

*Perceptions of Young Children  
on their Environment and Health*  
**A Review of Literature**



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# Perceptions of Young Children on their Environment and Health

A literature review for a new research project 2009

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## 1. Introduction

There is a common belief that “children are our future”. This is not quite true as children’s futures depended on a world created for them by adults; their requirements, both present and future, are based on what adults *believe* are the needs of children. Putting aside basic needs such as food, shelter clothing, for which children rely on adults to provide, the needs of today’s children to enable them to operate in this “Brave New World” are different from the needs of children in our grand-parents’ day. It may well be that, where our children are concerned, adults are operating with out-dated information. If children are to participate in the decision-making which affects their day-to-day lives – decisions that will affect all our futures – then it is important to engage and consult with them in an appropriate manner, preferably, at as early an age as possible.

The aim of this research project is to consult with children within the age range of 5-8 years to determine their awareness of their environment, their own health and their perception of how their environment impacts on their health. It is envisaged that the information and data collected and evaluated from the research will inform the intelligence system, a crucial part of the strategy of evidence to policy and action. It will provide strong evidence that consultation with young children can influence policy and could, therefore, provide leverage for action within the modified DPSEEA model (Morris *et al* 2006), which will help frame problems and the identification of solutions to them.

This literature review looks at:

- the rationale of why engagement with children has become a key aspect of policy in Scotland;
- what the current theory is on best practice in engaging and working with children to gain an understanding of their views;
- what the current theory is on environment and health in 5-8 year old children;
- what the current theories and best practices are on engaging with young children;
- how a child’s perception of his/her health and environment can inform policy.

Understanding these points are important to any project wishing to engage and consult with young children to gain insight to how they perceive their environment, their health and wellbeing, and what their wants and needs are for the present, and for the future.

## **2. Why Engagement with Children is a Key Aspect of Current Policy in Scotland**

In the recent past, much of the research in Scotland concerning policy on children has been on education, health and social welfare. It is only recently that new research has been undertaken in relation to children's participation and citizenship. There are now Scottish, UK and European initiatives concerning the participation of children in the decision-making process on issues that directly concern them. There is a growing body of literature in this field and the starting point for much of the research, which underpins new policy on children, is based on decades of knowledge accrued from professional educators, child-carers and those involved in child-centred research.

There are a number of legislative documents and reports that affect policies in the protection of the rights of children in Scotland and the UK. The Children Act (1989) is a cornerstone of contemporary policy regarding children and young people in the UK. The main principles and provisions embodied in this legislation are that:

- the welfare of children must be the paramount consideration when the courts are making decisions about them;
- the concept of parental responsibility has replaced that of parental rights;
- children have the ability to be parties, separate from their parents, in legal proceedings;
- local authorities are charged with duties to identify children in need and to safeguard and promote their welfare;
- certain duties and powers are conferred upon local authorities to provide services for children and families;
- a checklist of factors must be considered by the courts before reaching decisions;
- orders under this Act should not be made unless it can be shown that this is better for the child than not making an order;
- delay in deciding questions concerning children is likely to prejudice their welfare.

These main points show that the 1989 Act is designed as a safeguard during official intervention into children's lives. So too is the Scottish version of the Act, The

Children (Scotland) Act 1995. Policy-makers apart, in order for courts or other official bodies to be able to decide what may be the correct decision for any child in particular, or children in general, under these Acts, there needs to be considerable change in cultural attitudes towards children (Hart, 1993; Lansdown, 2001; Stafford *et al*, 2003; Cremin and Slatter, 2004).

... adults who are utterly sympathetic to the principle of enabling children to express their views may often feel uncomfortable with the ways, means and implications of putting this into practice. Indeed, children themselves frequently experience similar feelings of unease (Lansdown, 2001).

The 1989 and 1995 Acts also gave new rights to children, so too the 1996 United Nations Convention on the Rights of the Child (UNCRC, 1996), and the updated Children Act (2004) – sections 5,6,7 of this Act give powers on non-devolved matters to Scotland, Wales and N. Ireland.

Concerns have been raised that children's rights should not be seen as an end, but as a beginning of a dialogue; that children's rights are predominantly promoted by adults, and not children themselves (ESF, 2008). Article 12 of the CRC gives specific guidance on the rights of a child to be heard:

Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, *the views of the child being given due weight in accordance with the age and maturity of the child* (my emphasis). (UNCRC (12:1), 1996)

Children's Rights Alliance (2008) Have produced a number of publications which highlight children's rights to be heard within the systems of school, health, legal and in the courts (CRA, 2008)

UNICEF's *Promoting Children's Participation in Democratic Decision-making* (2001) by Gerison Lansdown highlights some of the rights that the above clause does not give to children:

- it does not give children autonomy,
- nor does it give children control over decisions, regardless of their implications, which directly affect themselves or others, or
- the right to ride roughshod over their parents rights –

but the clause does provide a radical shift in attitudes towards children (Lansdown, 2001); it does away with the ridiculous “seen and not heard” tradition. Nancy Kelley also promotes awareness of children’s views and participation in her paper, *Children’s Involvement in Policy Formation* (Kelley, 2006). This paper concentrates on Information Sharing Assessment (ISA), which is one of the key policies of “Every Child Matters”, a Green Paper which promotes children’s views as a key driver. The Green Paper was published alongside a children’s version of the paper and is unique in targeting children as key stakeholders. It sets out to promote awareness of the views of children and young people and to ensure that they have a voice at national level. The Green Paper is a direct response to the Victoria Climbié abuse and murder case in London which ended in January 2001. Kelley notes that ISA “demonstrates a very clear gap between children’s expressed views and Government action”. ISA and the “Every Child Matters” agenda is, according to Kelley, a good vantage point from which to consider strengths and weaknesses of the current attempt to engage children in developing policy.

These new legislation means that it is now a legal requirement to promote children’s participation in the democratic system. This requires exploring and identifying the meanings of their assertions, not taking them for granted (Skivenes and Strandbu, 2006). However, with young children, this is not just a matter of directly asking them what is important to them. There needs to be a new philosophy in engaging with children to ensure their needs are met and that their views are understood – the potential for children to participate in the democratic system is emphasized by Lansdown (2001). She insists that children can participate successfully in many areas including research, monitoring and decision making concerning their health, and evaluating services intended for younger children. However, while her views and knowledge on the principles of engagement with children are undoubted, Lansdown appears to constantly refer to older children. It may be that engaging with younger children 0-8 years requires additional skills, and this review will concentrate on some of these later.

It stands to reason that if children’s rights are to be taken seriously then we need to improve how we engage, and consult, with children. Borland *et al* in their 2001 report: *Improving Consultation with Children and Young People in Relevant Aspects of Policy-Making and Legislation in Scotland* (Borland *et al*, 2001), highlight the



importance of consulting with children and young people in Scotland. The document sets out the principles which underpin such consultations, and also identifies what it considers are the three main stages of consultation with children:

1. Planning
2. Conducting the Consultation
3. Feedback and Action

The report outlines the key points of each stage and how to approach them and discusses the advantages and disadvantages of each.

The UK's Health Protection Agency recently published the: *Children's Environment and Health Action Plan* (CEaHAP) (2007). This action plan focuses on the four Regional Priority Goals (RPGs):

1. Water, Sanitation and Health
2. Accidents, Injuries Obesity and Physical Activity
3. Air Pollution
4. Chemical, Physical and Biological Hazards

The action plan focuses on these points as children can be more vulnerable to the health effects related to them such as air pollution in urban areas from cars and other road traffic. This can cause ill-health or exacerbate existing conditions such as asthma.

The Commission for Architecture and the Built Environment (CABE) considers some concerns in relation to children. The majority of the UK population live in urban areas and CABE believe that healthy urban planning is a priority for the future. They advocate that children and young people should be pro-actively involved in the development of public spaces so that authorities can improve their provision of good green and public spaces to play (CABE, 2004).

In an effort to assess current theories, policies and practice, the European Science Foundation (ESF) ran the *Exploratory Workshop on Children's Participation in Decision-making: Exploring Theory, Policy and Practice Across Europe* in Berlin in June 2008 (ESF, 2008). The resultant report highlights many of the ideas and concerns on children's participation by delegates during discussions, such as:

- Children’s legal rights should be seen as the beginning of a dialogue, not an end in themselves – this can lead to a more social acknowledgement of children and young people as a “social group” giving them more influential roles in society
- Children’s participation can start outside the legal frameworks and “rights based” educational projects
- While children’s citizenship needs to be questioned for its emancipatory potential, mainly due to its adult-dominated meanings, the dialogue into “citizenship” has potential for acknowledging children as social and political actors (ESF, 2008).

The discussions at the workshop identified a greater diversity in research into children’s participation than previously thought, which may suggest that increased interaction between researchers could move the research field forward by helping to improve the necessary skills for consulting with children.

### **3. Engaging with Children Between Ages 5-8**

#### *3.1 Current Theory and Best Practice*

The early childhood developmental period, birth through age eight, is the period of greatest interdependence among all aspects of human development and learning. As children grow, mature, and gain experience, these aspects of development become more differentiated, although still interdependent (CDI, 2002). Therefore, involving children in policy requires researchers and practitioners to be skilled in dealing with this vulnerable group. Such skills have a solid foundation through the knowledge and expertise, gained over many decades, by professional child carers, child psychologists and educators. This section reviews some of the current theories and best practices in engaging with young children to gain their views. It also looks at some of the problems and benefits of these.

In order to engage fully with young children in an effort to consult them on their opinions and experiences of their environment and health, it is important to understand how they view the world around them and how they articulate those viewpoints. Only by giving children the opportunity to participate fully can successful outcomes be achieved: “it is only through the direct accounts of children that we can

accurately portray aspects of childhood, and thus best begin to meet the needs of young people” (Cremin and Slatter, 2004).

Consultation must be meaningful to children otherwise they see it as tokenistic (Hart *et al*, 1992; Lansdown, 2001; Borland *et al*, 2001; Stafford *et al*, 2003; Kelley, 2006). In making participation meaningful, Sinclair (2004) highlights McNeish and Newman’s (2002) elements of effective practice:

- Addressing attitudinal barriers
- Creating more participatory structures and processes
- Achieving inclusive participation
- Motivating young people to be involved

A fifth element, feedback, should be included to the above list. By letting children know the outcomes of their consultation they can learn how their views may have influenced decisions or whether their ideas and suggestions have been taken up, and why (Dickins, 2004). Honest feedback is a crucial part of the process, even if their ideas were not used.

In the first instance, though, a most important skill for researchers/consultants in meaningful consultation with young children is that of “listening”.

Ann-Marie McAuliffe’s 2003 Report: *When are We Having Candyfloss?*, highlights listening as a reflective practice as necessary to engaging with children; to ensure their voice is heard and that their needs are met. Listening is a practice that appears in almost all practical guides to engaging with children, especially with 8 year olds and under. “Children need to be assured that their opinion is valid, and even if the outcome cannot be achieved they need to be shown why and how their voice contributed” (McAuliffe, 2003)

“Listening” to children is fundamental to our understanding of what it is that children are feeling at a particular time and what it is that they may need at that time. Listening has four main factors:

1. Observing
2. Documenting
3. Reflecting
4. Taking Action and Feeding Back (McAuliffe, 2003)

McAuliffe is not alone in her assertion that the skill of listening is important when engaging with children, there are others who make the same claim such as: European Science Foundation report (2008), Hogan and O'Reilly (2007), Clark (2008 & 2004), Dickins (2004), Dockett and Perry, (2003), Lancaster (2003), Lansdown (2001), Linden (2001), O'Quigley (2000), and Hart (1992), to name but a few. All of these authors assert that the honesty of the researcher/consultant, and good feedback to the children are paramount – even if the outcomes are not as they would have wished.

It is important to understand that listening to children is not just an additional task for practitioners, it is an important tool that is part of everyday good practice. Alison Clark (2008) says that we must listen to children because: “we need to acknowledge their right to be listened to, and for their views and experiences to be taken seriously on matters that directly affect them”. Listening to children improves our understanding of what their priorities, interests and concerns are, and how they feel about themselves. Listening is, according to Clark, “an active process of receiving, interpreting and responding to communication. It includes all the senses and emotions and is not limited to the spoken word. It is, in fact, a necessary stage in ensuring the participation of *all* children ((my emphasis) Clark, 2008). Dickins (2004) reiterates this, especially where disabled children are concerned as they have far more adult intervention in their lives than non-disabled children (Dickins, 2004). Disabled children are “more likely to be subject to a number of medical interventions and treatments ... [and] are more likely to be subject to various kinds of assessment procedures ...” and they are “less likely to be involved in the process” (Dickins, 2004).

Listening doesn't need to be seen as “an extra activity that takes up valuable time, because this is about learning” (Clark, 2004). For example, children can develop speaking and listening skills through the use of cameras to take photographs of things that they see as important to them. This is echoed in Lancaster's, *Listening to Children* (Lancaster, 2003) – “capturing children's experiences” – which has such actions with young children recorded on film. There are a number of important points to be made here which, among other things, can help show the child that he/she is acknowledged as an expert in their own life. Giving the child a camera presents them with the opportunity to record their own personal meaning – they can select which photos can be shown and which will remain private; it gives the child time to think,

record and reflect on what is going on around them which can build self-confidence and self-esteem; it also gives the child the opportunity to articulate their own perspective. This is highlighted in the “Visual Walks” section of the work book.

Lancaster insists that the researcher needs to learn to listen and look “ethically”, to become an active listener and looker. Just a few of the necessary points of action may be:

- Asking children and their parents for permission to observe them – ensuring information and feedback is appropriate to the child’s age and maturity;
- Explaining to the child why you are observing him or her and highlight the benefits and consequences to the child;
- Giving the child time to ask questions, to seek clarification and to make their own decision;
- Ensuring the child’s right to change their original decision, both in terms of participating and withdrawing. (Lancaster, 2003)

Draw-and-Write Techniques with children 6-12 Years (Horstman et al, 2008) and Draw-and-Tell Conversations with young children about fear (Driessnack, 2006) both highlight the importance of child-centred and child-directed approach to data collection if children are to become active participants in revealing their world as they see it. Both these papers reveal the success in using children’s drawings and story-telling to discover how they see the world around them; familiar and unfamiliar experiences in all aspects of their lives from school to home, at play, or through books and other media. Using children’s drawings is not a new idea, it has been used for many years by psychiatrists and psychologist, but as Driessnack (2006) points out most of these drawings have been removed from the children and the adult’s interpretation of them have superseded the child’s explanation of what the drawing meant to them.

Clark (2008) asserts that by using such techniques as capturing child experiences through photography or drawing or visual walks, children, at a deeper level, are engaged in an active process of “meaning making”. The techniques of listening and observing very young children is used in nurseries and can provide opportunities to show children how to behave towards each other. “Circle time” is a part of the day

when children are sat down and encouraged to talk and interact with each other and the teacher. Circle time can help build confidence and self-esteem in children and can, in the longer term, make it easier for children to converse with adults – and vice versa.

### *3.2 Problems*

In exploring some of the issues surrounding young children's participation, Hyder, (2002) insists that: “many people now agree that the views of 13- or 15-year-old children should be taken into account by government, but there is scepticism or even outright hostility when the views of younger children are sought, even on day to day issues in their lives, let alone public policy issues” (Hyder, 2002). This means a change of attitude of adults towards young children needs to be affected (Hart, 1993; Lansdown, 2001; Stafford *et al*, 2003; Cremin and Slatter, 2004).

Ann Lewis (2002) identifies six points that those who research with children should take note of:

1. Access/gatekeepers;
2. Consent/assent;
3. Confidentiality/anonymity/secretcy;
4. Recognition/feedback;
5. Ownership;
6. Social responsibility.

She highlights the difficulty of ensuring `ownership' is particularly pertinent in involving children as subjects rather than objects of research. Therefore, action or collaborative research is better suited to researching with children and young people. Darbyshire *et al* (2005) also point out the importance of research with children, not on children, if their views are to be sought.

Cremin and Slatter (2004) ask if it is possible to access the “voice” of pre-school children. They believe that it is entirely possible but that children “remain largely unheard because they are not perceived as capable of giving accurate information”.

It is worthwhile noting that during all this talk of consultation and participation with children there are some concerns about whether or not children and young people are actually benefitting from this, whether their views are actually being truly considered, or as Stafford *et al* (2003) suggest “young people still feel that much consultation is

tokenistic”. As pointed out previously, it is crucial this not be the case in any future research/consultation.

The proposed research that this review is attached to is not about young children in formal education. However, all children are directly involved in education and Hancock and Mansfield (2002) suggest that an educational climate which disempowers teachers is also likely to disempower children: “... within a command and control structure, teachers are likely to command children in the way they themselves are being commanded”. According to the authors this may not be a conscious decision by teachers, and they may well feel they are actually consulting with their pupils. This problem was the basis for Alison Prince’s book, *The Necessary Goat and Other Essays on Formative Thinking* (1992) where the creative and free-thinking child in a formal education setting is suppressed in favour of greater conformity to the “rules”. It is reflected by Berry Mayall in *Negotiating Health: primary school children at home and school* (1994) where children at five years old are expected by teachers to have some social abilities and should understand how to behave towards others, but at the same time teachers do not respect or allow the child’s self-regulating competencies – the school presents a model environment for children and they must behave according to the school’s “moral order”. This can affect children’s attitudes and may need to be overcome by the adult attempting to engage with them.

Another possible problem any researcher must be keenly aware of is how far a child may wish to participate in any research project. Citing Ward (1997), Cremin and Slatter (2004) point out that while it is recommended to involve children throughout the lifetime of a research project they may eventually refuse to talk to an adult about a subject they might not want to think about. The child’s wishes must be respected at all times – “children need to be respected as capable individuals who are able to make choices about their own lives” (McAuliffe, 2003).

### *3.3 Benefits*

Like most adults, children and young people have only limited power to affect national policy decision-making. However, as much of the literature cited here has shown and as Tisdall (2004) emphasises, the status of children is changing as they

move from *Outsider* to *Thresholder*, with the possibility of becoming an *Insider*. This can be of long term benefit to society as a whole. In the short term, if children's views and experiences are taken seriously, then adults may decide to make changes that positively affect children's daily lives.

Donnelley (2008b) in citing the Center on the Developing Child highlights:

“... policies that support the ability of parents, providers of early care and education, and other community members to interact positively with children in stable and stimulating environments help create a sturdy foundation for later school achievement, economic productivity, and responsible citizenship.”

Center on the Developing Child, Harvard University – cited in Equally Well

In the past, young people, even in such obvious examples as the design of classrooms, playgrounds, sports facilities, or afterschool programmes, participation was rare. In learning to consult with children, adults make it possible for a child's ideas to be taken more seriously. However:

“... there are additional and more important benefits to a society beyond the short-term one of making a programme or product more appropriate for the user. Unfortunately, these benefits have the kind of indirect, long-term impact that cannot be easily measured quantitatively. The benefits are of two major kinds: those that enable individuals to develop into more competent and confident members of society, and those that improve the organization and functioning of communities.” (Hart, 1993)

What Hart highlights here is crucial to socio-economic and demographic contexts of exposure and effect in Morris' modified DPSEEA model. Therefore, the short term benefits of consultation with and participation of today's children could become long-term benefits for tomorrow's adults and *their* children. As the Scottish Executive (2003a) puts it: “Actions that impact on child health and well-being will result in better health that will last into adult life”.



## **4. Young Children: Environment and Health**

### *4.1 Current Theories*

Research is beginning to show that environmental inequality and injustice are significant problems within the UK, afflicting many of our most deprived communities and socially excluded groups. It is often the most disadvantaged in society who live in degraded communities and are exposed to the most risk such as the effects of pollution and flooding. “They usually have least access to environmental goods and services, both built and natural, such as good quality housing, energy efficiency measures, green space, recycling, and environmental information; and experience the poorest health and quality of life” (SusCit, 2008).

Where children are concerned: “There is clear evidence of the importance of a child’s early years on their subsequent health and standard of living. The Executive will develop an integrated approach for Early Years, including an enhanced focus on health improvement.” (Scottish Executive, 2003b).

The Scottish Government’s Implementation Plan, *Good places, Better Health* (2008) proposes to consider “a discrete number of health priorities and their environmental determinants” in response to the challenges in creating safe and positive environments particularly for children (Donnelley, 2008a) The document supports a number of the Scottish Government’s main outcomes on health and wellbeing including well-designed sustainable places, and valuing, enjoying, protecting and enhancing our built and natural environment (Donnelley, 2008a). Children are a main user of the natural environment so there are definitive cross-overs here.

The UK government is signatory to the Children’s Environment and Health Action Plan for Europe (CEHaPE), and the Health Protection Agency’s report on CEHaPE (2007) summarises the activities aimed at addressing health issues affected by children’s environments in the UK. One of the main regional priorities is obesity and physical activity and, therefore, both the UK and Scottish governments are committed to tackling this problem. Well designed and sustainable urban natural space can help them deliver on that commitment (Duarte-Davidson and Endericks, 2007). The framework being jointly developed by the Scottish Government and COSLA indicates that in the long term reducing health inequalities will be a key outcome. The ministerial task force on health inequalities report, *Equally Well* (2008), highlights the consensus that tackling health inequalities requires a cross-government approach and

cannot be achieved through health policies and health care systems alone, and that the emerging understanding of the deep-seated causes of health inequalities needs to be turned into practical action. This involves: “working across all of national and local government’s key responsibilities – for enterprise and skills, children, justice and the physical environment, as well as health and wellbeing” (Donnelley, 2008b).

Some of the key points in *Equally Well* are:

- Health inequalities remain a significant challenge in Scotland.
- The poorest in our society die earlier and have higher rates of disease, including mental illness.
- Healthy life expectancy needs to be increased across the board to achieve the Scottish Government’s overall purpose of sustainable economic growth.
- Tackling health inequalities requires action from national and local government and from other agencies including the NHS, schools, employers and Third Sector.
- Priority areas are children, particularly in the early years, “killer diseases” such as heart disease, mental health and the harm caused by drugs, alcohol and violence.
- Radical cross-cutting action is needed to address Scotland’s health gap to benefit its citizens, communities and the country as a whole (Donnelley, 2008b).

As Donnelley also points out here, “scientific evidence now helps explain how deprivation and other forms of chronic stress lead to poor health. Children’s earliest experiences shape how their brains develop. Very young children need secure and consistent relationships with other people, or else they will not thrive, learn and adapt to their surroundings” (Donnelley, 2008b).

While there is wide agreement that reducing unfair and unjust inequalities in health needs a cross-government approach, it cannot be achieved through health policies and health care systems alone. It is important that the Government takes the lead in developing support for families with very young children at risk of poor health (Donnelley, 2008b).

There is evidence of links between environmental factors and health inequalities. For example, people living in more deprived communities are at greater risk of many of

the chronic health conditions associated with obesity; those who report the highest levels of local environmental “bads” are also more likely to suffer from anxiety, depression and poor general health. Where inequalities first arise in a child’s very early years, they will influence the rest of the child’s life (Donnelley, 2008b). How significant that influence may be will depend on the level of support the child and its family receives to help off-set it. Children who have better access to safe green and open places are more likely to be physically active and less likely to be overweight than those living in neighbourhoods with reduced access to such facilities (Donnelley, 2008b).

All of the above initiatives are adult driven for the benefit of children. However, children are capable of contributing to these initiatives if they are enabled to become part of the decision-making processes.

“...if children's own accounts are studied it is clear that they are active risk-assessors and problem-solvers who develop strategies to survive hostile environments ... In the children's views, traffic danger, 'stranger danger' and social and cultural factors interact to create barriers to keeping healthy and active” (Davis and Jones, 1996)

Driessnack’s study (2006) focused on young children 7 and 8 years of age. According to her findings: “... [fear] is a part of every child’s life experience and is a common response to health care interventions and environments. Fear is also thought to have potentially detrimental effects on children’s learning, social skills, and self-concept”.

Throughout this research with young children, by making participant data anonymous, and using a chronological identifier linking the data to basic demographics only, meant her research “was a low-risk, non-interventional study that did not involve health information” (Driessnack, 2006).

One of the most compelling implications she found for health care researchers and practitioners is the emergence of children’s drawings as “facilitators of communication in the interview process”. Not only does it appear that the use of drawings increases the amount of information that children share, it also appears in this study that “the nature of that information is different and potentially enlightening” (Driessnack, 2006).

Researchers are now examining how children construct stories in different cultures, and such sensitivity might be helpful in informing or restructuring educational and interventional efforts in health care that have proven to be ineffective when inadvertently applied across cultural lines (Gutierrez-Clellen and DeCurtis, 2001; Rosenthal-Rollins *et al.*, 2000).

When examining the differences between home and school in relation to concepts of independence, consent, and negotiation, Berry Mayall in *Negotiating Health: primary school children at home and school* (1994), used the topic of health-related behaviours. Mayall understood that life at home for children is more negotiable than life at school, and that parents were developing an understanding with their children and that an individual child has rights and wishes. According to Cremin and Slatter (2004): “It seems parents not only see involving children in decisions from the outset as a route to family harmony, but recognise that their children can actually add value to big family decisions”. So while children can successfully be included in decision making within the family, it is not the same for them in formal surroundings such as school.

In Ofsted’s report on *Schools and Sustainability* (2008) pupils were discussing walking and cycling to school. Central to the discussion in their lesson was a large map of the local area with the routes to the school clearly marked. The pupils were keen to walk and were aware of its health and environmental benefits. However, they identified that the road through the village was very busy and there were no footpaths in some parts. They had written to the local council about it, but had not received a reply. Similar to these children’s complaints, Bruce Appleyard’s article, *Livable Streets: Protected Neighborhoods?* (2005), examined how mapping exercises with schoolchildren in America. The paper revealed the influence of travel conditions on perceptions of the neighbourhood environment which, can help identify, prioritise, and generate support for improvements that will make the journeys to school safe and attractive for walkers and bicyclists.

Appleyard demonstrated “... how exposure to heavy traffic negatively affects children’s perceptions of their environment, and how installing pedestrian and bicycle improvements can quickly improve those perceptions”. This shift in perceptions may not only encourage more physical activity, but can also strengthen the connection between children and their communities. In sum, safe school-area streets for walking

and bicycling improve a neighbourhood's liveability from a child's vantage point (Appleyard, 2005). The author contends that: "children are highly dependent on cars (and their drivers) for mobility, and, at the same time, they are at the greatest risk from the threats posed by speeding traffic .. [and] ... if a road is busy with speeding traffic and has no sidewalks and/or bike lanes, parents will likely tell their kids to avoid it altogether."

It is apparent from this that the author believes that cars rule our streets and this impacts directly on local neighbourhoods, and effectively isolates children from the surrounding community as well as limiting the range of activities they can participate while they are growing up. "... this limit on independent mobility decreases children's opportunity to be physically fit and healthy" (Appleyard, 2005). The author also believes it may also impact on aspects of children's mental health by way of diminished ability to independently experience and learn about the world around them. Ofsted (2008) and Appleyard (2005) go right to the heart of children's inclusivity. For if national and local government policy is to provide better natural spaces within urban settings then where they exist may exclude demographic groups from access due to roads and traffic. Such exclusion of children is highlighted by the Scottish Executive when it says it: "understands child poverty in a wider sense, focusing on closing the opportunity gap and giving all children the best start in life, as well as providing appropriate and integrated services for children, in health and education and housing" (Scottish Executive, 2003a). Consultation with children will better serve decision-making and the preferred outcomes.

Darbyshire (2005) highlights the appreciation of the need for a 'broad church' of research approaches to children's health and wellbeing. Her research was underpinned by several significant theoretical and methodological developments such as children's rights, children's participation and involvement and the 'new sociology of childhood'. She insists that the Children's Rights agenda has shaped child research by fostering a realization that children and young people have a right to be consulted, heard and to appropriately influence the services and facilities that are provided for them (Darbyshire, 2005).

However, in *Voice of the Child Under the Children (Scotland) Act 1995* (2002), Marshall *et al*, state that "Health services do not have an explicit duty to consult children; however, the Age of Legal Capacity (Scotland) Act 1991 allows 'competent'

children under the age of 16 to give or refuse consent to medical treatment such as examinations.

Regulations that deal with the details of care plans, placements and reviews such as: *The Arrangements to Look After Children (Scotland) Regulations 1996*; *The Fostering of Children (Scotland) Regulations 1996*; and *The Residential Establishments – Child Care (Scotland) Regulations 1996* have some requirements to take children’s views into consideration but mainly those over 16 years. However, when only the regulations are considered numerous gaps and differences are noted; in reality:

- no specific requirement is made that children’s wishes, feelings or views are *recorded* as part of care planning, review and termination;
  - children receive neither information on nor copies of their care plans, as a legal right;
  - measures to address a child’s religious persuasion are subject to due regard for a child’s views, and health examinations and treatments are subject to the Age of Legal Capacity Act, but no specific mention is made of children’s views in educational arrangements;
  - a child can only initiate a care plan review, under the regulations, if the child is under supervision and requests a review of this by a children’s hearing.
- (Marshall *et al*, 2002)

## **5. How Does Children’s Perceptions of Environment and Health Inform Policy?**

In their paper, *Multiple Methods in Qualitative Research with Children*, Darbyshire *et al* (2005) put forward the paradox of the “missing child”. In the face of international multi-million dollar research projects into the health and social care of children, “... the views of children as active agents and ‘key informants’ in matters pertaining to their health and wellbeing” are ignored (Darbyshire *et al* 2005). Much of the literature cited in this Review also advocates action or collaborative research with children in order to gain knowledge of the views and ideas of children, and this approach underpins the methodology of this proposed project into research with children. A main purpose of the collaborative research conducted by Darbyshire *et al* (2005) was to enable and allow the children to discuss and articulate “in their own words” how they perceived, understood and experienced play, exercise, sport and physical activity.

They used a multiple method approach to their research using techniques such as: focus groups; mapping exercises, and photo-voice, these being similar Linden's *Circle Time* (2001), Horstman *et al*'s *Draw and Write Technique* (2008), Driessnack's *Draw and Tell Conversations* (2006), and also to Lancaster's camera techniques in *Listening to Children* (2003) .

The report of the ministerial task force on health inequalities in Scotland, *Equally Well* (Donnelley, 2008b), addresses the inter-generational factors that risk perpetuating Scotland's health inequalities, particularly focusing on supporting the best possible start in life for all children in Scotland. While *Equally Well* does not discuss children's opinions or participation it does have the welfare of children at its heart and would provide a framework into which engagement with children and young people can be conducted. By coming to understand the opinions of children and their needs, engagement with children could actually enhance the provision of welfare outlined in *Equally Well*.

How young people view the natural environment is also an important factor in their psychological welfare, according to Taylor *et al* (2002) in their study, *Views of Nature and Self-discipline: evidence from inner city children*. This study examined the relationship between local nature and three forms of self-discipline in 169 inner city girls and boys (no age mentioned) randomly assigned to 12 architecturally identical high-rise buildings with varying levels of nearby nature. The study found that on average the more natural view from home for a girl, the better her performance at each of the three forms of self-discipline. The findings showed that for boys, who typically spend less time playing in and around their homes, the view from their home had no relationship to performance on any measure. These findings suggest that, for girls, natural space immediately outside the home can help them lead more effective, self-disciplined lives. For boys, it was thought that maybe distant natural spaces held equal importance to them (Taylor *et al*, 2002).

Hertzman *et al* (2002) in their report, *Early Development in Vancouver: Report of the Community Asset Mapping Project*, show that in Canada, inequalities in child development emerge in a systematic fashion over the first five years of life, according to well-recognised factors: family income, parental education, parenting style, neighbourhood safety and cohesion, neighbourhood socio-economic differences, and access to quality child care and developmental opportunities" (Hertzman *et al*, 2002).

Children who grow up in safe and cohesive neighbourhoods, on average, appear to do better than those from dangerous and fragmented neighbourhoods. Similarly, vulnerable children who grow up in mixed income neighbourhoods tend to fare better than those that grow up in uniformly low income neighbourhoods.

Louise Chawla's report to UNESCO, *Growing up in an Urbanising World*, (2002) highlights that in industrialised countries, a half to three-quarters of all children live in urban areas; in the developing world, the majority of children and youth will be urban in the next few decades. Yet across a wide range of indicators, cities are failing to meet the needs of young people (Chawla, 2002). This failure will affect children's perceptions of the world around them and prompts some searching questions such as:

- What does the process of urbanisation mean in the lives of young people?
- From young people's own perspectives, what makes a city a good place to grow up?
- What factors help children and youth feel connected to their urban communities? Or alienated and disconnected?
- How can community development processes encourage children and youth to invest energy and hope in their urban futures? (Chawla, 2002).

*Growing Up in an Urbanising World* summarises the results of an eight-nation UNESCO project that explores these questions and others across a spectrum of low-income neighbourhoods in the industrialised and developing worlds. The report builds on the pioneering ideas of the *Growing Up in Cities* project of the 1970s (a four-country effort directed by the influential urban planner Kevin Lynch), and gives new emphasis to the active participation of children and youth in the planning, design, and implementation of urban improvements. The report shows how principles of the Convention on the Rights of the Child and Agenda 21 of the Earth Summit can be implemented at the local level in order to engage young people's insights, energy, and creativity in shaping their cities and towns. It also documents typical obstacles to participatory processes, and recommends policies and practices that will make cities more responsive to the needs of children, adolescents, and their families (Chawla, 2002).

Along with increased urbanisation, and the subsequent failures of cities to meet many children's needs. As pointed out by Hertzman *et al* (2002): family income, parenting



style, neighbourhood safety, cohesion, and socio-economic differences can alienate many children. Such marginalisation and disaffection can influence their perceptions of their world and can ultimately impact on their physical and mental health. Listening, consulting and encouraging participation can all work towards inclusion of children.

#### **6 Levers for Actions on DPSEEA (Drivers, Pressures, State, Exposure, Effect, Actions)**

As stated at the outset of this review, the main aim of this research project is to consult with children within the age range of 5-8 years to determine their awareness of the environment they live in, and for us to learn what their perception is of how their environment impacts on their health.

A main driver for the research is to contribute to the overall framework, strategies and policies in Health in Scotland by providing well informed evidence of children's views on their environment and health. The information and data collected during this research with children can provide clear evidence on how physical environments impacts on their health, and also show that consulting with young children and providing them with pathways to participation can provide Leverage for Action within the modified DPSEEA model (Morris *et al* (2006), all of which will help in the framing of perceived problems, and the identification of solutions to them.

By concentrating on research with children within their own contexts: social, economic and demographic, the researchers can assess how their perceptions of the effects of exposure to particular aspects of their environment (State) e.g. air quality, which in turn may provide the means for actions on the initial drivers on the contextual characteristics that affect important aspects of children's environments. Asthma can be a result of poor internal and external air quality. However, the complex and often indirect effects of exposure to poor air quality are largely unknown or poorly understood by the general public. Consequently, it can be expected that different levels of behavioural responses, and therefore levers for intervention, will be observed during the project.

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