Turkish Version of AAQ-II:
Preliminary Analysis of Reliability and Validity

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1. OBJECTIVE

-Psychological flexibility is a term based on experiential acceptance, cognitive defusion, observing at the moment and valued actions (1).

-Acceptance and Action Questionnaire-II is a self-evaluating scale that has been developed for examining psychological flexibility of a person (2).

-This is the non-clinical part of our research that investigating the reliability and validity analysis of Turkish version of Acceptance and Action Questionnaire-II.

3. RESULTS

Internal consistency

Cronbach's alpha value of Turkish version of AAQ-II: **0.90**

Item-total correlation

Item-Total Statistics

AAQ-II	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	17,31	71,287	,655	,471	,890
Item 2	17,34	64,822	,728	,592	,882
Item 3	17,43	68,466	,688	,560	,887
Item 4	18,16	67,896	,735	,603	,882
Item 5	17,50	65,757	,730	,578	,882
Item 6	17,29	69,457	,633	,479	,893
Item 7	17,61	65,053	,772	,634	,877

Test-retest validity

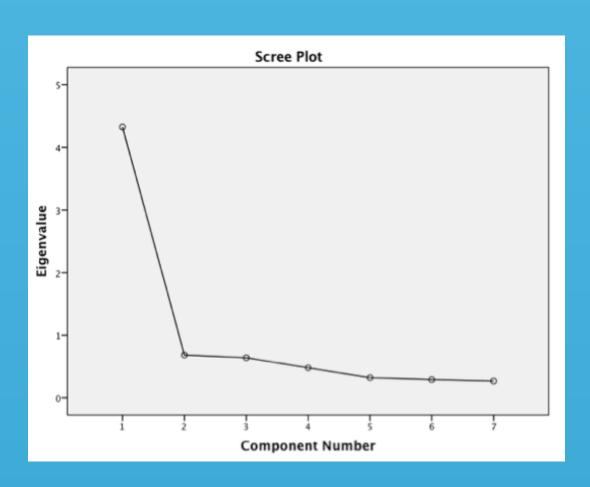The correlation between test-retest (after two week) with a sample of 30 subjects was r=0,853; p<0,01.

Factor Structure

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,881
Bartlett's Test of Sphericity	Approx. Chi-Square	377,078
	df	21
	Sig.	,000

The Kaiser-Meyer-Oklin value was .881, exceeding the recommended value of .6 and the Barlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix.

Total Variance Explained

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	4,326	61,802	61,802

The factor structure of the Turkish version of AAQ-II was analyzed with principal component analysis (PCA). The PCA suggested a one factor solution for a seven-item scale. One factor solution explains 61.8 % of the total variance.

Scree Plot

2. METHOD

Study sample consist of;

- **107** volunteer students from a Turkish University
- **39.3 %** Males and 60.7 % Females
- **Mean Age=21.8** Yrs. SD=2.70 (age range: 18-26 years)

Process;
- **Translation and back-translation of AAQ-II:** The translation of the original AAQ-II to Turkish carried out by authors. Each of them translated AAQ-II independently from each other. Back-translation was provided by a bilingual translator, who have no interest on psychopathological issues. After back-translation, original version of AAQ-II and back-translated version compared and final version of Turkish AAQ-II completed.
- **Pilot assessment**
- **Collecting data:** All participants completed the data on one session at University in a classroom.

The measurements are;
- Socio-demographic Data Form,
- Turkish Version of AAQ-II (TAAQ-II),
- Ruminative Thinking Style Questionnaire (RTSQ),
- Beck Depression Inventory-2 (BDI-2),
- The State-Trait Anxiety Inventory (STAI)
- 36-item short form survey (SF-36)

Statistical Analysis
- Cronbach's alpha value for internal consistency
- Item-total correlation
- Test-retest validity
- Factor analysis (principal component analysis)
- Pearson Correlation Analysis

Correlations

Scale	r with Turkish AAQ-II	p
Beck Depression Inventory-II	0,63	<0,01
Ruminative Thinking Style Questionnaire	0,56	<0,01
The State-Trait Anxiety Inventory (STAI)	0,65	<0,01
SF-36: Social functioning	-0,48	<0,01
SF-36: Vitality	-0,44	<0,01
SF-36: No problems with work or other daily activities result of emotional problems	-0,45	<0,01
SF-36: Mental Health	-0,44	<0,01
SF-36: No problems with work or other daily activities	-0,51	<0,01
SF-36: No pain or limitations due to pain	-0,25	<0,05
SF-36: Mental Component Summary.	0,44	<0,01
SF-36: Evaluates personal health as excellent	-0,21	<0,05

TAAQ-II correlates positively with depressive symtoms(BDI), rumination(RTSQ), worry (STAI) and negatively with dimensions of quality of life(SF-36).

4.DISCUSSION

- According to our results, TAAQ-II appears to have strong internal consistency, temporal validity.
- TAAQ-II has similar factorial structure as the original AAQ-II version in non-clinical sample.
- TAAQ-II has strong correlations with rumination, worry, depressive symptoms and quality of life degree.
- Psychological flexibility model and TAAQ-II can be used in a broad range of clinical and non clinical areas.

References:

1. Hayes, S., Strosahl, K., & Wilson, K. (2011). Acceptance and commitment therapy: The process and practice of mindful change. New York: Guilford Press.
2. Bond, F.W., Hayes, S.C., Baer, R.A., Carpenter, K.M., Orcutt, H.K., Waltz, T., et al. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire - II: A revised measure of psychological infl exibility and experiential avoidance. Behavior Therapy, 42, 676-688.

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