Effectiveness of a tailored Evidence Based Practice education program for speech pathologists

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Background

- Evidence Based Practice (EBP) is fundamental to optimising patient outcomes.
- The leadership team of the Speech Pathology department at Western Health perceived an overall gap in the skills, knowledge and confidence of most staff in basic EBP principles.
- With busy clinical workloads and limited time to devote to education, a tailored approach, addressing areas with poorest self perceived skills/knowledge (identified through baseline testing) was essential.

Aim

- To investigate the impact of a tailored education program on self-perceived attitudes, skills, knowledge and application of EBP in clinical Speech Pathologists at Western Health.

Method

Design: Quasi-experimental, pretest-posttest design

Participants: All Western Health Speech Pathologists across the care continuum (adult and paediatrics)

Intervention: An EBP education program that included:

- A 12 month program of interactive lectures and one-on-one mentoring regarding topics identified as most requiring attention (based on baseline testing)
- Completion of annual case based presentations in which Speech Pathologists described how they applied EBP to answer clinical questions.

Outcome Measures: Evaluation of clinicians' self-perceived attitudes, skills, knowledge and application of EBP was completed using the Clinical Effectiveness and Evidence Based Practice Questionnaire (EBPQ) (Upton and Upton, 2006) at baseline, following delivery of a face to face education program, and post a maintenance period when only annual case presentations were completed (2015).

Method continued

Statistical analysis: Statistical significance was set at $p<0.05$

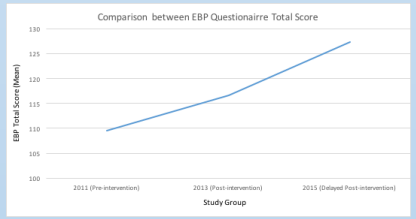
Overall questionnaire scores at baseline (2011), post initial intervention (2013), and post 12 month maintenance period (2015) were compared using ANOVA one way analysis.

Scores for sub categories of application, knowledge, skills and attitudes towards EBP between baseline and completion of program (2015) were compared using independent t tests.

Scores for individual questions of sub categories which had significantly changed were compared using independent t tests.

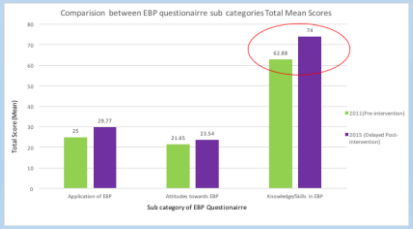
Results

24 clinicians completed the questionnaire at baseline (2011). Paediatric clinicians were excluded from final analysis due to inability to participate in the majority of education sessions (as a result of conflicting schedules). Thus data were analysed for n=17 completed questionnaires at baseline (2011), n=20 at post intervention (2013) and n=14 at delayed post intervention (2015) (all adult clinicians).



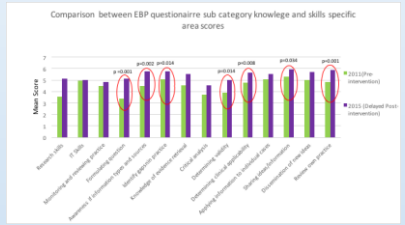
A significant improvement in overall pre (2011) and delayed post intervention (2015) scores was observed (p=0.013).

Post Hoc analysis (Tukey HSD) indicates change identified between total pre (2011) and post (2013) scores however is not significant (p=0.396)



Significant improvements in pre (2011) and delayed post (2015) intervention scores were seen in the area of knowledge and skills ($p = 0.002$), but not in application of or attitudes towards EBP.

Results continued



While all skills/knowledge improved, only those marked were significant.

Discussion

- A tailored EBP education program improved clinicians' knowledge and skills in many areas of EBP. However it did not appear to have a significant impact on clinicians' self perceived application or attitudes.
- These results are not surprising given the education program largely targeted knowledge and skill improvement.
- Workload was identified as a limitation to applying EBP, with clinicians rating this an even greater limitation in 2015 than 2011. Indeed paediatric clinicians were unable to participate in the education sessions due to workload conflicts.
- Areas that did not show statistical improvement were largely areas of EBP already rated highly at baseline.
- The challenge of bridging the knowledge-application gap was evident in this study and remains at the forefront of planning future programs.
- Future education is now focusing on case based presentations, with a view to bridging the divide between knowledge and application in a time efficient manner.

Conclusion

Use of the EBPQ to tailor education in EBP is effective in increasing clinician knowledge and skills and identifying barriers to applying EBP.

References

Upton, D., & Upton, P. (2006). Development of an evidence-based practice questionnaire for nurses. J.of Adv. Nsg, 54, 454-458.