

Effects of postgraduate EBP training on Speech-Language Therapists' motivation and competency

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Evidence for sustainability of healthcare
Increasing value, reducing waste

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Background: study design

Part of ongoing research project, with aims:

- ▶ To determine the current level of EBP competency and motivational beliefs of health care students and lecturers.
- ▶ To examine associations of EBP competency and motivational beliefs.
- ▶ To evaluate differences in EBP competency and motivational beliefs between different health care disciplines (see also Verhoef et al., this conference)

Background: EBP in SLT curriculum

| Evidence-based Practice Aims (Educational outcomes) | Speech-Language Therapy (SLT) Yr Course |
|--|---|
| 1 Formulate answerable questions (Ask) | 1 Practice based activities, Introduction principles EBP 2 Course: EBP 3 Course: Critical Appraisal of a Topic (CAT-group) 3 Internship: CAT- individual 4 Internship/ thesis |
| 2 Searching for evidence (Acquire) | 1 Practice based activities 2 Course: EBP 3 CAT-group 3 Internship: CAT-individual 4 Internship/ thesis |
| 3 Critical appraisal of evidence (Appraise) | 2 Course: EBP 3 CAT-group 3 Internship: CAT-individual 4 Clinical reasoning 4 Internship/ thesis |
| 4 Application of evidence in practice (Apply) | 3 Internship: CAT-individual 4 Clinical reasoning 4 Internship/ thesis |
| 5 Evaluation of performance (Analyze) | 3 Internship: CAT-individual 4 Internship/ thesis/ final assessment |

Based on Sicily Statement; Dawes et al., 2005

Aims

Aim:

To determine sustainability of EBP competencies and attitudes in speech-language therapists after their graduation

Research question:

Does postgraduate training change EBP skills and/or attitude?

Methods: Participants

- Intervention as part of regular professional development cycle (6 times/yr)
- 19 members; 11 completed all measurements

| | Pre-test | Post-test |
|--------------------------|----------|-----------|
| Motivation questionnaire | 19 | 12 |
| Fresno test | 17 | 11 |

- Working area: private practice (n=11), pp + school (n=1)
- Mean age: 33 yrs (sd 7,3)
- Yrs since graduation: 10,5 (sd 7,9)
- Master: n=2

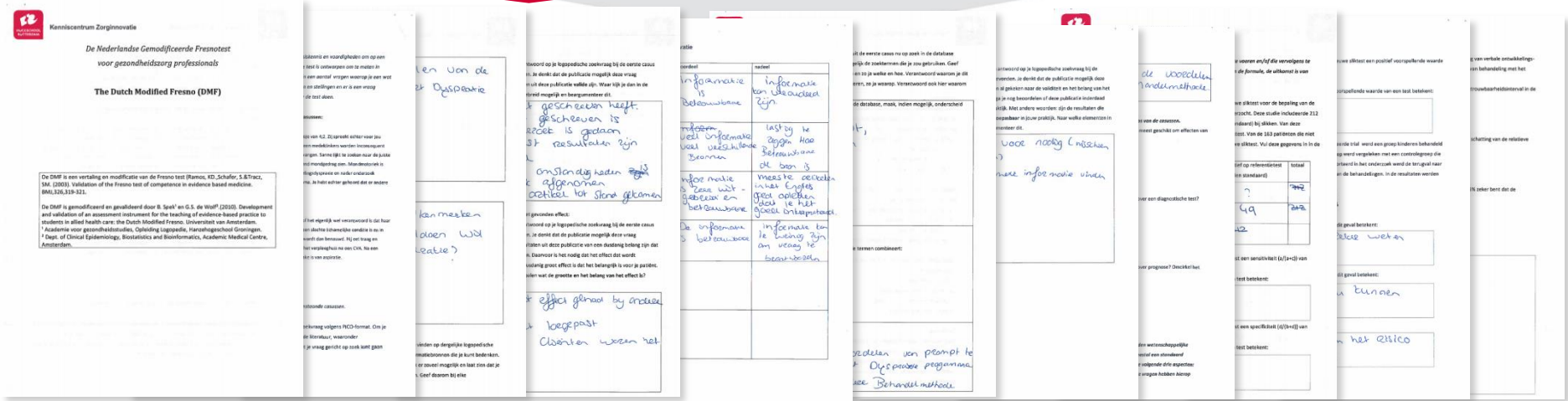
Methods: intervention



- Pre-test
 - 3 training sessions (2 h), 2 take home assignments (1-2 h) during 4 months
 1. EBP principles, Ask
 2. Acquire & Appraise
 3. Apply & Analyze*
 - Goal: CAT, applicable in own daily practice
 - Post-test and evaluation
- Pre-post test interval 5-8 months

* 4 (of 11) practitioners were absent during the third training session

Measuring EBP skills and attitude: Dutch Modified Fresno test (DMF) and questionnaire motivational beliefs

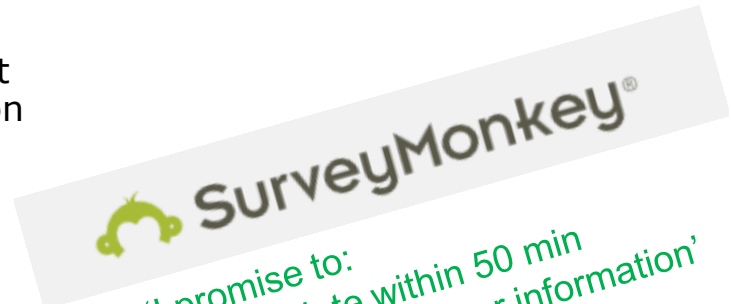


DMF test (12 items, Spek et al., 2012):

- 8 short answer questions, 3 multiple choice questions about study designs, and 1 yes/no item. First 3 items are based on 2 clinical scenarios.
- Standardized rating system, maximum total sum score 220 points.

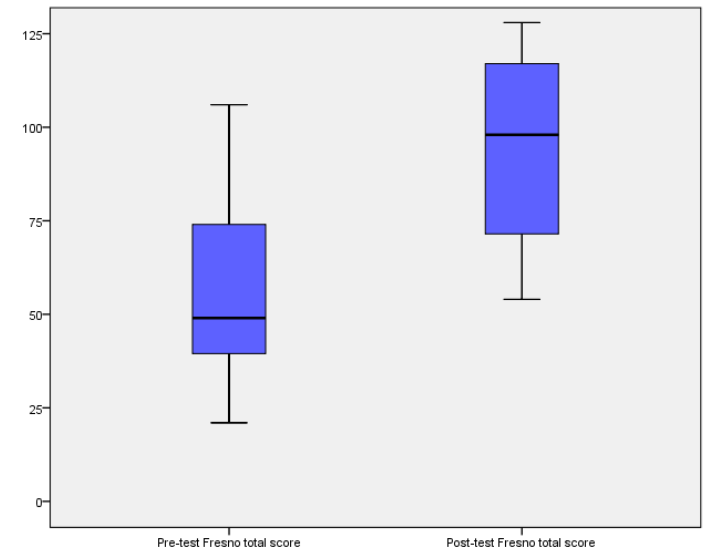
Questionnaire on motivational beliefs (Spek et al., 2013):

- Self-efficacy: the person's belief in his or her capacities to perform a certain task
- Task value: personal perception of the importance and utility of the task
- 7-point Likert Scale, ranging from totally disagree to totally agree



Results Fresno test

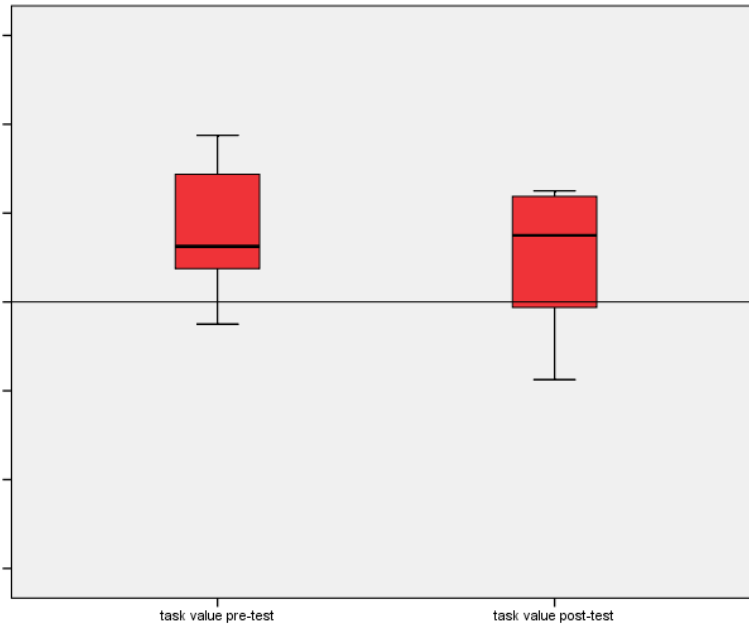
| | | | Statistics |
|-------------------------------------|-------------------------------|--------------------------------|---------------------------------------|
| Scores, mean (SD) | Practitioners pre-test (n=11) | Practitioners post-test (n=11) | Wilcoxon Signed Ranks Test (pre-post) |
| Pico question (max. 24) | 2.6 (4.7) | 15.5 (4.3) | P=0.004** |
| Sources (max. 24) | 16.6 (4.9) | 16.8 (5.4) | P=0.779 |
| Searching (max. 24) | 10.5 (6.8) | 13.6 (5.4) | P=0.135 |
| Critical Appraisal (max. 72) | 14.8 (10.9) | 33.7 (16.3) | P=0.008** |
| Other (max. 52)* | 11.5 (9.2) | 14.0 (5.4) | P=0.562 |
| Total scores (max. 196)* | 55.9 (26.1) | 93.7 (27.2) | P=0.004** |



Results motivational beliefs

Task Value

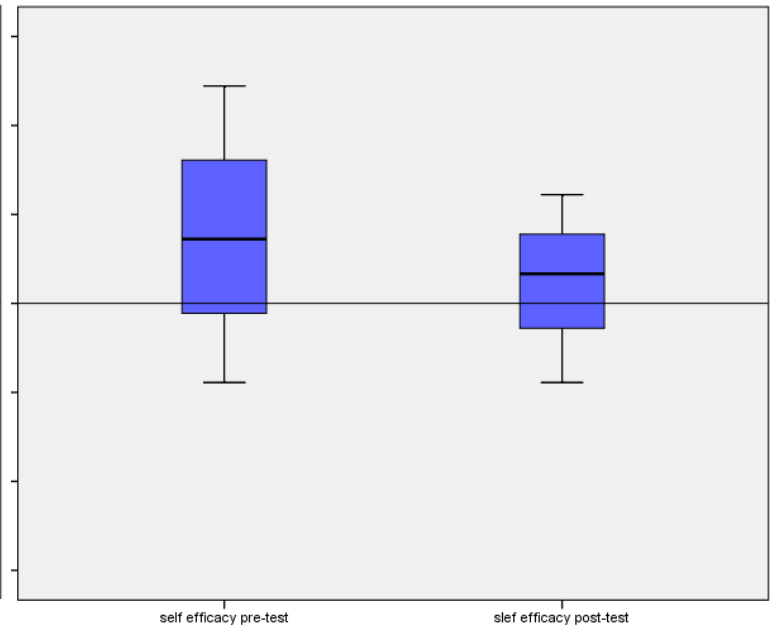
6= Totally agree



0= Totally disagree

e.g. 'It is important to use EBP...'

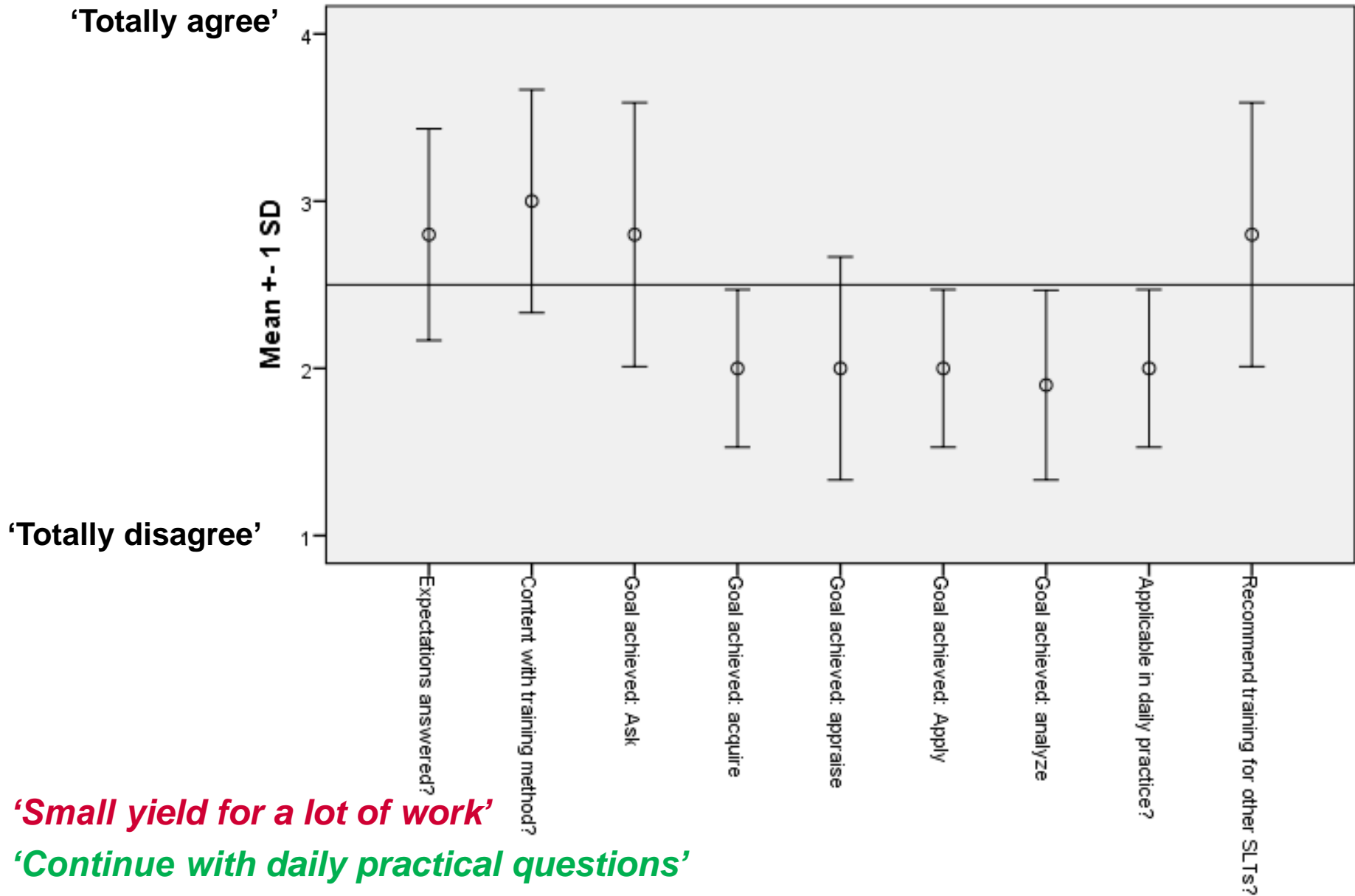
Self Efficacy



e.g. 'I feel uncertain about EBP...'

Wilcoxon Signed Ranks test: non-significant differences

Course evaluation



‘Small yield for a lot of work’

‘Continue with daily practical questions’

‘Keep a groupwise approach’

Limits

- ▶ In long-term, decline in skills can be expected (see also Crabtree et al., 2012)
- ▶ Changing attitude needs (also) other strategies (eg. integration during daily work), but remains complex because of human factor in adopting innovations (Greenhalgh, 2014)
- ▶ Current measurements are not representative for 'real' EBP:
 - There is a lack of high-quality evidence in SLT (Spek, Neijenhuis et al., 2015)
 - Too much emphasis on scientific evidence

Bottom Line

Does postgraduate training change EBP skills and/or attitude?

- EBP skills improved
- EBP attitude did not change
- Daily practice is not yet changed

SLTs need:

- To rely on/ collaborate with EBP-skilled colleagues
- More facilities, more EBP-tools
- More high-quality evidence