

Correspondence

Are the disability data in India appropriate?

Disability is an important public health problem in India. However, most authorities are inclined to believe that disability in the community is a minor problem and does not need any intervention. In reality, it is a social problem, with the disabled becoming a liability to society. The WHO estimates that 10% of the world's population has some form of disability.¹ In contrast, the National Sample Survey Organization (NSSO) report² and Census data of 2001³ stated that its prevalence was as low as 2% in India. As per the population data provided by the United Nations Population Fund (UNFPA), Geneva in 1995, the prevalence of disability in India was 4.6%.⁴ Studies done in other countries showed a higher prevalence in general (>10%).⁵ The recent report of the NSSO contains, for the first time, information on mentally disabled persons besides information on persons with physical disabilities.

The NSSO data probably do not reflect the full extent of the prevalence of disability in India. The major reason for this is likely to be that the data are collected by health workers who would not have detected mild or moderate degrees of disability as they have limited knowledge and lack training in the assessment of disability, even though there is a system in the government to assess the degree of disability while providing disablement benefits. Also, the NSSO and Census are dependent on the conceptual framework adopted to assess the disability, the scope and coverage of the surveys undertaken, and the definitions, classifications and methodology used for the collection of data on disability.

Disability is the best example of the iceberg phenomenon of disease. Very few community-based studies have been done in India to assess the prevalence of various types of disability.^{6,7} It is important to identify the mild and moderate degrees of physical (visual, hearing, speech, locomotor) and mental disability because they go unnoticed by the healthcare delivery system. Besides, they are amenable to preventive and rehabilitative measures so that progression to severe disability can be slowed. Maximizing the physical and mental abilities of the disabled may allow them to achieve full social integration within their communities. In this context, there is a need to develop simple cost-effective screening techniques to identify people with mild and moderate disability. This requires political will, public sector cooperation and assistance, and financial support from non-governmental and international organizations.

S. Ganesh Kumar
Department of Community Medicine
Kasturba Medical College
Mangalore
Karnataka
sssgan@yahoo.com

Acharya Das
Department of Community Medicine
K.S. Hegde Medical College
Mangalore
Karnataka

REFERENCES

- 1 The World Health Organization. *Training in the community for people with disabilities*. Geneva:WHO; 1989.
- 2 National Sample Survey Organization. *A report on disabled persons*. New Delhi:Department of Statistics, Government of India; 2003.
- 3 Census of India 2001. Data on disability. Office of the Registrar General and Census Commissioner, India (serial online). 9 Aug 2004. Available at www.censusindia.net/disability/disability_mapgallery.html (accessed on 30 May 2009).

- 4 Sharma AK, Praveen V. Community based rehabilitation in primary health care system. *Indian J Community Med* 2002;**117**:139–42.
- 5 Barbotte E, Guillemin F, Chau N and Lorhandicap Group. Prevalence of impairments, disabilities, handicaps and quality of life in the general population: A review of recent literature. *Bull World Health Organ* 2001;**79**:1047–55.
- 6 Ganesh Kumar S, Das A, Bhandary PV, Shashi JS, Harsha Kumar HN, Kotian MS. Prevalence and pattern of mental disability using Indian disability evaluation assessment scale in a rural community of Karnataka. *Indian J Psychiatry* 2008;**50**:21–3.
- 7 Ganesh KS, Das A, Shashi JS. Epidemiology of disability in a rural community of Karnataka. *Indian J Public Health* 2008;**52**:125–9.

Delay in surgical correction of congenital anomalies in children: Data from a government centre in north-eastern India

Most congenital malformations require surgical correction at an appropriate time so as to reduce the likelihood of complications and have good long term results. Delayed correction increases the risk of complications or mortality among children with these malformations.¹ There are little population-based data in India on congenital malformations, but hospital records can provide information about the type of malformation and the age of the patients at the time of surgical correction.

We reviewed the records of all patients with congenital malformations admitted to the Department of Paediatric Surgery, Assam Medical College, Dibrugarh from January 1996 to December 2005 to ascertain the proportion of children with surgically correctable congenital malformations presenting to us beyond the most appropriate time for the surgical procedure. For each malformation, the best time for surgical correction in our hospital setting was taken as the reference and the number of cases operated beyond this reference was calculated.

A total of 2266 children with congenital malformations were admitted between January 1996 and December 2005. The maximum delay was in cases of ectopic testis (2/2), congenital hydrocephalous (51/53), undescended testis (99/100), cleft palate (43/46) and fronto-ethmoidal neural tube defects (13/14), while the minimum delay was in cases of cleft lip and palate (34/85, 40%), lumbo-sacral meningocele (17/43, 39.5%), omphalocele major (9/28, 32.1%), imperforate anus (34/120, 28.3%), and bilateral cleft lip and palate (6/28, 21.4%).

Most of our patients with major clinical problems presented early. These included cases of imperforate anus, small bowel obstruction (25/33) and hypertrophic pyloric stenosis (37/46).

Early repair of a cleft lip and palate is necessary to avoid facial disfigurement and psychosocial problems, and to prevent feeding, speech and hearing problems. Only 61 of 109 patients (55.9%) of cleft lip and almost all patients of cleft palate presented after the optimum time. Other studies have also shown that due to lack of aesthetic concerns, the presentation of patients with cleft palate is delayed more than that of those with cleft lip.²

Posterior urethral valves are often complicated by prostatic hypertrophy, urethral stenosis, prostatitis, urethritis and sphincter bladder dysenergy or renal failure.³ This is due to a delay in presentation. In our study, all the patients (37) presented beyond the perinatal period, endangering the quality of life of the child.

Early reduction of intracranial pressure is important for proper rehabilitation of patients with congenital hydrocephalous. About 60% of our patients presented beyond 6 months of infancy and 15% presented after pre-school age.

Even congenital malformations presenting with overt clinical symptoms, such as congenital megacolon (61/141) and ectopic anus (58/126), presented late, probably due to misdiagnosis by physicians.⁴ Lack of awareness and absence of access to healthcare facilities could be contributing to the delay in presentation. The consequent delay in surgical treatment can lead to complications and a poorer outcome.^{1,5} There is an urgent need to increase awareness among parents and physicians so that these conditions can be diagnosed and treated early.

ACKNOWLEDGEMENTS

We are grateful to Dipshikha Thengal, Pritanu Baruah and Rajat Dutta Roy for their help in the collection of data.

Jenita Baruah
Department of Community Medicine

Hemonta Kumar Dutta
Department of Paediatric Surgery

Tulika Goswami Mahanta
Department of Community Medicine

Giriraj Kusre
Department of Anatomy
Assam Medical College
Dibrugarh
Assam
drgiri_91@sify.com

REFERENCES

- Nazem M, Baghaei A, Sabet B, Davari HA. Timely versus delayed operation in infants with correctable congenital anomalies: A survey in Isfahan, 2000–2001. *J Res Med Sci* 2006;**11**:53–6.
- Damiano PC, Tyler MC, Romitti PA, Momany ET, Canady JW, Karnell MP, *et al.* Type of oral cleft and mothers' perceptions of care, health status, and outcomes for preadolescent children. *Bull World Health Organ* 2002;**80**:829–35.
- Jesus CM, Trindade Filho JC, Goldberg J. Late presentation of posterior urethral valve: Two case reports. *Sao Paulo Med J* 2008;**126**:126–7.
- Kim HL, Gow KW, Penner JG, Blair GK, Murphy JJ, Webber EM. Presentation of low anorectal malformations beyond the neonatal period. *Pediatrics* 2000;**105**:E68.
- Bickler SW, Rode H. Surgical services for children in developing countries. *Bull World Health Organ* 2002;**80**:829–35.

Knowledge, attitude and practice related to medically unexplained symptoms among physicians

Patients with unexplained medical symptoms commonly present to medical settings.¹ The management of such presentations is usually not taught during the training of physicians. The lack of skill in managing patients with unexplained symptoms often results in a lack of confidence among physicians and is frequently manifested as irritation on the part of the doctor at the absence of physical findings and abnormal laboratory parameters. It also often leads the doctor to underplay the significance of such symptoms and their impact on the patient's life. The other consequences are dissatisfaction on the part of the patient, doctor shopping, unnecessary investigations and increased cost.

We conducted a study to assess the knowledge, attitude and practice related to medically unexplained symptoms among physicians

at the Christian Medical College, Vellore, India. A questionnaire was distributed to 60 of 86 physicians (69.8%) working in the departments of general, family and community medicine and psychiatry. Fifty-seven (95%) of the physicians returned the questionnaire.

The assessment of knowledge was tested using information² about such presentations and attitude was measured by a scale adapted from Reid *et al.*³ Information was sought on the average time spent on diagnosis, treatment, listening and counselling. The physicians' sociodemographic details, clinical experience and qualifications were also noted.

The majority of the respondents were male ($n=41$; 73.7%) and physicians in training ($n=31$; 54.4%). The mean (SD) age was 31.98 (8.77) years, and the amount of clinical experience 7.95 (8.16) years. The numbers of physicians working in community health, family medicine, general medicine and psychiatry were 24 (42.1%), 7 (12.3%), 9 (15.8%) and 17 (29.8%), respectively. The following factors were associated with the total time spent with patients with unexplained symptoms after adjusting for age, gender and consultant status, using multiple linear regression: increased knowledge ($\beta=0.39$; $t=3.17$; $p=0.003$), positive attitude ($\beta=0.30$; $t=2.27$; $p=0.028$) and psychiatric background ($\beta=0.68$; $t=6.57$; $p=0.000$). Age, gender, consultant status and years of experience were not significantly associated with the time spent with such patients.

The results of the study suggest that physicians who spend more time with patients who present with medically unexplained symptoms have greater knowledge of such presentations and a positive attitude, probably reflective of greater skill and confidence in managing such problems. Also, psychiatrists often see such patients, who are frequently referred for specialist input, and spend more time managing problems of this kind.

It is necessary that in the undergraduate and postgraduate training of physicians, greater emphasis be laid on the management of patients with medically unexplained symptoms. The training should be based in general hospital settings, should use physician perspectives and be free of psychiatric jargon.⁴ There is a need to focus on the acquisition of the skill and confidence required for managing such presentations rather than on the transfer of knowledge. Physicians who can effectively manage patients with medically unexplained symptoms are able to help a fair number of patients attending medical facilities. Specific reassurance that there is no serious medical illness, explanations of the cause and nature of the symptoms, and advice on coping with such problems will go a long way in reducing doctor shopping, unnecessary laboratory investigations and consequent costs.

Vijayaprasad G.
A. J. Mathew
Shreelatha Radhakrishnan
Nishant Arulappan
Jane Allen Christa
Department of Community Health

K. S. Jacob
Department of Psychiatry
Christian Medical College
Vellore
Tamil Nadu

REFERENCES

- Nimnuan C, Hotopf M, Wessely S. Medically unexplained symptoms: An epidemiological study in seven specialities. *J Psychosom Res* 2001;**51**:361–7.
- Mayou R. Somatoform disorder and medically unexplained symptoms. In: Gelder MG, Lopez-Ibor JJ, Andreasen N (eds). *New Oxford textbook of psychiatry*. Oxford: Oxford University Press; 2001:1073–6.
- Reid S, Whooley D, Crayford T, Hotopf M. Medically unexplained symptoms—GPs' attitudes towards their cause and management. *Fam Pract* 2001;**18**:519–23.
- Jacob KS. A simple protocol to manage unexplained somatic symptoms in medical practice. *Natl Med J India* 2004;**17**:326–8.

Biophysics in undergraduate medical education

Biophysics has no defined boundaries and its applications have been far-reaching with clinical proteomics in basic research to nuclear medicine in patient care. Currently, much of the research in biophysics is undertaken by scientists who are either physicists, chemists or biologists by training. Given this unique nature and wide array of applications in medicine it is important to integrate this subject for a holistic formulation of the medical curriculum¹ as well as to train medical biophysicists.

Many preclinical subjects deal with phenomenon within the human body which are fairly constant. In contrast, biophysics deals with physical principles governing the functions of body molecules and organelles as well as the instrumentation required to study the same. Rapid advances in technology during the past couple of decades have made biophysics more dynamic and have revolutionized the subject. This interface of medicine and engineering holds the key to unravelling some of the physiological and pathological phenomenon which will lead to new therapeutics and diagnostics.

A detailed curriculum of biophysics would help in laying the platform for understanding other medical subjects such as biochemistry, physiology, pharmacology, anaesthesia, radiology, radiotherapy and nuclear medicine. It would also help the student to comprehend subjects such as structural biology, nanotechnology, clinical proteomics and drug designing, which are at the forefront of biophysical research in medicine. The prospects of patient care and medical research benefiting by the study of biophysics should not be overlooked. Interestingly, Dr G. R. Ramachandran, a mathematician and physicist sought ways to understand the structural features of collagen to unravel the pathogenesis of certain diseases.² As an acronym, BIOPHYSICS stands for 'Biological Integration Of Physics in Health Yielding to Significant Increase in Comprehension of medical Sciences'.

G. Hariprasad
Department of Biophysics
All India Institute of Medical Sciences
New Delhi

REFERENCES

- 1 Hariprasad G. Holistic presentation of the undergraduate medical curriculum. *Med Edu* 2008;**42**:849.
- 2 Ramachandran GN. Stereochemistry of collagen. *Int J Pept Protein Res* 1988;**31**: 1-16.

Stages of concern of medical teachers attending a faculty development workshop

Faculty development (FD) initiatives in medical education in India often fail to make their intended impact because the faculty resists these changes. Change is a threatening proposition and pre-existing attitudes, beliefs and concerns impede the implementation of FD programmes. Any attempt to introduce innovations requires an

understanding of what happens to individuals experiencing change.

The Concern-Based Adoption Model (CBAM)¹ applies to anyone who is experiencing change. The 7 sequential Stages of Concern (SoC) which people go through before they adopt an innovation are awareness, informational, personal, management, consequence, collaboration and refocusing.² The first 3 stages deal with self concerns, the middle management stage deals with the concerns of the task involved and the last 3 stages deal with the impact of the change. An individual can go through several SoC simultaneously, but with different degrees of intensity.

We used the SoC questionnaire² to identify concerns of medical teachers. The 35-item written questionnaire was administered to 50 teachers of different specialties from different medical colleges of India who attended a medical education workshop. The results of these responses were analysed, shared and discussed with the group in an endeavour to address their concerns. We identified the peaks (intense concerns) and valleys (little or no concerns) from the responses.

The relative intensities of concern (in percentile) were 86 (awareness), 91 (informational), 85 (personal), 85 (management), 47 (consequence), 59 (collaboration) and 57 (refocusing). The faculty demonstrated intense concerns at stages 0, 1, 2 and 5. However, the concerns were least intense at stages 3, 4 and 6.

These 'peaks' showed that faculty members were anxious about their personal positions in relation to the change which FD activities would bring about. The 'valleys' showed that they were less concerned about managerial issues. They were not resistant to change. They were concerned about their lack of knowledge and skill in the context of the proposed change and about working in a team. The implication of introducing newer ideas weighed heavily on their minds. This suggests that FD initiatives are likely to be accepted by them. The impact on students was furthest from their minds, indicating that they had still not considered long term implications of these activities. Taken together, these findings suggest that the endeavour of administrative bodies should be to provide more opportunities to faculty to undergo FD training. It also suggests that while imparting training, the importance of FD in changing the teaching and learning practices should be subtly emphasized.

Knowledge of the level of concerns of faculty has provided us with useful insights for designing FD programmes. Assessing concerns at the planning stage while designing FD programmes allows us to address them early and gives us an insight into their implementation. There is a need to assess SoC of other faculty members too, who might not be as motivated as the respondents of this study.

Anshu
Rashmi Vyas
Tejinder Singh
Christian Medical College
Ludhiana
Punjab
cmcl.faimer@gmail.com

REFERENCES

- 1 Hall G, Hord S. *Change in schools: Facilitating the process*. Albany, New York: State University of New York Press; 1987.
- 2 Hall G, George A, Rutherford W. *Measuring stages of concern about the innovation: A manual for use of SoC questionnaire*. Austin, Texas: University of Texas Southwest Educational Development Laboratory; 1986.