



Should you use a single item measure?

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The Agency Fund Research Mindsets Series

Learning Blitz Session

Key takeaways

1. Single-item measures are not inherently inferior.
2. They can be viable, especially for constructs that are unidimensional and narrow in scope.
3. Proper validation is needed.

Editorial

Single Item Measures in Psychological Science

A Call to Action

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Is this a good measure?

"How anxious do you feel right now?"

1 = Not at all anxious → 7 = Extremely anxious

Or is this better?

Generalized Anxiety Disorder 7-item (GAD-7)

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The Generalized Anxiety Disorder 7-item (GAD-7) is a easy to perform initial screening tool for generalized anxiety disorder¹.

Over the **last 2 weeks**, how often have you been bothered by the following problems?

Not at all

Several days

More than half the days

Nearly every day

1. Feeling nervous, anxious or on edge

☐ 0

☐ +1

☐ +2

☐ +3

2. Not being able to stop or control worrying

☐ 0

☐ +1

☐ +2

☐ +3

3. Worrying too much about different things

☐ 0

☐ +1

☐ +2

☐ +3

4. Trouble relaxing

☐ 0

☐ +1

☐ +2

☐ +3

5. Being so restless that it is hard to sit still

☐ 0

☐ +1

☐ +2

☐ +3

6. Becoming easily annoyed or irritable

☐ 0

☐ +1

☐ +2

☐ +3

7. Feeling afraid as if something awful might happen

☐ 0

☐ +1

☐ +2

☐ +3

Well, it depends.

It depends on how you define the construct "Anxiety".

For example, a person might report being anxious to mean they are excited and experiencing a state of readiness for an upcoming competition.

To capture a more rounded interpretation of a person's emotional state, multiple items using a variety of terms (e.g., worried, concerned, nervous, frightened, uneasy, apprehensive) might be a better approach to capturing the breadth of the emotion.

Arguments For Single-Item Measures

Efficiency and Utility:

- Ideal for large panel surveys and time-restricted conditions.
- More suitable for vulnerable populations (e.g., clinical patients) who may struggle with longer measures.

Simplicity:

- Can be more satisfying for respondents, reducing frustration from repetitive questions.
- Decreases data processing costs, especially in large-scale studies.

Arguments Against Single-Item Measures

Reliability Concerns:

- Without multiple items, internal consistency cannot be assessed (Fuchs & Diamantopoulos, 2009).
- **Spearman-Brown prophecy**: Multi-item scales reduce measurement error through item averaging.

Content Validity Issues:

- Single items might not capture complex constructs with multidimensional content.

Validating Single-Item Measures

Convergent Validity:

- Single-item measures often correlate well with their multi-item counterparts (e.g., life satisfaction measures, $r = .64$) (Cheung & Lucas, 2014).

Test-Retest Reliability:

- Stable constructs (e.g., attitudes) show acceptable test-retest correlations (ranging from .46 to .78) (Fisher et al., 2016).

Thank you!

