

Urdu Translation, Reliability and Validity of Personality Assessment Questionnaire-Adult Version

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Abstract

The aim of the present study was to translate Personality Assessment Questionnaire -Adult version (Adult PAQ, Rohner, 2005) in Urdu and to determine validity and reliability of the Urdu version of Adult Personality Assessment Questionnaire (Adult PAQ, Urdu translation by Munaf, Huassain & Kamrani, 2009), and its subscales of hostility and aggression, dependence, negative self-esteem, negative self-adequacy, emotional unresponsiveness, emotional instability, and negative world view. A sample of 164 university students participated in the study. Results show that its validity and reliability was found to be adequate. Content validity of the scales was also established as adequate. Further Internal consistency, split half, correlation with the English version, inter item correlation, item total correlations and descriptive results are reported for the testing sample in the section of results.

Key Words: *Personality Assessment Questionnaire, Adult, Urdu Translation, Reliability, Validity*

1. Introduction

Personality Assessment Questionnaire (Adult PAQ, Rohner, 2005), is a self report questionnaire, which was designed to assess individual perception of themselves on personality and behavioral dimensions of hostility and aggression, dependence, self-esteem, self-adequacy, emotional responsiveness, emotional stability, and world view. The subscales measure the following constructs as clarified through Adult PAQ (Rohner, 2005).

Hostility and Aggression

An emotional response of anger, antagonism or bitterness directed toward another person, situation or oneself is called hostility. Its behavioral expression is called aggression. Aggression is an act which aimed to hurt someone.

Dependence

Emotional reliance of one person on another for comfort, approval, guidance, support, reassurance or decision making is called dependence. Its inverse concept is Independence. In adults it is manifested by frequent seeking of comfort, nurturance, reassurance, support, approval or guidance from others, especially from important individuals such as friends and family members including parents.

Self esteem

Self evaluation of oneself is called self esteem. Its positive manifestations involve that a person has liking or approval/acceptance of self, comfort with self, and it does not have disappointed with self. Further there is a perception of one self as a person who is worthy of respect.

Self adequacy

Self adequacy in an overall self evaluation of one's competence to adequately perform daily tasks, to cope satisfactorily with daily problems, and to satisfy one's own needs. Positive feelings of self adequacy imply that a person views himself as being a capable person, able to satisfactorily deal with his daily problems, feels that he is a success or capable of success in set goals; he is self assured or self confident and feels socially adequate.

Emotional responsiveness

A person's ability to openly and freely express his emotions is called emotional responsiveness. It is manifested by a person's ability to spontaneously respond emotionally to another person. Emotional responsiveness enables a person to have lesser difficulty in forming warm, intimate, involved and lasting attachments.

Emotional stability

A person's consistency and steadiness of mood and ability to withstand minor setbacks, failures, difficulties of other stresses without becoming emotionally disturbed is called emotional stability. Emotional instability is the inverse concept of this construct.

World view

Overall evaluation of life and the universe as being essentially a positive or negative place is called the evaluation of the world or the worldview. A person may view universe as secure, friendly, happy, unthreatening place having less dangers, or it's opposite. Personality Assessment Questionnaire -Adult version has been translated in 17 languages and is culturally adapted (The Rohner Centre, 2010).

1.1. Purpose of the Study

The current study attempts to introduce Personality Assessment Questionnaire into the national language of Pakistan together with its reliability and validity. As reliability and validity is assessed on University students of city of Karachi, Sindh, Pakistan, therefore it would be more useful for the population of this region. This work introduces PAQ in the Urdu dialect that is spoken in the urban Sindh region. It may be noted that Urdu is the national language of Pakistan however it has certain dialects of different provinces and influences of provincial languages, therefore particular Urdu word may be perceived differently depending on the area of the population. Hence this study would open new avenue in Pakistani research.

2. Methodology

The aim of current study was to develop a culturally equivalent and linguistically accurate translated Urdu version of the Personality Assessment Questionnaire (Adult PAQ, Rohner, 2005) and to assess some of its reliabilities and validates. This study was conducted in following two phases.

Phase I: In the first phase the test was translated into Urdu language and adapted for Pakistani culture particularly for the adults of cosmopolitan city of Karachi where Urdu language is most frequently spoken.

Phase II: The second phase was carried out by administering the test on randomly sampled student population in order to know the psychometric properties of the Urdu questionnaire.

2.1. Research Design (step wise)**2.2. Phase I****2.3. Translation Committee**

Translations committee comprised of six bilingual expert members including committee chair having PhD in Clinical Psychology. Other five members included four students of MPhil/ PhD or PhD in Clinical Psychology and one expert of Urdu language. Hence five members were from the profession of psychology, having command in both Urdu and English language and had research and clinical experience from Higher Education Commission recognized universities.

2.4. Measures**Personality Assessment Questionnaire- Adult version (Adult PAQ: Rohner, 2005)**

Adult PAQ was developed after getting positive feedback to the Parental Acceptance Rejection Questionnaire (PARQ: Rohner, Saavedra, & Granum, 1978). Personality Assessment Questionnaire - Adult version is a self report measure of personality. It is consisted of 63 items that are written in present tense.

Sub scales include, hostility and aggression, dependency, negative self esteem, negative self adequacy, emotional unresponsiveness, emotional instability and negative world view. In the initial study (Rohner, 1978) two versions of the PAQ (English and Spanish) were developed. Present tense was used in the items and respondents were asked to represent their true feelings. Validity and reliability of the Adult PAQ was checked after administration of questionnaire on 147 college students. Internal consistency, factor analysis results, concurrent, convergent, and discriminate validities were satisfactory. Since then this tool is one of the widely used in researches and has gained trust and recognition among researchers worldwide.

2.5. Procedure of Urdu translation of PAQ

The following systematic translation procedure was followed:

Forward translation

Two parallel translations of Personality Assessment Questionnaire (Adult PAQ, Rohner, 2005) were made in Urdu by two committee members. One was from the profession of psychology and one was expert in the subject of Urdu language. Both of them were familiar with both English and Urdu languages.

Back translation

Both the Urdu translations were back translated in English language by another two committee members separately. After wards two senior members checked that which Urdu items when again translated in English were close to original English items of Adult PAQ.

Merging of items

These two senior committee members compared these two back translations with the actual original English items of Adult PAQ and judged that how well they corresponds to the actual English items and whether they carry the idea that is meant in the original questionnaire and are they culturally equivalent to the actual items. The best-represented translated items were then merged into one Urdu questionnaire.

Pilot Study

After arriving at one particular Urdu version, it was administered on a sample of twenty university students. Administrations indicated that some students were taking time in understanding certain items of word to word translations. Therefore it was decided to make modification in certain item which may not be word by word translation but can easily depict and communicate the meaning of the original English PAQ items and measures what it suppose to measure in Pakistani culture. Another pilot study indicated that University students of city of Karachi easily understand what the questionnaire would like to communicate.

Proof Reading

After agreeing upon one Urdu translation by all committee members, it was finally written while using Urdu writing software and then proofreading was done. Any mistake was then corrected.

Hence the present Urdu version of the questionnaire i.e., Adult Personality Assessment Questionnaire (Adult PAQ, Urdu translation by Munaf, Huassain & Kamrani, 2009) well evaluate personality and behavioral dispositions of adult university students of city of Karachi, Pakistan in National language. Some of the items of current Urdu translation does provide similar but not same English work ,when Urdu version is back translated , however it convey appropriate message which is intended in the actual item. Foreign Exchange Translations (2009) considers that any translation which is done with dedication it can be apparently minor different from original source. As grammar is somewhat differently entered in different languages, therefore different culture translators may translate keeping in consideration that it convey meaning rather than focusing on grammar of original source.

2.6. Phase II

This section would focus upon a) Sampling for the Study and, b) Finding different reliabilities and validities (Alpha, Split half, Item total, between language versions) of Adult PAQ, Urdu version.

a) Sampling for the Study

For the study 164, 82 male and 82 females participants with mean age 22 years (SD=2.28) were randomly selected form University of Karachi, Pakistan. The minimum education level of the entire sample was intermediate. It comprised of full time students, majority belonged to the middle socio economic status.

b) Finding different reliabilities and validities

Alpha, Split half, Item total and between language versions were found of Adult PAQ, Urdu version.

2.7. Measures**Personality Assessment Questionnaire- Adult version (Adult PAQ: Rohner, 2005):**

Refer to measures section 2.4.

Personality Assessment Questionnaire: Adult Urdu version (Translated by Munaf, Hussain & Kamrani, 2009)

The scale is a cultural and linguistic equivalent of PAQ. The process of translation and adaptation was described in detail in the methodology section.

2.8. Procedure

The researcher approached different departments of University of Karachi, Pakistan. After taking the consent for research from the management, students were selected randomly. They were briefed about the study and their consent was taken for their participation. The students who gave their consent were requested to fill demographic information form and then they were requested to complete Urdu version of Adult PAQ. After completion of Urdu version, out of 164 students, only 51 agreed to complete English version also. Participants were completely debriefed at the end of the administration of measures.

2.9. Scoring and Statistical Analysis

After data collection, scale was scored according to the standard procedure. Analysis of data was done by applying different statistical procedures for scientifically analyzes of the data.

3. Results**3.1. Internal consistency reliability (Cronbach's Alpha)****3.2. Table 1**

Reliability Analysis: Cronbach's Alpha for Adult Personality Assessment Questionnaire

| No. of cases | No of items | Coefficient Alpha |
|--------------|-------------|-------------------|
| 164 | 63 | .964 |

Table presents the Coefficient Alpha of the Personality Assessment Questionnaire scale for 63 items.

3.3. Split half reliability**3.4. Table 2**

Reliability Analysis: Split half reliability of Adult Personality Assessment Questionnaire by Pearson product moment correlation (N=164)

| | PAQ 2 nd split half scores | Sig. |
|---------------------------------------|---------------------------------------|------|
| PAQ 1 st split half scores | .722* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the split half's (the even and odd items forming two scores) of PAQ.

3.5. Validity**3.6. Table 3**

Validity Analysis: Correlation between the English and Urdu versions of Adult Personality Assessment Questionnaire by Pearson product moment correlation (N=51)

| | PAQ Urdu Version | Sig. |
|-----------------------|------------------|------|
| P A Q English Version | .966* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the Personality Assessment Questionnaire Urdu and English versions.

3.7. Sub scales**3.8. Hostility/Aggression****3.9. Internal consistency reliability (Cronbach's Alpha)**

3.10. Table 4

Reliability Analysis: Cronbach's Alpha for Hostility/Aggression subscale (N=164)

| No. of cases | No of items | Coefficient Alpha |
|--------------|-------------|-------------------|
| 164 | 9 | .812 |

Table presents the Coefficient Alpha of the Hostility and Aggression subscale for 9 items.

3.11. Split half reliability**3.12. Table 5**

Reliability Analysis: Split half reliability of Hostility/Aggression (H/A) subscale by Pearson product moment correlation (N=164)

| H/A 1 st split half scores | H/A 2 nd split half scores | Sig. |
|---------------------------------------|---------------------------------------|------|
| | .735* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the split half's (the even and odd items forming two scores) of Hostility and Aggression subscale.

3.13. Validity**3.14. Table 6**

Item-Total correlations of Hostility/Aggression subscale (N=164)

| Item No. | Item Total Pearson's r | Sig. |
|----------|------------------------|-------|
| 1 | .624 | 0.000 |
| 2 | .666 | 0.000 |
| 3 | .662 | 0.000 |
| 4 | .548 | 0.000 |
| 5 | .607 | 0.000 |
| 6 | .666 | 0.000 |
| 7 | .601 | 0.000 |
| 8 | .643 | 0.000 |
| 9 | .674 | 0.000 |

All Correlations are significant at the 0.01 level

Table presents Item-Total correlations of the Hostility and Aggression subscale. Item-Total correlations range from 0.66 to 0.54 that is above 0.25 level ($p > 0.001$). Mean item total correlation was found 0.6323(SD=0.04154).

3.15. Table 7

Inter item correlations of Hostility/Aggression subscale (N=164)

| | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Item 1 | - | .415 | .384 | .292 | .280 | .341 | .315 | .293 | .276 |
| Item 2 | .415 | - | .606 | .168 | .242 | .483 | .231 | .291 | .328 |
| Item 3 | .384 | .606 | - | .309 | .311 | .396 | .246 | .199 | .290 |
| Item 4 | .292 | .168 | .309 | - | .335 | .278 | .250 | .268 | .222 |
| Item 5 | .280 | .242 | .311 | .335 | - | .184 | .243 | .412 | .436 |
| Item 6 | .341 | .483 | .396 | .278 | .184 | - | .369 | .348 | .410 |
| Item 7 | .315 | .231 | .246 | .250 | .243 | .369 | - | .369 | .401 |
| Item 8 | .293 | .291 | .199 | .268 | .412 | .348 | .369 | - | .490 |
| Item 9 | .276 | .328 | .290 | .222 | .436 | .410 | .401 | .490 | - |

Table presents the inter-item correlations of the scale. All items were positively correlated with each other.

3.16. Dependence**3.17. Internal consistency reliability (Cronbach's Alpha)****3.18. Table 8**

Reliability Analysis: Cronbach's Alpha for Dependence subscale (N=164)

| No. of cases | No. of items | Coefficient Alpha |
|--------------|--------------|-------------------|
| 164 | 9 | .851 |

Table presents the Coefficient Alpha of Dependence subscale for 9 items.

3.19. Split half reliability**3.20. Table 9**

Reliability Analysis: Split half reliability of Dependence subscale by Pearson product moment correlation (N=164)

| Dependence 1 st split half scores | Dependence 2 nd split half scores | Sig. |
|--|--|------|
| | .848* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the split half's (the even and odd items forming two scores) of Dependence subscale.

3.21. Validity**3.22. Table 10**

Item-Total correlations of Dependence subscale (N=164)

| Item No. | Item Total Pearson's r | Sig. |
|----------|------------------------|-------|
| 1 | .719 | 0.000 |
| 2 | .747 | 0.000 |
| 3 | .519 | 0.000 |
| 4 | .681 | 0.000 |
| 5 | .762 | 0.000 |
| 6 | .719 | 0.000 |
| 7 | .375 | 0.000 |
| 8 | .769 | 0.000 |
| 9 | .732 | 0.000 |

All Correlations are significant at the 0.01 level

Table presents Item-Total correlations of the Dependence subscale. Item-Total correlations range from 0.76 to 0.37 that is above 0.25 level. Mean item total correlation was 0.6692(SD=0.13360).

3.23. Table 11

Inter item correlations of Dependence subscale (N=164)

| Items | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Item 1 | - | .495 | .258 | .309 | .513 | .518 | .309 | .491 | .457 |
| Item 2 | .495 | - | .280 | .502 | .591 | .438 | .106 | .520 | .508 |
| Item 3 | .258 | .280 | - | .251 | .276 | .271 | .355 | .307 | .199 |
| Item 4 | .309 | .502 | .251 | - | .483 | .390 | .173 | .475 | .516 |
| Item 5 | .513 | .591 | .276 | .483 | - | .482 | .004 | .659 | .513 |
| Item 6 | .518 | .438 | .271 | .390 | .482 | - | .217 | .473 | .543 |
| Item 7 | .309 | .106 | .355 | .173 | .004 | .217 | - | .107 | .127 |
| Item 8 | .491 | .520 | .307 | .475 | .659 | .473 | .107 | - | .543 |
| Item 9 | .457 | .508 | .199 | .516 | .513 | .543 | .127 | .543 | - |

Table presents the inter-item correlations of the scale. All items were positively correlated with each other.

3.24. Negative Self esteem**3.25. Internal consistency reliability (Cronbach's Alpha)****3.26. Table No. 12**

Reliability Analysis: Cronbach's Alpha for Negative Self esteem subscale (N=164)

| No. of cases | No. of items | Coefficient Alpha |
|--------------|--------------|-------------------|
| 164 | 9 | .820 |

Table presents the Coefficient Alpha of Negative Self esteem subscale for 9 items.

3.27. Split half reliability**3.28. Table 13**

Reliability Analysis: Split half reliability of Negative Self Esteem subscale by Pearson product moment correlation (N=164)

| Dependence 1 st split half scores | Dependence 2 nd split half scores | Sig. |
|--|--|------|
| | .846* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the split half's (the even and odd items forming two scores) of negative self esteem subscale.

3.29. Validity**3.30. Table 14**

Item-Total correlations of Negative Self Esteem subscale (N=164)

| Item No. | Item Total Pearson's r | Sig. |
|----------|------------------------|-------|
| 1 | .620 | 0.000 |
| 2 | .450 | 0.000 |
| 3 | .720 | 0.000 |
| 4 | .648 | 0.000 |
| 5 | .692 | 0.000 |
| 6 | .595 | 0.000 |
| 7 | .667 | 0.000 |
| 8 | .760 | 0.000 |
| 9 | .619 | 0.000 |

All Correlations are significant at the 0.01 level

Table presents Item-Total correlations of the Negative Self esteem subscale. Item-Total correlations range from 0.45 to 0.76 that is above 0.25 level. Mean item total correlation was 0.6412(SD=0.08892).

3.31. Table 15

Inter item correlations of Negative Self Esteem subscale (N=164)

| Items | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Item1 | - | .071 | .383 | .375 | .368 | .262 | .321 | .433 | .347 |
| Item 2 | .071 | - | .218 | .322 | .168 | .295 | .194 | .246 | .157 |
| Item 3 | .383 | .218 | - | .375 | .463 | .313 | .519 | .477 | .401 |
| Item 4 | .375 | .322 | .375 | - | .314 | .565 | .375 | .403 | .136 |
| Item 5 | .368 | .168 | .463 | .314 | - | .258 | .413 | .551 | .394 |
| Item 6 | .262 | .295 | .313 | .565 | .258 | - | .301 | .303 | .236 |
| Item 7 | .321 | .194 | .519 | .375 | .413 | .301 | - | .491 | .284 |
| Item 8 | .433 | .246 | .477 | .403 | .551 | .303 | .491 | - | .454 |
| Item 9 | .347 | .157 | .401 | .136 | .394 | .236 | .284 | .454 | - |

Table presents the inter-item correlations of the subscale. All items were positively correlated with each other.

3.32. Negative Self adequacy

3.33. Internal consistency reliability (Cronbach's Alpha)**3.34. Table 16**

Reliability Analysis: Cronbach's Alpha for Negative Self Adequacy subscale (N=164)

| No. of cases | No of items | Coefficient Alpha |
|--------------|-------------|-------------------|
| 164 | 9 | .854 |

Table presents the Coefficient Alpha of Negative Self adequacy subscale for 9 items.

3.35. Split half reliability**3.36. Table 17**

Reliability Analysis: Split half reliability of Negative Self Adequacy subscale by Pearson product moment correlation (N=164)

| | Self adequacy 2 nd split half scores | Sig. |
|---|---|------|
| Self adequacy 1 st split half scores | .866* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the split half's (the even and odd items forming two scores) of Negative Self adequacy subscale.

3.37. Validity**3.38. Table 18**

Item-Total correlations of Negative Self Adequacy subscale (N=164)

| Item No. | Item Total Pearson's r | Sig. |
|----------|------------------------|-------|
| 1 | .558 | 0.000 |
| 2 | .458 | 0.000 |
| 3 | .577 | 0.000 |
| 4 | .606 | 0.000 |
| 5 | .557 | 0.000 |
| 6 | .510 | 0.000 |
| 7 | .540 | 0.000 |
| 8 | .569 | 0.000 |
| 9 | .545 | 0.000 |

All Correlations are significant at the 0.01 level

Table presents Item-Total correlations of the Negative Self adequacy subscale. Item-Total correlations range from 0.60 to 0.45 that is above 0.25 level. Mean item total correlation was 0.5467(SD=0.042470).

3.39. Table 19

Inter item correlations of Negative Self Adequacy subscale (N=164)

| | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Item 1 | - | .316 | .491 | .348 | .475 | .395 | .481 | .394 | .565 |
| Item 2 | .316 | - | .386 | .480 | .292 | .342 | .421 | .274 | .360 |
| Item 3 | .491 | .386 | - | .436 | .477 | .414 | .520 | .430 | .451 |
| Item 4 | .348 | .480 | .436 | - | .381 | .434 | .355 | .361 | .339 |
| Item 5 | .475 | .292 | .477 | .381 | - | .357 | .424 | .248 | .486 |
| Item 6 | .395 | .342 | .414 | .434 | .357 | - | .343 | .393 | .244 |
| Item 7 | .481 | .421 | .520 | .355 | .424 | .343 | - | .332 | .438 |
| Item 8 | .394 | .274 | .430 | .361 | .248 | .393 | .332 | - | .275 |
| Item 9 | .565 | .360 | .451 | .339 | .486 | .244 | .438 | .275 | - |

Table presents the inter-item correlations of the scale. All items were positively correlated with each other.

3.40. Emotional Unresponsiveness**3.41. Internal consistency reliability (Cronbach's Alpha)**

3.42. Table 20

Reliability Analysis: Cronbach's Alpha for Emotional Unresponsiveness subscale (N=164)

| No. of cases | No. of items | Coefficient Alpha |
|--------------|--------------|-------------------|
| 164 | 9 | .802 |

Table presents the Coefficient Alpha of Emotional Unresponsiveness subscale for 9 items.

3.43. Split half reliability**3.44. Table 21**

Reliability Analysis: Split half reliability of Emotional Unresponsiveness (EU) subscale by Pearson product moment correlation (N=164)

| | EU 2 nd split half scores | Sig. |
|--------------------------|--------------------------------------|------|
| EU 1st split half scores | .817* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the split half's (the even and odd items forming two scores) of Emotional Unresponsiveness subscale.

3.45. Validity**3.46. Table 22**

Item-Total correlations of Emotional Unresponsiveness subscale (N=164)

| Item No. | Item Total Pearson's r | Sig. |
|----------|------------------------|-------|
| 1 | .645 | 0.000 |
| 2 | .585 | 0.000 |
| 3 | .560 | 0.000 |
| 4 | .689 | 0.000 |
| 5 | .509 | 0.000 |
| 6 | .679 | 0.000 |
| 7 | .675 | 0.000 |
| 8 | .600 | 0.000 |
| 9 | .649 | 0.000 |

All Correlations are significant at the 0.01 level

Table presents Item-Total correlations of the Emotional Unresponsiveness subscale. Item-Total correlations range from 0.67 to 0.50 that is above 0.25 level. Mean item total correlation was 0.6212(SD=0.06151).

3.47. Table 23

Inter item correlations of Emotional Unresponsiveness subscale (N=164)

| | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Item 1 | - | .239 | .208 | .438 | .234 | .372 | .342 | .390 | .326 |
| Item 2 | .239 | - | .276 | .245 | .186 | .272 | .418 | .236 | .327 |
| Item 3 | .208 | .276 | - | .304 | .341 | .270 | .229 | .322 | .236 |
| Item 4 | .438 | .245 | .304 | - | .228 | .499 | .363 | .396 | .400 |
| Item 5 | .234 | .186 | .341 | .228 | - | .235 | .196 | .377 | .210 |
| Item 6 | .372 | .272 | .270 | .499 | .235 | - | .424 | .211 | .465 |
| Item 7 | .342 | .418 | .229 | .363 | .196 | .424 | - | .326 | .406 |
| Item 8 | .390 | .236 | .322 | .396 | .377 | .211 | .326 | - | .231 |
| Item 9 | .326 | .327 | .236 | .400 | .210 | .465 | .406 | .231 | - |

Table presents the inter-item correlations of the scale. All items were positively correlated with each other.

3.48. Emotional Instability**3.49. Internal consistency reliability (Cronbach's Alpha)****3.50. Table 24**

Reliability Analysis: Cronbach's Alpha for Emotional Instability subscale

| No. of cases | No. of items | Coefficient Alpha |
|--------------|--------------|-------------------|
| 164 | 9 | .840 |

Table presents the Coefficient Alpha of Emotional instability subscale for 9 items.

3.51. Split half reliability**3.52. Table 25**

Reliability Analysis: Split half reliability of Emotional Instability (EI) subscale by Pearson product moment correlation (N=164)

| | EI 2 nd split half scores | Sig. |
|--------------------------------------|--------------------------------------|------|
| EI 1 st split half scores | .852* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the split half's (the even and odd items forming two scores) of Emotional instability subscale.

3.53. Validity**3.54. Table 26**

Item-Total correlations of Emotional Instability subscale (N=164)

| Item No. | Item Total Pearson's r | Sig. |
|----------|------------------------|-------|
| 1 | .659 | 0.000 |
| 2 | .743 | 0.000 |
| 3 | .542 | 0.000 |
| 4 | .672 | 0.000 |
| 5 | .745 | 0.000 |
| 6 | .529 | 0.000 |
| 7 | .751 | 0.000 |
| 8 | .728 | 0.000 |
| 9 | .585 | 0.000 |

All Correlations are significant at the 0.01 level

Table presents Item-Total correlations of the Emotional instability subscale. Item-Total correlations range from 0.75 to 0.52 that is above 0.25 level. Mean item total correlation was 0.6616(SD=0.08934).

3.55. Table 27

Inter item correlations of Emotional Instability subscale (N=164)

| | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Item 1 | 1.000 | .461 | .137 | .385 | .375 | .360 | .536 | .373 | .271 |
| Item 2 | .461 | 1.000 | .425 | .411 | .492 | .332 | .541 | .475 | .289 |
| Item 3 | .137 | .425 | 1.000 | .212 | .347 | .310 | .245 | .291 | .263 |
| Item 4 | .385 | .411 | .212 | 1.000 | .490 | .175 | .433 | .563 | .331 |
| Item 5 | .375 | .492 | .347 | .490 | 1.000 | .285 | .508 | .562 | .383 |
| Item 6 | .360 | .332 | .310 | .175 | .285 | 1.000 | .281 | .109 | .326 |
| Item 7 | .536 | .541 | .245 | .433 | .508 | .281 | 1.000 | .582 | .330 |
| Item 8 | .373 | .475 | .291 | .563 | .562 | .109 | .582 | 1.000 | .346 |
| Item 9 | .271 | .289 | .263 | .331 | .383 | .326 | .330 | .346 | 1.000 |

Table presents the inter-item correlations of the scale. All items were positively correlated with each other.

3.56. Negative Worldview**3.57. Internal consistency reliability (Cronbach's Alpha)****3.58. Table 28**

Reliability Analysis: Cronbach's Alpha for Negative Worldview subscale (N=164)

| No. of cases | No. of items | Coefficient Alpha |
|--------------|--------------|-------------------|
| 164 | 9 | .885 |

Table presents the Coefficient Alpha of Negative Worldview subscale for 9 items.

3.59. Split half reliability**3.60. Table 29**

Reliability Analysis: Split half reliability of Negative Worldview subscale by Pearson product moment correlation (N=164)

| | Negative Worldview 2 nd split half scores | Sig. |
|--|--|------|
| Negative Worldview 1 st split half scores | .850* | .000 |

* Correlation is significant at the 0.01 level.

Table presents the correlation between the split half's (the even and odd items forming two scores) of Negative Worldview subscale.

3.61. Validity

3.62. Table 30

Item-Total correlations of Negative Worldview subscale (N=164)

| Item No. | Item Total Pearson's r | Sig. |
|----------|------------------------|-------|
| 1 | .712 | 0.000 |
| 2 | .699 | 0.000 |
| 3 | .735 | 0.000 |
| 4 | .653 | 0.000 |
| 5 | .761 | 0.000 |
| 6 | .759 | 0.000 |
| 7 | .750 | 0.000 |
| 8 | .717 | 0.000 |
| 9 | .710 | 0.000 |

All Correlations are significant at the 0.01 level

Table presents Item-Total correlations of the Negative Worldview subscale. Item-Total correlations range from 0.75 to 0.65 that is above 0.25 level. Mean item total correlation was 0.7212(SD=0.03428).

3.63. Table 31

Inter item correlations of Negative Worldview subscale (N=164)

| Items | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Item 1 | - | .444 | .520 | .275 | .598 | .407 | .528 | .459 | .372 |
| Item 2 | .444 | - | .315 | .520 | .404 | .497 | .415 | .418 | .574 |
| Item 3 | .520 | .315 | - | .469 | .592 | .465 | .542 | .485 | .334 |
| Item 4 | .275 | .520 | .469 | - | .395 | .440 | .314 | .518 | .382 |
| Item 5 | .598 | .404 | .592 | .395 | - | .470 | .673 | .358 | .351 |
| Item 6 | .407 | .497 | .465 | .440 | .470 | - | .468 | .594 | .653 |
| Item 7 | .528 | .415 | .542 | .314 | .673 | .468 | - | .386 | .480 |
| Item 8 | .459 | .418 | .485 | .518 | .358 | .594 | .386 | - | .514 |
| Item 9 | .372 | .574 | .334 | .382 | .351 | .653 | .480 | .514 | - |

Table presents the inter-item correlations of the subscale. All items were positively correlated with each other.

3.64. Table 32

Mean, Standard Deviation, Variance, Range and Standard Error of the sample on Personality Assessment Questionnaire

| N | Mean | Range | S.D | Variance | S.E |
|-----|--------|-------|--------|----------|-------|
| 164 | 131.73 | 195 | 38.313 | 1467.903 | 2.992 |

4. Discussion

The aim of this research was to introduce Personality Assessment Questionnaire in Urdu language, tailored as a linguistic and cultural equivalent and to find its reliabilities, and validates. This study was conducted in Karachi, Pakistan with 164 participants.

4.1. Internal consistency reliability (Cronbach's Alpha)

The coefficient alpha of the scale was found to be .964 that shows psychometric strength. It indicates that like the original instrument the Urdu version also has high homogeneity. For subscales, namely, Hostility and Aggression, Dependence, Negative self esteem, Negative Self adequacy, Emotional Unresponsiveness, Emotional instability and Negative Worldview it was found as, .812, .851, .820, .854, .802, .840 and .885, respectively.

4.2. Split half reliability

The correlation between the two half of the scale (the even and odd sets) was found to be .722. It indicates that scale measured a single domain. For subscales, namely, Hostility and Aggression, Dependence, Negative self esteem, Negative Self adequacy, Emotional Unresponsiveness, Emotional instability and Negative Worldview it was found as .735, .840, .846, .866, .817, .852 and .850, respectively.

4.3. Correlation with the English version of PAQ

Correlation between the English and Urdu versions of Personality Assessment Questionnaire was found to be .966 that is significant and indicates high correlation between language versions.

4.4. Content validity

Mean Item-Total correlations of subscales range from 0.37 to 0.75 that is above 0.25 level. All the items were found significantly correlated with the total. These results are indicative of high content validity.

4.5. The general factor

High reliability alpha, high internal correlations, absence of negative correlations suggests that the subscales are measures of a single attributes which indicates a general factor.

4.6. Norms

The mean total score on the measure was found to be 131.73 (SD=38.313). A sufficient variation was present in scores that suggest that it was suited to be used for the sampled population.

4.7. Conclusion and Implication

From the above results and discussion it is clear that the psychometric properties of Urdu version of PAQ are adequate enough for personality assessment of adults of Urban Sindh region of Pakistan with high confidence.

4.8. Limitations

As this translation is made by translation committee whose members were residing in Karachi city and its reliability and validity was check through its administration on students of Karachi only therefore it is recommended that future researchers may translate original English PAQ according to meaning taken of its items in their region.

4.9. Acknowledgment

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