

TRAINING OF FINAL YEAR MBBS STUDENTS IN NEONATAL RESUSCITATION

B.D. Bhatia
B. Vishnu Bhat
A.K. Dey
P.V. Mohan

ABSTRACT

Sixty final year MBBS students were trained in the art of neonatal resuscitation based on the 'NALS' course material. The students scored 11.6 ± 3.02 in the pretest and 17.85 ± 4.42 (out of 20) in the post-test. The trainees felt that the programme was extremely useful. Majority of them said that the course content was optimum with appropriate use of teaching-learning media. It is recommended that this training may be imparted to all the undergraduate students at the entry of final year MBBS course before their labor room posting so that they can have effective reinforcement of the training.

Key words: Neonate, Resuscitation, Undergraduate training.

From the Department of Pediatrics, JIPMER, Pondicherry 605 006.

Reprint requests: Dr. B.D. Bhatia, Professor and Head, Department of Pediatrics, JIPMER, Pondicherry 605 006.

Received for publication: August 3, 1992;

Accepted: August 14, 1992

There is an increasing stress on the health of children while formulating the social and health policy of any country. The ultimate physical, socioeconomical and intellectual status of any society depends to a large extent on the quality of care given to children during the early days of life. In India, 50% of the infant mortality occurs during the neonatal period(1). Moreover, the small family norm can be achieved only if we are able to ensure the survival of babies without any defects. The first moments of an infant's life is critical when he makes an abrupt transition from the intrauterine to the extrauterine life. The major problem during this period could be birth asphyxia(2). Since majority of the deliveries in developing countries take place at home and rural areas, it is essential that the basic doctor is well trained in the art of neonatal resuscitation. The training programme for the undergraduate in Neonatology is highly fragmentary and ineffective with lack of coordination among the Obstetricians and Pediatricians(3,4). The method of teaching is dominated by lectures and some clinical demonstrations with little emphasis on the development of competencies and skills required by the basic doctor(5,6). As part of the undergraduate training in Neonatology, we decided to impart the training to the final year MBBS students based on the 'Neonatal Advanced Life Support' (NALS) course and find out its effectiveness on the overall improvement in the competency and skill of the basic doctor in neonatal resuscitation.

Material and Methods

Sixty undergraduate students who entered the final year MBBS in January 1992 were enrolled for the training programme.

Since the students were not familiar with the neonatal resuscitation the various chapters of the book were covered in 4 theory lectures of one hour each. The students later called for the practical demonstration. They were given the pretest and then divided into four groups of 15 students each. Each group of students were given the practical demonstration and hand on experience on the 'Mannequin'. Each session lasted for 4 hours each. The students underwent the post-test and practical evaluation following the training programme. The programme was also evaluated by the participants based on a questionnaire.

Results

All the sixty students participated in the training programme. The marks obtained by them in the pretest and post-test are given in the *Table*. Fifty five students scored more than 16 (out of 20) in the post-test. The remaining five students who scored between 11 and 15 were called back for individual care. The feed back obtained after the programme showed that majority of them felt that his course should be given before their labor room posting. All of

them felt that the course content was optimum with appropriate use of media and helped them a great deal. They felt that the expertise obtained by them could be used during their labor room posting and in day-to-day life as a basic doctor. The three important messages learnt by majority of the students were importance, principle and technique of neonatal resuscitation. They also suggested that live demonstration be given during their labor room posting and internship.

Discussion

It is essential that the basic doctor is well trained in the art of neonatal resuscitation in order to reduce the morbidity and mortality from birth asphyxia(7). The type of training and its timing is important in order to achieve the optimum results(6).

We have followed the 'NALS' course material such that the course content and duration are standardized. Moreover, the same material is used by the National Neonatology Forum for training health personnel all over the country(2). The training was given at the beginning of the final MBBS course before the posting in the labor room so that the students can practice what they had learnt. This will enable them to have reinforcement. This point was appreciated by the students also in the course evaluation. The programme involved initially theory lectures in order to equip the students with the required knowledge. The practical demonstration and hand on experience on the 'Mannequin' helped the students to develop the objectives in the psychomotor and affective domain(8).

The marks obtained by the students in the pre-test and post-test show the effectiveness of the training. Almost all the objectives were realized(9). The five students

TABLE—Distribution of Students in Each Range of Pretest and Post-test Marks.

Range of marks (Max. 20)	Distribution of students	
	Pre-test	Post-test
0-5	1	0
6-10	15	0
11-15	40	5
16-20	4	55
Mean \pm SD (range)	11.60 \pm 3.02 (3-17)	17.85 \pm 4.42 (16-20)

with lesser performance were given re-orientation. This training will be reinforced once again during the internship.

The feed-back received from the students is encouraging since most of them felt that the course was useful and appropriate. The success of the present programme has stimulated us to continue this programme for the subsequent batches also. We recommended that similar programme may be conducted in other institutes also for the final MBBS students at the entry before their labor room posting in order to achieve the optimum results.

REFERENCES

1. Health service information. General Bureau of Health Intelligence. DGHS, Ministry of Health and Family Welfare, Government of India, 1987.
2. Bloom RS, Cropley C, Charles R. Text Book of Neonatal Resuscitation. American Heart Association and American Academy of Pediatrics, 1987.
3. Narayanan I, Bhakoo ON. Neonatology in the undergraduate medical education. *Indian Pediatr* 1987, 24: 81-85.
4. Desai AB. Teaching of integrated maternal and child health and family welfare. *Indian Pediatr* 1981, 28: 435-441.
5. Bhat BV, Adkoli BV. Development of tasks and objectives for undergraduate training in Neonatology. *Indian J Med Edn* 1989, 28: 47-53.
6. Bhat BV, Adkoli BV. Training of undergraduates in Neonatology Teaching-learning activities. *Indian J Med Edn* 1989, 28: 44-46.
7. Chitra, K, Bhatia BD, Bhat BV, Oumachigui A. Perinatal mortality: A hospital based study. (Under publication).
8. Guilbert JJ. Education Handbook for Health Personnel, Geneva WHO Offset Publication 1981, No. 35.
9. Adkoli BV, Bhat BV. Development of a criterion referenced test in Pediatrics. *Indian J Med Edn* 1986, 25: 72-82.

NOTES AND NEWS

TUBERCULOSIS IN CHILDREN

Guest Editor: Dr. Vimlesh Seth

Publication of Indian Pediatrics

Tuberculosis remains a major health problem in the less developed nations. In contrast to adults, tuberculosis in children presents unique problems which may pose diagnostic and therapeutic challenges. Further, the past two decades have witnessed rapid advances in the diagnosis and management of this disease.

Unfortunately, the traditional Western Text Books on Pediatrics do not provide comprehensive information on this subject, particularly in the context of the developing world. Realizing the paucity of a consolidated monograph in our country, the 'Indian Pediatrics' has brought out this 'State of the Art' book on 'Tuberculosis in Children'. The volume is spread over 275 pages and has 13 chapters contributed by reputed International and National experts in the field. It covers all the important aspects including Epidemiology, Pharmacotherapy, Neurotuberculosis, BCG, Imaging, Tuberculins, etc.

The book can be procured at a price of Rs. 125/- (including postage). The entire benefits from the sale of this book will go to the "Indian Pediatrics". Demand drafts only, should be drawn in favour of Indian Pediatrics and mailed to the Editor, Department of Pediatrics, Maulana Azad Medical College, New Delhi 110 002.