



is to provide clinical recommendations regarding the use of information regarding ACEs to inform practice for S-LPs.

### *Methods*

#### Search Strategy

functioning. Trauma-informed language training can aid the development of reflecting on the mental aspects of texts and responding to text events.

Some of the major limitations recognized are that trauma-informed initiatives are being implemented when children are in middle school, which could be delivered too late for some children as they may have experienced years of trauma. Developmental gains, including language, would be more profound if initiatives were implemented earlier.

This paper provides suggestive evidence on the impact of ACEs on the functioning of the brain as well as the benefits and limitations of trauma-based initiatives. The researchers provided equivocal evidence that ACEs affect the language related outcomes of literacy.

#### Meta-Analysis

Meta-analysis is a statistical technique that allows researchers to synthesize data from multiple studies (Ismail, 2016). The results of this type of analysis can provide one of the strongest types of evidence for answering research questions (Ismail, 2016).

**Sylvestre et al. (2016)** completed a meta-analysis to investigate whether children experiencing physical abuse and/or neglect have comparable language development to children who are not exposed to maltreatment. An electronic search was conducted to find articles using 6 databases with clearly defined eli

### Cohort Study

Cohort studies are observational studies that follow a defined group of individuals over a certain period of time whereby the outcomes of two groups can be compared (LaMorte, 2016). A strength of retrospective cohort studies is that there is a clear temporal sequence between exposure to a variable and outcomes while limitations include poor data quality if the data was not designed to be collected for the current research question (LaMorte, 2016).

**Jimenez et al. (2015)** did a secondary analysis of data obtained from the Fragile Families and Child Wellbeing Study, a longitudinal birth cohort study of children from urban areas. From the data of this study, researchers investigated the relationship between the exposure to ACEs and teacher-reported outcomes that included language and literacy skills and emergent literacy skills in 1007 children. Vj g'r ctvlek cpvwi'gxr quwtg"q'CEGu'y cu'qdwclpgf "j tqwi j " maternal reports. Teacher reported outcomes were obtained through a 5-r qlpv'Nngtv'uecig'y kj "ohct"dgny "cxgtci gö"q" ohct"cdqyg"cxgtci gö"tcvpi u'hqt"rpi wci g"cpf "rkgctce {"unkm" cpf "öpqv"{"gö"q"ör tqhelgpvö"tcvpi u'hqt"go gti gpv"rkgctce {" skills. Through logistic regression analysis, researchers found that having just 1 ACE was associated with poor language and literacy skills as well as poor emergent literacy skills.

Limitations of this study include possible underestimation of the number of ACEs due to relatively high thresholds for standardized scales assessing child abuse behaviour and reliance on maternal reports. There was also a lack of reports qp"CEGu"htqo "j g'r ctvlek cpvwi"rj gtu0Hpcmf. "j lu"uwf {" only included data on 8 out of 10 ACEs (information on and parental divorce/separation was unavailable and emotional and physical neglect were characterized using a single measure as available data did not distinguish between the two).

Overall, this study provides suggestive evidence on the impact that ACEs have on language related outcomes that can have future impacts on academic success.

### Case-Control Study

A case-control study is a type of non-randomized clinical trial where researchers define an outcome of interest, select subjects with and without the outcome, then look retrospectively at data to compare the two (Dupépe et al., 2019).

**Eigsti & Cicchetti (2004)** examined the syntactic abilities of maltreated vs. non-maltreated pre-school aged children using 33 mother-child dyads. The 19 participants from the maltreatment group were randomly selected from active caseloads of child protective social workers and had a mean age of 57 months, 20 days. The maltreatment of these participants was documented by Child Protective Services with onset prior to age two. The 14 participants from the

result, further research needs to explore the effects of these additional ACEs on language related outcomes.

It is also important to note that the only study that controlled for socio-economic status (SES) in this critical review was by Eigsti & Cicchetti (2004). The comparison and control groups (maltreated and non-maltreated) in this study were from a similar SES. It is crucial that research that investigates the impact of ACEs on language related outcomes controls for

