Urdu Translation and Adaptation of Fenigstein Paranoia Scale

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Abstract

The present study aimed at the Urdu translation, adaptation and norming of the 20-item paranoia scale on normal university student population in Karachi, Pakistan. Symptoms related to paranoia are found in many Psychological problems. It has many psychological, neurological and social causes and the person suffering from paranoia related symptoms is in a state of subjective distress. Phase-I involved the adaptation and translation of the scale through a systematic process comprised of back translation and merging. Phase-II involved the analysis of the adapted tool through administration on a randomly sampled 350 participants (175 male, 175 female) a part of the sample (60 participants, equally divided into male and female) was retested with the tool after one week. Statistical analysis revealed that adapted tool has high internal consistency, temporal stability (N=60), split half reliability and high content validity. All the items were found significantly correlated with the total. Norms of the sample were also calculated. The mean total score on the measure (scores can range from 20 to 100) was found to be 43.71 (SD=12.812), for males (M=42.84, N=175) scoring lower then female (M=44.59, N=175). There was a sufficient variation in scores suggesting that the scale was suited to be used for the sample. This study added a new psychometric tool that is suitable for Pakistan. The tool was standardized on a culturally and linguistically diversified sample representing almost all of Pakistani subcultures.

Keywords: Subclinical Paranoia, Pakistan, Psychometrics

1. Introduction

Stability in a person's behavior that remains constant under varying conditions is called personality (Dworetzky, 1983). It is concerned with the individual differences and with total individual. Marked improvements took place in personality testing in last few decades that enhanced our ability to assess and diagnose psychopathology. Model of assessment that developed from the union of psychometric and psychoanalytic tradition in psychology is commonly referred to as psycho diagnosis (Watson, 1953). Psycho diagnosis' goal is the description of individual in as full and multilevel way as possible and thus in psychological rather than normative terms (Korchin & Schuldberg, 1981). The other major view of assessment is called psychometrics. The psychometric orientation emphasizes the statistical analysis of psychological test data and the comparison of the individual's performance against appropriate norms. We can say that some psychologists feel that personality assessment is best done when they are highly individualized while others psychologists have an inclination for quantitative measures that are based on group norms. As a result the earlier are inclined to use interviewing and projective techniques in which significant clinical judgment and inference are required and the worth of assessment findings usually dependent on the skill and knowledge of the psychologist who interprets it. On the other hand, the later prefer to use standardized, objective tests and give particular significance to reliability and validity of these assessment techniques.

Personality tests are tool of the measurement of emotional, motivational, interpersonal, and attitudinal characteristics, as distinguished from abilities (Aiken, 1993; Burger, 1993). As this research is concerned with the objective approach we would more focus on it in this write-up. Fenigstein and Vanable (1992) developed a self report Paranoia scale (20- items) initially to measure paranoia in college students. Each item is rated on a five-point scale (1 not at all applicable, 5 extremely applicable). Scores can range from 20 to 100, with the higher scores indicating greater paranoid ideation. It is the most widely used dimensional measure of paranoia. This scale was mainly developed as a tool to investigate sub clinical paranoia.

Item were selected if they were related to any of the following aspects of paranoia (given by Magaro, 1980 and Mallon, 1981):

(a) a belief that people or external forces are trying to influence one's behavior or control one's thinking; (b) a belief that people are against one in various ways; (c) a Belief that some people talk about, refer to or watch one; (d) suspicion or mistrust of other's motives; and (e) feeling of ill will, resentment or bitterness. Items were derived from MMPI but as it was intended to be used with non clinical population many items were not taken. Since its development, as a reliable and valid instrument for investigation and of paranoia, it has been used in many studies (e.g. Martin, 2001). No adaptation of this tool in Urdu has been done until now. Like hysteria, paranoia has become one of those terms that has passed from the dictionary of psychology into everyday language. General population use the term "paranoia" to describe a state of delusions of persecution, the idea that a person suspects unrealistically that other people are secretly trying to harm him or her. Paranoia is defined as "a pervasive and unwarranted mistrust of others," (Bernstein, Useda, & Siever, 1995, p.45).

It is a thought process characterized by disproportionate anxiety or fear, often to the level of irrationality and delusion. Paranoid thinking includes persecutory beliefs concerning a perceived danger. According to Diagnostic and Statistical Manual for Mental Disorders (1994) fourth edition a persecutory delusion is "A delusion in which the central theme is that one (or someone to whom one is close) is being attacked, harassed, cheated, persecuted, or conspired against." (pp. 765-766) The majority of psychological tests are originally developed in English. In psychology and other fields many assessment instruments are translated into other languages and adapted for particular cultures. Researchers who are working with populations like Pakistan, where very small number of people can speak or understand English and that has a culture that differs greatly from where the scales are developed, translating and adapting a reliable and valid foreign language measure is a solution for the lack of available tools. This procedure also allows researcher for cross-cultural comparison of findings.

Regarding different procedures that are used for test translation Hussain (2006, p.70) notes:

Good reviews of various translation procedures had been provided by Buchner & Mayr (1999). The most frequently used approach is direct translation (Van de Vijver & Tanzer, 1997). Back translation is a still better approach. Another process is called merging, where two bilingual individuals each produces a translation of the scale another bilingual person then merges the two translations into a single scale. Still another approach is a review or group procedure, where a group of subject experts (SME) in the field examine the translation, discuss it with one another and reconcile there differences until they come up with a single translated version. All of the approaches mentioned by Hussain (2006) contain certain benefits but most widely preferred method by researches is back translation. The aim of back translation is to achieve different language version of the original tool that is theoretically equivalent in the target language and culture. The instrument should be just as natural and suitable and should execute in the similar way. The focus is cross-cultural and conceptual, rather than on literal equivalence.

Such translation is part of a procedure that generates other language version of questionnaires. Original scale is translated by one or more translators – local speakers of the target language. If several translators are involved, one of them evaluates the translations and reconciles these into one version. The next step is that one or more back translators translate the reconciled version back into the original language of test (in our case, English). Again, if several back translators are involved, one of them evaluates the back translations and reconciles these into one version. The next step is to evaluate the reconciled back translation and compare it against the original English. Usually the translation can then be accepted for testing (Andriesen, 2009). Back translation can improve the reliability and validity of research in different languages by requiring that the quality of a translation is verified by an independent translator translating back into the original language. Original and back translated documents can be compared afterwards.

1.1. Reliability

Reliability refers to the stability of scores obtained by same person when reexamined with same test on different instances. Test reliability indicates the degree to which individual difference in test scores are attributable to actual differences in the characteristics under consideration and the extent to which they are attributable to the chance error (Anastasi, 1997). By controlling the testing environment, instruments, time limits rapport etc. the chance error are reduced making the test scores more reliable but even under the optimum testing condition, no test is perfectly reliable (Anastasi, 1997).

A statement of reliability should be accompanied by every test. For example, when administered under the standard conditions and given to those subjects constituting the normative sample, the measure of its reliability that characterizes the test. The characteristics of this sample should be specified, together with the type of reliability that was measured (Anastasi, 1997). Different types of reliability include (Rust & Glomback, 1989) (1) Test retest reliability, (2) Parallel form reliability, (3) Split half reliability and, (4) Inter-rater reliability. We will limit our discussion to the specific reliabilities that we are interested in our research.

1.2. Test Retest reliability

Test retest reliability coefficient is the correlation between the scores obtained by the same person on two administrations of the test. It is obtained by repeating the identical test on a second occasion on the same person. The error variance is due to the random fluctuations from one test session to the other they may be due to the uncontrolled testing condition or the changes in the subject himself. It demonstrate the extent to which scores on a test can be generalized over different times; the higher the reliability the less the probability the tests results are due to random daily changes in the condition of the subject or the testing environment. The retest correlation decreases progressively as the interval increases. The interval between retesting should not be more than 6 months (Anastasi, 1997).

1.3. Split half reliability

With regard to content sampling, split half reliability provides a measure of consistency. It can provide, from a single administration of one form of a test a measure of reliability by various split half procedures. Two scores are obtained for each person by dividing the test into equivalent halves. This reliability coefficient is called coefficient of internal consistency because only single administration is required. Due to difference on nature and difficulty level of items as well as the growing effects of practice, fatigue, boredom and any other factor varying increasingly from the beginning to the end of the test, in most tests first half and second half would not be equivalent. A course of action that is adequate for most purposes is to find the scores of odd and even items of the test (Anastasi, 1997).

1.4. Internal consistency reliability

The Kuder-Richardson and coefficient Alpha (also called Cronbach's Alpha) is a prevalent method to find reliability. By only single administration of a questionnaire, it tells about the response consistency of the entire items of the scale. Anastasi (1997) reports two sources of influence on interitem consistency (1) content sampling (2) the heterogeneity of domain sampled. High homogeneity in behavior sampled will result in higher interitem consistency. Chronbach's alpha (α) is calculated from the average inter-item correlation.

1.5. Validity

The validity of a measure tells if the test measures what it claims to measure and how effectively it does so (Anastasi, 1997). Paranoia scale was developed by selecting items from MMPI. As it was intended to measure subclinical paranoia a dimensionally less severe and definitely non-psychotic phenomenon therefore many items form the paranoia subscale of MMPI were not taken. Scales' convergent and discriminant validates with relevant constructs in the original study by Fenigstein and Vanable (1992). As a number of validates have been established of the scale it was decided in the current study to use the best elements of the translation and cultural adaptation process of the scale (procedure described in detail in Chapter IV) and then know the content validity of the scale. Scale has high face validity.

1.6. Content Validity

Three main aims of validity testing are outlined by Singh (1997, p. 47)

1. Representativeness of certain specified area of content
2. Establishment of functional relationship with variables available at present or I the future
3. Measurement of a hypothetical trait or construct.

Anastasi (1997) sees content validity as a means to determine (through systematic examination) whether a representative sample of behavior domain (to be measure) is covered. Hussain (2006) reports two procedures to examine content validity i.e. (1.) the expert's judgment and (2.) statistical analysis (internal consistency). Item total correlation is estimated to know the internal consistency reliability through Pearson's correlation. A correlation value above 0.25 is acceptable (Nijhawan, 1972 cited in Hussain, 2006).

1.7. Norms

Norms represent the test performance of the standardization sample. Scores of psychological tests are mostly interpreted by reference to Norms.

Norms are established by determining what a representative group of person actually does on the test. Any individual raw score when tested on the same test is compared to the distribution of the scores obtained by the standardization sample so as to find out where the person tested stands in the distribution. It is then possible to find out whether his scores correspond with the average performance of the standardization group, below it or above it. In order to determine precisely the exact place of the individual the raw score is changed into some relative measure (Anastasi, 1997).

Pakistani clinical psychologists have been largely dependent on the psychodiagnostic or projective measures in assessment and diagnosis of psychological disorders due to the unavailability of psychometric or objective measures in the national and native language. Such adaptation will also benefit the field of Applied Clinical Psychology; as such tools can help the clinician to develop a dimensional orientation and a psychometric approach towards paranoia and statistify its prevalence and severity not in form of clinician's subjective impressions but as a concrete scientific and positivistic fact.

The objectives of this study are

To translate and adapt culturally the paranoia scale in Urdu Language

To conduct reliability studies of paranoia scale

To develop norms of the scale by applying the (Urdu translation) of Paranoia scale to standardization sample.

2. Method

In an exploratory fashion, the aim to this study was to develop a culturally equivalent and linguistically accurate translated version of the paranoia scale and assess some of its reliabilities and validates and develops its norms in Pakistani student populations of ages 19-25 years. This study did not contain any hypothesis. As a cross-sectional survey type design (that comes under the umbrella term of co relational research) the researcher did not intend to manipulate any variables nor did the researcher see the phenomena with any preconceived notions neither the researcher attempted to test any hypotheses. This study was carried out in two phases. In the first phase the test was translated, adapted (by the procedure discussed later in this chapter)

The second phase was carried out by administering the test on a larger stratified randomly sampled (N=350) student population in order to develop the norms. A part of the population (N=60) was retested after one week with the same scale. Statistics was applied on the tabulated data of the test to find test re test reliability, coefficient alpha, item total correlation, split half reliability and other statistics of the scale.

2.1. Research Design (step wise)

Phase I

Three Urdu translations of the scale were done

Three translations were back translated into English

Back-translated items were compared with the original items.

Best items were selected and corresponding Urdu items were merged that comprised the Urdu version of the Scale.

Phase II

Sampling for the Normative Study selected (N=350, m=175, f=175)

Re-administration of the Scale on a part of the sample (N=60, m=30, f=30) after one week

Finding different reliabilities (Test Retest, Alpha, Split half, Item total, z scores etc.) and descriptive statistics of the data.

2.2. Phase I

Procedure of Urdu Translation and Adaptation of Paranoia Scale

This research utilized two translation approaches together, back translation method and merging. The systematic procedure is described below: First three translations of the paranoia scale (Fenigstein & Vanable, 1992) were made in Urdu by three psychologists who have command in both languages English and Urdu and are doing their M.Phil/PhD and have post masters level research and clinical experience form Higher Education Commission recognized universities. These three translations were retranslated into English by three other psychologists who were unfamiliar with the original English scale. These three English translations were compared with the actual scale and judged by PhD psychologist, how well they correspond to the actual English items and whether they carry the idea that is meant in the original scale and are they culturally equivalent to the actual item. Best-represented translated items were then merged into one scale.

2.3. Phase II

2.4. Participants

For the normative study a sample of 350, 175 male and 175 females equally divided in each segment of age (i.e. range from 19-25 years) was randomly selected form Govt. Universities of Karachi. The entire sample was selected form universities and was of minimum education intermediate. The entire sample described its occupation as full time student. Sample belonged to different socio economic classes form middle class to upper class.

A part of the sample was retested after one week. It comprised of 60 students, mean age 20.91 years (SD=1.95), equally divided into male and female conveniently selected from the normative sample.

The socio economic status of the sample was determined by the following criteria,

Family Income in Rupees

1. Lower socio economic group over 2,500 to 20,000
2. Middle socio economic group over 20,000 to 99,000
3. Upper socio economic group over 100000

Family income was not the sole consideration in determining the socio economic status but area of residence and number of family members was also considered for the judgment regarding socio economic status.

2.5. Quantitative sample description of study's phase II

Sample description of normative study

Age range	*Male N=175*	*Female N=175*
19-00 to 19-11 (years-months)	25	25
20-00 to 20-11 (years-months)	25	25
21-00 to 21-11 (years-months)	25	25
22-00 to 22-11 (years-months)	25	25
23-00 to 23-11 (years-months)	25	25
24-00 to 24-11 (years-months)	25	25
25-00 to 25-11 (years-months)	25	25
		Total N=350

Frequencies and percentages of education categories

Education level	*N*	*Percent (%)*
BS II (also include BA, BSc & BCom)	181	51.7143
BS III (also include MA, MSc & Mcom)	169	48.2857

Frequencies and percentages of socio economic status categories

Socio economic status	*N*	*Percent (%)*
Upper class	21	6
Middle class	263	75.1429
Lower class	66	18.8571

Frequencies and percentages of marital status categories*

Marital status	N	*Percent (%)*
Married	M=9, f=3	3.4286
Unmarried	M=166, f=172	96.5714

*No subjects described themselves as widow/widower, separated or in any other term then described above.

2.6. Measures

2.7. Demographic data sheet.

That included items for getting information about participant's gender, age, date of birth, birth order, educational level, occupation, socio economic status, residential area and marital status.

2.8. Paranoia scale(Urdu version).

Paranoia Scale is a 20- item self report questionnaire. Each item is rated on a five-point scale (1 not at all applicable, 5 extremely applicable). Scores ranges from 20 to 100, with the higher scores indicating greater paranoid ideation. Fiengistin and Vanable (1992) report a high test reliability and validity.

2.9. Procedures

Consent of the participants and institutions were taken for the study. In order to establish norms of the scale in student population, the Urdu version of Paranoia scale along with demographic data sheet were administered on

350 randomly sampled students equally divided into male and female of ages 19-25 from different govt. educational institutions in Karachi. The part of the sample (that was supposed to be retested after one week) were asked for there availability after one week and were tested with the same questionnaire after this period.

2.10. 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 to know the test retest correlation, split half correlation, internal consistency reliability and content validity through item total correlation, descriptive statistics and z-scores were found and graphs were made through SPSS (1999).

2.11. Ethical Considerations

Ethical standards were strictly followed during every stage of the research process. Consent of participants and institutions were asked. Participants were informed that they can leave the test at any point in testing if they feel discomfort. They were assured that their name or identifying information will not appear in any part of research report and will be used only for the research.

3. Results

3.1. Reliability

3.2. Internal consistency reliability (Cronbach's Alpha)

Table 1

Reliability Analysis: Cronbach's Alpha for Paranoia Scale

No. of cases	*No of items*	*Coefficient Alpha*
350	20	.839

Table 1 presents the Coefficient Alpha of the Paranoia scale for 20 items (N=350). This score indicates good homogeneity of the scale.

3.3. Test Retest Reliability

3.4. Table 2

Reliability Analysis: Test Retest reliability of Paranoia Scale by Pearson product moment coefficient correlation (N=60)

	Paranoia Retest scores	*Sig.*
Paranoia Test scores	.917*	.000

* Correlation is significant at the 0.01 level.

Table 2 presents the Test Retest reliability of the Paranoia scale. Test and Retest scores were found significantly and strongly correlated.

3.5. Split half reliability

3.6. Table 3

Reliability Analysis: Split half reliability of Paranoia Scale by Pearson product moment coefficient correlation (N=350)

	Paranoia test 2nd split half scores	*Sig.*
Paranoia test 1st split half scores	.734*	.000

* Correlation is significant at the 0.01 level.

Table 3 presents the correlation between the split half's (the even and odd items forming two scores) of paranoia scale. Splits halfs scores were found significantly and strongly correlated.

3.7. Validity

Content validity-inter item correlation

3.8. Table 4

Means and Standard Deviation of items on Paranoia Scale (N=350)

Item	*Mean*	*Std. Deviation*
1	1.57	.918
2	1.51	.936
3	2.21	1.224
4	2.05	1.304
5	1.83	1.230
6	2.32	1.359
7	1.55	1.085
8	2.17	1.353
9	2.40	1.209
10	2.63	1.403
11	2.15	1.340
12	3.00	1.440
13	2.02	1.311
14	2.49	1.356
15	2.29	1.396
16	2.67	1.413
17	1.87	1.281
18	2.73	1.397
19	2.13	1.376
20	2.17	1.357

Table 4 presents the Mean values and Standard Deviation values of items on the scale. Mean values range form 1.51 to 3.00. It shows that items have fine ability to discriminate and tap varying responses and do not give extremely skewed distributions.

3.9. Table 5

3.10. Item-Total correlations of Paranoia scale (N=350)

Item No	*Item Total Pearson's r*	*Sig.*
1	.420	0.000
2	.481	0.000
3	.530	0.000
4	.558	0.000
5	.484	0.000
6	.542	0.000
7	.474	0.000
8	.422	0.000
9	.442	0.000
10	.459	0.000
11	.568	0.000
12	.312	0.000
13	.566	0.000
14	.571	0.000
15	.434	0.000
16	.408	0.000
17	.513	0.000
18	.625	0.000
19	.490	0.000
20	.539	0.000

Correlations are significant at the 0.01 level

Table 5 presents Item-Total correlations of the scale. Item-Total correlations range form 0.31 to 0.63 that is above 0.25 level (p>0.001). Mean item total correlation was found 0.4916(SD=0.07368). All the items were found significantly correlated with the total

3.11. Norms

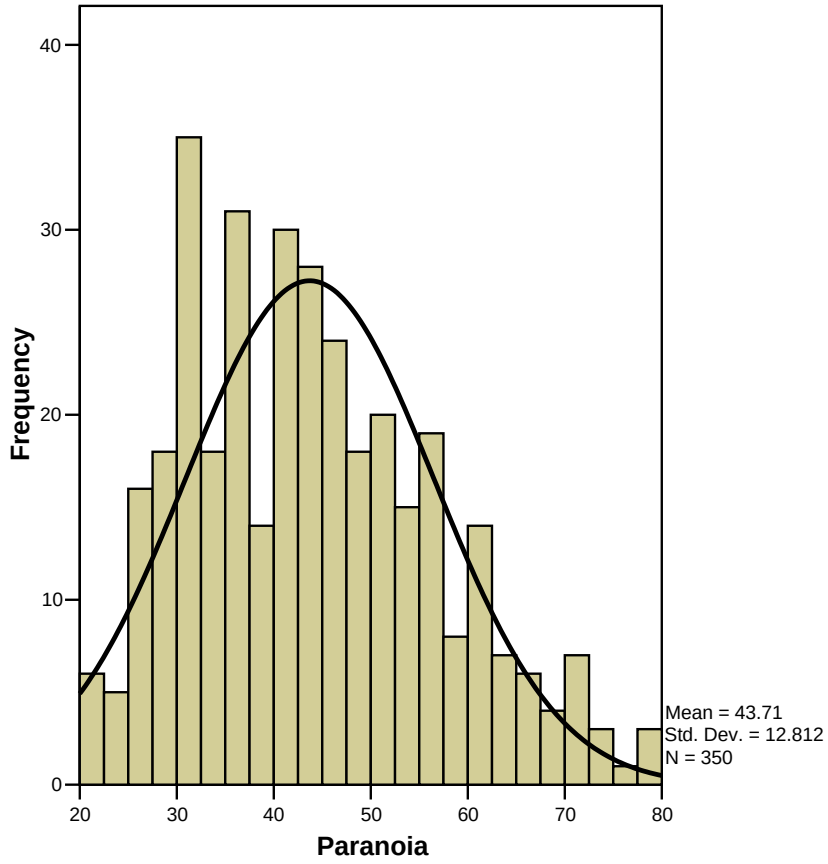
3.12. Table 7

Mean, standard deviation, Variance, Range and Standard Error for Male and Female on Paranoia Scale

Sampled population	*N*	*M*	*Range*	*S.D*	*Variance*	*S.E*
Total	350	43.71	58	12.812	164.151	0.685
Male	175	42.84	58	12.972	168.560	0.981
Female	175	44.59	58	12.626	159.542	0.954

3.13. Graph 1

Distribution of the standardization sample



4. Discussion

The aim of this research was to introduce Paranoia scale (Fenigstein & Vanable, 1992) into Urdu language adapted as a linguistic and cultural equivalent and to find its reliabilities, validates as well as the norms. Study was conducted in Karachi, Pakistan with 350 participants. A dare need of national language measure of Paranoia was sought to bring a dimensional approach to national research done on this very important constellation of thoughts/behaviors. No such independent national language scale existed. This scale added a new avenue for quantitatively oriented Pakistani researcher.

4.1. Reliability

In the current study three types of reliability were calculated (1) the internal consistency reliability, (2) Test Retest Reliability and (3) Split half reliability.

4.2. Internal consistency reliability (Cronbach's Alpha)

The coefficient alpha was found to be .839(Table 1) that is very close to the results reported by Fenigstein and Vanable (1992). It indicates that like the original instrument the Urdu version also has high homogeneity.

4.3. Test Retest reliability

Sixty participants (30 male, 30 female) were tested after 1 week. The correlation was found to be .917 (Table 2) that is very strong and indicates high temporal stability. In the original study (Fenigstein & Vanable, 1992) participants were retested after 6 months and correlation was found to be .70. It can be assumed that if the temporal difference between 2 administrations was similar, results would have been similar.

4.4. Split half reliability

The correlation between the two half of the scale (the even and odd sets) was found to be .734 (Table 3) that indicated that scale measures a single domain. In the original study Fenigstein and Vanable (1992) did not calculate this reliability. This is a new addition to existing research work on the psychometrics of Paranoia scale.

4.5. Content validity

Item-Total correlations range form 0.31 to 0.63 (Table 5) that is above 0.25 level ($p>0.001$). Mean item total correlation 0.4916(SD=0.07368) and all the items were found significantly correlated with the total. These results are indicative of high content validity.

4.6. The General Factor

High reliability alpha, high interitem correlations (r=.209) (Table 6) absence of negative correlations suggests that the tool measures a single attribute. After reporting similar findings Fenigstein and Vanable (1992, p.133) note;

> Shapiro (1965) suggests that fundamental basis of paranoia is a pervasive and exaggerated view of the world as threatening and untrustworthy. Viewed form this perspective, the criteria used for selecting items of this scale, although representing a variety of paranoid attributes(e.g., ideas of reference, suspicion or mistrust, a generally hostile outlook), may be seen as forming a coherent pattern in that they all relate to an everpresent concern for and expectation of threatening others

4.7. Norms

The distribution of the scores on the paranoia scale was skewed towards the low end. The mean total score on the measure (scores can range from 20 to 100) was found to be 43.71 (SD=12.812) (Table 7), for males (M=42.84, N=175) scoring lower then female (M=44.59, N=175). Comparing these Means statistically is beyond the scope of this study but it is relevant to note here that in the original study Fenigstein and Vanable found males mean score higher then female. This higher paranoia may be due to cultural reasons. For instance the prevalence of the perception of the females as oppressed. There was a sufficient variation in scores suggesting that the scale was suited to be used for normal student population.

4.8. Conclusion

"A pervasive and unwarranted mistrust of others," (Bernstein, Useda, & Siever, 1995, p.45) i.e. paranoia when seen as a clinical diagnosis, is thought to be a profound and psychotic condition, but the dimensionally less severe form of the thought pattern, not enough to warrant a clinical diagnosis i.e. subclinical paranoia is nothing alien to normal student population. It appeared in the current study that subclinical paranoia has differences in different sets of populations. There were gender differences in subclinical paranoia (women were found more paranoid then men) as well as age differences (how ever there appeared no particular pattern in the age difference like people of older age are more paranoid).

4.9. Implication of the study

Insight of human behavior and thought is one of the vital aims of behavior science. As a scientific endeavor this study has brought many new insights to field of psychology as it investigated the prevalence of the dimensionally less severe form of Paranoia in a sample drawn from general student population. This study added a new psychometric tool that is suitable for Pakistan. The tool was standardized on a culturally and linguistically diversified sample representing almost all of Pakistani subcultures. Future researcher can utilize this tool to investigate paranoia and its association with other aspects of personality and behavior, to conduct studies for cross cultural comparisons or any topic that is of interest to the researcher.

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