The provision of play in health service delivery

Fulfilling children's rights under Article 31 of the United Nations Convention on the Rights of the Child

A literature review – Appendix 1 - published research evidence

Appendix 1 - Outline review of published evidence relating to play and 'play based techniques' within the C&YP healthcare sector

Author/Title	Aims of Study	Country	Participants	Methodology	Results	Thoughts	Conclusion
Ford, K.; Courtney-Pratt, H.;Tesch, L. and Johnson, C. (2014) *More than just clowns – Clown Doctor rounds and their impact for children, families and staff*	"This study explored clown doctor activities in an acute paediatric setting and the impact their activities have on children, their families, other health professionals and clown doctors themselves" p.286.	Australia	4 clown doctors. 14 children aged between 5 and 14 years of age and at least one parent.	Qualitative descriptive study using a grounded theory approach in the analysis. 4 clown doctors participated – 8x1 hour clown ward rounds were observed. 'De-brief' after each ward round was audio recorded. Semi-structured, audiotaped interviews were conducted with 14 children and at least one parent, lasting approximately 10-20 minutes. Also one focus group with 11 staff (including 2 play specialists) lasting just over 30 minutes.	"Clown doctor interactions had positive effects on all groups. However, it was also noted that, although a minority, not all children enjoyed their visit. The overarching themes identified were 'the encounter – in the moment' and 'beyond the encounter" p.289. "This study showed that there was an overall positive impact on the child in the moment of interaction ('the encounter') and an impact that is beyond the encounter in both anticipation and ongoing effects" p294.	"Clown doctors are professional performers who are specifically trained to work in the hospital environment" p. 287. One of the most striking things about this article was the reference list which included 18 articles that specifically referred to 'clown doctors' in the title of the article ranging from 2002-2012. Clown doctor will not generally know the condition or diagnosis of the child but the success of the interaction is dependent on the skill of the performer. Interesting that a noted limitation was the unwillingness of young people to participate so this perspective is limited.	There appears to be a strong and increasing evidence base that advocates the role of clown doctors within hospital environments… however it was noted that young people generally declined to participate in the research. The research did also report a minority of children did not like the clown doctors – but the majority of children did enjoy their skills.
Lambert, V,; Coad, J.; Hicks, P. and Glacken, M. (2014) *Young children's perspectives of ideal physical*	"The purpose of this article is to present the young children's perspectives of what constitutes ideal hospital physical	Ireland	55 children aged 5 to 8 years of age. Age, gender and ethnicity data available	Arts-based participatory technique… verbal and visual… "semi-structured interviews that incorporated	Three broad themes emerged 1. Physical environment 2. Access 3. Personal space Selective results	Provision of play opportunities appear in a number of ways and are considered to be of significant importance to children.	"Child participants highlighted that hospital environments need to be constructed not just as child-

design features for hospital-built environments	design features" p.60.		as well as 'clinical speciality' of the children.	drawings and arts and crafts to stimulate discussion and interaction" p.59. Play specialists were part of the team identifying potential participants.	relating to play… "Children expressed the need for adequate age-appropriate play facilities/activities in waiting areas" p.65. "A strong finding to emerge was the inclusiveness of flora and fauna in the sketch of the hospital décor" p.63.	Children value the creative use of space and imaginative décor. They want colour and naturalistic themes, amongst other things.	friendly places, but there is also the prerequisite to respect young children's rights to dignity, privacy, family support and self-control" p.69.
So, S.; Rogers, A.; Patterson, C.; Drew, W.; Maxwell, J.; Darch, J. Hoyle, C.; Patterson, S. and Pollock-BarZiv, S. (2014) *Parental experiences of a developmentally focused care program for infants and children during prolonged hospitalization*	To "examine parental perceptions of the developmentally focused care (DFC) received as part of the BP [Beanstalk Program] during their child's prolonged hospitalization" p.157.	Canada	20 parents of children aged 1-15 months of age undertook the questionnaire 11 of the same parent group went on to participate in interviews.	Parental questionnaire for children who had been part of the Beanstalk Program between 2002-2008. Those who responded were then asked if they would participate in a follow up semi-structured interview – 11 parents did so.	Questionnaire results were positive- selected result – "providing General Information was rated lowest" p162. Several key themes emerged… selective themes identified here… 1. Parents strive for positive and normal developmental experiences for their child – including the provision of play opportunities. 2. Despite the child's complex medical needs, parents value the focus on child development	Selected quotes – "…they define as 'normal'; things that may be typically taken for granted in a child who is not in hospital. These included involvement in the achievement of developmental skills, playtime, going for walks or to the playroom, celebrating birthdays and establishing routines" p.162. "Encouraging participation in promoting 'normal' activities and developmental skills can help parents establish their role, giving them confidence and empowerment to care for their child, despite the impact of medical issues" p.166.	Highlights the importance of collaborative, family centred care. Despite complex medical needs, families require support with general child development.

Ullan, A.; Belver, M.; Fernandez, E.; Lorente, F. Badia, M. and Fernandez, B. (2014) The Effect of a *Program to Promote Play to Reduce Children's Post-Surgical Pain: With Plush Toys, It Hurts Less.*	"To determine the effect of a program to promote play in the hospital on postsurgical pain in pediatric patients" p.273.	Spain	95 children with a mean age of 3.9 years. 61% boys and 39% girls.	Hypothesis – children will have less pain post operatively if they are distracted through play. Experimental design with randomized parallel trail… experimental group and a control group. Used parents to provide information and play post operatively in the experimental group.	Children whose parents were given materials for play post operatively had lower pain measurements then those who received the standard care and attention post operatively.	"Play is considered an essential resource to improve the negative psychosocial effects of the disease and the hospitalization itself" p.273. Play is a powerful to relieve tension, reduce anxiety and… improve communication with staff. "the empirical research on play in health settings has not received much attention" p.273.	The only study found that specifically looks at effects of a programme promoting play with a health setting… ". It is concluded that the program to promote play can decrease children's perception of pain" p.273.
Canbulat, N.; Inal, S. and Sönmezer, H. (2013) *Efficacy of Distraction Methods on Procedural Pain and Anxiety by Applying Distraction Cards and Kaleidoscope in Children*	"To investigate two different distraction methods, distraction cards and kaleidoscope, on pain and anxiety relief of children during phlebotomy" p. 23.	Turkey	188 children aged 7-11 years of age.	Randomised control trail with 3 groups 1. Distraction cards group 2. Kaleidoscope group 3. Control group Interviews with children and their parents pre and post the blood test	There were significant differences between the groups. Distraction cards and Kaleidoscope groups had significantly lower pain and anxiety levels, with distraction being the most effective for pain and anxiety reduction.	Nurse led intervention… noted that nurses needed to be more aware of procedural anxiety and pain during phlebotomy – and that this can be reduced by using these non-pharmacological methods. Call for similar studies to compare the findings.	Use of distraction cards proved to be the most effective technique for pain and anxiety relief although the kaleidoscope also proved effective.
Craske, J.; Dooley, F. Griffiths, L.; McArthur, L.; White, E. and and Cunliffe, M. (2013) *Introducing LAPPS (Liverpool Anticipatory Procedural Pain Score): The pragmatic development of an*	"The purpose of this project was to minimise procedural distress in babies and children during the removal of chest drains, using the audit cycle to monitor improvements" p.15.	England	Initial audit - 91 children – majority of children under 4 years of age. Second audit – 72 children – babies up to 1 year made up 51% of the sample.	Pre and Post procedural audit undertaken. Initial prospective audit done for 6 months from 2003-2004 to establish baseline to measure improvements against. Post intervention audit done 1 year	Initial audit showed inconsistencies in analgesia provision and timing and no HPS employed on the unit so 97% had no HPS input. "Comparing audit results pre-and post-intervention, the proportion of children described as	Description of treatment protocol includes provision and timing of analgesia, involvement of a HPS and the patient's response to the procedure. The HPS provided "procedural preparation and distraction, where age allowed" p.118. Pain can be eased using	Main focus of the article is how to predict procedural distress using LAPPS can then help to reduce actual distress. Clearly advocates the role of the HPS for minimising the distress through procedural

innovative approach to predicting and treating procedural pain and distress in children				after introduction in 2005-2006.	'inconsolable' dropped from 29% to 9% p.120.	analgesics and distress can be reduced by involvement of an HPS.	preparation and distraction during the chest drain removal.
Nuttall, J. (2013) *Inter-professional work with young children in hospital: the role of 'relational agency'*	As the initial phase of an on-going study, this study tests "the utility of the concepts of 'relational agency' and 'common knowledge' as tools to understand" how HPS as low-status professional in hospital interact with 'comparatively higher status professionals such as medical consultants" p.413.	England	7 HPS from 2 London hospitals	Author shadowed each HPS for up to half a day at a time followed by a half hour discussion o the interactions with other professionals, which were audiotaped and transcribed. Inductive analysis of the transcripts done. Study is due to continue in Australia and New Zealand – will enable comparison in the same profession that historically has followed a different path.	"Research into work of the HPS is focussed on therapeutic approaches to enhancing child outcomes, not on the experiences or perspectives of the HPS a*s workers* p.415. Descriptive results that highlight HPS background as EY practitioners with sound knowledge of child development and pedagogical awareness. Variation across countries due to differing cultures of hospital play when compared to the 'Anglo tradition' p.423.	Interesting article that is very different to the traditional discourse on professional practice. Identifies HSPs "ability to clearly articulate one's core expertise, and continuing on to learn how to 'read' the cultural landscapes of other professions for clues about what matters for them" p. 242. Also able to articulate the motives of other professionals they work with. Difficult article to decipher – very theoretical but is process driven which provides an interesting alternative perspective.	"HPS have developed distinctive forms of relational agency in order to negotiate… status differentials" p.414. 'HPS show *relational expertise* which is necessary where professional practices intersect' p.422.
Uman, L.; Birnie, K.; Noel, M; Parker, J.; Chambers, C.; McGrath, P. and Kisely, S. (2013) *Psychological interventions for needle-related procedural pain and distress in children and adolescents*	To provide an update of the original review in 2006 assessing the efficacy of psychological interventions for needle-related procedural pain and distress in children and adolescents	International systematic review of the evidence base	Participants included children and adolescents aged two to 19 years undergoing needle-related procedures. Thirty-nine trials with 3394	Searches of stated databases for Randomised Control Trails + requests for relevant studies. Only RCTs with at least five participants in each study arm comparing a psychological intervention group	Most evidence for children under 12 years. Most commonly studied psychological interventions for needle procedures were distraction, hypnosis, and cognitive behavioural therapy (CBT). Strong evidence for the	Rigorous and the 'gold standard' in terms of evidence generation. "The methodological rigour and reporting of RCTs of psychological interventions continue to have considerable room for improvement". From the conclusion…	"Overall, there is strong evidence supporting the efficacy of distraction and hypnosis for needle-related pain and distress in children and adolescents, with no evidence currently available

			participants were included.	with a control or comparison group were eligible for inclusion.	efficacy of distraction and hypnosis. No evidence was available to support the efficacy of preparation and information.	"There are continuing issues with the quality of trials examining psychological interventions for needle-related pain and distress".	for preparation and information or both, combined CBT, parent coaching plus distraction, suggestion, or virtual reality.
Wente, S. (2013) *Non-pharmacological pediatric pain management in emergency departments: A systematic review of the literature*	Literature review to explore the following question:- What nonpharmacologic interventions are emergency departments using for pain management in children?	United States	14 articles were reviewed 10 used distraction, 2 used sucrose, I used cold compress and 1 used parental holding and positioning.	Searched specified databases and all studies of children aged 0-18 years of age in ED were included. Variety of methods used within the varying studies although 2 were purely descriptive.	Distraction was the most common method to minimise pain in the ED. 5 studies used single distraction methods while a further 5 used a combination. Sucrose was mainly used for neonates and was effective. Use of cold was considered effective. Parental holding promoted comfort for the child.	Use of distraction boxes most common form of distraction with age-appropriate items. Customer service satisfaction scores improved with regard pain management and overall patient care. Use of the Child Life Specialist noted.	Results were varied but outcomes included reduced distress, pain, anxiety. No negative outcomes were reported, and nonpharmacologic interventions can be implemented independently with little cost" p. 148. These techniques should be included within routine practice.
Coyne, I. and Kirwan, L. (2012) *Ascertaining children's wishes and feelings about hospital life*	As part of a wider study, this article reports the findings of a participatory study to "elicit children's wishes and views on hospital and healthcare professionals" p.294.	Ireland	55 children and young people aged 7-18 years of age… break down in terms of ages and acute or chronic health conditions.	Qualitative descriptive approach using interviews – transcribed verbatim and content analysis done. 38 of the 55 children also used two participatory techniques… sentence completion and a 3 wishes exercise.	Taken form the discussion… "hospitals are places that could be fun as well as threatening" p.299. "Hospitals should be designed to accommodate children of all ages, and should include spaces for socialisation, access to computers, movies and games, and therapies such as pet and music. Preparation…should be available for all	Good discussion section brings together all the themes and makes a strong case for better communication skills for healthcare professionals that is geared towards the child. Also notes the perception of children are different to those of adults, who thought they communicated well. Children wanted to voice their opinions and be listened to as "it can make a significant	"It is essential therefore, that children's needs for participation are recognised and enabled" p. 301. Much of the discussion covers the remit and skills profile of the HPS. Noted the need for preparation and information to be tailored to the needs of the individual… including

					planned admissions. Information booklets or videos could be used for unscheduled admissions" p. 300.	difference to children's wellbeing and psychological health" p. 302.	consideration of culture and the global nature of healthcare.
Ekra, E.; Blaaka, G.; Korsvold, T. and Gjengedal, E. (2012) *Children in an adult world: A phenomenological study of adults and their childhood experiences of being hospitalised with newly diagnosed type 1 diabetes.*	"…to use childhood memories to investigate the meaning of being hospitalised for the first time with type 1 diabetes in the period 1950–1980. Another aim was to better understand the influences of the hospital environment on children's experiences" p. 397.	Norway	12 adults who were first hospitalised with Type 1 diabetes when they were 5½ - 12 years of age. When interviewed their age ranged between 39 and 70 years of age.	Qualitative study design using a 'hermeneutic phenomenological approach' through the use of interviews. (the lived experiences of the adults when they were children).	"The results underscore the need to incorporate children's perspectives to achieve a 'child friendly' environment in the hospital" p. 396. Most relayed experiences of being bored and having to play with their own toys. When children were engaged, time went more quickly.	Interesting way of investigating the long term impact of hospitalisation… use of "childhood memories of how the hospital's physical and social environments influenced their hospitalisation experiences" p.397.	Authors note the importance of using historical perspectives to understand current practice. Play and play facilities were noted numerous times – facilities for play and activities are seen as significant requirements.
Koller, D. and Goldman, D (2012) *Distraction Techniques for Children Undergoing Procedures: A Critical Review of Pediatric Research*	Due to the range of distraction techniques and technologies for non-pharmacologic pain management, this paper provides critical assessment of the evidence based literature to inform clinical practice and future research.	Canada	Studies reviewed covered the age range 1-19 years of age.	Critical evaluation of evidence based literature Searches revealed 150 citations. 46 original studies from peer reviewed journals were retrieved.	Tabulated and extensive. Headline results… "Overall, the studies reviewed here support distraction as a coping strategy for pediatric patients". Making decisions regarding interventions for pediatric patients remains a difficult task.	"Based on this review, emerging issues related to distraction techniques appear inextricably linked to the existing gaps in research" p. 678. • Few Direct Comparisons Between Types and Forms of Distraction • Issues Concerning Methodologies • Lack of Attention to Child-Specific Variable	Recommendations include need for greater awareness of child preference and temperament to enhance outcomes and particularly the need for child participation in decision making. More research needed i.e. which strategies work best for patients of varying ages and certain child characteristics.
Inal, S. and Kelleci, M. (2012) *Distracting children*	Investigate the effects of distraction cards (Flippits®) to reduce	Turkey	123 children between 6 and 12 years of	Randomized control trail with two groups Group 1 – control	Pre-procedural anxiety did not differ significantly.	Highlights nurses use of non-pharmacologic methods of pain relief.	"Nurses need to be aware of procedural anxiety and pain

during blood draw: Looking through distraction cards is effective in pain relief of children during blood draw	procedural pain and anxiety during 'blood draw'.		age.	Group 2 – used distraction cards. Pre-procedural and procedural anxiety was assessed… Procedural pain also assessed – see report for details.	Group 2 had significantly lower pain levels than Group 1 during the blood draw procedure. Group 2 also had had significantly lower anxiety levels than Group 1.	Blood draw at the first attempt for both groups was comparable suggesting distraction method did not affect the success of the blood draw procedure.	during blood draw" Distraction cards provided an effective way to decrease anxiety and pain levels of children but did not necessarily change the outcome of the procedure.
Randall, D. and Hallowell, L. (2012) *'Making the bad things seem better': Coping in children receiving healthcare*	"To summarize and disseminate the broad range of studies related to how children cope with receiving healthcare" p.306.	England	Not applicable	Scoping review of the literature to answer the question "What research exists concerning how children cope with receiving healthcare interventions?" p.306.	Major theme heading discussed: 1. Medical talk 2. Heling children cope: designing the environment 3. Ethical symmetry: a total cultural approach to child-centred care. Although there is no specific mention to play within the paper, the review utilises articles by Hallowell who is an educational Play Therapist in Australia.	Scoping the literature does not seek to evaluate similar studies or generalize the findings. The article is quite scathing in terms of healthcare workers and how they exclude children from involvement in their own healthcare.	Challenges health workers "to examine the assumptions they make about children's abilities, and explore how children's own resourcefulness can be encouraged to support their efforts to cope with medical and health interventions which may cause pain or embarrassment or be de-humanizing" p.311.
Action for Sick Children Scotland (2011) *Community Play Project October, 2008 - September, 2010 End of Project Report*	Evaluation report of a two year pilot project offering "support to children and families requiring specialist health services or who have had healthcare experiences which require the input of a trained (hospital) play specialist in a community setting"	Scotland	Staggered roll of the pilot resulted in reduced referral numbers. During the 18 months, 47 formal referrals were received – statistics on ages and	Not Applicable	Output includes statistical data of referrals and who they were, those with additional needs, who referred and the actions taken in terms of 'play work undertaken'. Case studies and qualitative feedback using quotes from the	Independent evaluation of the project from University of Stirling staff. The report provides a really effective overview of the role and referral mechanisms for a health play specialist working within the community. Project provided a model for future work to	"Conclusion from this pilot project presents a strong case for a dedicated outreach hospital play specialist service in all health areas in Scotland … [to ensure] best practice in clinical services is matched by best practice in

	p. 9.		gender available.		project are also included.	enhance shared care.	patient involvement and family participation in health care.
Mathers, S.; Anderson, H. and McDonald, S. (2011) *A survey of imaging services for children in England, Wales and Scotland*	Objectives identified: 1. Determine the extent to which children are imaged in primarily adult departments and the nature of procedures performed; 2. Establish the availability of child friendly environments 3. Investigate the extent to which children are involved in service development	England, Wales and Scotland	Three hundred and fifty two questionnaires returned including 17 from the 20 children's hospitals, representing a 70% response rate	18 item questionnaire sent to all hospitals with imaging facilities in the UK" 2 types of questionnaire – one for adult departments and one for children's departments.	Selective play-related findings… 80% of adult centres reported child-friendly environments. 101 respondents in adults centres had access to a play specialist but were only used for distraction in 81 MRI n=44 CT n= 44 fluoroscopy = 41. Lack of electronic gaming equipment despite funding being available.	This is the definitive survey of imaging departments and the provision of services for children in those departments. Looking specifically at play provision. Play specialists were under utilised – can be used to reduce anxiety in routine procedures, not just advanced technological procedures… also help to make a more child-friendly environment.	Author's conclusion… "The survey indicates that the recommendations of the Children's National Service Framework and the Health Care Commission have not been implemented fully in many imaging departments" p.20.
Smith, A.; Murray, D. and McBride, C. (2011) *A Comparison of Nurses' and Parents' or Caregivers' Perceptions During Pediatric Burn Dressing Changes: An Exploratory Study*	"To compare nurses' and parents' or caregivers' perceptions of support interventions provided before, during, and after pediatric burn dressing changes" p.187.	New Zealand	Nurses and parents participating in 30 dressing changes.	Non-experimental… Surveys involving completion of 2 questionnaires. Questions covered pre, during and post dressing change Culturally acceptable to Maori community. 21 were first time dressing changes and 9 were second time changes.	"The findings indicate that nursing staff and parents or caregivers have very different interpretations of the dressing change process for children and their parents or caregivers" p.190. Main differences – information before dressing change, perceptions of distress and need to prepare parents/carers prior to dressing change.	Selective quote… "The presence of a hospital play specialist, in addition to the parent or caregiver, was valuable. Also important was focusing on "comfort" positioning and use of distraction/alternative focus during dressing changes" p.185. Communication is key. No mention of the child's voice within the study or conclusion.	Advocates need for multidisciplinary team to support the child during the dressing change. Notes the implications of a positive experience for future use of health services.
Bates, S.; Comeau, D.; Robertson, R.; Zurakowski, D. and	To assess if "It is possible to obtain a diagnostic	United States	125 children aged 4- 7 years who	Retrospective review of all 4-7 year old patients who had	"Sedated children were younger (5.6 vs. 6.3 years) and had an	Initiative worked and the suggested preparation of children by a nurse has	Selection of children between the age of 4-7 years for

Netzke-Doyle, V. (2010) *Brain Magnetic Resonance Image Quality Initiative for Pediatric Neurological Examinations: Sedated versus Nonsedated Children*	quality MRI scan without sedation on children aged 4 to 7 years in an efficient manner using CAM.'' 'Complementary and Alternative Medicine' p.26.		completed the scans. 65 patients without sedation 60 patients with sedation. Age, sex, developmental delay and use of contrast agent all recorded.	undergone Brain MRI in 2004. Medical records identified if they had been sedated or not.	increased incidence of developmental delay (37% vs. 11%)… No significant difference was found in scan time although nonsedated children had more repeated sequences (43%) than sedated children (14%)… Nonsedated children had more motion artefacts on exam (45% vs. 15%" p. 26.	proved effective. As a result of this, the MRI department has changed it's practice and over a 3-year period (2004-2006), 702 children who were previously scheduled for sedation were able to complete their brain MRI scan without sedation" p. 28.	scanning without sedation is possible and results in a reportable scan of sufficient quality for diagnosis and in a similar scan time.
Netzke-Doyle, V. (2010) *Distraction Strategies Used in Obtaining an MRI in Pediatrics: A review of the Evidence*	Review of the literature for children aged 5-7 years of age that have not been sedated for MRI brain investigations.	United States	Not applicable	Literature review conducted over a 2 week period – 6 articles found and 3 were reviewed from 2006-2008.	1 study considered to be a good quality study in terms of strength of evidence – the other two were less reliable. Small sample sizes limit generalizability of all the studies.	Quotes Bates et al study as noted within this overview BUT even though 702 children have completed the MRI without sedation, this article questions the lack of scientific data.	Clearly identifies the potential of distraction over sedation but notes further research is required as strong evidence is lacking.
Proczkowska-Bjo¨ rklund, M.; Gustafsson, P. and Go¨ran Svedin, S. (2010) *Children's play after anaesthesia and surgery: background factors and associations to behaviour during anaesthetic induction*	To "study how children react when introduced to anaesthetic play equipment after anaesthesia and surgery. If an avoidant reaction is associated with certain child behaviour, preoperatively, during premedication, anaesthetic induction or is linked to child background factors" p. 171.	Sweden	49 children aged 3 to 6 years of age. Age and gender variables recorded.	Forty-nine children were randomly selected from a population of 102 children who were scheduled for ear, nose and throat surgery.14 days post operation, children participated in a play therapy session with medical equipment to see if they avoided the equipment – also asked about their experience of going	"About 50 percent of the children had signs of avoidance during the play session with anaesthetic equipment 14 days after surgery" p. 175. "There was a higher risk that a child would avoid the play equipment if the child had taken the premedication unwillingly and if the child was younger" p.175.	Although this study has no direct link to the HPS role, the findings are significant in terms of how the child engages with the process from initial introduction through to anaesthetic induction. Negative reactions from pre-medication to induction need to be avoided as this can influence future healthcare encounters.	Awareness of characteristics of a vulnerable child highlighted (i.e. age and shyness) is important. Potential role of the HPS in minimising negative experiences could be promoted.

				to sleep prior to operation.			
Robinson, S. (2010) *Children and young people's views of health professionals in England*	The purpose was to examine the views of children and young people on health professionals. The paper "examine to what extent children and young people's views of health professionals match up to these [professional body] standards based on an analysis of 30 published papers" p. 311	England	28 primary research studies covered children and young people aged 2-24 years of age – at least 3005.	Examination of 31) research studies published (28 primary research studies and 3 lit reviews) between 2000- 2009, into C&YP views of health (not social care) professionals in England. 3 lit reviews covered 14 studies in total. 3 studies covered play/ play techniques and play specialists	Findings "inductively analysed and grouped in to 7 themes... data analysis blended quantitative and qualitative methods" p.312. C&YP wanted health professionals… 1.to be familiar, accessible and available 2. to be informed and competent 3. to provide accessible information 4. to be a good communicator 5. to participate in care 6. to ensure privacy and confidentiality 7. to demonstrate acceptance and empathy p. 312.	Really detailed article. This report comes from work commissioned by CWN that included review and synthesis of published material – 11 electronic databases, 164 internet sites, 118 journal sites, 631 charities and voluntary organisations etc. Validity of the findings within the studies examined identified potential bias… noted opinions may be distorted by stress or pain.	"The findings suggest that although there are examples of good practice, health professionals are sometimes falling short of the standards set by UK health professional bodies" p. 321. Author appeared frustrated that so much research keeps coming up with the same themes identified here and these need to be given more prominence by professional bodies to promote these perceptions and act on them.
Runeson, I.; Proczkowska-Björklund, M. and Idvall, E. (2010) *Ethical dilemmas before and during anaesthetic induction of young children, as described by nurse anaesthetists*	To 'elucidate' ethical dilemmas noted by Nursing Assistants (NA) before and during induction of anaesthesia on children aged 3-6 years of age.	Sweden	16 NAs from two sites volunteered.	Two group interviews with NAs from 2 hospitals were undertaken last two hours each. Audiotaped and transcribed verbatim. 3 ethical dilemma situations that arose from 15 were selected and explored.	Main value conflict for all NAs was child's right to be informed against 'do not harm' or 'doing good'.	Ethical dilemmas were discussed – what was done but also an alternative was offered. In terms of play, the benefits of play included being able to "create a relation of trust and security by chatting and playing". Importance of preparing children through the use of play was noted.	Main focus relates to UNCRC Article 3 (best interests of the child) and Article 12 – right to be informed. Advocates role of play as a means of engaging the child, imparting information and building a trusting relationship.

Sinnott, S. and Doyle, S. (2010) *Study to investigate the efficacy of sound based intervention to improve toilet training outcomes*	To "explore and discuss the administration and patient experience of entonox by a trained and assessed HPS during urodynamics" p. S102.	England	35 children and young people aged 5 – 17 years of age.	No methodology identified but patient opinions were elicited following the use of Entonox. 34 out of 35 patients were given Entonox administered by an HPS, using appropriate breathing techniques.	34 patients thought the Entonox helped them to relax and reported pain free catheterisation. "The number of patients requiring general anaesthetic for catheterisation has been reduced. Positive feedback from patients has demonstrated a positive impact on quality of care" p. S102.	Does not provide empirical data due to a lack of rigorous data collection methods. However, as anecdotal evidence, it provides some evidence that this is effective.	"HPS administration of entonox for catheterisation has had a positive impact. It has improved the time efficiency and cost effectiveness of the service. More data would be useful – cannot find this written up in more detail.
Varkula, L.; Resler, R,; Schulze, P and McCue, K. (2010) *Pre-school children's understanding of cancer: the impact of parental teaching and life experience*	Purpose was to "improve the knowledge of what typically developing pre-school children know about cancer" p.26. Also looked at parents assessment of their child's knowledge.	United States	24 children 4-5 years of age and 25 parents Children also classified according to age, gender and ethnicity	Convenience sample… conducted in two parts 1. Parents completed parental questionnaire 2. Children had 5 minute interview containing 3 questions - developed with input from 2 child life specialists. Responses coding into key categories	14 out of 25 children did not know about cancer – parents anticipated this response accurately. Of the 11 children who did know 'something' it was unrelated to family experience of cancer. Only 3 parents had 'taught' their child about cancer.	Limitations were noted especially the small sample size – findings not generalizable… new data collection tool identified sensitivity needed not to upset the children. Most significant section came at the end of the conclusion which looked at the reality of relaying information about cancer to pre-school children…keep answers to questions – brief and simple… then advocates role of play.	"In reality, through their play they may try to make sense of the new information, using dolls, toys or props, only to return to the parent and ask additional questions to clarify or better understand what they learned about cancer" p.33.

Aldiss, S.; Hortsman, M.; O'Leary, C.; Richardson, A. and Gibson, F. (2009) *What is Important to Young Children Who Have Cancer While in Hospital?*	"To explore children's and young people's experiences and views of cancer care services" p. 87. This article covers children aged 4-5 years of age.	England	10 children aged between 4-6 years of age… and parental comments (8 at home and 2 in hospital).	Interviews lasting 15-30 minutes using child's preferred toy as the puppet. Interview questions varied according to the child's response. A play specialist was recruited to the research team…" because of her expertise in being creative when interacting with young children on a daily basis" p88.	"Six main themes were identified: (i) 'lots of toys', (ii) 'getting rid of the bad guys', (iii) nurses and doctors in the background, (iv) mummy and daddy are near, (v) 'not being at home' and (vi) feelings about hospital" p.89. "The two main themes apparent in all the children's narratives were the importance of parents and the provision of toys and activities" p.95.	Explores participatory ways to engage children to elect their views and experiences. "Play specialists and play workers were viewed as having a key role in providing fun activities, thus helping to prevent boredom" p.91. It is difficult to judge exactly what functions play has for young children in hospital, be it a form of distraction from other 'hospital activities', a relief from boredom or a symbol of familiarity.	Further studies are needed to examine the relevance and importance of play to children in hospital" p.93. " Challenge for health care provides… "the need for children to remain active and be surrounded by facilities that minimise the boredom of being in hospital has implications for play departments and personnel" p.95.
Hartman, J.; Bena, J.; McIntyre, S. and Albert, N. (2009) *Does a Photo Diary Decrease Stress and Anxiety in Children Undergoing Magnetic Resonance Imaging? A Randomized, Controlled Study*	"The purpose of this study was to assess if preprocedural education with an investigator developed photo diary decreased preprocedural stress and anxiety for school-aged children 7-12 years undergoing MRI" p. 123.	United States	52 school aged children – 7 to 12 years of age and parent	Convenience sample of children and their parent/s in the waiting area prior to MRI. Pre-and post survey (Immediately before and 20 minutes post). Intervention group read a 24 page photo diary (n= 27) and compared against the control group (n=25).	No statistically significant differences between the two groups in pre or post scan surveys.	Results suggest no reduction in pre-MRI stress and anxiety through use of the photo diary and no improvement in parent perception in the value of this as an educational tool. Authors found no previous literature relating to preparation for MRI scans. Limit may self-reporting of stress levels. Many of the children were used to coming to the centre.	This was a specialist centre as opposed to a general setting… perhaps this would be more effect in a non-specialist paediatric centre where the facilities are tailored towards a child-friendly experience. Still advocates use of creation of "age-appropriate teaching tools to optimize the scanning experience for

							children, parents, and health care providers" p. 127.
Johnson, A.; Steele, J.; Russell, G. Moran, R.; Fredericks, K. and Jennings, S. (2009) *Decreasing pediatric patient anxiety about radiology imaging tests: prospective evaluation of an educational intervention*	To try and reduce patient anxiety about imaging tests through the use of an educational intervention – a colouring book.	United States	276 children aged 3-10 years of age and their parents 'who were scheduled for outpatient CT, fluoroscopic, ultrasound, or nuclear medicine examinations' p. 373 - (not brain scans). Age and gender data available.	Educational intervention trail. Produced an "instructional coloring book titled, Radiology for Kids: Take a Tour with Garfield' p. 372. Baseline anxiety assessment undertaken for all children. 101 patients and parents (control group) given questionnaire prior to investigation. 175 patients and parents undertook intervention.	No statistically significant difference between the two groups either for parents' anxiety or that of the children. "More than 90 percent [of parents] indicated that they were glad to have received the coloring book" p.379.	Also designed to engage parents so the book could be read together to decrease anxiety of parents too. However, the initial baseline scores for anxiety were 'surprisingly low' in the control group (n=101) and this means that there is little room for variation that will result in significant reduction in anxiety when the intervention is used. MRI excluded due to high rate of sedation for children under 12.	Low level of base line anxiety made the results of this study difficult to interpret. No statistically significant difference although parents and children did enjoy using the colouring book prior to the intervention.
Truman, P. (2009) *Identification of the priority health workforce issues for children, young people and their families*	Report undertaken by Skills for Health to inform subsequent policy development in 2008-2009 which "explores stakeholder opinions on the key priority health issues for children and young people" p. 1.	England	Wide range of stakeholders participated across the 'Skills for Health footprint'. 66 responses received representative of 26 named organisations.	The review invited stakeholders to respond to the question:- 'What in your opinion are the priority health workforce issues for children, young people and their families?" p.1.	Results reflecting play noted here… RCN raised priorities including raise the number of Hospital Play Specialists. "The introduction of play therapy as part of the pre-imaging or treatment procedure was advocated as there are indications that this reduces the number of failed procedures" p. 8.	From the report, the messages focus on :- 1. workforce capability and capacity including new ways of working, integrated skill mixed teams, multi agency working, and the development of new roles 2. leadership 3. current staff training and development	Comprehensive overview of stakeholder perceptions that have been used to inform subsequent policy development. Implications for the HPS include integrated skills mix and multiagency working and the use of the HPS to contribute to MDT training and development on the value of play.
Dixey, P.; Seiler, J.;	"To determine if	United States	130 children	Convenience sample	There was no	Interesting coverage of	Research question

Woodie, J.; Hall Grantham, C. and Carmon, M. (2008) *Do Cartoon Stickers Given After a Hemoglobin Finger Stick Influence Preschoolers' Pain Perception?*	providing a sticker after a finger stick for hemoglobin check reduced pain perception among preschool-aged children" p. 378.		aged 3-5 years of age. Gender, age and ethnicity recorded.	of children were randomly assigned into two groups: Group 1 - those receiving stickers… Group 2 - t hose not receiving a sticker. Each participant's pain level was assessed using the Oucher scale within 1 minute of the finger stick.	statistically significant difference in perceived pain scale ratings between the two groups.	study limitations… 45% were aged 4 years and researchers thought they may not be able to make the connection between a sticker and the reduction in perceived pain. Also questioned generalizability of study as 90% of participants were African American.	was not answered. Still no empirical evidence to determine whether the awarding of cartoon stickers are beneficial as part of finger blood stick process. Demonstrates the difficulties associated with measuring efficacy.
Koller, D. (2008) *Child Life Council Evidence-Based Practice Statement. Therapeutic Play in Pediatric Health Care: The Essence of Child Life Practice.*	"To present empirical findings regarding the value of play for children in the hospital and to assert that play constitutes an integral component of evidence-based practice in child life" p.2.	Canada	From the selected studies , children were aged between 3-12 years of age and hospitalised 'for a variety of reasons'.	Review of research evidence pertaining to therapeutic play. 62 studies were identified but following application of exclusion criteria, 10 studies (9 quantitative, 1 qualitative)	Asserts the value of play for children's development. Asserts the value of therapeutic play and the many forms it can take…directive, non-directive, different styles of intervention. 'Dependent on the needs of the child and the environment'.	Practice based statement for the Child Life Council. No specific mention of the benefits to health as a whole. Key phrase in terms of evidence… "Although there is considerable literature concerning play in hospitals, much of this material is anecdotal and non-empirical. From an evidence-based practice perspective, this is problematic" p.6.	"Despite a large amount of literature purporting the value of play, research gaps exist regarding the evaluation of therapeutic play in health care settings. Future research must address the play preferences and perspectives of children if evidence-based practice is to reflect the needs of pediatric patients" p.7.
Kortesluoma, R.; Nikkonen, M. Serlo, W. (2008) *"You Just Have to Make the Pain Go Away"— Children's Experiences of Pain*	"The aim of the study was to describe the interventions young children use themselves, and their expectations of other's help, when managing the pain	Finland	44 children between 4-11 years of age. Age and gender recorded	Qualitative study. Individual interviews undertaken with the children using open ended questions. Inclusion criteria – child had to be hospitalised and	Range of differing pain management strategies identified as well as distrust of pain management. 19 different types of self-help. "They regarded professional support	Gathering of children's perception of pain management has provided a differing data set. Children use a variety of pain management strategies and value the support of	Conclusion within study. "In short, helping in pain is often simple… Developing a better and more informed understanding of the needs and

Management	experienced during hospitalization" p. 144.			complained of pain during their stay. Began with a play session then 22 minute interview which was tape recorded.	with suspicion and expected empathy and care by "being there for the child." p. 148.	significant others.	expectations of the child in pain will help to target interventions that are effective and incorporate quality caring into practice. p.148.
Lawes, C.; Sawyer, L.; Amos, S. Kandiah, M.; Pearce, L. Symons, J. (2008) *Impact of an education programme for staff working with children undergoing painful procedures*	Evaluation of an educational programme to see if: - 1. Educational programme increased clinician's knowledge and confidence 2. Effectiveness of education programme for changing practice for patient care.	England	5 Senior House Officers (SHO) 21 children (and their parents) who underwent painful procedures	SHOs underwent a 1 hour training provided by an HSP. Pre- and post-training questionnaires completed. 1 hour booster session 2 months later. Nurses on the ward reported on clinicians' adherence to best practice when on the wards. Use of a checklist and flow chart of best practice devised by ward staff provided main focus of training.	Change in knowledge reported and clinicians were involving HPS and nurses and preparing equipment out of sight. High levels of parent satisfaction and a range of coping strategies for parent and child. Staff reported adherence to protocols in majority of cases.	Identifies direct involvement of the HSP who led the training session. Positive outcomes reported however, although the 'abstract' conclusion does not mention the HSP, the conclusion to the article on p. 37 has changed to 'nursing and play staff'.	Teaching techniques included theory re pain, distraction and preparation techniques, protocol for working with children undergoing painful procedures and 2 videos… well thought out programme that resulted in a better clinical outcome for children within the study.
Leahy, S.; Kennedy, R.; Hesselgrave, J.; Gurwitch, K. and Barkey, M. (2008) *On the Front Lines: Lessons Learned in Implementing Multidisciplinary Peripheral Venous Access Pain-Management Programs in Pediatric Hospitals*	To review the experiences of 5 children's hospitals in the United States that have well-developed peripheral venous access pain-management programs through the use of case studies	United States	Not applicable.	Case studies written by people integral to development of pain management programmes across five different sites.	When reviewed holistically, identified common strategies for putting theory into practice (7 in total – not all covered here…) – see evaluation. Page 168-169 provide case study relating to Child Life Specialist's and their role.	1. Assembling MDT to advocate change 2. Use of evidence base to suit needs of the institution 3. Securing department and hospital wide support of programmes through education 4. Introducing nonpharmacologic techniques often used by child life specialists	Advocate Child Life Specialist as part of MDT. "Several years ago, child life specialists joined the ED team, and they have played a vital role in instructing nurses and other staff members on the use of distraction techniques for

						5. Evaluating success both before and after programme initiation	minimizing distress during venous access procedures" p. S164.
Linck, P.; Tunnage, B.; Hughes, D. and Tudor Edwards, R. (2008) *NHS and charitable funding for children and young people with cancer in England and Wales*	To "quantify and discuss the implications of charitable contributions to NHS care for children and young people with cancer in England and Wales" p157.	England and Wales	Not applicable	UK charities identified by searching the electronic version of the Charities Commission Register. Additional charities identified from website lists and also through 'snowballing' – charities contacted directly were asked to identify other relevant charities 51 charities identified after exclusion criteria were applied.	"…estimates that 340 charities made some financial contribution and 28 organizations administered charitable funds for hospices. The financial contribution to services by charities was estimated to be between £25 million and £38 million in 2003, representing between third and a half of the total resources directed to the treatment and support of C&YP with cancer in specialist centres across England and Wales p.157.	Article noted it was difficult to obtain figures from the NHS for a direct comparison for the funding of this patient group. "health care resources are finite and budgetary constraints inevitably limit government spending in the NHS" p164. Charities fund posts for health and AHP workers i.e. CLIC Sargent funds… play specialists.	Funding by charities for... staff is contentious. "Guidance on Cancer Services: Improving Outcomes in Children and Young People with Cancer (NICE, 2005) recommends as essential the provision of play specialists and activity coordinators… currently services which are provided by non-NHS charitable funding" p.165.
Ranmal, R.; Prictor, M. and Scott, J. (2008) *Interventions for improving communication with children and adolescents about their cancer*	"To assess the effects of interventions for improving communication with children and/or adolescents about their cancer, its treatment and their implications" Abstract	International systematic review of the evidence base	10 studies including 438 participants, the majority of whom were aged between 2 and 21 years of age (did go up to 25 years of age).	Systematic review of Randomised and non-randomised controlled trials, and before and after studies, evaluating the effects of interventions for improving communication with children	Distraction techniques were excluded unless they had an educational element. According to the authors, the evidence base is weak and findings were inconclusive. Need to use research to underpin interventions on the preferences and needs of the C&YP	Communication with C&YP about their cancer is important and this needs to take into account their 'age, level of understanding and medical condition'. More research is needed.	Key conclusion from the authors included "The review of trials found that specific information-giving programs, support before and during particular procedures… may benefit children and adolescents with cancer"

					who will be using them.		
Winskill, R. and Andrews, D. (2008) *Minimizing the 'ouch'—A strategy to minimize pain, fear and anxiety in children presenting to the emergency department*	"The aim of the evaluation exercise was to determine if the distraction boxes and their contents were being used by staff in the way intended, and if staff who were using the distraction boxes found them useful and beneficial" p. 186.	Australia	13 people responsible for the distraction box	Distraction boxes were given to 9 emergency departments, 2 paediatric outpatient clinics and 2 children's wards. Questionnaire administered 10 months post distraction box provision to the person responsible for the box.	Distraction boxes were being used regularly and were considered to be a useful asset to minimise pain and anxiety. 6 respondents noted a reduced need for analgesia, 7 did not.	Interesting article but lacks rigour in terms of statistical data collection and analysis of the data. However provides good evidence for the provision of a dedicated distraction box.	Distraction boxes were being used regularly and as intended… and having a designated distraction box on hand increased the use of distraction techniques.
Action for Sick Children Scotland (2007) *Child Dental Surgical Services in Scotland Dental Project Report*	This report covers the 2nd stage of a 2 stage project… specific aim covered in this report…"the provision of appropriate preparation of children for surgical dental treatment" p. 2.	Scotland	Not applicable	9 month review period looking at a variety of documents and conducting interviews with dental care providers, healthcare providers offering these services and the parents of children using the services.	Narrative coverage of play specialist input in hospital based services. Results specific to six dental boxes after the 2 year project… 2 in the care of play specialists and being used. Four others inconsistently used or kept in cupboard and not used at all. Since re-deployed – 2 in the community.	Very high levels of dental operations/ procedures in Scotland. Two staged study – this report covers Stage 2 2nd aim… review current preparation for C&YP undergoing dental treatment and develop standards for preparation. Notes limitations due to time constraints.	"Good preparation and providing emotional support for children will help them cope with dental anxiety and will contribute to good dental health" p. 11. Recommendations include: "providing play preparation and post procedure support for paediatric patients".
Clift, L.; Dampier, S. and Timmons, S. (2007) *Adolescents' experiences of emergency admission to children's wards*	To examine the experience of adolescents who underwent emergency admission to a children's ward.	England	6 adolescents 11-15 years of age. Response to age and gender recorded.	Qualitative study. Convenience selection over a variety of wards. Semi-structured interviews that were audiotaped were conducted at least 2 weeks post-	6 themes identified – full details within report 1. Anxiety and distress – major role... environment, sleep disturbance, food 2. Participation in care – prep good. Need to be taken seriously and	"…changes inherent in adolescence is likely to be intensified if health interventions are needed" p. 196 and this is magnified by hospitalization. In terms of play and recreation… "Provision of age-	More positive than expected – counters previous work. Need to find out what good practice exists and more rigorous evaluation of how adolescents are cared for in

				discharge.	informed of outcomes of tests. 3. Sleep – all reported difficulties 4.Peer support and interaction 5. Relationship with healthcare professionals 6. Ward facilities – reluctant to use play room – too young - and lack of recreational facilities – PlayStation valued at first but after a few days – need recreational activities.	appropriate recreational facilities is not only valuable for adolescents' experiences; it can be a means of enabling parents and health care professionals to gauge adolescents' health improvement (Action for Sick Children, 1990) p. 204.	hospital. Some conclusions about best practice for adolescents do not have an underpinning evidence base" p.206.
Coles, M.; Glasper, A.; Fitzgerald, C.; LeFlufy, T.; Turner, S. and Wilkes-Holmes, C. (2007) *Measuring compliance to the NSF for children and young people in one English strategic health authority*	To objectively measure hospital compliance to standard 7 of the National Service Framework for children, young people and maternity Services in five discrete children's hospital units across an English strategic health authority children, young people and maternity network.	England	Not applicable	Audit tool was specifically constructed. "For ease of use, there are 10 segments to this audit tool, each cross-referenced to specific aspects of standard 7 of the NSF". Variety of uses of the audit tool were noted and pan-network audit was conducted throughout 2006 in five NHS trusts in six locations. "A weakness of the audit is the failure to reflect first-hand views of sick children and their carers"	Results specific to HPS… "Non-pharmacological management of children's pain is not currently fully embraced and although employed play specialists use distraction to a limited extent, they are few in number and not always able to fully reflect best practice". "They are too few in number to meet best practice guidelines, and no trust provides full 7-day cover. Some areas have no play cover for sick children". p. 13.	Primarily related to nursing staff but play services do not come out well from this audit. "Play specialist provision across this region is variable and although there are some areas of commendable practice, some discrete areas of the children's units audited failed to meet best practice guidelines" p. 11.	Advocate the need for play staff… "There are a number of enthusiastic and innovative play staff employed throughout children's units across the network" p.13. However best practice is not always evident, although this is also put down to understaffing.

				p.15.			
Hendon, C. and Bohon, L. (2007) *Hospitalized children's mood differences during play and music therapy*	"To test whether children in a hospital were happier during music rather than play therapy" p. 141.	United States	60 children aged 13 months to 12 years of age. Gender differences noted.	Child life programme provides music and play therapy. Non-participant observations undertaken as part of the programme - 3 minute observation and the number of smiles were recorded to 'imply' happiness.	"Music therapy led to significantly more smiles per 3 min among children in the hospital than did play therapy. On average, there were approximately twice as many smiles per 3 min in the music group, than the play group. There was no main effect for sex".	Issues regarding data collection and how the study is framed… music therapy is offered on a much less frequent basis than play therapy- ? novelty factor as opposed to preference if they were offered on an equal basis. Author noted potential bias due to causal inferences.	Play therapy for this study was the 'normal' play room with a trained volunteer available to engage in play. Interesting but methodologically flawed and conclusion is that music therapy is also enjoyed by children and should be offered more regularly.
Li, H.; Lopez, V. and Lee, T. (2007) *Effects of Preoperative Therapeutic Play on Outcomes of School-Age Children Undergoing Day Surgery*	"To examine the effects of therapeutic play on outcomes of children undergoing day surgery" p.320	Hong Kong	203 school aged children between 7-12 years of ag, undergoing day surgery. Control group n=106 Experimental group n = 97	Randomized controlled, two-group pre-test and repeated post-test, between subjects design. Control group – children and parents given routine information at pre-assessment 1-2 week pre-surgery. Intervention group – usual care + play intervention 1 week prior to surgery.	Children receiving the therapeutic play intervention exhibited fewer emotions at induction of anaesthesia and reduced anxiety levels pre and post operatively - statistically significant. No statistically significant difference in pain post operatively.	The intervention may have made the perception of surgery less threatening, hence the reduced anxiety scores and fewer negative emotions.	Study provides empirical evidence that a play intervention, using tour of the operating theatre and preparation doll is effective in reducing anxiety and negative emotions – but does not reduce perceived levels of post-operative pain.
Pe´licand, J.; Gagnayre, M. Sandrin-Berthon, B. and Aujoulat, I. (2006) *A therapeutic education programme for*	3 fold objective of the study to evaluate 1. general level of satisfaction following each session of the programme 2. How far programme enabled children to	Belgium/ France	14 'young patients' aged 10-11 years of age.	All workshops videotaped to allow content analysis. Each session has satisfaction score – 1 smiling, 1 neutral, one hostile. Semi-guided interviews at	General level of satisfaction at the end of the workshops were good and at the end of the programme is was very good. "At the end of the programme, 3 out of 6 treatment-	Good links to Piaget stage of concrete operational stage and clearly set out programme and narrative evaluation. Really comprehensive coverage of the	Recommends use of puppets to express emotions and feeling simultaneous with focus group discussions as recall life events

diabetic children: recreational, creative methods, and use of puppets	develop treatment related skills 3. specific use of puppets			end of programme. Recreational activity booklet with integrated evaluation was also used within each workshop. Use of puppets was done by Group A, compared to Group B who did not use them.	related skills were fully developed or reinforced by 80% of the children" p. 157. Group A expressed positive and negative feelings whereas Group B who only used discussion only expressed negative feelings.	programme used and the outcomes linked to the objectives.	and situations more likely to be elicited through discussion rather than puppets. Use of two, differing MDT facilitators when running the groups.
Hewitt-Taylor, J. (2005) *Caring for children with complex needs: staff education and training*	"The survey aimed to gain an overview of service providers' views on staff education needs" p.76.	England	Heads of Care from:- 1. All hospices in the UK 2. Organisations providing respite care 3. Children's Community Nursing teams within the authors' local Primary Care Trusts	Questionnaire used as data collection method to identify what information should be included in staff and education training programmes. 35 questionnaires sent out – statistical analysis was not undertaken as this was to elicit initial views as opposed to statistical significance.	21 questionnaires returned (response rate of 60%). Main focus of the questionnaire is medical and geared towards medical services and provision. Variation in perceived significance for registered non-registered nurses. Additional topics suggested by the managers included play (n= 4).	Mainly looks at perception s of service managers for the inclusion of education and training topics. Play was not an identified area within the questionnaire but was identified by 4 respondents (11%) when asked if they had other suggestions for training/education inclusion.	
Jelbert, R.; Caddy, G.; Mortimer, J. and Frampton, I. (2005) *Procedure preparation works! An open trial of twenty four children with needle phobia or anticipatory anxiety*	To evaluate a Procedure Preparation Program designed to prepare children with needle phobia or anticipatory anxiety	England	22 children ranging from 2½-15 years of age. All required needle insertion for a variety of procedures	Pre-post design using a modified Likert Scale for anxiety rating. This was numerical from 1-10 but for younger children a 'smiley face' was used. For very young children HPS used their judgement to assign a score	Of the original 22 children, 18 went through the whole process and all 18 had positive clinical outcomes (the procedure was completed). No indication as to whether the anxiety levels change pre-post preparation.	Treatment involved between 1-5 sessions of pre-procedure preparation based on a desensitisation model – modal number of sessions was 3. This is the only study that specifically mentions cost savings.	Findings suggest this is effective and notes cost saving when linked to unsuccessful procedure attempts when "MRI scanners cost in the order of £1000 per hour of use.