

## A Comparison of Screening Tests for Quantifying Psychological Maladjustments in Blind Subjects

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### ABSTRACT

**Background:** A very substantial lack of manpower trained in psychology, psychiatry, social sciences and related fields has been the real hurdle in expanding the mental health research beyond the mental health hospital and the psychiatric clinics. The research was undertaken with a view to compare the two screening tests for quantifying psychological maladjustments. **Objective:** To compare the two screening tests personality based hardiness index and self-reporting questionnaire for quantifying psychological maladjustments. **Material and methods:** It was a cross-sectional study carried out among blind people in blind schools in Maharashtra. All blind people enrolled in the blind schools were the study participants. Data was collected from the students using a validated personality based hardiness index and Self reporting questionnaire, another screening test. Statistical analysis was done using Fishers Exact test, X<sup>2</sup> test. **Results:** It was found that there was statistically highly significant association between the two screening test results. (personality based hardiness index and self reporting questionnaire) When fisher's exact test of significance was applied to the about data results were statistically highly significant, p=0.00000109 proving that there was high level of agreement between two. This seems to indicate that a non-hardy personality and presence of psychiatric morbidity coexist more frequently. **Conclusion:** It can be concluded that SRQ + persons may be non-hardy or vice versa as there is a significant negative correlation between hardiness and psychological distress among medical students.

**Keywords:** *Blind, Comparison, Fishers Exact test, Personality based hardiness index, Self-Reporting Questionnaire.*

Psychiatric research for decades was confined to mental hospitals and psychiatric clinics, and was characterized by lengthy interviews, case records, case studies.

In 1976 four studies were undertaken in developing countries by WHO in remote rural areas in India, Colombia, Senegal and Sudan with objective to evaluate and effectiveness of

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alternative low-cost methods for providing mental health care in developing countries S.R.Q. has been tested by Dr. Chincholikar S.V. in his indigenously conducted study.

S.R.Q. is commonly used as a tool for screening purpose. It is a self administered questionnaire. It is given to individual who is to be examined and answers are obtained as affirmative or negative. It is relatively inexpensive and requires little time.

Personality based hardiness index is the measurable personality characteristics and dynamics of those who appear immune to the development of stress related disorders comprise a variable personality based hardiness index .The notion of hardness is derived from existential theories of psychology which has you that individuals require meaning and commitment in their life in order to fulfilled and psychologically healthy. Intrinsic Indies existential theories are three factors considered to be important for the actualized for fulfilled individual viz. commitment, control and challenge. For the purpose of this study the third generation hardiness test has been used. This latest version of the hardness test consists of 50 rating scale items and can be completed in few minutes. This test has been carefully constructed both conceptually and empirically.

Therefore, the present study was carried out in 2 institutions which have been carrying out vocational rehabilitation of blind persons for a long time. The research was undertaken with a view to compare the two screening tests for quantifying psychological maladjustments.

### ***Aims and objectives:***

1. To compare the S.R.Q. screening test with the personality hardiness index for quantifying psychological maladjustments.

### **Material and methods**

The study was conducted in two institutions.

1. Technical Training Institute of Blind Men, Poona Blind Men's Association, situated in Hadapsar, and
2. The Poona School and Home for the blind girls situated near Kothrud.

The respective authorities of above institutions admit blind subjects having inability to count fingers at a distance of 6 meters as certified by Civil Surgeon of the concerned district.

Permission was obtained from respective authorities of above two institutions for conducting this study. All the blind enrolled in above two institutions at the time of the study were included. Information was given to all blind included in the study about types of questions and answers were obtained by interview techniques.

Self Reporting Questionnaire, consisted of 20 questions. Experience for scientific utilization of Self Reporting Questionnaire was obtained by working in the psychiatry department under the guidance of qualified psychiatrist. The information about attitudes of others was obtained

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from subject themselves. All S.R.Q. positive subjects were considered to be having probable psychiatric morbidity.

For the present study personality hardiness index followed by Kabasa and Modi was used. All the subjects were interviewed excluding 36 subjects below 15 years as indicated by kobasa and madi. The index consisted of 50 scale rating items .For the present study ,47 of these 50 items were selected ,for 3 were deemed by consulting psychiatrist to be ambiguous. The 47 selected item consisted of 14 positive and 33 negative statements. Each statement was read and explained to the subject to elicit answers .All subjects above the age of 14 years were considered for hardiness test as recommended by Kobasa and Maddi.

For the 14 positive statements scoring was done as follows;

For the choice (0), 0 score was given because of complete disagreement with a correct statement. For choice (1), 1 score and for choice (2), 2 scores were given for choice 3, the subject was given 3 score because of complete agreement with a correct statement.

The scoring system was exactly reverse for the 33 negative statements, so that response 0 got 3 score, response 3 got 0 Score. At the end the scores obtained by a given subject for all 47 statements were totaled. A subject scoring equal to or more than 50% of the maximum possible score i.e.  $47 \times 3 = 141$  was classified as hardy i.e. well- equipped to cope up with psychological stresses while those whose score was less than 50% were labeled as non- hardy Experience for scientific utilization of personality hardiness and S.R.Q. was obtained by working in the psychiatry department under the guidance of qualified psychiatrist.

Total blind enrolled in the two institutes were 205. Self -Reporting Questionnaire was administered to all blinds. But only 169 blinds were eligible for personality based hardiness index. (Excluding 36 subjects below 15 years as indicated by Kobasa and Madi) The same person was administered SRQ as well as personality hardiness test and the results were compared.

## **RESULTS**

### ***SRQ results and personality based hardiness index.***

**SRQ results as well as results of personality based hardiness index study are meant for quantitating two aspects of psychological profile of the subjects. While SRQ can help as a screening test for identifying persons with highest risk of psychiatric morbidity, hardiness index estimates the psychological defense mechanism of the subjects.**

S.R.Q. score was calculated among blind subjects and subjects were classified as S.R.Q. positive and S.R.Q. negative. It can be observed from the table 1, that 6.83% of study subjects were S.R.Q. positive indicating, that approximately 7% of study subjects possibly had psychiatric morbidity.

Hardiness score was calculated among blind subjects and subjects were classified as hardy and non- hardy. It can be observed from the table 2, that 8.88% of study subjects were non-

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hardy. This would mean, that 8.88% of study subjects were ill equipped to cope up with stressful conditions of life and were more prone to develop psychological maladjustments. These subjects would need intervention in the form of psychological counseling for improving their hardiness for successful psychological rehabilitation.

**Hardy and non-hardy participants were given SRQ test and the results of both the tests were compared as shown in fig 1. When fisher's exact test of significance was applied to the data, results were statistically highly significant, p=0.00000109.**

### **DISCUSSION**

**There was high level of agreement between personality hardiness index and Self Reporting Questionnaire. This seems to indicate that a non-hardy personality and presence of psychiatric morbidity coexist more frequently.** When hardiness results were co-related with SRQ results as revealed in fig 1, the results indicate that there is a significant negative correlation between hardiness and psychological distress among medical student. Similar findings are observed in other studies.

This result is consistent with those of Kenneth, M. N. (1986) There is no single study that produced the opposite results that there is positive relation between hardiness and psychological distress. The reason may be that variables, hardiness and psychological distress are opposite in nature. So these constructs produced negative results in almost every condition.

But as the two tests, SRQ and hardiness index do not seem to agree hundred percent as evidenced by total 5 cases of disagreement it would appear that both the tests will have to be carried out for screening so as to minimize the chances of missing potential psychological maladjustment.

The great discrepancy that two subjects were found to be a SRQ positive despite being Hard, need further detailed studies undertaken by psychiatric discipline.

### **CONCLUSION**

Bearing in mind that the present study is a cross-sectional study, no valid conclusion can be drawn regarding temporal relationship between the two screening tests. It can be concluded that SRQ + persons may be non hardy or vice versa as **there is a significant negative correlation between hardiness and psychological distress among medical student.** As the two tests, SRQ and hardiness index do not seem to agree hundred percent as evidenced by total 5 cases of disagreement it would appear that both the tests will have to be carried out for screening so as to minimize the chances of missing potential psychological maladjustment.

More extensive studies with longitudinal design on representative samples of handicapped persons will be required to initiate the temporal relationship between these two screening tests. It seems to mean that these are two different screening test.

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While S.R.Q. can help as a screening test for identifying persons with highest risk of psychiatric morbidity, hardiness index estimates the psychological defense mechanism of the subject.

### RECOMMENDATIONS

Both these test are different, not mutually exclusive. It can be observed from the present study that both these tests should be carried out in the planning stages of rehabilitation so that psychological profile of the person can be better elicited helping immensely in proper psychological rehabilitation.

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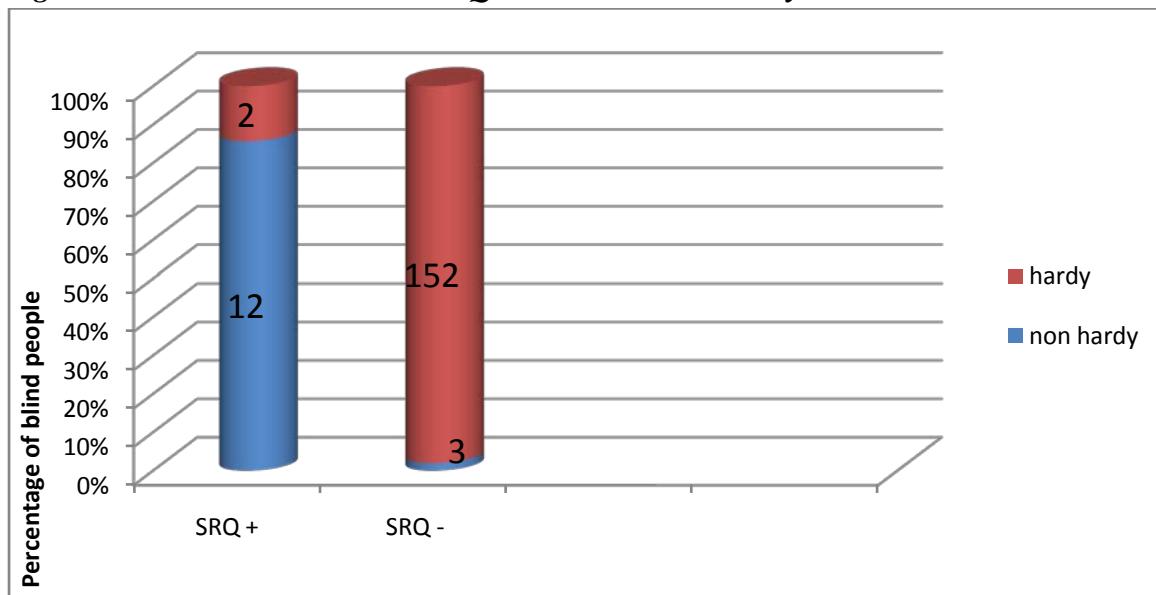
**Table – 1, S.R.Q. results in blind subjects**

<b>Results</b>	<b>Number</b>	<b>Percentage</b>
S.R.Q. + ve	14	6.83
S.R.Q. - ve	191	93.17
<b>TOTAL</b>	<b>205</b>	<b>100.00</b>

**Table – 2, Personality based hardiness status among blind subjects**

<b>Hardiness status</b>	<b>Number</b>	<b>Percentage</b>
Non- hardy	15	8.88
Hardy	154	91.12
Total	169*	100.00

**Figure 1 : Association between SRQ results and Personality based hardness index**



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