

Students' Knowledge of Paediatric ABI: The Effectiveness of an Educational Training Program

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Background

Physiological CNS neurodevelopment continues from conception until ~ age 25, and is particularly enhanced by experience and interaction (regardless of any kind of neurotrauma). When traumatic injury interrupts this developmental process, the child/youth's cognitive, social, emotional and physical capacities are at risk for permanent and irrevocable recovery. The educational system is an **excellent resource to promote recovery and redevelopment of function**, especially since the child with ABI within the school system will have sustained mild to moderate injury (90%).¹

Approximately 27,000 students in the Ontario school system have experienced an acquired brain injury (ABI), yet teachers estimate that only 0.7% of the students in their classroom have ABI. The expected rate is actually five times that amount.¹ Since teachers have become the front line cognitive and academic tutor for these children, their misconceptions about the effects and recovery process of brain injury is of serious concern.^{1,2} In addition, since Ontario legislation does not have a recognized exceptionality category for ABI, students with ABI will be placed in a category that leaves them receiving inadequate treatment, or worse, no identification and access to specialized services at all.^{3,4,5}

Purpose

To investigate:

- what students already understand about ABI
- their attitudes toward children with ABI
- the effectiveness and robustness of an educational training program in terms of learning immediately and after a one-month delay

Method

Participants

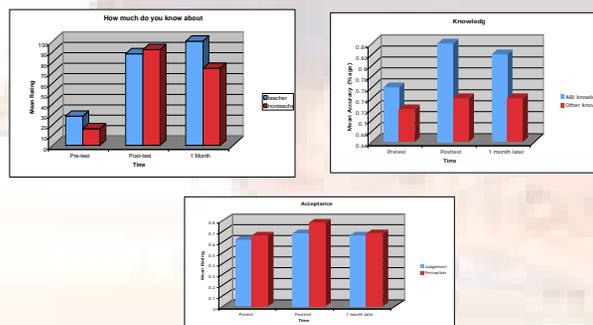
University students ($N = 37$) participated in the assessment, training, and post-assessment (immediate and post-1 month) study; 90% were students in a university preschool or concurrent education program. 68% ($N=25$) returned for the 1-month post-test.

Measures and Procedure

Students completed 3 questionnaires: Knowledge of ABI questionnaire⁶, Social Acceptance Scale⁷ which measures attitudes towards a child's behaviour, Social Desirability Scale⁸ which measures the extent to which a person answers in a way that they think is expected of them.

They then participated in a 30 minute educational training experiential learning program (video, discussion, lecture, demonstrations), after which they were retested with the questionnaires immediately after the session and again 1 month later

Results



Only 27% reported having knowledge about ABI prior to the training; at post-test this increased to 92% and maintained for 87% of the students even one month later, $F(1, 23) = 12.976, p = 0.002$. This impression was verified by their tests of knowledge which statistically improved between pre- and post-test for ABI, with no change for knowledge of other exceptionalities; 1 month later, the improvement is maintained, $F(1, 23) = 9.171, p = 0.006$.

Students' acceptance of persons with ABI also improved between pre- and post-test; 1 month later, the improvement, however, was not maintained, $F(1, 23) = 11.508, p = 0.003$. The acceptance judgements were not accounted for by student's wanting to present themselves in a socially correct fashion pre- or post-test, $F(1, 35) = 0.54, p = 0.467$. $F(1, 35) = 0.37, p = 0.565$.

Discussion & Conclusions

In general, the results indicate that exposure to, and participation in a 30 minute experiential training program introducing and summarizing core ABI information and available resources is sufficient to alter:

- the knowledge base of future teachers (and nonteachers), and
- their perspective of/attitudes towards students with ABI challenges and these knowledge gains:
- continue for the longer term (at least for a month).

Further research should examine the factors that would permit a greater longevity for attitudinal change as well.

Never the less, given the brevity of the interactive teaching model (demonstrations, video vignettes, information), it should be relatively easy, and IMPORTANT, for Faculties of Education to incorporate a unit on ABI in the provincial curriculum. Reaching teachers earlier in their career can prepare them for more effective influence in the classroom, and thus overall better outcome for the students who have experienced an ABI.

References

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