

Review of EBP competency in the curricula of allied health care studies

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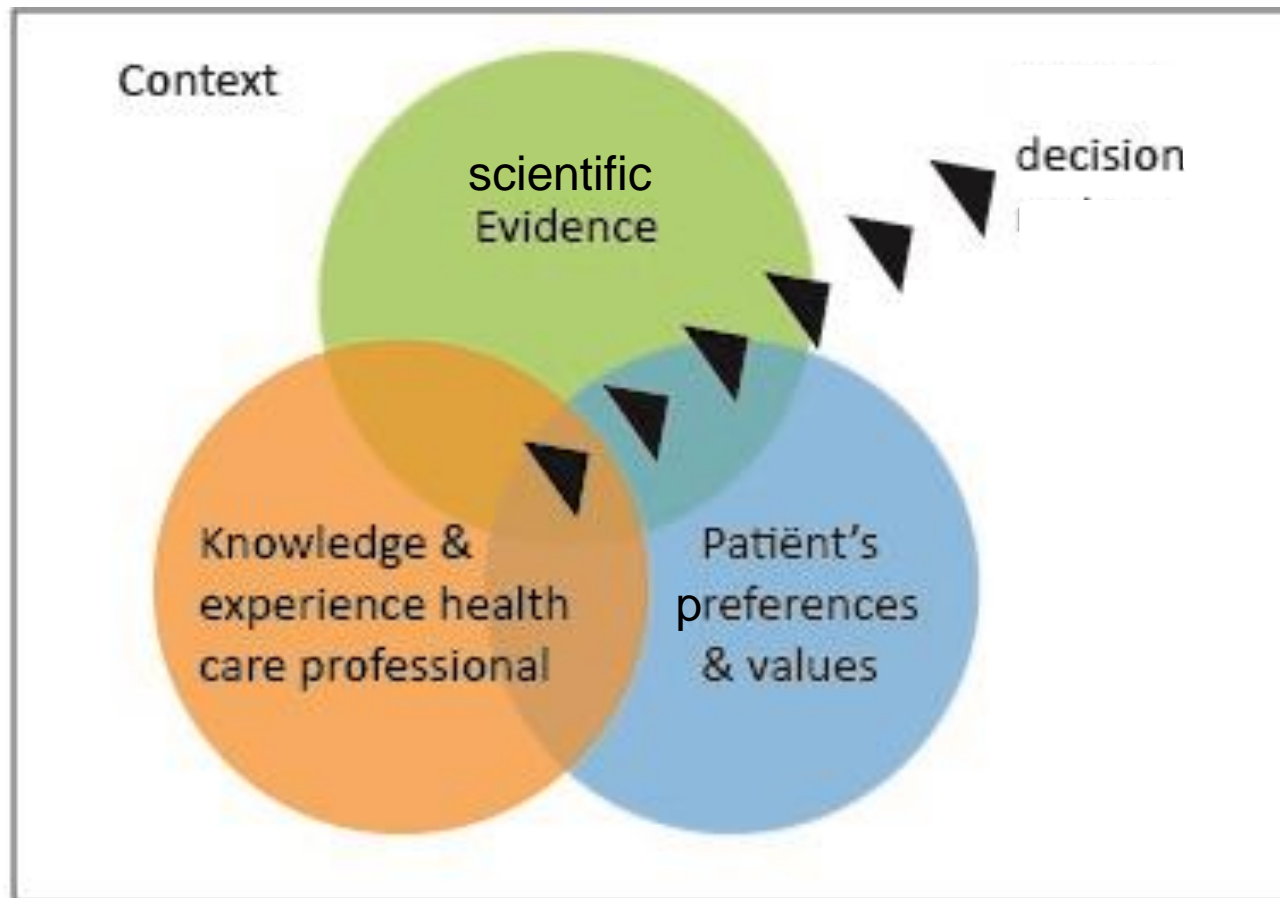
EBHC Conference 2013 'Evidence, Governance, Performance'

Sicily, Italy

Background

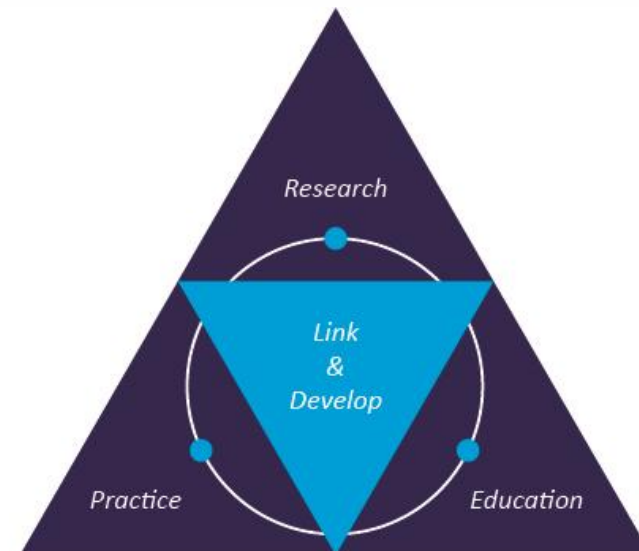
- Rotterdam, Institute for Health Care: Education in EBP since 2000
- Growing demands on research skills in higher education
- EBP forms part of research skills
- Variation in curricula -> also in performance?

Elements of EBP



Aims

- Evaluate (differences in) EBP attitudes and EBP competency of students, lecturers and professionals
- Evaluate (effects of) education in EBP across different health care curricula



Methods

	students		lecturers	professionals
	yr 2	yr 4		
Occupational therapy	13		13	
Speech-Language Therapy	13		13	
Physical Therapy				
Nursing				
Midwifery				

Materials

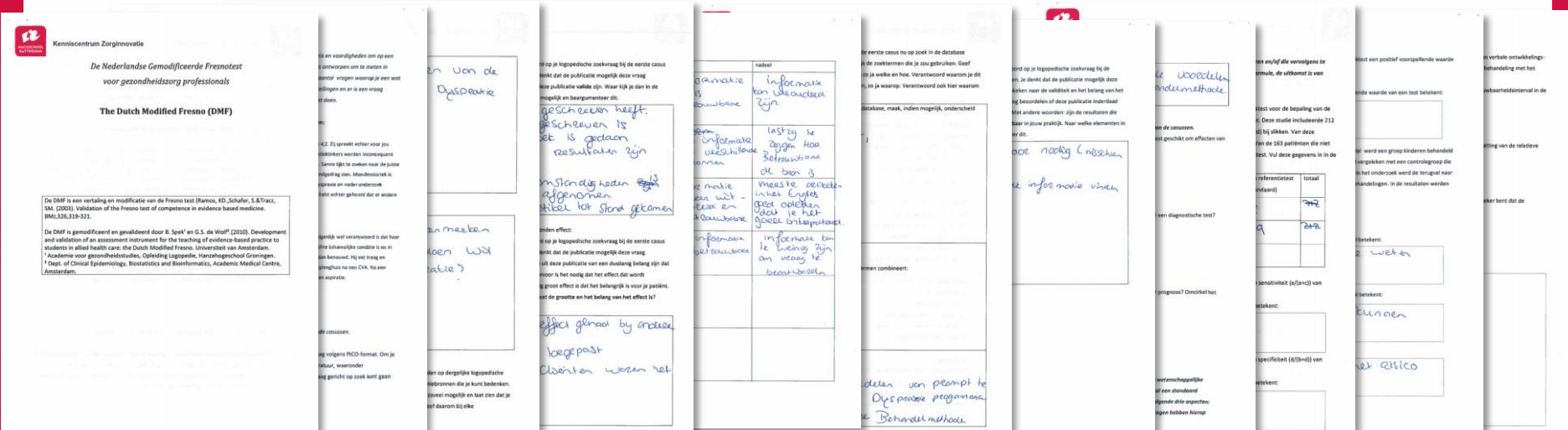
- Dutch Modified Fresno Test (Spek et al., 2012; based on Ramos et al., 2003)
- Questionnaire on motivational beliefs of EBP (Spek et al., 2013)

Ethical approval by NVMO-Ethical Review Board (Dutch Association for Medical Education)

EBP in the curricula (based on Dawes et al. 2005)

Evidence-based Practice Aims (Educational outcomes)	Speech-Language Therapy (SLT) curriculum Yr Course	Occupational Therapy (OT) curriculum Yr Course
1 Formulate answerable questions	1 Problem based learning (PBL) 2 Introduction research, EBP 3 Course: Critically Appraised Topic 3 Internship: Case study 4 Final Thesis	1 Introduction EBP 2 Research methodology 3 Scientific reasoning 4 Final Thesis (practice-oriented research)
2 Searching for evidence	1 Problem based learning (PBL) 2 Introduction research, EBP 3 Critically Appraised Papers 3 Internship: Case study 4 Final Thesis	1 Introduction EBP 2 Research methodology 3 Internship 3 Scientific reasoning 4 Final Thesis (practice-oriented research)
3 Critical appraisal of evidence	2 EBP: Journal Club 3 Critically Appraised Papers 3 Internship: Case study 4 Clinical reasoning 4 Final Thesis	2 Critical appraisal: journal club 3 Internship 3 Clinical/Professional/Scientific reasoning 4 Final Thesis (practice-oriented research)
4 Application of evidence in practice	3 Internship: Case study 4 Clinical reasoning 4 Final Thesis	3 Internship 3 Clinical/Professional/Scientific reasoning 4 Final Thesis (practice-oriented research)
5 Evaluation of performance	3 Internship: Case study 4 Final Thesis	3 Internship 4 Final Thesis (practice-oriented research)

Dutch Modified Fresno test



Kenniscentrum Zorginnovatie
De Nederlandse Gemodificeerde Fresno-test voor gezondheidszorg professionals
The Dutch Modified Fresno (DMF)

De DMF is een vertaling en modificatie van de Fresno test (Shamus, KD, Schafer, S. & Tract, SM, (2010). Validation of the Fresno test of competence in evidence based medicine. BMJ,338,319-321.
De DMF is gemodificeerd en gevalideerd door B. Spek¹ en G.S. de Wolff² (2010). Development and validation of an assessment instrument for the teaching of evidence based practice to students in allied health care: the Dutch Modified Fresno. Universiteit van Amsterdam.
¹Academie voor gezondheidsstudies, Opleiding Logopedie, Hanzehogeschool Groningen.
² Dept. of Clinical Epidemiology, Biostatistics and Bioinformatics, Academic Medical Centre, Amsterdam.

Handwritten notes in Dutch:
"van de Dysparenie"
"aanmaken hoe wilt relatie?"
"effect gekend by andere boegepast dwerfen wesen het"

Referentietest (naam)	Totaal
DMF	72
DMF	22

Other handwritten notes:
"voordeel onderzoeksmethode"
"de informatie vinden"
"delen van prompt te Dysparenie programma te Behandelmethode"



- 12 questions:
- Two scenarios
- 1 yes/no
- 3 multiple choice
- 8 short answer

Rating system, validated by Spek et al. (2012)
OT version based on Mc Cluskey & Lovarini (2005)

Results: descriptives

Students (2nd year)

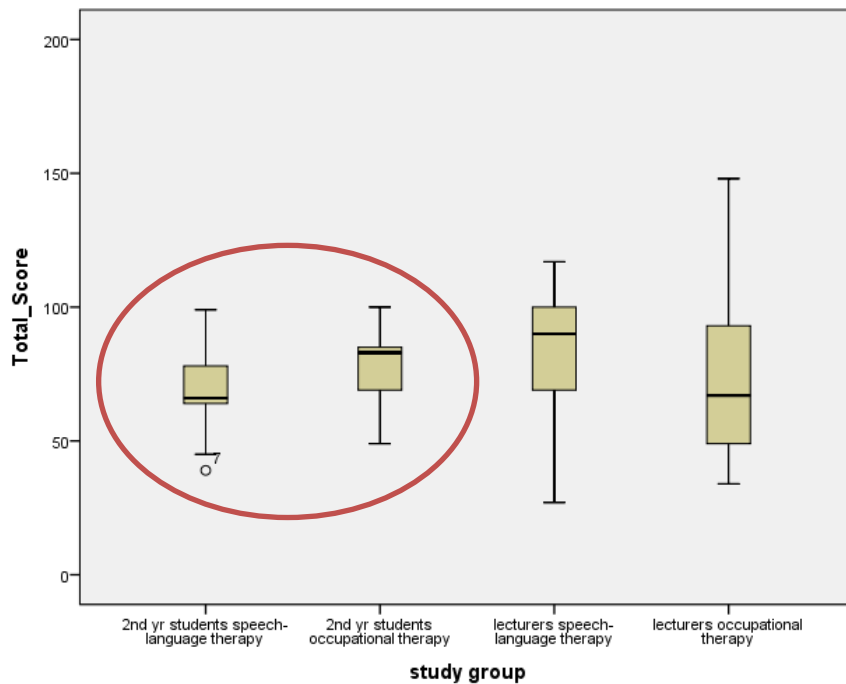
	n	age	gender		education		
		mean (range)	male	female	Senior Secondary vocational education & training	Senior Secondary General education	Senior Secondary general education (University preparatory education)
SLT	13	23 (18-56)	0	13	2	9	2
OT	13	20 (18-24)	0	13	0	8	5

Lecturers

	n	age	experience (yrs)	gender		education		EBP tasks	
		mean (range)	mean (range)	male	female	bachelor	master	yes	no
SLT	13	44 (31-53)	9 (3-27)	1	12	9	4	3	10
OT	13	43 (24-59)	10 (2-19)	2	11	10	3	4	9

Results and comparison to Spek et al. 2012

Rotterdam



Groningen

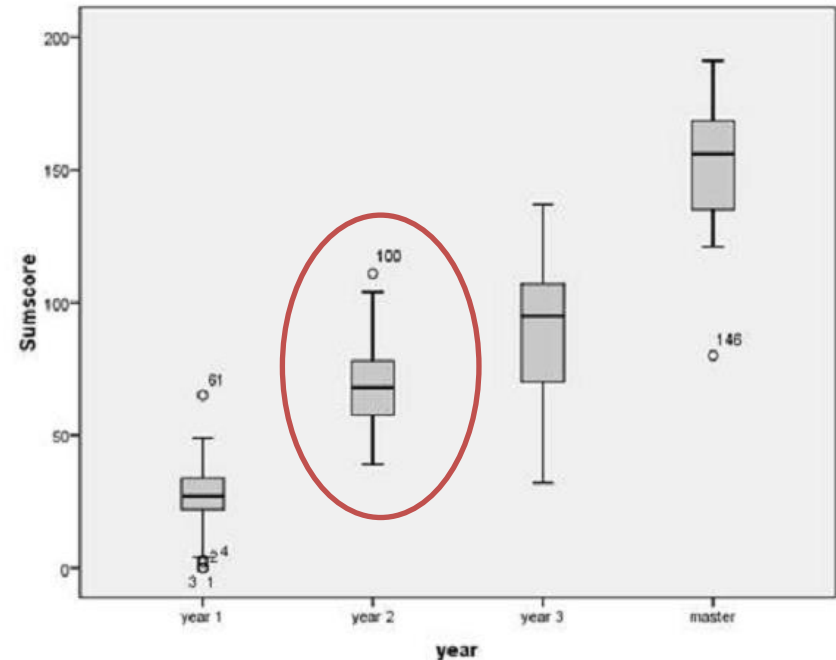


FIGURE 2. Sum scores.

Results

Scores	Speech-Language Therapy (n=26)		Occupational Therapy (n=26)	
	2nd yr Students (n=13) <i>Mean (SD)</i>	Lecturers (n=13) <i>Mean (SD)</i>	2nd yr Students (n=13) <i>Mean (SD)</i>	Lecturers (n=13) <i>Mean (SD)</i>
Total Scores (Max. 220)	68.2 (16.3)	83.9 (24.8)	76.1 (14.9)	75.2 (35.1)
Pico question (Max. 24)	13.0 (5.5)	10.9 (5.6)	18.5 (2.7)	18.4 (3.0)
Sources (Max. 24)	10.9 (5.4)	13.5 (4.9)	14.4 (5.5)	11.08 (7.6)
Searching (Max. 24)	12.8 (5.6)	14.8 (5.9)	14.1 (3.5)	10.9 (10.8)
Critical Appraisal (Max. 72)	17.0 (9.6)	21.0 (8.9)	19.1 (13.4)	21.4 (14.7)
Other (Max. 76)	13.5 (8.2)	23.7 (14.4)	10.0 (9.7)	13.4 (13.3)

Limits

- Fresno test has a complicated and time-consuming rating system
- Not all items are applicable in all disciplines
- EBP-Qualification only needed for subgroup of lecturers
- Criteria (for EBP competencies) for undergraduates/postgraduates are lacking
- Preliminary results; in future more subjects and disciplines, more variables (EBP attitude)
- Selection bias: small sample

Bottom Line

- Lecturers need extra EBP education to teach and tutor students
- Fresno test scores reflect EBP in curriculum
- Cut-off scores for bachelor/ master degree could help in modifying curriculum
- Continuation of study needed...