



ABSTRACT

The basic principles of essential and effective newborn care at the time of birth and thereafter include prevention of infections, prevention and optimal management of hypothermia, resuscitation of newborn with asphyxia, promotion of breastfeeding, care of the low birth weight babies and identification and appropriate referral of sick neonates. The interventions of essential newborn care use low-cost appropriate technology, and have found to be effective in reducing neonatal mortality and morbidity, especially in the countries with limited resources.

This study aimed at describing the baseline situation of essential newborn care in a district of Sri Lanka, developing and implementing an intervention, and to evaluate the effectiveness of it using the quasi-experimental design. During the baseline study, assessment was made on: availability of resources at Maternity/Obstetric units in 06 hospitals; knowledge on essential newborn care among 123 health care providers; and essential newborn care practices at 48 deliveries. A sample of 446 mother-newborn pairs was included in the assessment of care received at the hospital, mothers' satisfaction with care, and knowledge about care of the newborn. Of this group, a sub-sample of 144 mother-newborn pairs who were resident in 2 selected Medical Officer of Health areas were followed up, to assess domiciliary care practices during the neonatal period.

The results revealed that the availability of resources required for maintenance of cleanliness at delivery needs improvement in all 6 Maternity/Obstetric units. In general terms, the knowledge among health care providers regarding theoretical concepts was satisfactory, compared to that dealing with more practical aspects related to essential newborn care. The knowledge and practices relevant to maintenance of cleanliness at the labour room and postnatal ward were poor. Even though the level of knowledge on thermal protection was high among the health care providers, the practices in preventing hypothermia was not so good. Breastfeeding practices were satisfactory throughout the neonatal period with the exception of knowledge in management of breastfeeding problems. Preparedness for neonatal resuscitation and initial assessment for need of resuscitation in the labour rooms were poor. The knowledge of recognition of illness in the newborn, and assessment of the newborn in the labour room and at postnatal ward was satisfactory.

Knowledge among health care providers was not related to the number of years of experience but was influenced by in-service training programmes that they had undergone.

In general, mothers' knowledge on the care of the newborn was satisfactory except on the care of the umbilical cord. The incidence of superficial infections among newborns was relatively high both during hospital stay and at home following discharge.

Mothers were satisfied with the outcome of care and accessibility to services, but a majority were dissatisfied with interpersonal aspects, technical competency of care and physical environment at the hospital setting. The study identified some inputs that would improve satisfaction such as giving the baby to the mother immediately after birth and informing baby's condition to mother following any examination. The degree of satisfaction, especially with the interpersonal aspects, varied between the institutions, being highest at the District Hospitals and then at the Base Hospitals, relative to the General Hospital.

The intervention implemented in this study, a four-day training programme on essential newborn care, primarily targeted on the health care providers at selected institutions in improving their level of knowledge on the principles and practices of essential newborn care and at developing the corresponding skills and attitudes among them. Following a 3-months interval, the post intervention assessment was carried out using the same study instruments and methods comparable with the baseline study.

The intervention was effective in improving knowledge among nurses and midwives, practices at delivery in the labour room, care received by mother-newborn pairs and the knowledge of mothers, in the intervention group of hospitals in comparison to the control group, at a level, which was statistically significant. The proportion of newborns with 'undesirable health events' has declined both in the institutions and in the field setting, following intervention.

Similar interventions aimed at improving neonatal care services, which are of low cost, feasible within the available local resources and targeted for the needs of individual settings, could be incorporated as an integral component of continuing professional development in maternal and child health services at national level.