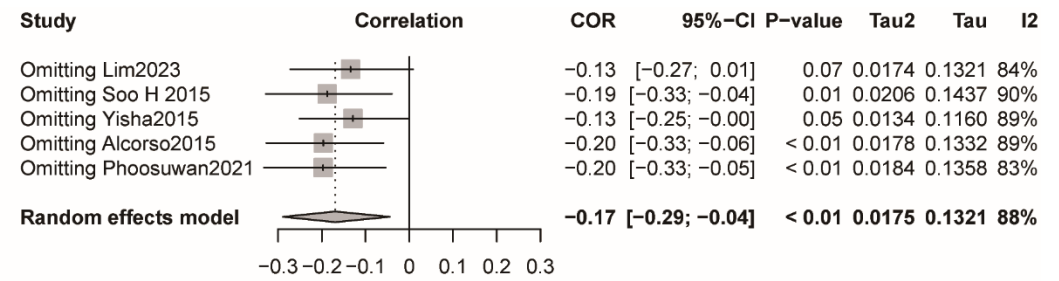
Supplementary Figure 28 Forest plot of the correlate between posttraumatic growth and psychological distress



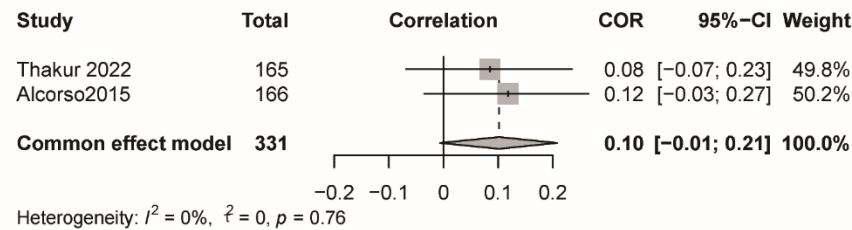
Supplementary Figure 29 Sensitivity analysis of the correlate between posttraumatic growth and psychological distress



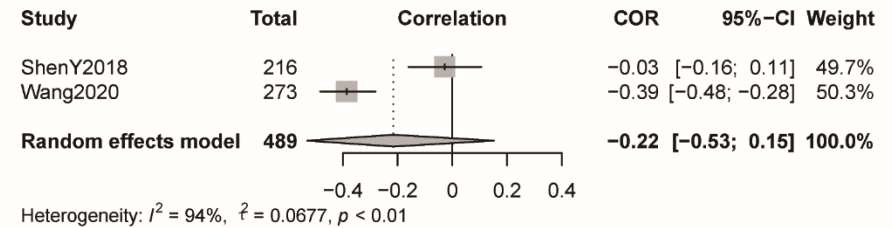
Supplementary Figure 30 Forest plot of the correlate between physical conditions and psychological distress



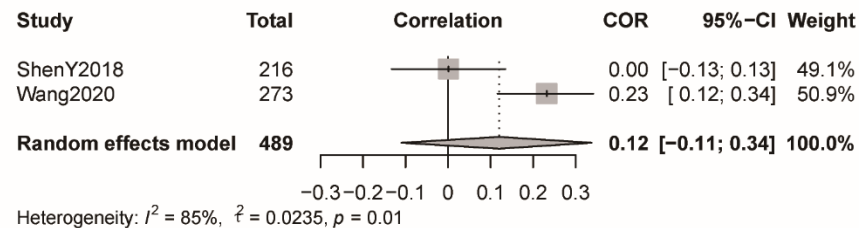
Supplementary Figure 31 Sensitivity analysis of the correlate between physical conditions and psychological distress



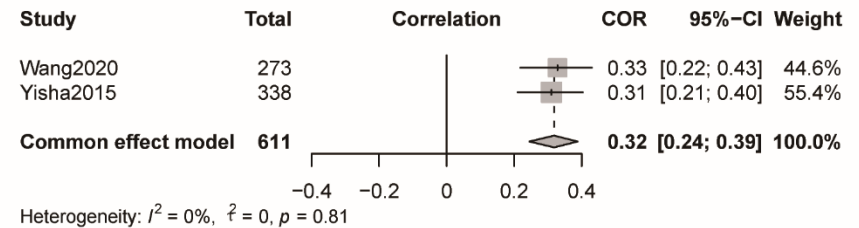
Supplementary Figure 32 Forest plot of the correlate between body image damaged and psychological distress



Supplementary Figure 33 Forest plot of the correlate between positive coping and psychological distress



Supplementary Figure 34 Forest plot of the correlate between negative coping and psychological distress



Supplementary Figure 35 Forest plot of the correlate between communication avoidance and psychological distress