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Appendix A- systematic search strategy

Initial scoping searches were undertaken on the following databases: Delphis (accessible through the University of Southampton Library) and Google Scholar. A question was developed using the PICO framework (CRD, 2009) as shown in Table 1. As a number of the papers I identified in my initial scoping searches did not include a comparison group, this was deemed to not be applicable.

The final research question was ‘is yoga an effective intervention for supporting the mental health of young people affected by developmental trauma?’ The search terms shown in Table 1 were entered into: PsycInfo, MEDLINE, CINAHL, PsycArticles, ERIC and the Web of Science. A search for relevant grey literature was also carried out on ProQuest Dissertations and Theses Global.

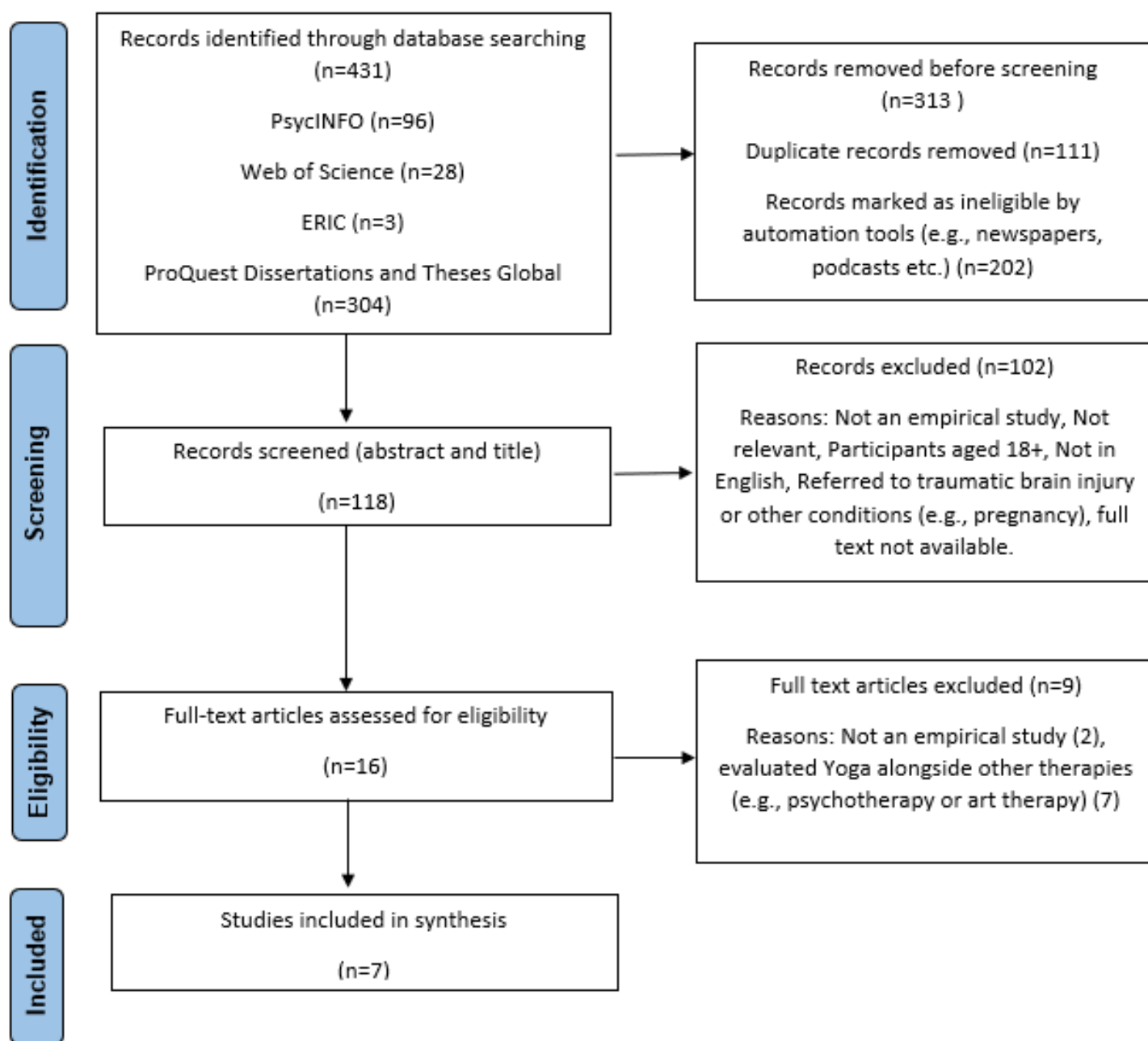
The PRISMA process (Moher et al., 2009) was used to guide the systematic review process and study selection (Figure 1). The inclusion and exclusion criteria for this review are shown in Table 2. Seven studies were included in the review. This included grey literature, qualitative, quantitative and mixed methods studies. To assess the quality of quantitative studies I used an adapted Downs and Black critical appraisal tool (1998). To evaluate qualitative studies I used an adapted CASP checklist (2018). For appraising grey literature, I used an adapted NICE (2014) grey literature checklist.

Table 1. *Question and search strategy development using the PICO framework (CRD, 2009)*

PICO	Question Elements	Search Strategy
Participants	Children and young people who have experienced developmental trauma / adverse childhood experiences.	AB ("yoga" OR "yoga-based intervention*") AND AB (Children OR adolescen* OR youth* OR child OR Teenager* OR "young person" OR Pupil* OR student* OR "school-aged" OR "Primary school" OR "secondary school") AND AB (Trauma OR "developmental trauma" OR "attachment difficulties" OR traumatised OR "childhood trauma" OR "adverse childhood experiences" OR "complex trauma" "looked after children" OR "foster care" OR "children in care" OR adoption OR "adopted children" OR vulnerable OR maltreated)
Interventions	Yoga	
Comparison	N/A	
Outcomes	CYPs Mental health	

Table 2. *Systematic review inclusion and exclusion criteria*

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • Average participant age between 0-18 • Full text available • Paper available in English • Intervention is yoga or yoga based (e.g., Mindful yoga) • Outcomes focused on mental health • Must include an empirical study 	<ul style="list-style-type: none"> • Average participant age 18+ • Full text not available • Systematic reviews • Participants with traumatic brain injury or Post Traumatic Stress Disorder (PTSD) from a singular event (i.e., not developmental trauma). • Intervention includes yoga and other methods to support mental health (e.g., movement therapy or yoga-based psychotherapy)

Figure 1. *PRISMA 2009 Flow Diagram of the systematic search process (Moher et al., 2009)*

Appendix B

Table 3. *An amended Downs and Black (1998) checklist for measuring the quality of randomised and non-randomised studies*

	Razza et al. (2020)	Vallejos et al. (2016)
1. Hypothesis/aims clearly described	Yes	Yes
2. Outcome measures clearly described	Yes	Yes
3. Sample clearly described	Yes	Yes
4. Interventions clearly described	Yes	Yes
5. Distribution of confounders within sample clearly described	Yes – describes group characteristics & mean & SD pre and post-test for each group	Yes
6. Main findings clearly described	Yes	Yes
7. Estimates of random variability in the data described	Yes – they report SD	Yes – they report SD
8. Potential adverse effects of the intervention reported	N/A	N/A
9. Participants lost to follow-up described	Yes	Yes
10. Probability values reported	Yes	Yes
11. Sampling method allowed representative sample	Unable to determine	Unable to determine*

12. Participants representative of the wider population	Yes	Unable to determine**
13. Intervention within representative context	Yes	Yes
14. Participants blind to intervention	Yes**	No
15. Attempts made to blind those measuring the intervention	No***	No
16. Unplanned data analyses reported	Yes	No
17. Time period for follow-up tests post-intervention appropriate	Yes	Yes
18. Appropriate statistical tests used for main outcomes	Yes	Yes
19. Compliance with intervention (intervention fidelity)	Yes	Yes
20. Outcome measures reliable and valid	Yes	Yes
21. Participants (intervention vs control) recruited from the sample population (i.e. same school)	Yes	N/A – no control
22. Participants (intervention and controls) recruited during the same time period	Yes	N/A – no control
23. Random allocation of participants to group	Partially****	No
24. Participants/staff blinded to random allocation until recruitment complete	Unable to determine	No

25. Adequate adjustment for confounding variables in the analysis	Yes	No
26. Participant attrition considered in the analysis	Yes	No
27. Study was sufficiently powered	Unable to determine *****	Unable to determine***
Comments	<p>*Not clear how the particular preschools were chosen but did cover 5 preschool classrooms with diverse participants</p> <p>**As far as you can tell, as different classes took part in the intervention at different times (some were waitlist controls).</p> <p>***Blinding researchers is not mentioned.</p> <p>****Preschool classrooms were randomly allocated, not participants.</p> <p>*****No mention of power but there were issues with the sample size so I think it would have been under powered.</p>	<p>*Sample is very small and based on only 3 children's homes within one region on the UK. These homes were part of one private residential provider so may vary from other settings in their approach to care etc.</p> <p>**No information other than basic demographics is provided about the young people so it is hard to know whether they are representative of young people in care.</p> <p>***Power was not discussed but sample size was very small so I assume it was underpowered.</p>

Appendix C

Table 4. *An Amended CASP checklist (2018) for measuring qualitative study quality*

	Hagen et al. (2021)	Owen-Smith et al. (2021)
Was there a clear statement of the aims of the research?	Yes	Yes
Is a qualitative methodology appropriate?	Yes	Yes
Was the research design appropriate to address the aims of the research?	Yes*	Yes
Was the recruitment strategy appropriate to the aims of the research?	Yes**	Yes
Was the data collected in a way that addressed the research issue?	Yes	Can't tell*
Has the relationship between researcher and participants been adequately considered?	No***	No
Have ethical issues been taken into consideration?	Yes	Can't tell**
Was the data analysis sufficiently rigorous?	Yes****	Yes***
Is there a clear statement of findings?	Yes	Can't tell****
Is the research valuable?	Yes	Yes

 Comments

*The researchers did not specifically discuss why they chose this design but it seems to be thorough allowing in-depth analysis of participants views.

**Yes but the authors did comment on the difficulty of being involved in an international study where interview criteria was set collectively. They mentioned that it would have been more helpful to have a clearer definition of ‘disadvantaged people’ and that this could have influenced recruitment.

***The researchers do not reflect on how their role as the researcher / interviewer influenced their interpretation of the data. The thematic analysis was done in a team of people who cross checked codes / themes.

****Aspects of their analysis are not clearly reported. It is not clear how initial codes were developed (e.g., whether they were semantic or latent) but other aspects are clearer e.g., their use of data to support the findings and descriptions of using a team of people to help agree on codes and themes.

*It is not clear whether interviews were semi-structured or whether the researcher used a topic guide. Other aspects were appropriate (e.g., setting and it is clear that data was audio recorded).

**It does not mention if approval for research has been granted by an ethics committee. It does mention participant consent and discusses other ethical issues such as power imbalances between the guards and participant. Also mentions all interviewers read an ethics curriculum.

*** Researchers did consider their role in interpreting the findings, commenting on possible subjectivity and how their involvement in the study may have influenced their analysis. There is a description of how they developed codes and themes. It would have been helpful to have a code book.

****Results section is quite brief. From the quotes/findings they presented it is not possible to tell which participant said what and whether some quotes came from the same participant. Though, they did report that participants all liked the intervention, suggesting there may not have been contradictory results.

Appendix D

Table 5. *An amended Grey literature checklist* (NICE, 2014)

		Culver (2014)	Lee-Kin (2012)	Garner (2020)
Individual author	Associated with a reputable organisation?	Yes	Yes	Yes
	Professional qualifications or considerable experience?	Unclear*	Yes	Yes
	Produced/published other work (grey/black) in the field?	Yes	No	No
	Recognised expert, identified in other sources?	No	No	No
	Cited by others? (use Google Scholar as a quick check)	Yes	Yes – two theses	No
	Higher degree student under 'expert' supervision?	Yes	Yes	Yes
	Does the item have a detail reference list or bibliography?	Yes	Yes	Yes
Accuracy	Does the item have a clearly stated aim or brief?	Yes	Yes	Yes
	Does the item meet its aims?	Yes	Yes	Partly *
	Does the item have a stated methodology?	Yes	Yes	Yes
	Has the item been peer reviewed?	Yes – but in a separate publication	No	No

	Has the item been edited by a reputable authority?	N/A	N/A	N/A
	Is the item supported by authoritative, documented references or credible sources?	Yes	Yes	Yes
	Is the item representative of work in the field?	Yes	Yes	Yes
	If no, is it a valid counterbalance?	N/A	N/A	N/A
	Is any data collection explicit and appropriate for the research?	Yes	Yes	Yes
	If the item is secondary material (e.g. a policy brief of a technical report), does it provide an accurate, unbiased interpretation or analysis of the original document?	N/A	N/A	N/A
Coverage	Are any limits to the item clearly stated?	Yes	Yes	Yes
Objectivity	Is the author's standpoint clear?	Yes	Yes	Yes
	Does the work seem to be balanced in presentation?	Yes	Unclear*	*Unclear
Date	Does the item have a clearly stated date related to content?	Yes	Yes	Yes
	If no date is given, but can be accurately ascertained, is there a valid reason for its absence?	N/A	N/A	N/A
	Has key contemporary material been included in the bibliography?	Yes	Yes	Yes
Significance	Is the item meaningful (i.e. does it incorporate feasibility, utility and relevance)?	Yes	No	Yes
	Does it add context?	Yes	Yes	Yes
	Does it enrich or add something unique to the research?	Yes	Yes	Yes
	Does it strengthen or refute a current position?	Yes	Yes	Yes
	Would the research area be lesser without it?	Yes	Partly**	Yes
	Is it integral, representative, typical?	Partly **	Partly****	** Partly

Does it have impact (in the sense of influencing the work or behaviour of others)?	Yes	Yes	Yes
Comments	<p>*I could not find details about the primary researchers qualifications. **Partly representative? limited due to small sample size but the research is addressing an important question.</p>	<p>* There is no information given about bias. There is also no discussion of what impact providing incentives could have had on participants in the programme. *This is a novel area and important for developing research in this area but the study is of low quality due to small sample and lack of controls. ***Very small sample within one setting.</p>	<p>*Author chose to remove one of the measures in the second wave of the study as participants found it too long. *It would have been useful for more discussion about subjectivity when interpreting qualitative findings. **Small sample size from one area limits representativeness</p>