



Establishing the validity of adjustment questionnaire for adults

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Abstract

Background: Adjustment is a psychological and behavioral process by which any individual tries to maintain balance among his various needs that he encounters at a given point of time. Each and every situation of life demands that any individual's concern should be to effectively perform according to some guiding principles and to strike a balance among various needs. Adjustment may be referred as a process through which an individual builds variations in his behavior to achieve harmony with oneself, others or the environment with an aim to establish equilibrium between the individual and the environment. Thus, the study aims at establishing reliability and validity of the adjustment questionnaire for adults.

Methodology: The total sample size of the study was 121 (both male and female) and was selected through purposive sampling techniques. The study was a cross sectional design. Data was collected through socio-demographic data sheet, General Health Questionnaire-12 (GHQ-12), Global Assessment Scale, affinity for Technology Interaction Scale and Adjustment questionnaire for adults.

Result: The findings suggested that validity was .903 for 5 domains and .461 for technical knowhow domain on 0.01 level of significance.

Conclusion: Thus, the findings of the study conclude that the Adjustment Questionnaire of Adults is a valid questionnaire and psychometric test which can be used to assess adjustment of adults.

Keywords: adjustment, adult, questionnaire

Introduction

Life of an adult is filled with multidimensional demand, need and stress, to which he has to adjust. If individual is able to establish balance between his needs and conflicts he will be adjustable to every sphere of life and will be satisfied. But if any individual is not able to establish a balance between his needs he will have to face maladjustment with his present environment or even throughout his life. Thus, adjustment talks about two things, first to adjust with the present environment and second to adjust with the changing environment. Hence, adjustment becomes a very crucial process in the life of an adult. Adjustment during the period of adulthood determines the status of an individual in his society. Any adult is said to be well adjusted with his environment if he is able to establish harmony between his needs and can achieve his goals which are socially acceptable. Adjustment means behavioral reaction to personal demands and social pressures. Well adjusted behavior pattern is important for healthy growth of an individual. Also a maladjusted individual often shows behaviors that are not in the favour of society or the individual himself. A well adjusted individual is able to withstand frustrations, conflicts, failures and other issues of life. An individual who is well adjusted with his environment often have good physical and mental health. Thus, a need is felt to develop a psychological assessment tool to assess the level of adjustment of adults in various phases of life.

This study aims at developing a questionnaire to establish validity of the adjustment questionnaire for adults. The six domains of adjustment viz. Health Adjustment; Familial Adjustment; Technical Knowhow; Social Adjustment; Occupational Adjustment and Emotional Adjustment. After

an extensive review of the available documents, researches and adjustment tools a set of questions were prepared for generating item pool from 100 participants selected through purposive sampling from various government and private sectors as well as from different colleges. The interview of the 100 participants was focused on generating items that defined six aspects of adjustment (health, family, social, emotional, occupational and technical knowhow). 126 total statements were gathered from the interviews. But only 106 items were constructed from 126 statements from the item pool. These 106 statements were given to 10 experts to judge the face validity and content validity of the items. According to the suggestions of the experts the items were modified and rejected, thus, 77 items were left for the first try-out of the questionnaire. For item analysis 318 samples was selected. After first try-out and item analysis 30 items were finally left. Thus, difficulty and discriminant index made the adjustment questionnaire for adults a 30 item questionnaire. Thus, the final questionnaire is a five-point Likert type scale, with six domains – occupational adjustment, technical knowhow, familial adjustment, health adjustment, social adjustment and emotional adjustment. To establish validity of the questionnaire concurrent validity was computed.

Validity

To measure validity of any psychological assessment tool is an important scientific procedure during its construction and development process. Validity means that a tool measures what it claims to measure. Edward (1969) ^[1] suggested that most of the investigators depend on construct validity of their measuring tool for attitude. It was ensured during the initial phases of item writing that each item should validly measure

adjustment in six different domains of an individual's life. Items were given to 10 experts in the field to rate the items according to their validity. Furthermore item analysis was done to ensure that the items being constructed were valid for measuring adjustment in the following six domains: emotional, social, occupational, technical knowhow, familial and health. High discriminant index of the items is testimony for their internal consistency. Validity of the questionnaire was computed by obtaining correlation between scale composite score and the score on each item, as well as between the six domains, with Global Adjustment Scale. High correlation shows that AQAs has high validity. 121 participants participated in the validity study.

Content Validity

Content validity means that the items and the domains of the scale measures what it claims to measure. It is assumed that to assess content validity it is better to give the scale to a panel of experts in the study matter. Also higher construct validity predicts high level of content validity. Content validity refers to individual item's relevancy. AQAs was given to 10 experts of the study matter. Some of the items were modified and many were excluded from the questionnaire after the rating of the experts. Thus, AQAs have a high degree of content validity.

Criterion related validity refers to how well any assessment measure predicts a criterion. That is, how well an assessment tool predicts the outcome event that is external to the assessment measure. Concurrent validity is obtained when data is collected at the same time, from the assessment measure or scale being constructed and from the criterion scale. However, for the predictive validity of any scale being constructed the data from the criterion scale is collected at a later time. The data obtained are scored and then the scores are correlated.

For AQAs the concurrent validity was measured by using Global Assessment Scale for Adjustment (Form-A & B). For technical knowhow domain concurrent validity was measure by correlating the data from the Affinity for Technology Interaction Scale.

Methodology

Aim of the study was to establish reliability and validity of adjustment questionnaire for adults.

Sampling method in the research was purposive sampling technique. Participants of both the gender were selected with education of minimum 5thstd and age ranging between 21-29years; 30-37years & 38-45years. Participants understanding Hindi and English and giving consent for the research were selected as a sample. Individuals having significant physical disease and psychiatric disorders or abusing substances or scoring >3 on GHQ-12 were excluded from the study. Thus, 121 participants were selected for validity study.

The *tools administered* were socio-demographic data sheet, GHQ-12, the adjustment questionnaire for adults, Global Adjustment Scale and Affinity for Technology Interaction Scale. The socio-demographic data sheet was administered for sample selection as per inclusion and exclusion criteria

and to assess the homogeneity of the sample selected. The socio-demographic data sheet was administered to select a representative sample of a population and to know the distribution of the demographic characteristics of the participants and to assess the homogeneity of the sample. GHQ-12 was administered to screen participations for any physical or psychological illness. Individuals scoring >3 on GHQ-12 were not selected for the study. After the participants were selected and they had given their written consent the Adjustment Questionnaire, Global Adjustment Scale and Affinity for Technology Interaction Scale was administered.

Global Adjustment Scale

Adjustment is viewed in relation to the growth and adaptation that is made to specific life contexts. In order to sustain the complex problem of adjustment one should keep following two aspects: - a) the individual and b) the environment. Thus, the Global Adjustment Scale (GAS) was designed and developed by PSY-COM Services in 1994 with two versions. The scale has two forms Student Form (From S) and Adults Form (From A).

Form A of GAS is for adult population, age ranging from 20 years and above. The adult form was developed to obtain reliable information from the individual concerning what he thinks and feels about his family, health, social environment, emotions, occupations and sex. Form A consists of 120 items. There are three alternative choices for the clients to choose from – Yes, No and Sometimes. The scale consists of six domains – a) Family b) Health c) Social d) Emotions e) Occupation f) Sex. The split-half reliability for the six dimensions was: - Emotions .76; Family .66; Health .69; Occupation .68; Sex .79 and Social .73. The test-retest reliability for the six domains was: - Emotions .70; Family .58; Health .65; Occupation .61, Sex .72 and Social .65. The factorial validity coefficient of GAS Form A dimensions was:-Emotions .70; Family .58; Health .65; Occupation .61; Sex .72 and Social .65.

Affinity for Technology Interaction Scale

The Affinity for Technology Interaction Scale was developed by Franke *et al*, 2017. The scale measures the ease with which any individual interacts with technology in day to day life. The scale has 9 items with five point Likert type scale – completely agree – 1, largely disagree – 2, slightly disagree – 3, slightly agree – 4, largely agree – 5 and completely agree – 6.

Statistical Analysis

The collected data was analyzed by using the computer software program, Statistical Package for Social Sciences-version 21.0 (SPSS-21.0) for Windows, with different parametric measures used wherever applicable which were as follows-

- Description of sample characteristics was computed with descriptive statistics of percentage.
- Pearson's product moment was computed for assessing the validity of the test.

Result

Table 1: Socio-demographic details of the participants for test-retest reliability

Variable	N (121)			Percentage
Gender				
Age Group	21-29yrs	30-37yrs	38-45yrs	
Male	29	33	12	61%
Female	21	19	7	39%
Education				
Age Group	21-29yrs	30-37yrs	38-45yrs	
12 th Std	2	2	3	6%
Graduate	15	25	7	39%
Other	33	25	9	55%
Occupation				
Age Group	21-29yrs	30-37yrs	38-45yrs	
Unemployed	4	1	1	5%
Employed	21	24	12	47%
Homemaker	7	9	2	15%
Student	18	18	4	33%
Marital Status				
Age Group	21-29yrs	30-37yrs	38-45yrs	
Single	29	16	2	39%
Married	17	36	21	61%
Domicile				
Age Group	21-29yrs	30-37yrs	38-45yrs	
Rural	6	11	4	17%
Urban	36	29	13	65%
Semi-urban	8	12	2	18%

Table 1 describes the socio-demographic variables of 121 participants. 61% participants were male and 39% were female out of 318 participants. 6% of the sample was educated upto 12thstd, 39% were graduates and 55% had other degrees except graduation. 4% of the participants were unemployed, 47% were employed, 15% were homemakers and remaining 33% were students. 39% of the 121 participants were single (never married) and majority of 61% were married. 17% of the total sample lived in rural area and another 65% in urban area, and 18% came from semi-urban area.

Table 2: Correlation between the Domains of AQAs and GAS

Domains of AQAs	Domains of GAS	R
Occupational Adjustment	Work Adjustment	.515**
Familial Adjustment	Family Adjustment	.629**
Health Adjustment	Health Adjustment	.619**
Social Adjustment	Social Adjustment	.645**
Emotional Adjustment	Emotion Adjustment	.672**
Total AQA	Total GAS	.903**

** Correlation is significant at the 0.01 level (2-tailed).

Table 2 shows the product moment correlation between the domains of Adjustment Questionnaire Adults and Global Adjustment Scale. The obtained correlation on five domains of both AQAs and GAS was occupational r-.515, familial r-.629, health r-.619, social r-.645, emotional r-.672 and Total scorer-.903. The correlation between the two scales was positive with significance at 0.01 level.

Table 3: Correlation between the Domains of AQAs and ATIS

Variables	Technical Knowhow	ATIS
Technical Knowhow	Pearson Correlation	1
	Sig. (2-tailed)	.461**
	N	121
ATIS	Pearson Correlation	.461**
	Sig. (2-tailed)	.000
	N	121

** Correlation is significant at the 0.01 level (2-tailed).

Table 2 shows that Product moment correlation was computed to assess the correlation between the technical knowhow domain and self-prepared Affinity for Technology Interaction Scale. The obtained correlation is .461, which is positive correlation at 0.01 level of significance.

Discussion

Discussing the Methodology of the Study

Life of an adult is filled with multidimensional demand, need and press, to which he has to adjust. If individual is able to establish balance between his needs and conflicts he will be adjustable to every sphere of life and will be satisfied. But if any individual is not able to establish a balance between his needs he will have to face maladjustment with his present environment or even throughout his life. Thus, adjustment talks about two things, first to adjust with the present environment and second to adjust with the changing environment. Hence, adjustment becomes a very crucial process in the life of an adult. Thus, the study started with a problem to develop a questionnaire to measure adjustment in different dimensions of life: - “emotional, social, occupational, technical knowhow, familial and health (psychological & physical) among adults. Thus, the study aimed at establishing validity of the Adjustment Questionnaire for adults.

Total 121 participants were selected through purposive sampling technique from the age group of 21 to 45 years. Participants from both the genders, who were educated upto 5th std, who were able to understand Hindi and English and were ready for giving written consent were selected for the study, but individual having significant physical and psychiatric illness, having epilepsy and mental retardation, head injury and other organic conditions, substance abuse, having family history of mental illness, uncooperative in nature and illiterate individuals were not selected for the study. Selected sample was grouped into three according to the age groups 21-29 years, 30-37 years and 38-45 years. After sample was selected for the study they were explained the purpose of the study and written consent was taken. Following which socio-demographic details was collected and then participants were given the data collection tools.

Discussion of Statistical Analysis

The collected data was analyzed by using the computer software program, Statistical Package for Social Sciences-version 21.0 (SPSS-21.0) for Windows, with different

parametric measures. Data was collected from 121 participants. Descriptive statistics and Pearson's product moment were used to analyze the collected data.

Descriptive statistics (frequency and percentage) were used to analyse the socio-demographical variables of the participants which were categorical in nature like – gender, occupation, marital status, education and domicile.

Pearson's product moment was also computed to establish the concurrent validity of the adjustment questionnaire.

Validity discussed as following

121 participants were selected through purposive sampling technique for establishing the validity of the adjustment questionnaire for adults. 61% majority were male participants with only 39% female participants and 6% with 12th std education, 39% graduates and rest 55% with other educational qualification. 15% of the sample was homemaker, 33% students, 47% employed and minimum 5% of the participants were not employed. There were 61% participants who were married and only 39% participants who never got married. 65% majority of the sample belonged to urban areas.

To establish concurrent validity Global Adjustment Scale and Affinity for Technology Interaction Scale was used. Product moment correlation was computed to assess the correlation between the GAS and ATIS for technical knowhow. The obtained correlation between AQAs and GAS was .903, significant at 0.01 level. Similarly, there was positive correlation between the scores of occupational and work domain (.515), familial and family adjustment domain (.629), health adjustment domain (.619), social adjustment domain (.645) and emotional adjustment domain (.672). The technical knowhow domain has a correlation of .461 which is significant at 0.01 level. The established positive correlation on significance 0.01 level suggests that AQAs is a valid questionnaire to measure adjustment of adults on different aspects of life.

Conclusion

Thus, the findings of the study concludes that the Adjustment Questionnaire of Adults is a valid questionnaire and psychometric test which can be used to assess adjustment of adults in six spares of life namely, occupational (measuring work adjustment), technical knowhow (measuring adjustment with everyday technology), familial (adjustment within family), health (measuring adjustment for physical health), social (measuring adjustment in social situations) and emotional (measuring emotional well-being).

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