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**DEVELOPING A FRAMEWORK FOR  
PREVENTION OF CHILDHOOD BURN IN A  
LOW-INCOME COUNTRY PERSPECTIVE:  
EPIDEMIOLOGICAL APPRAISALS**

AKADEMISK AVHANDLING

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## **ABSTRACT**

Childhood burn is a major issue in children's health in Bangladesh however it was not studied and documented systematically earlier. A comprehensive prevention programme is necessary to address this child health issue. Designing a community based prevention programme with adequate information about epidemiology, risk factors, social, cultural and economic factors and people's perception about the problem is necessary. This thesis attempted to determine the epidemiological features, the social and economic consequences and risk factors of childhood burn. It also explored the health seeking behaviour of parents and people's perception concerning burn and the issue of prevention. Six studies were carried out in this dissertation, four of which included a qualitative study using the data of the Bangladesh Health and Injury Survey (BHIS). A nested case control study was conducted by using the existing injury surveillance system of Centre for Injury Prevention and Research Bangladesh. Finally a framework for a childhood burn prevention programme for rural Bangladesh was designed based on the findings of both quantitative and qualitative studies.

The first study enabled us to calculate the incidence of childhood burn and its relation with age, sex and place of residence. The incidence of burn among children less than 18 years was 288.1 per 100,000 children with the highest rate among the 1 to 4 years age group at 782.1 per 100,000 children. This study also revealed the place of occurrence, time and cause of childhood burn in Bangladesh. The second study enabled us to learn social and economic consequences of childhood burn. It explored the hospitalization rate, hospital stay, workdays lost/school days lost and permanent disability due to childhood burn injury. The rate of permanent disability was found to be 5.7 per 100,000 population year. The average direct expenditure incurred by a family for treatment of severe burn was determined to be USD462 which was more than their annual income. The third study illustrated how the parents seek health care for their children after a burn injury and how health seeking behaviour varies with the economic condition of the family, parents' education, family size, birth order of children and gender of the children. About 60% of parents seek health care from unqualified service providers for their children during a childhood burn injury.

The fourth study determined the relationships of childhood burn with the type of cooking area at home, use of traditional kerosene lamp and type of family. Children were at significantly higher risk of burn in families who did not have a separate kitchen in their home.

The fifth study looked into people's beliefs, emotions and judgements about childhood burn injuries, people's perception about place, time and cause and prevention of childhood burn.

Finally the sixth study provided a framework for a childhood burn prevention programme for rural Bangladesh.

In conclusion the thesis illustrated the high incidence of childhood burn in Bangladesh. The thesis demonstrated consequences, risk factors and characteristics of childhood burn. It explored the health seeking behaviour of parents and people's perception about child burn and its preventive issues. Finally considering all this information a frame-work for childhood burn prevention programme was developed for rural Bangladesh, which can be replicated in countries with similar socio-cultural conditions.

**Key words:** burns, childhood, low income countries, prevention.

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