When do allied health professionals lose confidence to perform evidence-based practice activities? A cross-sectional study.

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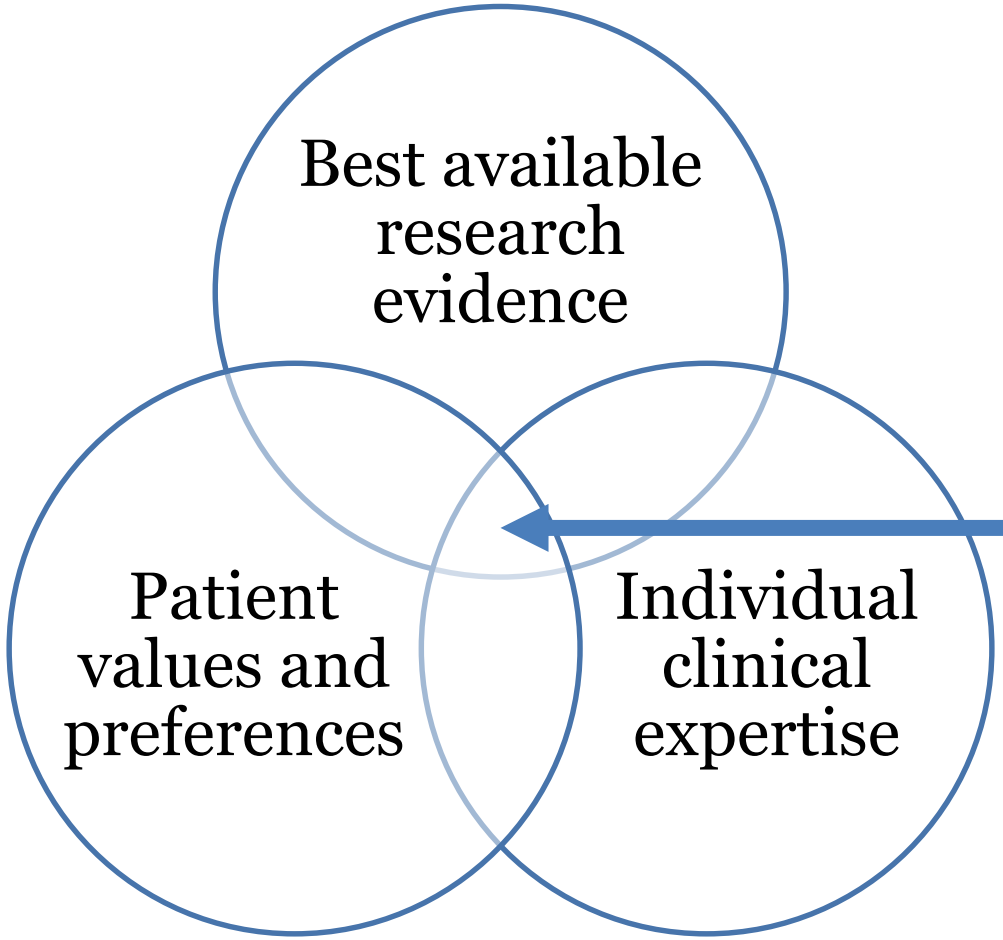
Outline

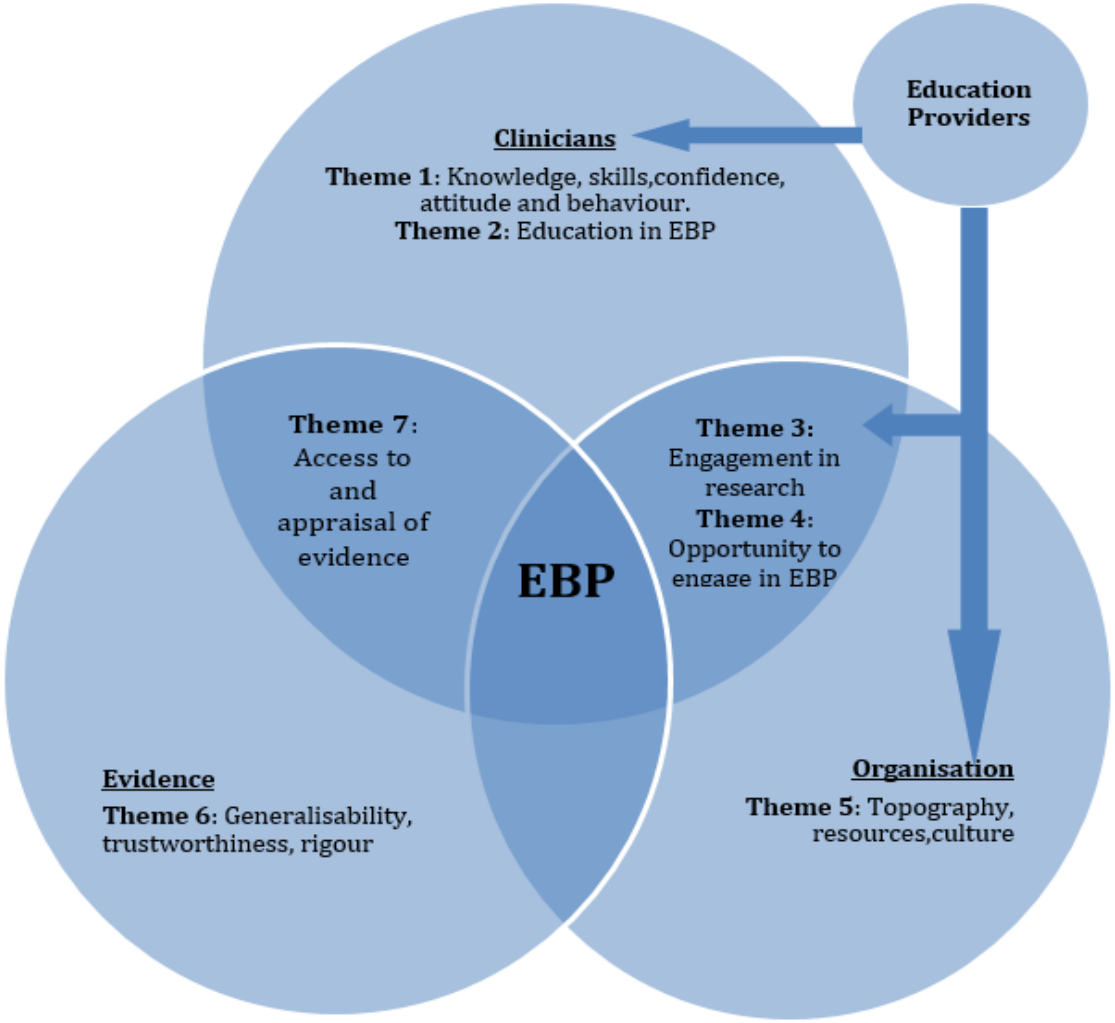
- Contemporary definition of evidence-based practice (EBP)
- Allied health professionals and EBP
  - Background literature
  - Study 1
- Influence of time and qualifications on EBP
  - Background literature
  - Study 2
- Methods
  - Cross-sectional prospective study, multivariable regression
- Results
- Implications
  - Employers, AHPRA & professional bodies

What is evidence-based practice (EBP)?



…the integration of the best available research evidence, with consideration of the patient's values and preferences, and the resources available, including the expertise of the individual clinician

Allied health and EBP – barriers & facilitators



Results from our first study

- Association between demographics and EBP
  - Negative correlation between years worked and confidence to undertake EBP activities ($p<0.01$)
  - Positive correlation between post-graduate qualifications and confidence to undertake EBP activities ($p<0.01$)

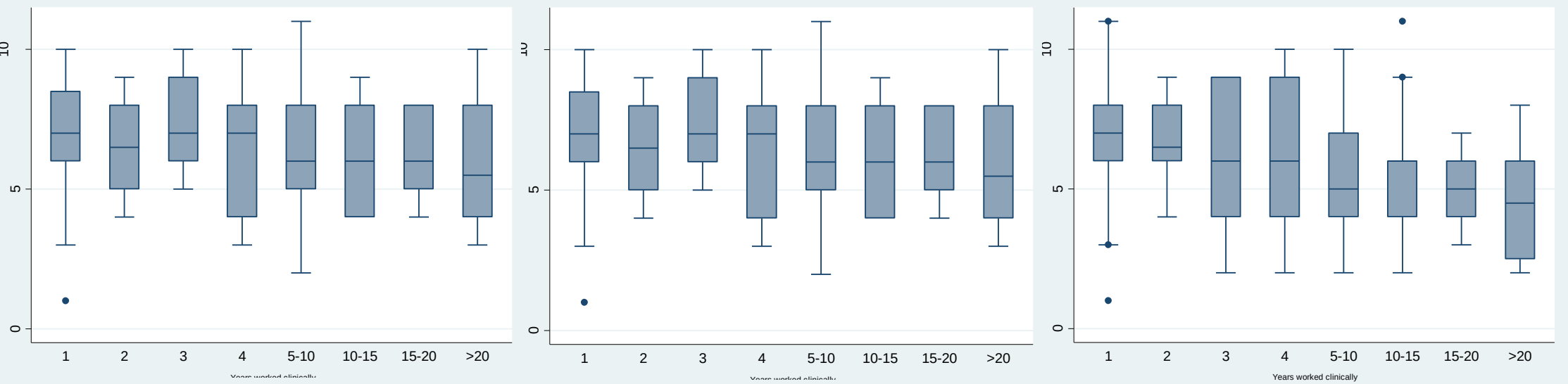
Study: Influence of time and qualifications

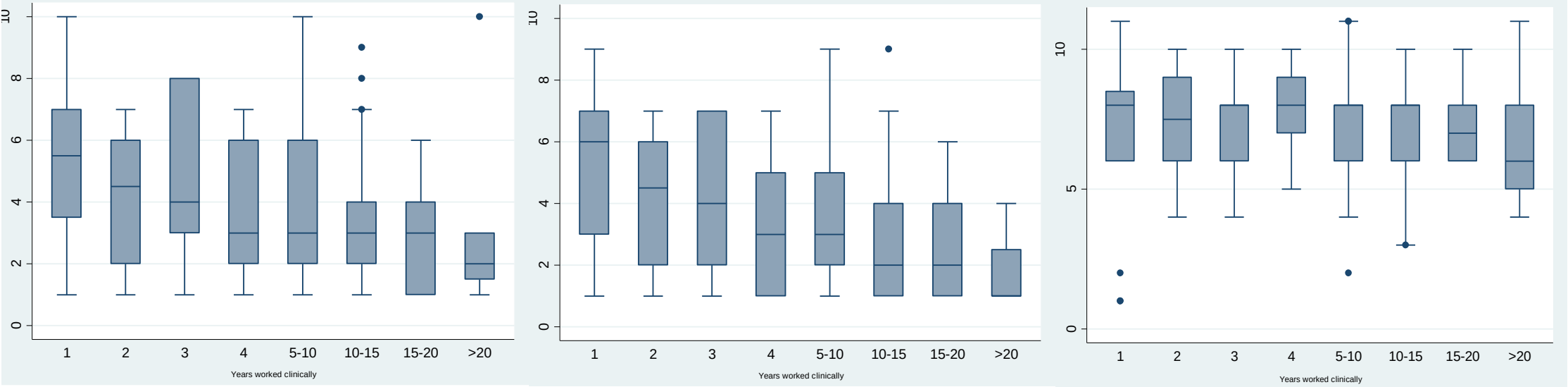
Aims

- To explore if there is a relationship between allied health professionals' confidence to perform a range of EBP activities and the time since they graduated from their entry level degree and the presence of post-graduate qualifications.

Methods

- Study Design: Cross sectional survey.
- Participants and Setting: Allied health professionals from two Australian public metropolitan health services.
- Instrument: Validated survey measuring confidence to conduct a range of EBP activities. Demographic data also collected (Salbach et al., 2009)
- Data Analysis:
  - Box-plots using only respondents with Bachelor level degree
  - Multivariable regression with Bachelor degree as reference value
  - p value of <0.05





Questions: How confident are you in your ability to:

n=142 respondents with highest degree at Bachelor level

4. **Critically appraise the literature for reliability and relevance;**
5. **Critically appraise the reliability and validity of outcome measures.**
6. **Identify the strengths and weaknesses of different study designs.**
7. **Interpret results of statistical procedures such as t tests, correlations and chi-square tests.**
8. **Interpret results of statistical procedures such as linear or logistic regression.**
9. **Appropriately apply evidence from the literature to the individual patient.**

	Years worked 2	Years worked 3	Years worked 4	Years worked 5-10	Years worked 10-15	Years worked 15-20	Years worked > 20	Master Degree	PhD
Critically appraise the literature for reliability and relevance	-0.3 (-1.87 to 0.81), p=0.44	0.10 (-1.14 to 1.35), p=0.87	-0.30 (-1.38 to 0.77), p=0.58	-1.05 (-1.92 to -0.17), p=0.02*	-0.69 (-1.63 to 0.26), p=0.15	-0.72 (-1.90 to 0.46), p=0.23	-0.94 (-2.03 to 0.08), p=0.07	1.71 (1.014 to 2.40), p<0.01*	3.60 (2.09 to 5.11), p<0.01*
Critically appraise reliability validity of outcome measures	-0.96 (-2.37 to 0.45), p=0.18	-0.43 (-1.74 to 0.88), p=0.52	-0.72 (-1.85 to 0.41), p=0.212	-1.14 (-2.05 to -0.22), p=0.02*	-1.17 (-2.16 to -0.17), p=0.02*	-1.09 (-2.34 to 0.15), p=0.08	-1.31 (-2.42 to -0.20), p=0.02*	1.57 (0.84 to 2.30), p<0.01*	3.98 (2.39 to 5.56), p<0.01*
Identify strengths and weaknesses of different study designs	-0.07 (-1.45 to 1.31), p=0.92	-0.67 (-1.95 to 0.61), p=0.30	-0.39 (-1.49 to 0.72), p=0.49	-1.58 (-2.47 to -0.68), p<0.01*	-1.41 (-2.38 to -0.44), p<0.01*	-1.62 (-2.83 to -0.40), p<0.01*	-1.92 (-3.01 to -0.84), p<0.01*	2.00 (1.29 to 2.72), p<0.01*	4.35 (2.80 to 5.91), p<0.01*
Interpret results of statistical procedures e.g. t tests, correlations	-1.04 (-2.66 to 0.59), p=0.21	-1.13 (-2.64 to 0.37), p=0.14)	-1.52 (-2.83 to -0.22), p=0.02*	-1.68 (-2.73 to -0.62), p<0.01*	-1.45 (-2.60 to -0.31), p=0.01*	-1.95 (-3.38 to -0.51), p<0.01*	-1.80 (-3.08 to -0.53), p<0.01*	2.25 (1.41 to 3.09), p<0.01*	5.81 (3.98 to .63), p<0.01*
Interpret results of statistical procedures e.g. linear regression	-0.38 (-1.97 to 1.22), p=0.64	-1.14 (-2.62 to 0.34), p=0.13	-1.45 (-2.73 to -0.17), p=0.03	-1.80 (-2.84 to -0.76), p<0.01*	-1.79 (-2.2 to -0.67), p<0.01*	-2.06 (-3.47 to -0.65), p<0.01*	-2.01 (-3.26 to -0.75), p<0.01*	1.92 (1.09 to 2.75), p<0.01*	5.19 (3.39 to 6.98), p<0.01*
Appropriately apply evidence from literature to the individual patient	0.24 (-01.0 to 1.47), p=0.71	-0.11 (-1.25 to 1.04), p=0.86	0.48 (-0.50 to .47), p=0.34	-0.23 (-1.04 to 0.57), p=0.57	-0.15 (-1.02 to 0.72), p=0.73	-0.29 (-1.38 to 0.79), p=0.60	-0.47 (-1.44 to 0.49), p=0.34	1.54 (0.90 to 2.18), p<0.01*	1.98 (0.60 to 3.37), p<0.01*

Discussion

Early degradation of confidence may be related to

- New graduates focus on clinical work
- Lack of exposure / opportunity to participate in EBP activities

If you don't use it, you lose it

More and more they're pushing towards discharge you know, discharging patients quicker. And our workloads… are getting huger, like larger and larger (FocusGroup4)

If you're back to back with clients all day, that's when you get frustrated. I feel like I don't know what I'm doing here or I want some more information but I haven't got the time to get it (FocusGroup2)

Implications

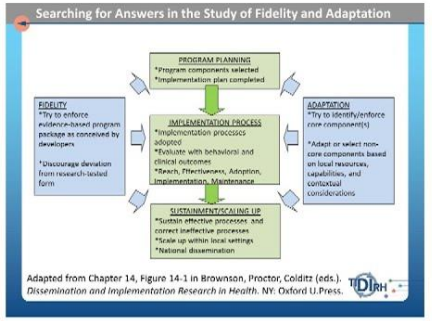
Employers
- Opportunity to practice EBP skills
  - Journal clubs
  - QA / Research projects

Professional bodies
- Mandatory training in EBP
- Compulsory registration

Practice based evidence
- Real life evidence
- Part of workflow
- Within current resources

Implementation Science Summit:
Integrating Research Into Practice in CSD

Balancing Fidelity and Adaptation:
If We Want More Evidence-Based Practice,
We Need More Practice-Based Evidence



Questions?

"Everybody goes "oh we have to use EBP" but no one really exactly explains what it is and how to translate that into everyday practice."

Acknowledgements

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