
To Fill the Gap: A Systematic Literature Review of Group Play-Based Intervention to Address Anxiety in Young Children with Autism

**STELLA WAI-WAN CHOY, CONOR MC GUCKIN, MIRIAM TWOMEY, AOIFE LYNAM, &
GERALDINE FITZGERALD**

Trinity College Dublin, Ireland

Appendix E

Appendix E. ROBIS: Tool to assess the risk of bias in systematic reviews

Phase 1: Assessing relevance (Optional)

ROBIS is designed to assess the risk of bias in reviews with questions relating to interventions, aetiology, diagnosis and prognosis. State your overview/guideline question (target question) and the question being addressed in the review being assessed:

Intervention reviews:

Category	Target question (e.g. overview or guideline)	Review being assessed
Patients/Population(s):	Children with anxiety and comorbid autism (a) aged 4-6; (b) aged 2-12	
Intervention(s):	Group play-based interventions	
Comparator(s):		
Outcome(s):	Reducing anxiety in children	

Does the question addressed by the review match the target question?	YES/NO/UNCLEAR
--	----------------

Phase 2: Identifying concerns with the review process

DOMAIN 1: STUDY ELIGIBILITY CRITERIA

Describe the study eligibility criteria, any restrictions on eligibility and whether there was evidence that objectives and eligibility criteria were pre-specified:

1.1 Did the review adhere to pre-defined objectives and eligibility criteria?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI
1.2 Were the eligibility criteria appropriate for the review question?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI
1.3 Were eligibility criteria unambiguous?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI
1.4 Were any restrictions in eligibility criteria based on study characteristics appropriate (e.g. date, sample size, study quality, outcomes measured)?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI
1.5 Were any restrictions in eligibility criteria based on sources of information appropriate (e.g. publication status or format, language, availability of data)?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI

Concerns regarding the specification of study eligibility criteria Rationale for concern:	LOW/HIGH/UNCLEAR
--	------------------

DOMAIN 2: IDENTIFICATION AND SELECTION OF STUDIES

Describe methods of study identification and selection (e.g. number of reviewers involved): five reviewers were involved.

2.1 Did the search include an appropriate range of databases/electronic sources for published and unpublished reports?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI
2.2 Were methods additional to database searching used to identify relevant reports?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI
2.3 Were the terms and structure of the search strategy likely to retrieve as many eligible studies as possible?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI
2.4 Were restrictions based on date, publication format, or language appropriate?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI
2.5 Were efforts made to minimise errors in selection of studies?	<input type="checkbox"/> Y/ <input type="checkbox"/> PY/ <input type="checkbox"/> PN/ <input type="checkbox"/> N/ <input type="checkbox"/> NI

Concerns regarding methods used to identify and/or select studies Rationale for concern:	LOW/HIGH/UNCLEAR
---	------------------

DOMAIN 3: DATA COLLECTION AND STUDY APPRAISAL

Describe methods of data collection, what data were extracted from studies or collected through other means, how risk of bias was assessed (e.g. number of reviewers involved) and the tool used to assess risk of bias: five reviewers were involved.

- | | |
|--|--|
| 3.1 Were efforts made to minimise error in data collection? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 3.2 Were sufficient study characteristics available for both review authors and readers to be able to interpret the results? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 3.3 Were all relevant study results collected for use in the synthesis? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 3.4 Was risk of bias (or methodological quality) formally assessed using appropriate criteria? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 3.5 Were efforts made to minimise error in risk of bias assessment? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |

Concerns regarding methods used to collect data and appraise studies	<input checked="" type="checkbox"/> LOW/ <input type="checkbox"/> HIGH/ <input type="checkbox"/> UNCLEAR
Rationale for concern:	

DOMAIN 4: SYNTHESIS AND FINDINGS

Describe synthesis methods:

- | | |
|--|--|
| 4.1 Did the synthesis include all studies that it should? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 4.2 Were all pre-defined analyses reported or departures explained? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 4.3 Was the synthesis appropriate given the nature and similarity in the research questions, study designs and outcomes across included studies? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 4.4 Was between-study variation (heterogeneity) minimal or addressed in the synthesis? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 4.5 Were the findings robust, e.g. as demonstrated through funnel plot or sensitivity analyses? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |
| 4.6 Were biases in primary studies minimal or addressed in the synthesis? | <input checked="" type="checkbox"/> Y/PY/PN/N/NI |

Concerns regarding the synthesis and findings	<input checked="" type="checkbox"/> LOW/ <input type="checkbox"/> HIGH/ <input type="checkbox"/> UNCLEAR
Rationale for concern:	

Phase 3: Judging risk of bias

Summarize the concerns identified during the Phase 2 assessment:

Domain	Concern	Rationale for concern
1. Concerns regarding specification of study eligibility criteria		
2. Concerns regarding methods used to identify and/or select studies		
3. Concerns regarding methods used to collect data and appraise studies		
4. Concerns regarding the synthesis and findings		