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Current issues in children's health and development

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Centre for Community Child Health

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Travelling with children

Transport accidents are a cause of death and disability across the developed world. In Australia, transport accidents are a leading cause of child deaths from unintentional injury (ABS, 2006) and a leading cause of hospitalisation (ABS, 2007). Most of those child hospitalisations from vehicle accidents are children who were not properly restrained (Kidsafe SA, 2010).

The use of child restraints significantly reduces the risk of injury or death in transport accidents, but there can be barriers to their optimal use. Working with families to help them to use child restraints in a manner that protects their child and adheres to the law can help to reduce the rate of unintentional injury and death among Australian children.

Child restraints and booster seats

There is national legislation around child restraint use and each state and territory has its own slight variations on that legislation. The National Guidelines for the Safe Restraint of Children Travelling in Motor Vehicles provide best practice recommendations that are endorsed by NHMRC: www.kidsafe.com.au/crguidelines.

The types of child restraints and booster seats that need to be used vary with the child's age and height. It is important that the child restraint meets the Australian Design Standards, is fitted properly and is checked before every journey to ensure the child is safely restrained. Car design is intended to suit and provide maximum safety for adult occupants, booster seats act to increase the seated height of children for better seat-belt fit and safety.

Confusion about what sort of child restraint is needed and whether a child restraint is still needed is common around transition points between sizes.

If parents think that their child might be ready to move out of a restraint and sit with just an ordinary seatbelt, there is a five-step checklist for them to consider:

1. Can the child sit with their back against the seat back?

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2. Can the child sit with their knees bent comfortably over the front edge of the seat?
3. Can the child sit with the seatbelt across their mid-shoulder?
4. Does the seatbelt sit comfortably over the child's lap and low across their thighs?
5. Can the child stay in that position for the duration of the trip or does their position change to an unsafe one if they fall asleep, for example?

(Preschool Matters, 2014).

If these conditions cannot be met then the child cannot safely move out of child restraints in the car.

Barriers to child restraint use

A 2008 study in NSW found that inappropriate child restraint use was widespread, particularly with children over 2 years (Bilston, Finch, Hatfield & Brown, 2008). Increasing parent knowledge of appropriate ages for restraint transitions was associated with an increased likelihood of appropriate restraint use. Inappropriate restraint use was associated with:

- lower levels of formal parental education
- larger families
- parental restraint non-use
- parent/child negotiability about restraint use.

(Bilston, Finch, Hatfield & Brown, 2008)

Children from families in the 20 per cent of the Australian population who speak a language other than English are more likely to be incorrectly and inappropriately restrained in the car than children from an English-speaking background (Bilston, Finch, Hatfield & Brown, 2008; Bilston, Finch & Hatfield, 2011). Further study with culturally and linguistically diverse families found that these groups have particular information needs in order to optimise child restraint use:

- Detailed information about the type of restraint to use for different age and size children.
- Information about how to use child restraints correctly.
- The same risk in all trip types, no matter how short, needs to be reinforced.

(Brown, Burton, Nikolin, Crooks, Hatfield & Bilston, 2011).

In 2013, the RACV and the Victorian Transport Accident Commission, supported by VicRoads and Kidsafe, released short videos in order to address the challenge of optimal child restraint use. The videos use real children and families in order to illustrate the correct use of restraints for different age children in cars and some of the common mistakes. Importantly, these videos are now available in a range of community languages: Arabic, Khmer, Dari, Karen, Persian and Somali, see www.racv.com.au/childrestraints or search online for Nino's Child Restraint Challenge.

Seatbelts without tears

Resistance by the child can be a significant barrier to proper child restraint use. Families may need support to reinforce the use of child restraints in the car.

Children need to know:

- the rules and that there cannot be exceptions
- that following the rules will earn them praise.

In order to increase the likelihood of the correct use of child restraints, encourage parents to:

- check their child's restraint or booster before every trip to ensure it is well secured and no straps are twisted
- choose the right time to start their trip so that they're not trying to commence a journey at a point that interrupts their child's routine
- model seatbelt-wearing by always ensuring that they buckle up in the car
- explain the rules to their child in an age-appropriate way
- talk about what they're doing as they buckle the child in so there are no surprises
- do something special with the child restraint – such as decorating with their favourite stickers – to make it an interesting place to be
- ensure the placement of the child seat allows the child to see them
- praise good behaviour
- chat with their child on the journey
- keep an eye out for their child undoing the safety harness
- refuse to commence or continue the journey if their child undoes the restraint.

Going on holidays

As we head into the summer months, travelling will be on the agenda for many of the families you see, whether it's an increase in short trips as a family or longer-distance travel. While this can be a lot of fun, it can also be a source of stress and struggle for many families. It is important to be able to highlight essential information and offer support for families who are travelling, so that travel with children is safe and enjoyable for everyone.

Essential to every trip with children, whether long or short, is planning for short attention spans, which means breaking the travel into short trips to allow for breaks.

In the car

It is imperative that the driver does not start the journey until all seat belts are done up. The car must be stopped if a child undoes their seat belt or distracts the driver.

When two or more children are placed in the backseat there are potentially going to be disagreements. Parents should ensure that each child has their own toys and activities and limit the number of things they need to share. If possible, parents might like to put a pile of pillows or clothes and blankets between the children to give each child their own space. Where possible it is also good to have an adult sit in the back for a while, just to change the dynamics.

On public transport

When families are travelling on public transport, it is essential that young children do not roam around because of the risk

of injury from a fall when the vehicle is stopping or starting. Suggest that parents aim to keep the child seated or on the lap. If the family is travelling on a bus that has seatbelts then all members of the family should use them. Playing games with the child will help to keep them seated, minimise boredom and prevent them wanting to get up and move around.

An additional consideration on public transport is the risk of a pram rolling away from a parent or caregiver, particularly as train platforms slope down towards the tracks. Parents should use hand straps as well as the pram's brakes and backpacks with straps for young children who are mobile.

On planes

It is important to let the airline know when a young child is travelling so that they can place the passengers in the most appropriate seats. An aisle seat is not suitable for a child as they can reach out for things and potentially get hurt. It is also important to be mindful of hot drinks that can easily spill when they are served.

It is important to pack a range of toys and activities to distract the child and make the journey seem shorter.

Motion sickness

Motion sickness is caused by conflicting sensory signals sent to the brain from the:

- inner ear – the liquid in the semicircular canals allows the brain to sense movement, and in which direction (up, down, forward, backwards, sidewards and round)
- eyes – let the brain know whether you are moving and in what direction
- skin receptors – let the brain know which parts of the body are touching the ground
- muscle and joint receptors – let the brain know if you are moving your muscles and the position of your body.

When a child is sitting in the back seat of a car and reading a book, for example, the inner ear and skin receptors will detect forward movement, but the eyes and muscle receptors will be indicating that the child is sitting still. The combination of these conflicting signals can lead to motion sickness.

Motion sickness is most likely to occur when travelling on boats, but it can occur in planes, cars and buses as well. Almost half of children experience motion sickness when travelling in a car. Children between the ages of two and 12 years are particularly prone to motion sickness, but the majority will outgrow this susceptibility.

Some children are more likely to get motion sickness than others. If a parent experienced motion sickness as a child then there is a higher chance that their child will also experience motion sickness.

If the motion continues, for example on a boat journey of multiple days, then motion sickness can last for up to three days. However, after this time the body usually adjusts to the new motion. Motion sickness that is caused by car travel will usually stop within minutes of stopping the car.

The symptoms of motion sickness are:

- feeling unwell
- excessive production of saliva
- nausea
- headache
- becoming pale
- dizziness
- heavy sweating
- vomiting
- hyperventilating.

The symptoms of motion sickness can range from mild to severe. If a child is severely affected and vomiting frequently, this can in turn lead to dehydration and low blood pressure, which may require medical attention.

If a family is concerned about their child experiencing motion sickness, they can follow these steps to assist in avoiding motion sickness:

- Keep the head as still as possible – motion sickness is caused by contradictory messages to the brain.
- Encourage children to look outside the car at things that are still, eg trees and buildings, not other cars. Their symptoms may ease if they close their eyes.
- Introduce some fresh air, open the window slightly and avoid strong smells in the car.
- Avoid eating fatty foods before getting in the car. Small snacks that are easy to digest, such as dry biscuits and fruit, are best and children should drink plenty of water.
- Play games to distract the child and make them think of other things and look outside the car at stationery objects.
- Plan plenty of stops throughout the journey to give the child the chance to move around.
- If the child complains about any of the symptoms stop the car as soon as possible, so that it doesn't progress to the child vomiting.

There are some medications available over the counter but these are not all suitable for young children, so families need to seek advice from the doctor or chemist. They should also bear in mind that anti-motion sickness medications will only work if taken before the trip, not after the symptoms have presented. There are also some natural therapies, but again families should seek advice about their suitability for children.

Prevention is the best way to address motion sickness. If a child remembers being motion sick on a previous trip, they may be conditioned to respond with a feeling of nausea every time they get in the car or plane, or even before the actual ride.

Planning for travel

Getting older children involved in planning can help to build anticipation and excitement. It can also help adults to plan breaks, travel times and activities.

Parents can:

- Plan for lots of breaks and a small number of activities.
- Plan plenty of stops for meals and drinks.

- Keep the mornings for adult-oriented activities and the afternoon for kids' activities when their energy levels are lower.
- Look for activities and local attractions that can keep children entertained: swimming, games, playgrounds, carnivals, fun parks and movies.
- Plan adult down time too.
- Think ahead about ways to keep children entertained if long car, bus, train or plane trips are involved.
- If travelling in the car, consider getting a sun screen for the back windows to help block the sun.
- Keep drinks and snacks handy for eating and drinking on the go.

If travelling overseas it is important that parents get advice about the appropriate vaccinations well in advance of travel. Children should be immunised up to the level appropriate to their age as recommended in the NHMRC guidelines. Additional vaccinations may be required or recommended for different countries. Parents can check travelclinic.com.au for more detail.

A basic medical kit with appropriate items for children – children's paracetamol, thermometer, anti-itching cream, oral rehydration preparation, sunscreen and bandaids – is essential for any travel with children.

In malarial areas, parents should ensure that they travel with 30 per cent DEET insect repellent for skin and permethrin-impregnated external clothing and nets.

There are other mosquito-borne diseases in addition to malaria, heightening the need to avoid bites. Keep well covered with light-coloured clothing, especially at dawn and dusk. Encourage parents to get advice from their doctor before travelling.

Travelling with children can be an adjustment for parents, but with thoughtful planning, potentially lots of fun.

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Nutrition and mental health

Developing strong foundations for good mental health is one of the many tasks for children in the early years of life. Mental health problems are thought to affect around 20 per cent of children worldwide (Belfer, 2008), and represent a significant global health burden. For some children, these problems will be transient; however, if left untreated up to half of preschool mental health problems will continue throughout childhood (Bayer et al, 2009) and can go on to have lifelong effects.

A range of risk and protective factors influence children's ability to develop strong foundations for good mental health. Reducing the number and impact of risk factors and bolstering the number and impact of protective factors helps to set children on a healthy developmental path.

Risk factors include:

- family conflict or separation
- parents or carers experiencing mental health difficulties
- being affected by natural disasters
- experiencing stressful events
- experiencing trauma or abuse
- lacking friends or supportive relationships with adults.

Protective factors include:

- a stable and warm home environment
- supportive parents or carers and early childhood services
- achieving developmental milestones
- having an ambition to overcome challenges
- routines and consistency in life
- support from a wide circle of family, friends and community members

(KidsMatter, 2012).

Working with families to support good mental health

As a child and family health nurse, you have an important role in helping families and caregivers to develop and maintain the behaviours that can enhance their children's social and emotional development and mental health. Good social and emotional development, which has its origins in a child's early relationships, plays a role in children's lifetime mental health. As a member of the child's community, your support for the family can be a significant protective factor.

Good mental health is not simply the absence of mental illness. Defining good mental health beyond the absence of disease requires a consideration of subjective wellbeing. While these measures are well defined for adults, they are less so for children. There is a number of definitions of positive mental health that are relevant for children, examples include:

- Children and adolescents with good mental health are able to achieve and maintain optimal psychological and social functioning and wellbeing. They have a sense of identity and self-worth, sound family and peer relationships, an ability to be productive and to learn, and capacity to tackle developmental challenges and use cultural resources to maximise growth (World Health Organization, 2005, as cited in Kvalsig, 2014).
- Mental health in childhood and adolescence is defined by the achievement of expected developmental, cognitive, social and emotional milestones and by secure attachments, satisfying relationships and effective coping skills. Mentally healthy children and adolescents enjoy a positive quality of life; function well at home, in school, and in their communities; and are free of disabling symptoms of psychopathology (Hoagwood, Jensen, Petti et al, 1996, as cited in Kvalsig, 2014).

Childhood mental health

In early childhood, mental health problems can be grouped into two categories – externalising and internalising. Externalising problems include aggression, hyperactivity and oppositional defiance disorder, and affect around 14 per cent of Australian children and up to 20 per cent at sub-clinical levels. Internalising, or emotional, problems affect up to 15 per cent of Australian children; these include anxiety, fears and phobias in younger children, and depression and anxiety in school-age children (CCCH, 2012). Sawyer et al. (2001) found that approximately 25 per cent of children with mental health problems had both externalising and internalising problems.

The Mother and Child Cohort Study

The nutrition of children and their mothers can have a significant role in the development of mental health problems in childhood.

A large prospective Norwegian study, the Mother and Child Cohort Study, has shown that higher intakes by mothers of unhealthy foods during pregnancy predicted externalising problems in children, even when other confounding factors were controlled for. In addition, the study showed that children who had a high level of unhealthy diet in early childhood went on to have a higher incidence of both internalising and externalising problems (Jacka et al, 2013).

In the study of over 23,000 women, a healthy dietary pattern was defined as one that had a high intake of vegetables, fruit, high-fibre cereals and vegetable oils. An unhealthy dietary pattern was characterised by a high intake of processed meat products, refined cereals, sweet drinks and salty snacks (Jacka et al, 2013). Dietary patterns were ascertained via self-report questionnaires sent to mothers at 17 weeks gestation, late in pregnancy and when children were 6 months, 18 months, 3 and 5 years of age (Jacka et al, 2013).

The finding that dietary patterns were related to mental health has also appeared in other research. Low quality diets have been shown to affect mental health and depression in adolescents and, in adults, common mental disorders, depression and anxiety (Jacka et al, 2013). The relationship between a poor diet and poor mental health was independent of other risk factors for poor mental health including socio-economic status of parents, family factors and other health behaviour that can influence mental health.

Mental health problems are complex and multifactorial, but the role of mother's diet in pregnancy, and then the child's diet as they develop in their first few years, has a major role to play. Importantly, the Jacka et al (2013) study showed that dietary improvement over a two-year period is linked to an improvement in mental health outcomes. By working with families to address and improve dietary habits that can impact on children's mental health outcomes, child and family health nurses can support children to develop the capacity to manage life's struggles and celebrate the joy that life brings.

Reflection questions

Do you talk to families about diet in the context of the social and emotional wellbeing of their children?

Where do you refer families for access to simple, healthy food ideas that they can incorporate into their busy lives?

Given the importance of a healthy diet for both children's and maternal mental health, how can you facilitate access for families to the necessary resources in your neighbourhood?

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About the Centre for Community Child Health

The Royal Children's Hospital Centre for Community Child Health (CCCH) has been at the forefront of Australian research into early childhood development and behaviour since 1994.

The CCCH conducts research into the many conditions and common problems faced by children that are either preventable or can be improved if recognised and managed early.

Community Paediatric Review

Community Paediatric Review supports health professionals in caring for children and their families through the provision of evidence-based information on current health issues.

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