Surviving Childhood

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In the first month of life, prematurity and congenital anomalies account for the majority of deaths to children. Between one month and one year of age, the still unexplained Sudden Infant Death Syndrome (SIDS) or cot death remains very much an unsolved problem causing untold distress and grief to parents.

If, however, we consider the childhood commencing at one month of age and carrying through until the completion of at least primary school and possibly secondary schooling, then accidents cause over a quarter of the deaths and, in considering those deaths in the first five years of life, drowning constitutes the number one cause. If we are looking at a spectrum from birth to fifteen years, deaths from motor vehicle accidents, whether as a passenger, pedestrian or bicyclist, are responsible for 50% of the deaths. Drowning features second on the list whilst such things as burns, poisoning, electrocution and suffocation now constitute a very small percentage of the deaths in childhood.

Many of the infectious diseases are now able to be controlled. Conditions such as cystic fibrosis, which were lethal in childhood, still carrying a grim sentence but now allow those affected to live into adulthood with many surviving into their thirties. The diagnosis of cancer or leukaemia in a child, previously had a grim prognosis. Many still do die, but fortunately the prognosis for a large number has been dramatically improved with improved methods of treatment. These treatments, however, last for several years and necessitate most distressing treatment protocols with severe side effects from the drugs in order to offer the child and the parents, a chance of a long life.

In childhood injury prevention, we have to look at not only the child who may be injured but the agent which may cause the injury, and the environment in which the injury arises. Having identified agents, or environments, liable to cause injury or death to children, many of the potentially lethal and disabling causes of injury have been either eliminated or reduced. This has been done by modification and by suitable legislation which is able to be enforced. The whole thrust of our childhood survival attitude should be one of reducing the frequency of accidents and the severity of the injuries sustained. We will never eliminate accidents, never completely remove death and serious injury but we should be constantly seeking methods to reduce the levels.

The most difficult injury prevention strategy is that of modifying the host behaviour. We need to consider the how – why – what of a child's development if we are to seek methods applicable to childhood injury prevention.

The "how" involves the individual child's behaviour style and temperament, the "why" the child's motivation to achieve certain tasks, his competence and his attitude to self-destruction, whilst the "what" involves the child's capabilities and competence at different ages. The "how" involves the child's behavioural temperament interacting with the environment. This will be influenced by genetic factors, which may well have been operative intrauterine, and which certainly affect the central nervous system. Following delivery there will be all the postnatal environmental factors in the home and later in the school and play area which will modify a child's temperament. Fortunately, the majority of children are normal, easy going, with a regular rhythm, persistence to complete a task, low distractibility and high adaptability to the tasks set. At one end will be the difficult child with an irregular rhythm, high intensity, negative moods and low ability to adapt. At the other extreme is the child one might classify as "slow to warm", with low activity, mild intensity but with a positive approach that enables them to drift along and cope without creating too many ripples. I am sure you will appreciate that many children have mixed traits as manifested by the easy, difficult or slow to warm child but I do not believe we should be putting our children in defined boxes. The persistent children will stick at puzzles to their parents delight but, at the other extreme, will cause their parents great fear by apparent disobedience in their desire to poke wires into sockets and by persisting in injury threatening play activities.

High activity children are more likely to bruise and bang themselves. They are not hyperactive but this group also includes the child who repeatedly ingests poisons, rather than the child who takes it on a one-off basis. It is always surprising to us in the profession, how children will drink greasy kerosene water with which the father has been cleaning the car engine and which to us would seem a most undesirable fluid to swallow. Children's impulsive, distractible and active behaviours are often most frustrating to the parent. Many parents will classify their children as hyperactive when they demonstrate poorly organised motor activity, as distractible when they show poor ability to carry out a task such as crossing a road and impulsive when they show no consideration for the risks involved in climbing trees, playing with matches or other "dare-devil" behaviour.

The "why" involves motivation. Motivation is a highly desirable and normal drive which needs to be achieved for autonomy, independent existence and for learning to cope. In this field, children's behaviour is one of imitation and I am sure many of us have been guilty of carrying out unsafe procedures in the presence of children which they later want to emulate. Unfortunately, children with low self-esteem, or who are frequently criticised by their parents, are the ones who have low concern for self-preservation. It is motivation which drives children to want to strike a match, to climb on the sofa and risk tumbling off, to ride a bicycle on the footpath or down a switchback, to climb trees even though the branches may be swaying or the tree be one whose branches are prone to snap under stress. Motivation also drives children to imitate desirable behaviour which should be praised such as passing a bowel motion in the toilet, setting the dinner table and sharing their toys but likewise, motivation results in them imitating Evel Knevel behaviour on their bicycles, not wanting to wear seatbelts like the television actors and wanting to imitate alcohol consumption or cigarette smoking as depicted by their television idols.

Risk-taking and self destruction are often consequences of family and peer group stresses producing frustrations in children. Children from emotionally impoverished homes, children who feel devalued and deprived are the ones most prone to show lack of body concern, low self-esteem as children and to later become aggressive cyclists or, more particularly, motorcyclists and drivers with overly aggressive behaviour. Such behaviour is also manifested in sporting functions. Perhaps their lack of regard is a call for attention and help which, if ignored, may lead eventually to suicide.

The "what" or competence of childhood is very much, in accident prevention, related to age. The high peak of death by drowning in childhood is around 1-2 years of age, likewise the incidence of scalds and poisoning. Pedestrian accidents peak in the 5-7 years of life, while cycle accidents peak in the 12-14 year olds. Children in the newborn period and until they commence crawling at around the age of seven months, "out of sight is out of mind". Around the age of one year, children find potentially dangerous situations by accident such as the peanuts in the bowl or buttons on the floor, whilst from eighteen months of age they develop the ability to recall where objects have been placed. Thus they may retrieve a can of paint or cleaner fluid which they have noted an adult placing in a position accessible to them. From the age of two years, children learn cause and effect such as winding up a toy will make it go. Variations in motor skills will also vary from child to child. Most children have pincer grip by the age of seven months which gives them access to nooks and crannies, enables them to pick up objects which can be placed in the mouth and either swallowed, which is the usual route, or less frequently, inhaled into the lung. The greatest risk in infancy is around the age of two years when there is poor co-ordination, no perception of danger, poor impulse control and no concept of the serious consequences of their actions. In the preschool group they believe what they see to be true, hence the influence of television on their behaviour. They think illogically, they think of themselves and they lack full empathy with their peer group. Comments by the parent "if you climb that tree you'll get hurt" have no effect on the child as they are convinced they can climb, and that they won't fall as they don't want to fall. Parents need to stress acceptable behaviour as the child is not aware of the risks from stone throwing, playing with matches, climbing trees etc. If a child attempts dangerous activities, it is important with consistency and short, explicit terms to stress the safety message. Minor injuries are common and inevitable. They are part of the learning process. Children will fall, cut themselves with scissors and throw a ball askew

knocking over the china. It is difficult, as a parent, to strike a balance between being safety conscious and overly protective.

At school the driving force, par excellence, is social acceptance by their peer group rather than by their parents. This leads children to perform daring acts to improve their self-esteem and those with low-esteem will perform acts with even greater risk taking and possibility of injury. It is these same children who will become aggressive and boastful, using daring activities to boost their self-image. All children must achieve success and receive positive re-inforcement for acceptable behaviour to limit their risk taking behaviour. Children certainly do not consider the risks before attempting a task. In the school age child we should encourage discussion in setting safety rules and it is in this age group that children learn that parents also make mistakes. If parents can make a mistake in one aspect then they may be wrong in others, despite what they say. Most children, as do adults, like to feel superior to others and will attempt to break the parents rules, particularly if performing a forbidden task gets them peer group approval and praise.

In relation to pedestrian accidents, it is the reduced capacity to localise sound, reduced peripheral visual field perception, reduced ability to estimate speed and danger, and the lower eye level, coupled with impulsive behaviour and distractibility which lead to children dashing onto the roadway and becoming pedestrian statistics. Likewise, in relation to bicycle accidents, there is a desire to ride, a desire for peer group acceptance and in over 70% of accidents it is violation of the road rules which cause the tragedies. It is not lack of knowledge of the road rules, for them, as in adolescents' driving behaviour, which leads to the tragedies.

As parents and educators, it is our role to expose the child to the environment in a controlled manner such as supervising water play and providing swimming lessons but remembering that excess control and excess protection will give the child no chance to learn of the potential dangers and will only create a desire for risk taking and rebellious behaviour.

Perhaps for us the most difficult period is that of adolescence. It is during this time that children develop the ability to consider all the options but are over confident that they can achieve everything. Adolescents have feelings of infallibility and immortality coupled with a need for experimentation and a need to imitate the behaviour of older adolescents and adult idols. Adolescents are thrill seekers in sports, motorcycle racing and at amusement parks. They identify with sports heroes, imitate their exploits which if coupled with drugs and alcohol will blur their coping ability. There is a need for assertive training with peer leaders and role playing in an effort to improve self-esteem so adolescents do not need to prove themselves through excess risk taking. They are concerned about their body image, as is shown by their weight control, and they are aware that they are constantly under scrutiny not only by their parents but, more particularly, by their peer group. Moderate rebellious assertive behaviour and attempts to violate restrictive attitudes are very normal in adolescents.

As parents we need to set clear limits, endeavour to share our views with adolescents and define the consequences if they exceed our limits. It is difficult to be an understanding supportive parent, particularly when so much is made in the papers of self-destructive performances, and suicidal behaviour is sensationalised. As a parent, one needs to be aware of sibling abuse and not permit it to be condoned or ignored. Likewise one needs to be aware of the subtle, subversive role of television advertising with Alan Border and his team advocating "I can feel a XXXX coming on".

Most of us are middle class people with middle class ideas and a high percentage of people involved in accidents will be from lower socio-economic groups with low self-esteem whose whole tenor of life is one of antagonism and aggression towards those more fortunate in society. Childhood accident prevention is a most difficult path to tread and many would regard utter waste as a bus loaded with safety educators going over a cliff with three empty seats.