Medical Education

Quality of life among interns at a southern Indian tertiary care hospital:
A cohort study

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ABSTRACT

Background. Changes in the quality of life of medical students through their internship period have not been studied previously in India. We aimed to quantify the change from the beginning to just after 6 months of internship and identify potential contributing factors.

Methods. We prospectively evaluated the quality of life issues among 93 medical students doing a rotating internship at the Christian Medical College and Hospital, Vellore, a tertiary care hospital in southern India. The quality of life was assessed before and halfway during their internship using a sociodemographic profile and the WHO Quality of Life Assessment Instrument Brief Version (WHO-QOL BREF).

Results. The WHO-QOL BREF score decreased during the course of internship in all four domains of the instrument (p < 0.001). A significant decline in score of 5 points or more was present among women, those who reported poor sleep and individuals who had an obligation of compulsory rural service after internship.

Conclusion. While internship led to a decline in all domains of quality of life, the decline was most marked among women, individuals with poor sleep and those who had an obligation of compulsory rural service after internship.

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INTRODUCTION

Quality of life is defined as an individual’s perceptions of her/his position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.1

Studies from Korea have documented a decline in the quality of life among doctors during internship,2 but there is little data from India. Differences in the structure and pattern of the medical course, differences in the pattern of internship and the additional stress of choosing a specialty, family life and obligation of compulsory rural service render the internship in India a unique experience. Internship in India refers to the year after the undergraduate medical course and includes compulsory rotations in the departments of medicine, surgery, obstetrics and gynaecology, and community medicine. After the year of internship, young doctors are considered qualified to practise medicine independently and to pursue residency training in their fields of interest. There is a need to document the change in quality of life and analyse potential contributing factors to those changes to help administrators and trainees to develop systems to adapt and cope with the situation.

METHODS

This prospective study used a cohort of all doctors doing their compulsory 1-year rotating internship at the Christian Medical College, Vellore from October 2010 to September 2011.

Of the 104 students recruited, 7 dropped out of the internship programme and 4 took prolonged leave. Hence, the data for 93 interns were available.

The data were collected by means of a sociodemographic questionnaire and the World Health Organization Quality of Life Assessment Instrument Brief Version (WHO-QOL BREF).

The WHO-QOL BREF is a well-validated questionnaire developed as a cross-culturally comparable tool to assess an individual’s perceptions in the context of their culture and value systems, their personal goals, standards and concerns.1 Twenty-six questions are used to measure the quality of life in four domains—physical, psychological, social and environmental. Each item is scored on a five-point Likert scale.3

We explained the nature of the study to the interns during their orientation programme and obtained written informed consent. Baseline data including age, sex, marital status, presence of monetary support were collected. Past and family history of psychiatric morbidity, happiness in early childhood, self-reported neurotic traits and obligation of rural service were documented. Interns were required to fill out the WHO-QOL BREF and label questionnaires with a code.

A four-character coding system was devised to ensure anonymity of respondents while enabling comparison between initial and later responses. Each individual’s code was composed of the first two alphabets of their grandmother’s name and the first two numbers of their father’s date of birth. Six months later, each intern was contacted and requested to fill out the sociodemographic profile and the WHO-QOL BREF.

The primary outcomes assessed were percentage changes in the total WHO-QOL BREF score and the score in each individual domain for an individual before and after 6 months of internship. Using independent t test, risk factors for poor quality of life were correlated with this percentage difference. The data were entered into Statistical Package for the Social Sciences (SPSS) Version 9 using the double data entry technique. Frequencies, means and standard deviations were used to describe the sample characteristics. The chi-square test was used to compare the change in categorical variables and the paired t test was used for changes in continuous variables.

The study was approved by the institutional review board.
RESULTS

Baseline characteristics (Table I)
The mean age of 93 interns was 22.9 years. The numbers of men and women interns were almost equal and 50 (53.8%) were graduates of the Christian Medical College, Vellore. All graduates of Christian Medical College were required to fulfill a compulsory obligation of 2-year service in a rural Christian Mission Hospital after graduation. Nearly half (45%) of the interns reported themselves as sensitive, anxious or neurotic; 7 (7.6%) individuals reported a prior psychiatric illness, all but one suffered from depression; 18% reported a family history of psychiatric ailment; and 87 (93.5%) stated that they had happy childhoods.

Change in WHO-QOL BREF (Table II)
The difference between the means of four domains—physical, psychological, social and environmental—before and just after 6 months of internship was positive. This indicated a decline in the quality of life.

Factors contributing to decline in quality of life during internship
The greatest decline in quality of life before and just after 6 months of internship was seen among women. Graduates of the Christian Medical College—all of whom had an obligation of rural service—also reported a worse quality of life. Reported poor sleep also correlated with a steeper decline in the quality of life scores.

DISCUSSION
There was a significant decrease in the mean scores of all four domains of the WHO-QOL BREF (p<0.001) in the 6 months of internship. Among the factors studied, being a woman was a risk factor for a decline in the quality of life. Research from western countries suggests that career and family conflict, sexual harassment at work and patient prejudice might be contributory factors.

A factor associated with a greater decline in quality of life was completion of an obligation of compulsory service in rural areas. One could speculate that the implication of having to serve for 2 years in a medically underserved area becomes more real as the time approaches.

Nearly half (45%) the interns self-reported neurotic traits. This is higher than the prevalence of neuroticism reported in previous studies. Interns were asked to identify themselves as sensitive, anxious or neurotic. The word ‘sensitive’ may have positive connotations and self-reporting of this aspect may not have captured the target of ‘neuroticism’. Self-reported neurotic traits did not contribute to a decline in quality of life. This is at variance with previous research.

A history of depression was present at the initial evaluation in 6.5% of respondents. Though higher than that in the general population, this figure seemed consistent with data from interns elsewhere.

Other factors that had been previously found to contribute to negative mood states—past and family history of psychiatric illness and having had an unhappy childhood—were not associated with a decline in quality of life. Under-reporting of past or family history of neuropsychiatric illness and of childhood adversities might have contributed to the non-significant results.

Our study is the first of its kind from India tracking young physicians as they begin their internship and shows a marked drop in their quality of life. Interpersonal variations in experiences among the interns and their frame of mind at the time of data collection might have influenced the assessment. It was emphasized...
to the respondents that they describe their experience during the past 4 weeks. A follow-up study at the end of the internship period might have helped eliminate potential bias. The most distressed interns may have left the programme leading to an under-representation of the problem. While this study describes the experience of interns at a single centre in southern India, we believe that owing to a common structure of the internship programme—with the increased thrust upon the compulsory obligation of rural service, lengthening of the MBBS course and perceived financial strain—it is unlikely that the experiences of interns at Vellore are unique. This area merits further multicentric exploratory studies to validate our findings.

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REFERENCES