

## SHORT ARTICLE

# An insight into hardiness status of medical undergraduates

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## Article Cycle

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## Abstract

**Background:** The construct of hardiness was first introduced by Kobasa and Maddi, who defined it as a resistance resource in encounter with stressful situations. Hardiness is related to three mutually related dispositions—commitment, control, and challenge. **Aims and objectives:** To explore hardiness status in medical undergraduates and to study the relationship between hardiness and psychological distress. **Material and Methods:** A cross-sectional study was carried out among medical students of a private medical college in Maharashtra. A validated Hardiness Questionnaire of Kobasa was administered. Scores on control, commitment and challenge were calculated and then summed up to calculate total hardiness score. Psychological distress was measured by SRQ tool, as designed by Mari J. and Williams. **Results:** The study population comprised of 331 students out of which 39 medical undergraduates had hardiness score less than zero indicating that 12% of study subjects were non-hardy. Significant negative association was observed between hardiness level and psychological distress. **Conclusion:** It was observed that 12% medical undergraduates were non-hardy. From the analysis of the data, it has been found that there is a fair negative association in hardiness and psychological distress.

## Keywords

Hardiness; Medical Students; Prevalence; Psychological Distress.

## Introduction

The construct of hardiness was first introduced by Kobasa (1,2,3) who defined it as a resistance resource in the encounter with stressful situations. It is considered as a pattern of personality characteristics comprising three mutually related dispositions—commitment, control, and challenge. Commitment refers to the tendency to involve oneself in the activities in life and have a genuine interest in and curiosity about the activities, things and other people. Dimension of control is defined as a tendency to believe and act as if one can influence

the life events through one's own effort, while challenge refers to the belief that changes in life are opportunities for personal growth.

Limited evidence about the probable mental health morbidities, which exist in medical students, depend upon hardiness status. The present study was inspired from the fact that psychosocial aspects, particularly, hardiness status of medical undergraduates need due attention.

## Aims & Objectives

To explore hardiness level in medical undergraduates.

To study the association between hardiness and psychological distress

## Material & Methods

A cross-sectional study was carried out in a private medical college in Maharashtra. The participants in the study were, medical students enrolled in a private medical college. There are no studies available regarding prevalence of hardiness status in medical students in India. Therefore, all the medical students present in the class were included as study population. A total of 331 medical undergraduates participated in the study; all returned the filled questionnaire.

A validated Hardiness Questionnaire of Kobasa was administered. The original scale developed by Bartone<sup>5</sup>, (1995) The Dispositional Resilience Scale (DRS-15). Hardiness was measured using the 15-item scale developed by Bartone (1995) consisting of three dimensions including commitment, control and challenge. For this instrument participants respond on a 4-point scale indicating the level at which each of the 15 statements apply to them as follows: 0 (not at all true); 1 (a little true); 2 (quite true); & 3 (completely true). Scores were obtained by reverse coding the appropriate and summing items for each dimension. The overall hardiness score was obtained by summing all 15 items. For the present study, three negatively oriented items originally aimed at measuring challenge were excluded. Finally, a 12 question scale was used. (The Dispositional Resilience Scale, DRS-12). This scale was well validated in a study conducted by Kobasa<sup>5</sup> and Igor Kardum, Jasna Hudek-Knežević, Nada Krapić. (6) Scores on control, commitment and challenge were calculated and then summed up to calculate total hardiness score. Hardiness score are classified as follows. Less than 0 are non-hardy while score 0-9 are moderately hardy and above nine are considered hardy. For convenience, they were categorized in to hardy (score equal to or more than zero) and non-hardy. (score less than zero) Mental morbidity was measured by using SRQ test.

Self-reporting questionnaire (SRQ-20) is designed as an instrument to screen for mental health disorder and found to be a reliable tool for use in different countries and cultures. In a study conducted in Pune, India, this tool was validated and found that a score of 10 or more was the most sensitive and specific cut point to consider as mental morbidity. (7) Cutoff point of 10 was taken to consider mental morbidity.

Experience for scientific utilization of SRQ was obtained under a qualified psychiatrist.

Information on socio demographic and other variables was collected separately. Written consent was taken from the students and they were asked to fill the questionnaires with an open mind. Reasons for the study were explained.

Socioeconomic status was assessed by using modified Prasad classification. (8) The study design was approved by the ethics and research committee of the institute. Analysis was done by using appropriate statistical test.

## Results

A total of 331 medical undergraduates participated in the study; all returned the filled questionnaire. The study population comprised 41 % females and 59% males. The study population comprised of first-year MBBS students -75; second year MBBS students -111; third-year MBBS students -145. It is mentioned that in some tables total is not 331 indicating some students have not responded to that part of question. Hardiness score was calculated among blind subjects and subjects were classified as hardy and non-hardy. It can be observed from the [figure 1](#), that 12% of study participants were non-hardy.

[Figure 2](#) reveals relation between hardiness and psychological distress. 31 non-hardy are SRQ negative. When chi-square test of significance was applied to the data as shown in [Figure 2](#), results were statistically highly significant meaning that there is a significant negative association between hardiness and psychological distress among medical students.  $\chi^2 = 4.618$  d.f. =1,  $p > 0.05$ .

## Discussion

The study examined the hardiness score among medical students. As mentioned in table 1, there were 12% medical students having hardiness score less than zero. This would mean, that 12% of participants were unable to cope up with stressful conditions of life and were more prone to develop psychological maladjustments. These participants would need intervention in the form of psychological counseling for improving their hardiness for successful psychological rehabilitation.

There is a significant negative association between hardiness and psychological distress among college students as revealed in [figure 2](#). Similar findings are observed in other studies. (9,10). 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 used in the study, hardiness and psychological distress are opposite in nature. So, these constraints produced negative results in almost every condition. However, from the [figure 2](#), it is also observed that 8 SRQ positive people are hardy and 31 SRQ negative people are less hardy creating a dilemma whether the two tests supplement or oppose each other.

### Conclusion

It was observed that 12% medical undergraduates were non-hardy. From the analysis of the data, it has been found that there is a fair negative association in hardiness and psychological distress. As it has been already mentioned in discussion, that the reasons may be, because these two variables are opposite in nature. It can be concluded that the medical undergraduates who have higher levels of hardiness are inclined to report lower levels of psychological distress and vice versa. It was also observed that other parameters are not associated with hardiness like gender, sports activity, year of MBBS study of the subject details of which are not mentioned in the study.

### Recommendation

Findings suggest that there is a need of hardiness training program in a medical institute which will be effective in increasing hardiness, decreasing perceived stress levels in the students and may have positive impact on them. Counseling services, as an integral part of routine clinical services, may be provided to the medical undergraduates. Early detection of low hardiness may shorten the sufferings. This study could be used as marker for future studies.

### Limitation of the study

Sample was not representative as the study was conducted in a private medical school. Therefore, the study results cannot be generalized. Entire study is

based on verbal response of the students. Longitudinal studies on a representative sample, involving more medical schools are needed to substantiate the findings.

### Relevance of the study

Hardiness of medical students is a neglected domain it needs due attention to create worthy IMG.

### Authors Contribution

CSV: Idea, data collection, paper writing; KS: data analysis.

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### Figures

FIGURE 1 HARDINESS AMONG STUDENTS

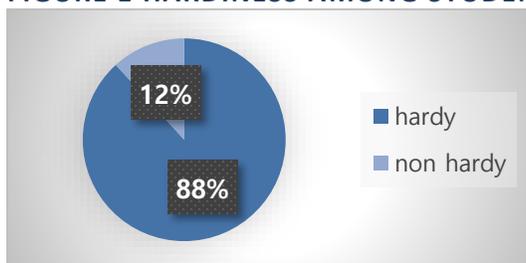


FIGURE 2 HARDINESS AND SRQ STATUS

