

Prevention

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Injuries to children can be avoided

In addition to the direct suffering caused by childhood accidents, they make an appreciable economic impact by absorbing health service funds and obliging parents to take time off work. The author describes measures that have been taken in Moscow to alert parents and children to avoidable environmental and behavioural dangers. Attractive visual aids are used so as to arouse interest and stimulate action. This programme of health education appears to have led to a reduction in the numbers of injuries sustained by children of all ages.

The sustaining of injuries by children can be linked to the mentality, physiology and behaviour of the victims, as influenced by their age and place of residence. An analysis of the causes and circumstances of childhood injuries seen in a Moscow polyclinic showed that they arose in distinct manners in different age groups. In order to learn more about situations leading to injury we produced a range of questionnaires that parents were asked to complete when attending our general surgical clinic.

Babies

A study of 250 babies of each sex indicated that situations involving a risk of injury occurred with the same frequency for girls and boys. The commonest risk situations involved falling from settees (45%), cots

(12%), or prams (12%), and falling from tables during changing (4%); bruising was caused by dropped objects, burns and cuts were sustained, and damage was caused by foreign bodies. Most injuries to small children were fairly slight.

There is an inverse relationship between the probability of very young children being injured and the degree of knowledge that young parents possess about the psychological characteristics and physical capabilities of the growing child. It is difficult for young parents to imagine all the dangers to which an infant may be exposed, especially if it is their first child and they have no experience of looking after children. Classes for pregnant women are held in our polyclinic with a view to informing them about typical dangerous situations for children up to the age of one year. The programme includes an illustrated talk by a paediatric surgeon concerning actual cases. Information is given

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on the mental and physical development of babies and on situations involving risk of injury.

A questionnaire issued when the babies of 100 mothers who had attended the classes were a year old revealed that none of the infants had fallen off a table or out of a pram, and that none had suffered burns, wounds, or bruises caused by falling objects; a few had fallen off settees because of inattention by fathers or grandmothers who had not received instruction, but none of these children had suffered after-effects. No child of mothers who had attended the classes was recorded as having been treated at the casualty centre. Clearly, the parents had found ways of protecting their children against injury.

Toddlers

When children begin to walk, their movements are still not fully coordinated. An active child often knocks itself on the

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corners of furniture, falls over on flat surfaces, and comes into contact with hot objects. Of 200 casualties seen by us, 18% had knocked themselves against corners, 19% had fallen over, 15% had been burnt, 10% had fallen from furniture, 10% had cut

themselves with glass or with a knife, 5% had suffered incomplete dislocation of the elbow as a result of being pulled by the arm by their parents, and many had jammed their fingers in doors, had been bruised by falling objects, or had swallowed foreign bodies; 20% of the injuries involved broken bones.

A survey of 250 girls and 250 boys aged 1-3 years showed that 60% and 50% respectively often fell over on flat surfaces. The children tripped over rugs, steps and kerbstones, grazing their knees, noses and foreheads and even bruising the insides of their mouth. It was found that 40% of the boys and 25% of the girls knocked themselves on the corners of furniture and on radiators. Burns and scalds were suffered by 20% of children of both sexes. The most frequent injuries of this type were burns from irons and scalds with tea spilled when children tried to help themselves and overturned teapots or cups. Wounds were found in 20% of the boys and 10% of the girls. The children most often wounded themselves with broken glass, knives, razor-blades, and pens. It was found that 40% of the children of both sexes had fallen from articles of furniture onto which they had climbed, usually because of a desire to be higher, have a broader view, or obtain a toy or other item from a cupboard or shelf.

Children often hurt their fingers in doors, drawers, or folding pushchairs or stools. Heavy objects sometimes fall on children when they try to take them off high shelves. Some children play with small objects such as buttons and put them into their body orifices, as a result of which they may come to the casualty centre with foreign bodies in the alimentary canal, the ear or the nose.

Exhortations from medical workers that parents should take care of their children

and not leave them unattended will not in themselves prevent injuries among young children. Long experience of the prevention of childhood injuries has convinced me that visual aids must be used. We have an exhibition entitled "Mother went out for a minute" in our polyclinic, with pictures showing typical accidents affecting children of this age group. We have attempted to use real subjects to bring out the circumstances that can give rise to injury. When we had assembled sufficiently convincing material we commissioned artists to produce subject cards. A beautiful natural setting or the comfort of the home is taken for depiction of the moment when a mishap befalls a child owing to lack of care and attention on the part of adults.

A questionnaire completed by 200 parents with children aged 20–36 months revealed that none of the children had suffered injuries involving broken bones, while minor burns caused by stoves or frying pans had affected only 5%, as opposed to 20% previously; only 3.5% had fallen off furniture, as against 40% before the preventive work was carried out. Parents reported that they protected their children against injury by constant supervision, without stifling their curiosity, and by explaining the correct ways of performing activities. The children liked to run, jump, dance, investigate things and places, draw, help with washing and sweeping, drag things around, play hide-and-seek, and turn taps and switches on and off. They needed movement and company, imitated older children, adults, animals and birds, and could get into dangerous situations if not constantly watched.

Preschool children

After the age of 3 years the vast majority of children in Moscow enter preschool

establishments, and injuries sustained here account for 22% of all injuries in childhood, despite supervision by adults. Injuries frequently occur when children are on walks, playing on swings, or participating in games. How to reduce injuries to children

Adults should remove hazards from the environment.

has long been a problem of concern to teaching staffs in preschool establishments. We investigated the frequency of dangerous situations affecting 300 children attending kindergartens associated with our polyclinic. We recorded what the children said, had drawings made to illustrate typical situations, and produced visual aids on the following themes:

- falling on flat surfaces;
- falling from a height;
- sustaining a wound caused by glass or other objects;
- being burnt or scalded;
- being bruised by falling objects;
- being bitten or scratched by animals;
- being bruised as a result of excessive activity;
- dangerous situations associated with playing on swings, bathing, cycling, crossing the road, and so on;
- poisoning;
- foreign bodies.

Interesting, emotionally charged subjects were used so as to catch the attention of children and help them to draw the desired

conclusions. The pictures are colourful, bright and comprehensible, and are used by teachers in lessons lasting 20–25 minutes. The visual teaching method helps to develop an idea of the most common and dangerous

Health education for all the people is the most important means of preventing childhood injuries.

situations in children's lives. Attentiveness, caution, and keenness of observation are inculcated into the children so as to reduce the prevalence of injuries and make those that do occur less serious. According to our records, the number of injuries sustained by children who have received this kind of training is a third of that sustained by children who have not.

Schoolchildren

Provision for health education is also made in the first forms of schools. The teachers use visual aids to inform the children about childhood injuries. A chart of the frequency of dangerous situations among boys and girls in the lower forms helps in the planning of this work. Injuries to children aged 7–10 account for 25% of all childhood injuries; the largest proportion occurs in playgrounds, and there are successively smaller proportions in streets (if traffic accidents are excluded), schools and homes. Of the hospital admissions for injuries in this age group, 45% are for concussion and 34% are for broken bones.

Children in the lower forms at school are typically very active, overestimate their strength and capabilities, seek to display their skills, and imitate older schoolchildren. As children grow, their interests widen,

activity becomes more complex, and there are new dangerous situations about which warnings can be given. Children need to know about alternative types of behaviour so as to be able to make choices. They should be aware of what is expected of them in particular situations and ready to take the consequences of their decisions.

When carrying out preventive work in the polyclinic, we cover what children in the lower forms at school have been taught, making use of an exhibition in the paediatric consulting room. Every pupil answers a special questionnaire and produces an illustrated story about a dangerous situation that he or she has experienced. Schoolchildren who have received this sort of instruction suffer only a third as many injuries as other children.

Older pupils, who suffer 40.5% of all injuries in childhood, typically perform dangerous pranks and acts of bravado, play with fireworks, and engage in fighting. Traditional methods of health education are fruitless because older children do not like to be told what to do and distrust adults. We try to arouse their interest in the problem by showing its social importance and involving them in its solution. Older children readily give short talks to the lower forms and use their own drawings as illustrative material. They refer to cases of injury that they have encountered, and the younger children participate by recounting their own adventures. When the children from the various classes meet during breaks they tell each other what they have learnt. The older schoolchildren broaden their outlook on childhood injuries and modify their behaviour appropriately. They begin to control the development of their personalities, determining their subsequent activities and interests. They try not to get hurt, because of the indignity of having to wear bandages in front of a younger

audience. Before this work began, the average number of dangerous situations that had been experienced by pupils aged 14–15 years during their lifetime was 49–50, but in 1985 it had fallen to 16–17. The number of injuries to older schoolchildren had fallen by two-thirds, and the severity of injuries had been considerably reduced. There was a sharp decline in the number of cases of concussion, broken bones, burns, bites and wounds. A whole picture gallery of drawings by children has been built up, and we have collected thousands of interesting stories. This material is now used in talks given at parents' meetings and teachers' conferences.

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Health education for all the people is the most important means of preventing childhood injuries. Adults should remove

hazards from the environment, e.g., broken glass and faulty electrical appliances. Children should be taught how to use tools and knives, handle fires, domestic animals and poultry, ride a bicycle, and swim, and should know how to avoid situations in which there is a risk of injury.

A systematic drive to prevent childhood injuries can result in a lasting reduction in the number of cases. In our area, where there are 15 000 children aged up to 15 years, no cases of crippling disablement, disability or death of children from injuries other than those sustained in road accidents have been recorded for 14 years. Our health education programme has received the official support of the Ministries of Health and Education, which publish recommendations on methods for use by medical teams and teaching staff throughout the Soviet Union. □

Deaths from diarrhoea: hope for the future

Perhaps control of diarrhoea mortality is most likely to succeed where a primary care infrastructure exists and mortality is already falling. Sustained reduction will be achieved only when the incidence of diarrhoea is lowered by specific preventive measures.

—Ahmed Gomaa et al. *Impact of the national control of diarrhoeal diseases project on infant and child mortality in Dakahlia, Egypt. Lancet*, 16 July 1988, pp. 145–148.

Education for Health

A Manual on Health Education in Primary Health Care

This manual is designed to give health workers the insight and skills needed to help individuals and communities learn how to improve their own health. Recognizing the importance of individual behaviour as a determinant of health, the book aims to equip its readers with a range of educational and communication skills that respect the human and social side of health and disease, incorporate the principles of self-help and self-reliance, and can be adapted to local needs and resources. Practical explanations and advice are complemented by numerous examples, case histories, stories, exercises, checklists and illustrations that encourage readers to understand principles in terms of real situations.

The book has seven chapters. The first explores the relationship between health and the behaviour of individuals, groups, and communities, using examples to show specific ways in which behaviour influences health. The second chapter, which portrays health education as people working with people, offers advice on ways to establish good relationships, avoid prejudice, communicate clearly, and promote partnership with people in achieving their goals. Planning forms the focus of the third chapter, which describes methods for collecting information, deciding on priorities, setting

objectives, taking action, and evaluating results. Subsequent chapters concentrate on the counselling of individuals and families, health education of formal and informal groups, and techniques and approaches for working with the community as a whole. Details range from six simple rules for effective counselling, through advice on the best seating arrangements for meetings and discussions, to case studies illustrating why certain projects succeeded or failed. The concluding chapter presents tips and advice for using local resources and the media to communicate health messages, whether relying on the use of local proverbs and fables or involving the drafting of press releases to newspaper, radio, and television.

Published after close to eight years of field-testing and revision, the book is itself an experience in health education, offering readers a wealth of practical wisdom and advice in a style that engages as well as instructs, that encourages action while warning of pitfalls, and above all conveys its message that the best help is self-help.

Education for Health

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