

## **Appendix 1 (as supplied by authors): Pupil evaluation inventory and original cohort selection and consent**

In the years 1976–1978 data collection began in the Concordia Longitudinal Risk Project. Consent for participation was obtained at the School Board and Parents' Committees levels. In addition, all classroom teachers whose classrooms were targeted for participation were asked for their consent. Children were told that they could discontinue at any time, and their participation in the screening was voluntary. In total, over 95% of the students consented to participate in the study.

Children were asked to nominate up to four boys and four girls in their class who best matched each item on the Pupil Evaluation Inventory (PEI)<sup>1</sup>, which is a peer nomination instrument. The PEI consists of 34 items that load onto three factors: Aggression (20 items), Withdrawal (9 items), and Likeability (5 items). Scale scores on the PEI have been shown to be highly reliable (typically over .95: including internal consistency coefficients, split half comparisons, and test re-test measures)<sup>2,3</sup> and items within each scale are very highly inter-correlated.

Scale items assess not only the behavior of the child but also the reaction of peers toward the child. One sample item for the Aggression factor is "children who are mean and cruel towards other children." An item in the Withdrawal factor is "children who are too shy to make friends easily." An item from the Likeability factor is "children who are especially nice." The number of nominations received by each child within a class was summed to compute the Aggression, Withdrawal and Likeability scores.

These total scores were then standardized for each gender within each classroom to control for class size and gender differences in base rates. This procedure enabled appropriate comparisons of each child against relevant norms for gender and age. The peer nominations derived from the PEI represent a valid and reliable method of rating children's behavior, based on concordance with coded observation,<sup>4</sup> and have been associated with adverse longitudinal behavioural outcomes.<sup>5</sup>

## References

1. Pekarik EG, Prinz RJ, Liebert DE, et al . The Pupil Evaluation Inventory: A sociometric technique for assessing children's social behaviour. *J Abnorm Child Psychol* 1976;4:83-97.
2. Schwartzman AE, Ledingham J, Serbin LA. Identification of children at risk for adult schizophrenia: A longitudinal study. *Int J App Psychol* 1985;34:363-80.
3. Lyons J, Serbin L A, Marchessault K. The social behavior of peer-identified aggressive, withdrawn, and aggressive/withdrawn children. *J Abnorm Child Psychol* 1988;16:539-52.
4. Temcheff CE, Serbin, LA, Martin-Storey A, et al. Continuity and pathways from aggression in childhood to family violence in adulthood: A 30-year longitudinal pathway. *J Fam Violence* 2008;23:231-42.

