Advanced course in questionnaire technique and clinimetrics

Journal club – exercises

Article: van der Velde G, Beaton D, Hogg-Johnson S, Hurwitz E, Tennant A. Rasch analysis provides new insights into the measurement properties of the Neck Disability Index. Arthritis Care Res 2009;61(4):544–551.

Use the slides from the Rasch analysis presentation to answer the questions.

Exercise 1

How were the participants recruited?

Do you think it is okay to pool the two RCT samples?

Exercise 2

Which model did the authors choose?

What information did they provide to justify/question the choice of model?

Exercise 3

Did the 10 items fit a Rasch model?

What was specifically mentioned about the following:

- Overall fit
- Person fit
- Item fit
- Threshold pattern
- Uni-dimensionality
- Differential item functioning
- Local dependency

Exercise 4

The authors eliminated two items on what grounds?

Did that help with the overall fit of the model?

Do you agree with the elimination of the two items – why not just one?

What are your thoughts about the remaining items' content validity?