Introduction

The goal of the current investigation is to conduct a meta-analysis summarizing the existing work on associations between Early Childhood (EC) and Internalizing (INT) difficulties. Eighty-three studies meeting inclusion criteria, based on the review of abstracts identified from database searches, were retrieved for further review. A total of 40 studies contained relevant data for this analysis. Findings indicated that methodological differences do not provide directions for future research in this area. It was anticipated that the overall effects between EC and INT may identify methodological differences.

Method

Method-Continued

- As part of a larger meta-analysis of EC and children's outcomes, PsychInfo and MedLine databases were searched using 14 terms for EC (e.g., temperament, and self-regulation) and 53 terms for children's outcomes, including INT related search terms (e.g., Depression and Anxiety).
- Potential Moderator Variables:
  - EC measurement: Behavioral, Parent Report, Other Report (e.g., self-report, teacher, etc.), and Cross Informant (e.g., parent reported EC and teacher reported INT)
  - Age: 0-5 (early childhood), 6-12 (school aged), and 13 years (adolescence)
  - Clinical sample: Sample with INT diagnosis was compared to a non-clinical control sample
  - Gender

Hypotheses

- It was anticipated that the overall effects between EC and INT would be negative.
- Given findings in existing literature, gender and method used to measure EC were expected to be potential moderators.
- Alternative potential moderators examined included: high vs low risk samples, clinical vs. non-clinical samples, and mean age of the sample.

Method

Method-Continued

- 210 studies meeting inclusion criteria, based on the review of abstracts identified from the database searches, were retrieved for further review.
- An additional 7 studies meeting inclusion criteria were identified and retrieved based on reference list searches.
- A total of 40 studies contained relevant data for this investigation.
- After multiple reports using the same sample, and multiple effect sizes (ES) within single studies were accounted for:
  - Retrieved studies rendered 284 total ES, yielding 33 single ES for analysis.
  - The total sample size across studies was 9,606.
- Potential Moderator Variables:
  - EC measurement: Behavioral, Parent Report, Other Report (e.g., self-report, teacher, etc.), and Cross Informant (e.g., parent reported EC and teacher reported INT)
  - Age: 0-5 (early childhood), 6-12 (school aged), and 13 years (adolescence)
  - Clinical sample: Sample with INT diagnosis was compared to a non-clinical control sample
  - High Risk: Greater than 66% of the sample was determined to be demographically at risk (e.g. low SES, low maternal education, etc.)

Discussion

- This meta-analysis synthesized the growing literature examining the association between EC and INT. Although not as strong as effects typically observed for other outcomes (e.g., externalizing), results were consistent with a modest small to medium effect size.
- Findings indicated that methodological differences do not appear to account for the sometimes variable findings between studies.
- Studies separating effects by gender, using adolescent samples, or examining clinical samples were not frequently identified.

Future studies should address the limitations noted above.

References

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To download a copy of this poster, including references cited in the poster as well as studies contributing effect sizes to the analyses reported in this presentation, please visit the Emotion Regulation & Temperament Lab website at: www.niu.edu/emotionreg

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**Results**

- When studies were permitted to contribute more than one ES to the distribution (i.e. All studies, Multiple ES) the expected moderation effect was not observed.
- In line with meta-analytic practice, in a subsequent analysis each study only contributed one ES.
- The overall ES (r = -0.21) fell between a small and medium effect based on Cohen's criteria.
- EC accounts for 4.4% of the variance in children's INT outcomes.
- The homogeneity test was not significant, suggesting that no moderators of the effect were present.
- Qualitative examination (see table) of each level of each moderator suggests minimal differences between levels, which also suggests the absence of specific moderating variables.
References


In Text References


