

Lancet Public Health Science Conference

Implementing public health science in policy and practice

Translating research into practice: A cross-sectional study using the Early Development Instrument as a tool for assessing early years interventions in local level public health practice

Abstract

Background

Evidence that early years' interventions can reduce inequalities has led to Scottish Government policy recommending that local areas implement initiatives to improve early child development. How best to measure the effects of these interventions is, however, unclear. We piloted the first UK use of the teacher-administered Early Development Instrument (EDI), an internationally validated measure of global child development now used at school entry in all children in Australia and most of Canada.

Methods

The study, conducted in the primary school setting in 2011/12, was cross-sectional in design and used qualitative and quantitative methods. During phase 1 the EDI was adapted for the Scottish context. Fourteen teachers assessed 154 pupils using the instrument. Focus groups and semi-structured questionnaires were used to gather feedback from teacher participants on the tool and the process. Phase 2 collected and analysed data from 1090 pupil participants, comprising 98% of eligible school-enterers in East Lothian local authority, assessed by 68 teachers. The 104-item EDI questionnaire has five domains of child development: physical; social; emotional; language/cognitive; and communication/general knowledge. Data were analysed using SPSS. The psychometric properties of the EDI were assessed using Cronbach's alpha. Mean scores in the domains were linked to levels of deprivation and results were mapped using GIS. Ethical approval was obtained for the study. Phase 3 monitored subsequent dissemination and use of EDI results.

Findings

Children in the most deprived quintile were 2.8 times more likely than the most affluent to be developmentally vulnerable in one or more domains, however, significant developmental vulnerability was found across all five quintiles and not only in the most deprived. The EDI was found to be user-friendly and acceptable to teachers, demonstrating high levels of internal reliability. Dissemination of results created a forum for multidisciplinary discussion and raised awareness about: the importance of early child development; domains of development; and how inequalities can be tackled, leading to new initiatives based on EDI data.

Interpretation

The EDI is a robust instrument able to highlight developmental differences in children between socioeconomic groups and small-scale geographic areas. The tool's simplicity and usability lend themselves easily to community-wide implementation.

Funding

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We declare that we have no conflicts of interest.

Ethics

The research was approved by: the School of Psychological Sciences and Health Ethics Committee of the University of Strathclyde, Glasgow, UK; the Education Authority of the relevant school district; and the Chief Scientist Office of the Scottish Government. In line with EDI data collection in other countries, opt-out consent was utilized for parents of pupils. Parents received detailed information sheets with clear instructions on how to refuse participation of their children. All teachers provided written, informed consent.

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Authors' contributions:

RG and JF conceived and designed the study. RG obtained, prepared and managed the data. SM and JNB performed the statistical analysis under the supervision of LMW. LMW, SM, JNB, RG and JF interpreted the findings. SW, SH and LD monitored the subsequent dissemination and use of the results in the community.

