

## Appendix 1 Search strategies

### PubMed

((("Congenital Abnormalities"[Mesh]) OR "Fetal Diseases"[Mesh] OR "Genetic Diseases, Inborn"[Mesh])) OR (((fetal[Title/Abstract] OR foetal[Title/Abstract] OR congenital[Title/Abstract] OR fetus[Title/Abstract])) AND (malformation\*[Title/Abstract] OR anomal\*[Title/Abstract] OR abnormalit\*[Title/Abstract]))

AND

((("Abortion, Induced"[Mesh]) OR "Labor, Induced"[Mesh])) OR (((abortion[Title/Abstract] OR labor[Title/Abstract] OR(terminat\*[Title/Abstract] OR end[Title/Abstract] OR interrupt\*[Title/Abstract]) AND pregnancy[Title/Abstract])))

AND

((("Psychotherapy"[Mesh]) OR "Mental Health Services"[Mesh] OR "Psychosocial Support Systems"[Mesh])) OR (((psychosocial[Title/Abstract] OR psychological[Title/Abstract] OR mental[Title/Abstract] OR emotional[Title/Abstract])) AND (intervention\*[Title/Abstract] OR counsel\*[Title/Abstract] OR therapy[Title/Abstract] OR treatment[Title/Abstract] OR support\*[Title/Abstract] OR care[Title/Abstract] OR caring[Title/Abstract] OR nursing[Title/Abstract] OR implementation[Title/Abstract])) OR psychotherapy[Title/Abstract])

AND

((((((("Depression"[Mesh]) OR "Stress, Psychological"[Mesh] OR "Mental Disorders"[Mesh] OR "Anxiety"[Mesh] OR "Grief"[Mesh] OR "Stress Disorders, Post-Traumatic"[Mesh] OR "Psychological Distress"[Mesh] OR "Guilt"[Mesh] OR "Sadness"[Mesh])) OR (((disorder\*[Title/Abstract] OR disease\*[Title/Abstract] OR illness[Title/Abstract])) AND(psychological[Title/Abstract] OR mental[Title/Abstract] OR emotion\*[Title/Abstract])) OR(depression[Title/Abstract] OR anxiet\*[Title/Abstract] OR grief[Title/Abstract] OR distress[Title/Abstract] OR posttraumatic stress disorder[Title/Abstract] OR ptsd[Title/Abstract] OR stress[Title/Abstract]))

Hits: 294 (10/6/2020)

Send to - Citation manager - All results - create file - pubmed-Congenital-set-294

Hits: 21 (2020 to 2021-11-20)

### Embase

#1 ('fetus malformation'/exp OR 'congenital malformation'/exp OR 'fetus disease'/exp OR 'genetic disorder'/exp OR (('fetal':ti,ab,kw OR 'foetal abnormalit\*':ti,ab,kw OR 'fetus':ti,ab,kw OR 'congenital':ti,ab,kw) AND ('abnormalit\*':ti,ab,kw OR 'malformation\*':ti,ab,kw OR 'anomal\*':ti,ab,kw)))

AND

#2 ('induced abortion'/exp OR 'labor induction'/exp OR 'pregnancy termination'/exp OR (('abortion':ti,ab,kw OR 'labor':ti,ab,kw OR 'termint\*':ti,ab,kw OR 'interrupt\*':ti,ab,kw OR 'end':ti,ab,kw) AND 'pregnancy':ti,ab,kw))

AND

#3 ('psychotherapy'/exp OR 'psychosocial care'/exp OR 'mental health care'/exp OR(('psychotherapy':ti,ab,kw OR 'psychosocial':ti,ab,kw OR 'psychological':ti,ab,kw OR 'mental':ti,ab,kw OR 'emotional':ti,ab,kw) AND ('psychotherapy':ti,ab,kw OR 'intervention\*':ti,ab,kw OR 'counsel\*':ti,ab,kw OR 'therapy':ti,ab,kw OR 'treatment':ti,ab,kw OR 'support\*':ti,ab,kw OR 'care':ti,ab,kw OR 'caring':ti,ab,kw OR 'nursing':ti,ab,kw OR 'implementation':ti,ab,kw)))

AND

#4 ('mental disease'/exp OR (('psychological':ti,ab,kw OR 'mental':ti,ab,kw OR 'emotional':ti,ab,kw) AND ('disease':ti,ab,kw OR 'disorders':ti,ab,kw OR 'illness':ti,ab,kw)) OR 'depression':ti,ab,kw OR 'anxiet\*':ti,ab,kw OR 'grief':ti,ab,kw OR 'posttraumatic stress disorder':ti,ab,kw OR 'ptsd':ti,ab,kw OR 'distress':ti,ab,kw OR 'stress':ti,ab,kw)

#5 (#1 AND #2 AND #3 AND #4)

Hits: 379 (10/6/2020)

Export - RIS format (Mendeley, EndNote)

Hits: 37 (10/6/2020-20/11/2021)

## The Cochrane library

ID	Search	Hits
#1	MeSH descriptor: [Congenital Abnormalities] explode all trees	
#2	MeSH descriptor: [Genetic Diseases, Inborn] explode all trees	
#3	MeSH descriptor: [Fetal Diseases] explode all trees	
#4	("fetus malformation*" OR "fetal anomal*" OR "fetal abnormalit*" OR "fetal malformation*" OR "congenital anomal*" OR "congenital abnormalit*" OR "congenital malformation*"):ti,ab,kw	
#5	#1 OR #2 OR #3 OR #4	18632
#6	MeSH descriptor: [Abortion, Induced] explode all trees	
#7	MeSH descriptor: [Labor, Induced] explode all trees	
#8	("abortion" OR "labor" OR ("termint*" OR "interrupt*" OR "end") AND "pregnancy"):ti,ab,kw	
#9	#6 OR #7 OR #8	25295
#10	MeSH descriptor: [Mental Health Services] explode all trees	
#11	MeSH descriptor: [Psychotherapy] explode all trees	
#12	MeSH descriptor: [Psychology, Social] explode all trees	
#13	("psychosocial" OR "psychological" OR "mental" OR "emotional"):ti,ab,kw	
#14	("intervention*" OR "counsel*" OR "therapy" OR "treatment" OR "support*" OR "care" OR "caring" OR "nursing" OR "implementation"):ti,ab,kw	
#15	#11 AND #12 OR "psychotherapy":ti,ab,kw	
#16	#8 OR #9 OR #10 OR #13	112022
#17	MeSH descriptor: [Depression] explode all trees	
#18	MeSH descriptor: [Stress, Psychological] explode all trees	
#19	MeSH descriptor: [Emotions] explode all trees	
#20	MeSH descriptor: [Mental Disorders] explode all trees	
#21	("depression" OR "anxiet*" OR "grief" OR "distress" OR "posttraumatic stress disorder" OR "ptsd" OR "stress" OR ("psychological" OR "mental" OR "emotion*") AND ("disorder*" OR "disease*" OR "illness")):ti,ab,kw	
#22	#14 OR #15 OR #16 OR #17 OR #18	224167
#23	#5 AND #9 AND #16 AND #22	16

Hits 16 (10/06/2020)  
Search Name: TOPFA psychosocial interventions-2  
Last Saved: 10/06/2020 11:16:28  
[Hits 0 \(10/06/2020-20/11/2020\)](#)

## PsycINFO

(fetal OR foetal OR fetus OR congenital) AND (malformation\* OR abnormalit\* OR anomal\*) AND (abortion OR labor OR termint\* OR interrupt\*) AND (depression OR anxiet\* OR grief OR distress OR posttraumatic stress disorder\* OR ptsd OR stress OR (psychological OR mental OR emotion\*) AND (disorder\* OR disease\* OR illness))  
Limits: All fields but not in full text  
Hits 200 (10/06/2020)  
[Hits 3 \(01/06/2020-20/11/2021\)](#)

## EBSCO (CINAHL, APA PsycArticles, Psychology and Behavioral Sciences Collection)

S1 ((MH "Abortion, Induced+") OR (MH "Labor, Induced")) OR AB (abortion OR labor OR ((termint\* OR interrupt\* OR end) AND pregnancy)) OR TI (abortion OR labor OR odinopoeia OR ((termint\* OR interrupt\* OR end) AND pregnancy))  
S2 ((MH "Hereditary Diseases+") OR (MH "Fetal Diseases+") OR (MH "Abnormalities+")) OR AB ((fetus OR fetal OR foetal OR congenital) AND (malformation\* OR anomal\* OR abnormalit\*)) OR TI ((fetus OR fetal OR foetal OR congenital) AND (malformation\* OR anomal\* OR abnormalit\*))  
S3 ((MH "Rehabilitation, Psychosocial+") OR (MH "Psychotherapy+")) OR AB (psychotherapy OR (psychosocial OR

psychological OR mental OR emotional) AND (intervention\* OR counsel\* OR therapy OR treatment OR support\* OR care OR caring OR nursing OR implementation)) OR TI (psychotherapy OR (psychosocial OR psychological OR mental OR emotional) AND (intervention\* OR counsel\* OR therapy OR treatment OR support\* OR care OR caring OR nursing OR implementation))

S4 ((MH "Emotions+") OR (MH "Behavioral and Mental Disorders+")) OR AB (depression OR distress OR anxiet\* OR posttraumatic stress disorder OR PTSD OR grief OR stress OR (psychological OR mental OR emotional) AND (disorder\* OR disease\* OR illness)) OR TI (depression OR distress OR anxiet\* OR posttraumatic stress disorder OR PTSD OR grief OR stress OR (psychological OR mental OR emotional) AND (disorder\* OR disease\* OR illness))

S5 S1 AND S2 AND S3 AND S4

Hits: 110 (10/06/2020)

[Hits: 15 \(06/2020-11/2021\)](#)

### China Biology Medicine Database (CBM)

Subject search

- 1) ("先天畸形"[不加权:扩展]) OR "遗传性疾病, 先天性"[不加权:扩展]) OR "胎儿疾病"[不加权:扩展] 274831 2020-06-10 16:42:06.0
- 2) ("引产"[不加权:扩展]) OR "流产, 人工"[不加权:扩展] 54984 2020-06-10 16:43:11.0
- 3) ("心理护理"[不加权:扩展]) OR "心理疗法"[不加权:扩展]) OR "社会支持"[不加权:扩展] 125960 2020-06-10 16:44:01.0
- 4) (((("抑郁"[不加权:扩展])) OR "应激障碍, 创伤后"[不加权:扩展]) OR "焦虑"[不加权:扩展]) OR "悲痛"[不加权:扩展] 110693 2020-06-10 16:44:53.0

Advanced search

- 5) ("胎儿畸形"[常用字段:智能] OR "先天异常"[常用字段:智能] OR "畸胎"[常用字段:智能] OR "胎儿异常"[常用字段:智能] OR "先天畸形"[常用字段:智能]) 198668 2020-06-10 16:45:47.0
- 6) ("引产"[常用字段:智能] OR "终止妊娠"[常用字段:智能]) 33093 2020-06-10 16:46:29.0
- 7) ("干预"[常用字段:智能] OR "治疗"[常用字段:智能] OR "护理"[常用字段:智能] OR "支持"[常用字段:智能] OR "疏导"[常用字段:智能] OR "调适"[常用字段:智能]) 5647396 2020-06-10 16:46:44.0
- 8) ("心理"[常用字段:智能] OR "社会"[常用字段:智能] OR "抑郁"[常用字段:智能] OR "焦虑"[常用字段:智能] OR "创伤后应激"[常用字段:智能] OR "PTSD"[常用字段:智能] OR "悲伤"[常用字段:智能] OR "痛苦"[常用字段:智能]) 794674 2020-06-10 16:47:05.0
- 9) (#5) OR (#1) 289527 2020-06-10 16:47:41.0
- 10) (#6) OR (#2) 64828 2020-06-10 16:48:27.0
- 11) (#7) OR (#3) 5652397 2020-06-10 16:51:23.0
- 12) (#8) OR (#4) 794674 2020-06-10 16:51:44.0
- 13) (#12) AND (#11) AND (#10) AND (#9) 157 2020-06-10 16:51:59.0

Hits: 157 (2020-06-10)

[Hits: 16 \(2020 to 2021-11-20\)](#)

### China National Knowledge Infrastructure (CNKI)

(篇关摘%胎儿畸形 + 胎儿异常 + 畸胎 + 先天畸形 + 畸胎 + 先天异常) AND (篇关摘%引产 + 终止妊娠) AND (篇关摘%心理 + 社会 + 抑郁 + 焦虑 + 创伤后应激 + PTSD + 悲伤 + 痛苦) AND (篇关摘%干预 + 护理 + 支持 + 治疗 + 疏导 + 调适)

Hits: 183 (2020-06-10)

[Hits: 9 \(2020-06-10 to 2021-11-20\)](#)

### Wan Fang Database

Search scope: journals, degrees, conferences

Retrieve Expression (subject word extension): 主题: (胎儿畸形 OR 先天异常 OR 畸胎 OR 胎儿异常 OR 先天畸形)\*主题: (引产 OR 终止妊娠)\*主题: (心理 OR 社会 OR 抑郁 OR 焦虑 OR 创伤后应激 OR PTSD OR 悲伤 OR 痛苦)\*主题: (干预

OR 支持 OR 治疗 OR 护理 OR 疏导 OR 调适)

Hits: 218 (2020-06-10)

Hits: 21 (2020 to 2021-11-20)

**China Science and Technology Journal Database (VIP Database)**

M= (先天性畸形 OR 胎儿畸形 OR 先天畸形 OR 胎儿异常 OR 畸胎 OR 先天异常) AND M= (引产 OR 终止妊娠) AND M= (心理 OR 社会 OR 抑郁 OR 焦虑 OR 创伤后应激 OR PTSD OR 悲伤 OR 痛苦) AND M= (干预 OR 治疗 OR 护理 OR 支持 OR 疏导 OR 调适)

Hits: 42 (2020-06-10)

Hits: 4 (2020 to 2021-11-20)

## Appendix 2 Studies quality assessments

**Table S1** Randomized controlled trial

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13
Kersting 2013	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
Rocha 2018	N	N	Y	N	N	N	Y	Y	N	Y	Y	Y	Y
Sun 2018	Y	Y	Y	N	N	N	Y	Y	N	Y	Y	Y	Y
Qian 2021	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y

Q1: Was true randomization used for assignment of participants to treatment? Q2: Was allocation to treatment groups concealed? Q3: Were treatment groups similar at the baseline? Q4: Were participants blind to treatment assignment? Q5: Were those delivering treatment blind to treatment assignment? Q6: Were outcomes assessors blind to treatment assignment? Q7: Were treatment groups treated identically other than the intervention of interest? Q8: Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed? Q9: Were participants analyzed in the groups to which they were randomized? Q10: Were outcomes measured in the same way for treatment groups? Q11: Were outcomes measured in a reliable way? Q12: Was appropriate statistical analysis used? Q13: Was the trial design appropriate, and any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and analysis of the trial?

**Table S2** Quasi-experimental study

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
Zeng 2017	Y	Y	Y	Y	Y	Y	Y	Y	Y
Yi 2019	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lilford 1994	Y	NA	Y	Y	N	Y	Y	U	Y
Langer 1989	Y	NA	U	Y	N	U	N	N	Y
Deng 2019	Y	Y	Y	Y	Y	Y	Y	U	Y
Wei 2018	Y	Y	Y	Y	Y	Y	Y	Y	Y
Zhang 2018	Y	Y	Y	Y	Y	Y	Y	U	Y
Song 2017	Y	U	Y	Y	Y	Y	Y	N	Y
Yuan 2018	Y	Y	Y	Y	Y	Y	Y	U	Y
Liang 2020	Y	Y	Y	Y	Y	Y	Y	U	Y
Wu 2015	Y	Y	Y	Y	Y	Y	Y	U	Y
Huang 2013	Y	NA	Y	Y	Y	Y	Y	U	Y
Lan 2012	Y	NA	NA	N	Y	Y	Y	U	Y
Yu 2011a	Y	NA	NA	N	Y	Y	Y	Y	N
Wang 2012	Y	Y	Y	Y	Y	Y	Y	U	Y
Xu 2012	Y	N	Y	Y	Y	Y	Y	N	N
Ying 2009	Y	U	Y	Y	Y	Y	Y	U	Y
Gao 2017	Y	Y	Y	Y	Y	Y	Y	U	Y
Chu 2019	Y	Y	Y	Y	Y	Y	Y	U	Y
Duan 2018	Y	Y	Y	Y	Y	Y	Y	U	Y
Wen 2016	Y	Y	Y	Y	Y	Y	Y	U	Y
Yuan 2017	Y	Y	Y	Y	Y	Y	Y	U	Y
Zhang 2016	Y	Y	Y	Y	Y	Y	Y	U	Y
Zhou 2018	Y	Y	Y	Y	Y	Y	Y	N	N
Zhang 2015	Y	Y	Y	Y	Y	Y	Y	U	Y
Guo 2014	Y	Y	Y	Y	Y	Y	Y	U	Y
Li 2019	Y	Y	Y	Y	Y	Y	Y	U	Y
Gao 2017	Y	NA	NA	N	Y	Y	Y	U	N
Guo 2021	Y	Y	Y	Y	Y	Y	Y	U	Y
Shi 2021	Y	Y	Y	Y	Y	Y	Y	U	Y
Zhang 2020	Y	Y	Y	Y	Y	Y	Y	U	Y
Zhu 2020	Y	Y	Y	Y	Y	Y	Y	U	Y
Zhang 2020	Y	Y	Y	Y	Y	Y	Y	U	Y

Q1: Is it clear in the study what is the 'cause' and what is the 'effect' (i.e., there is no confusion about which variable comes first)? Q2: Were the participants included in any comparisons similar? Q3: Were the participants included in any comparisons receiving similar treatment/care, other than the exposure or intervention of interest? Q4: Was there a control group? Q5: Were there multiple measurements of the outcome both pre and post the intervention/exposure? Q6: Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed? Q7: Were the outcomes of participants included in any comparisons measured in the same way? Q8: Were outcomes measured in a reliable way? Q9: Was appropriate statistical analysis used?