A combination of anxiety, depression and associated symptoms explains function better than mood-specific measures in the Brain Health Now (BHN)

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Background & Objective

- Depression and anxiety tend to co-occur with somatic and cognitive symptoms in HIV, interfering with everyday function.

- We aimed to test whether combining symptoms of anxiety and depression, with somatic and cognitive complaints into a single measure of “distress” explained functional outcomes to a greater extent than symptom-specific measures of these same constructs.

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Material & Methods

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DATA

Data from the inaugural visit of the Positive Brain Health Now Canadian cohort:

- Participants ages > 35 years (N=845)
- Living with HIV for > 1 year

DEVELOPMENT OF A DISTRESS LATENT

Items from well known symptom-specific measures were combined using Rasch analysis

- Hospital Anxiety and Depression Scale
- WHO-5 Well-Being Index
- Mental Health Index & Vitality subscale (RAND-36)
- Life Engagement Test
- Selected questions from the WHO-QOL- HIV Bref

EXPOSURES

- HADS, depression subscale
- HADS, anxiety subscale
- HADS, anxiety & depression combined
- Mental Health Index (RAND-36)
- Latent Distress (from Rasch analysis)

OUTCOMES

Self-Reported functional outcomes

- Cognitive difficulties: Perceived Deficits Questionnaire (PDQ)
- Life interference: Role Emotional of the RAND-36
- Work productivity: Stanford Presenteeism Scale
- Quality of Life: “How would you rate your Quality of Life
- General Health Perception: EuroQol (EQ-5D)

Analysis

Strength of the association between was estimated using correlation analysis.

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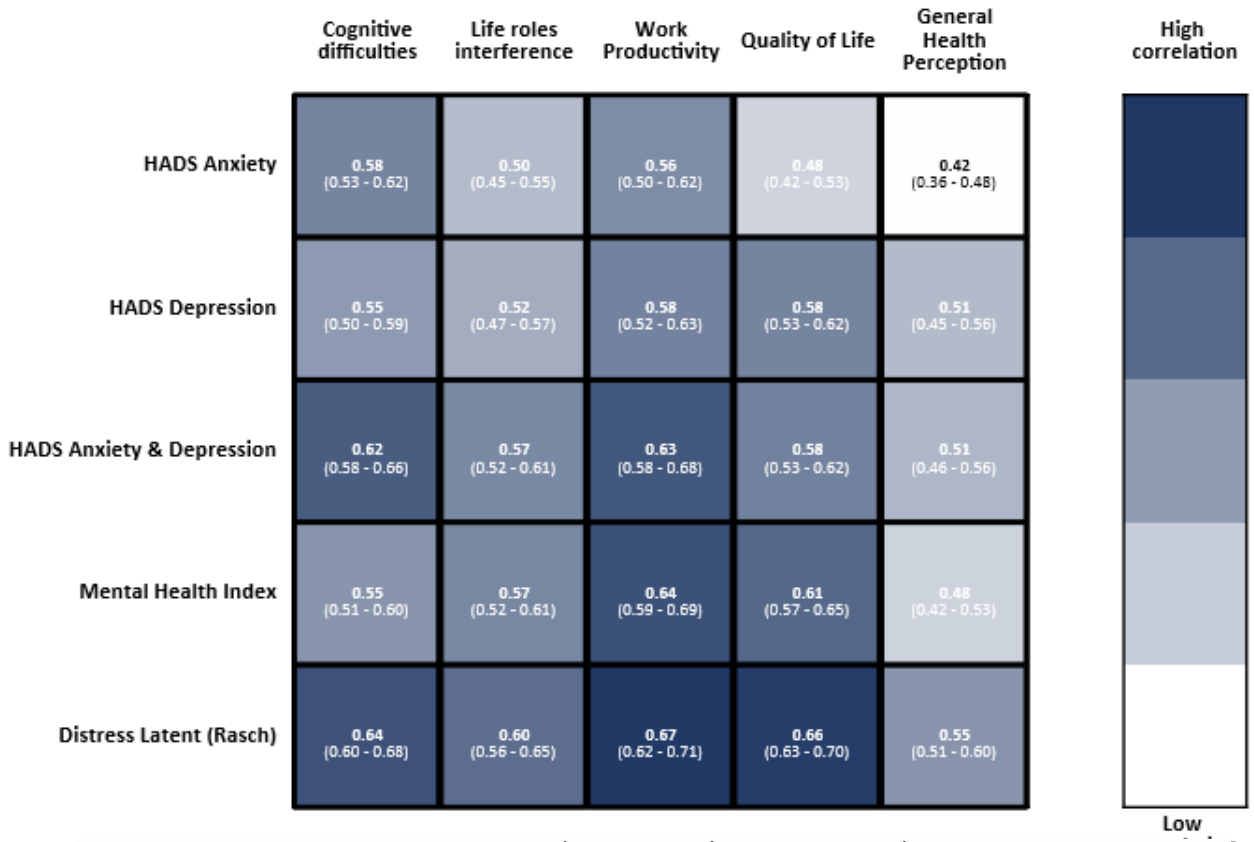
Results

- 13 items from all symptom-specific domains fit the Rasch model, supporting the presence of a distress construct.
  - *Have you been a happy person?*
  - *How often do you have negative feelings such as blue mood, despair, anxiety, depression?*
  - *I feel as if I am slowed down.*
  - *How satisfied are you with yourself?*
  - *I can laugh and see the funny side of things.*
  - *Worrying thoughts go through my mind.*
  - *Have you felt downhearted and blue?*
  - *To what extent do you feel your life to be meaningful?*
  - *I woke up feeling fresh and rested.*
  - *I can sit at ease and feel relaxed.*
  - *How well are you able to concentrate?*
  - *I still enjoy the things I used to enjoy.*
  - *Having difficulty planning what to do in the day?*
- The items covered the full range of the construct (-3 to +4 SD).
- The distress latent showed a stronger association with functional outcomes than did symptom-specific measures (Fig. 1).

Figure 1: Association between measures of symptoms and functional outcomes



HADS: Hospital Anxiety and Depression Scale

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Conclusion

- Our study showed that a latent construct, consisting of symptoms of anxiety, depression, somatic and cognitive complaints, explained function better than the separate measures.

- This suggests that an HIV-specific measure would be a more parsimonious approach to this important construct than multiple measures of single constructs.

- For any questions, please e-mail: mohamad.matout@mail.mcgill.ca

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