Children and young people's preference of thematic design and colour for their hospital environment
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Full Title – Children and young people’s preference of thematic design and colour for their hospital environment

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Children and young people’s preference of thematic design and colour for their hospital environment

Abstract
In this innovative project, the views of children and young people were explored regarding their preference of thematic design and colour for their hospital environment in a new children’s unit. The novelty of the approach was that it was driven by the preferred choices of children and young people through the use of ‘child-friendly’ interviews and questionnaires. Informing the study was the development of a group of children and young people who underwent research training, and with support, developed all data collection tools and helped verify data analysis.

A two-phased sequential study was undertaken. During Phase 1, 40 interviews were performed with children and young people, including ten with special learning needs and physical disabilities whilst 140 questionnaires were analysed for Phase 2 of the study. Notable issues emerged about preferred thematic designs of walls, doors and floors whilst new findings were revealed regarding colour preferences for wards, entrances and outpatient areas.

[153 words]
There are some key examples of published work about children’s preferences for the hospital environment (Civi, 2002; Carney et al., 2003; CFHI, 2003; Boylan, 2004; Coyne, 2006). Many of these are about general facilities and do not explore the specific preferences for colour and design. Other notable studies are focused in dedicated children’s hospitals (L4A 1990; Anshen Dyer, 1999; Redshaw & Smithell, 2000; Haines and Johnston, 2001, Davies, 2004; BDP, 2004; New Evelina Children’s Hospital, 2007). Therefore, this project attempted to explore design and colour in a new district general hospital build using specifically designed colour tools more commonly used in choosing paint colour for homes.

**Key words**

Children and Young People choice  
Hospital environment  
Participatory Research
**Introduction**

University Hospitals Coventry and Warwickshire NHS Trust; United Kingdom (U.K.) is a major provider of children’s services. Approximately 35,000 children and young people are currently seen in the hospitals annually, with in-patient services being approximately 8,000, of which 2,700 are admissions. A new hospital opened in 2006 and has a purpose built Children’s Unit. During the planning phase, a unique opportunity was presented to bring all children’s facilities together, which included a Children’s ward, a dedicated Adolescent Unit, an out patient suite and a Children’s Emergency Department. Furthermore, there are dedicated children’s areas in other departments of the hospital. It was thus imperative that the views of children and young people across a broad range of ages and abilities were sought in the planning and design of their own environment. One aspect of the planning work was to focus on children and young people’s preferences about thematic design and colour of their hospital environment. In this project, thematic design was taken to mean art, images, design and textures across the various aspects and areas of the hospital.

**Aims of the study**

To explore the views of children and young people preferences of thematic design and colour in the hospital environment of one acute hospital children’s unit in the U.K.
Background literature

Search engines including Medline and CINAHL were used to identify relevant literature sourced mainly from the U.K. but additional international information was located where relevant.

The context of giving choice to children and young people

In the last 10 years of welfare policy, in each of the four UK countries, there has been an increased emphasis, on the need for greater involvement by patients and the public in the planning, design and management of health and social care services. This has given rise to a plethora of consultations, audits and research projects, seeking their input. In terms of children and young people, U.K. government initiatives, include the National Service Frameworks for Children, Young People and Maternity Services (NSF, Department of Health [DH], 2004) and Every Child Matters (Department of Further Education and Skills [DfES], 2004). Further, this is particularly clear in the most recent ‘Our Health, Our Care, Our Say’ White Paper (2006). Thus, all have highlighted that if improvements are to be made in current health care services then providers must involve and consult service users in the early planning stages and decision-making processes (Viner and Keane, 1998; Boylan, 2004, Cavet and Sloper, 2005; Coad and Houston, 2007).

Children and young people’s views of the hospital décor

Traditional interpretation of children and young people perspectives about the health care were gained from their adult carers, which the literature suggests is not an accurate representation (Kirby 1999; Christensen and James, 2000; Fraser et al, 2004). In terms of
children and young people’s views about their hospital environments there have been many notable examples such as L4A (1990); Anshen Dyer (1999); Russell & Johnson (2000); Redshaw and Smithell (2000); Civi (2002); Sharma & Finlay (2003); National Health Estates (2004); BDP (2004) and Coyne (2006). As a result many recommendations have been made to improve the hospital experience for children, young people and their families.

However, many of the cited examples have often been general as opposed to specific use of thematic design and colour, and the effect that colour can have on children and young people. As far back as 1999, Anshen Dyer, reported that in terms of colour walls, doors and floors in hospital ranged from white/creams to very bright primary colours with adult planners deciding on the palatte of colours without little consultation with the children. In 2003, the Child Friendly Health Initiative (CHFI) noted that not all hospitals caring for sick children and young people were sufficiently ‘child friendly’ in terms of design and colour. All colours have associations for example; red, white and blue in the UK may be associated with the Union Jack flag and many colours have dual associations. For example, whilst blue is most associated with water, the sea and the sky it can be symbolic of sadness whilst reds may be warm and stimulating but can be aggressive (hence it is used for the STOP sign throughout the world today) (www.colormatters.com 2007). It is important to understand the impact and effect of colour in hospital environments as work in the U.K. and United States of America (USA) has identified the importance of patient environments on contribution to health, and indeed, recovery from illness (Francis and Glanville, 2001; Lawson and Phiri 2000; English and Holm, 2004).
Those who have sought views of children and young people about design and colour and then followed that through into the reality of the new design include Redshaw and Smithell (2000) at Bristol Children’s Hospital who identified use of bright strong colours and used an integrated colour scheme. Further, Haines and Johnston (2001) also in Bristol Children’s Hospital noted that appropriate art, images, design and colour was vital in the hospital environment but often the children reported that the design to be ‘too young’ or inappropriately used such as the use of Disney characters that quickly date. In The New Evelina Children's Hospital, Guys and St Thomas’ Hospital, London, which was constructed in 2005, elicited children and young people’s views resulting in strong colours, themed floors, abundant glass and solid construction materials that all complement one another (www.guysandstthomas/nhs.uk/services Accessed May, 2007).

Another recent successful project is the Milwaukee Children’s Hospital who used three subtle colours: soft mauve, teal and periwinkle blue and have used clever design features to accentuate these colours throughout the day (Gould, 2006). Whilst these examples are helpful they are drawn from large, dedicated Children’s Hospitals. Thus, one issue not evident in the current literature is how in the district hospitals the views of children and young people have been elicited and subsequently how those choices impacted on the planning of their hospital environment (Coad and Houston, 2007). This raises specific challenge in that whilst children and young people constitute 25% of patients they are only one aspect of the overall work of most NHS Hospital Trusts.
Given the strong current contextual influences, of the current climate of user-consultation, it is thus essential that the views of children and young people are incorporated into service design, including hospitals, from an early planning stage (Kirby 1999; Kirby et al., 2003). There is, however, limited work conducted in the U.K. that has undertaken engagement of children and young people in a fully participatory process, in the planning of the preferred décor in terms of thematic design and colour within the acute paediatric environment in a district general hospital. The building of a new Children’s unit in Coventry provided the opportunity to involve children and young people about their colour and thematic design preferences in order to influence the new hospital design at an early stage (Coad et al, 2006).

**Methods**

The project described consisted of two distinct phases using interviews at Phase 1 and a questionnaire at Phase 2. A Children and Young People Advisory Group was specifically formed to inform the process.

**Children and Young People Advisory Group**

A novel approach underpinning this project included children and young people, who were invited to be an ‘advisory’ group to inform the project. Twelve children and young people (eight girls and four boys of diverse ethnic origin) accepted to undertake this role ranging from 10 to 17 years. Initially, the adult researcher met with the Children and Young People’s Advisory Group about the need for the project, the different roles of the children/adult researchers, time commitment and positive personal benefits of their
involvement, such as projects being used for school/GCSE work and receiving vouchers. Thereafter, an initial training programme about the data collection process was delivered to the group at convenient times (i.e. weekly after school/college for six weeks). Each ‘training’ session built upon the other, beginning with issues about interviewing and seeking ethical approval and then later about verifying findings of Phase 1 and Phase 2 (Coad and Evans, 2007).

The Children and Young People’s Advisory Group firstly helped to inform the project in terms of designing, piloting and verifying the interview schedule for Phase 1. Following completion of the interviews, which were all performed by the adult researchers, the Children and Young People’s Advisory Group also helped to verify the Phase 1 data in order to develop the questionnaire used at Phase 2. The Children and Young People’s Advisory Group took a sample of the anonymised interview transcripts, read and coded the information in the margin using words and numerical codes. Following much creative dialogue and use of art based techniques the Children and Young People’s Advisory Group then agreed on a range of key themes. The adult researcher facilitated the interpretation of the data by sharing with the group other key pieces of published work, with the aim of helping to increase the clarity of the emerging findings. When all the findings of Phases 1 and 2 were complete, the Children and Young People’s Advisory Group, individually and collectively, were given the opportunity to read and comment.

Whilst the process was innovative, involving children and young people in the data analysis was challenging in that it was time-consuming, and required a flexible attitude.
One challenge was that the Children and Young People’s Advisory Group members often added their own meanings and interpretations to the Phase 1 data analysis and found the concept of objectivity very difficult. This required additional reflective discussion between the adult researcher and the Children and Young People’s Advisory Group in the training sessions about whether to either accept this as part of the reflexivity of the data analysis process or to consider a more consistent approach. Coad and Evans (2007) reflect that the aims and time allocated to a project are crucial even when children and young people are integral to the research project team. Thus, in this project, the ‘best’ course of action was that a consistent verification strategy needed to be in place so coding was consistently checked and agreed by one of the adult researchers but this was agreed by Children and Young People’s Advisory Group.

Each phase is explained in more detail:

**Phase 1**

Phase 1 included an exploratory qualitative approach using semi-structured interviews with children and young people, across a range of age grouped children who were, or had been, in-patients on the Children’s Wards at University Hospitals Coventry and Warwickshire NHS Trust; U.K. (n = 30 in total / ten in each group aged 3-5; 6-10 and 11-18 years). Ten school age CYP were also interviewed with a range of special learning needs and physical disabilities, all of whom had accessed children’s services. (Total CYP interviewed = 40).
Each participant was asked individually or in small groups about their preferences with respect to thematic design and colour of the relevant areas of the new hospital. Specifically thematic design charts were designed using hospital images from other children’s hospitals and other design features such as windows, floors, walls and accessories. These acted as a prompt to help participants in their choices during the interview. In order to explore colour choices, paint colour leaflets were supplied by Dulux (Dulux Trade), which included a range of over 100 colours on each leaflet so subtlety like bold and/or pastels could be explored. In a similar process to choosing paint colours for your home participants were asked to choose colour preferences. Unbeknown to the participant was that the team had allocated each colour to a pre-determined colour group (e.g. reds, greens, creams/white, yellows, browns, blues) based on nine shades of that colour from the most pale to the most dark. Each shade of colour in the pre-determined group was scored as 1 to 9 (starting at 1 as the palest to 9 being the most dark). The children and young people participants were asked by the team to choose their preference for specific areas of the hospital such as the ward and no prompt was given in their choice. A small pilot of five children was undertaken to validate the scale following which the same tool was used for each participant. Thematic findings were drawn from the interviews and used to inform the Phase 2 data collection tool.

Phase 2

A questionnaire tool was developed from the Phase 1 interviews for a descriptive survey at Phase 2 in order to build up the emerging picture. This was distributed to current and a retrospective sample of in-patients of the Children’s Wards (n = 250). The Dulux Trade
colour charts were also sent with every questionnaire to their home. A group of school aged children in Year 6 (age 10/11 years) in one Warwickshire junior school were also given the questionnaire in order to seek ‘well’ children’s views about preferences for the hospital environment (n=25.) Only two of this group had been in-patients but stated that they did not remember it because they had been infants and one other was attending as a long term out patient (Total n = 275).

The reliability of the quantitative scales of the Phase 2 questionnaire was determined by a coefficient alpha of 0.83 indicating a high degree of reliability. Quantitative data was subjected to descriptive statistical analysis in two age groups of firstly children 11 years and under, and secondly, young people aged 12 years and over. Overall, response rate from the questionnaires was 140 (51% response), of which 83 (59%) were completed by the children or young people without any adult helping them. Descriptive statistics are presented here in the article both as numbers (n =) and/or percentages (%).

**Ethical considerations**

The study was approved by Coventry Local Ethical Research Committee (LREC) and the Research and Development Committee at UHCW NHS Trust. As there are implications of involving children and young people as participants and research informants this included approval for both the research participants and Children and Young People’s Advisory Group members. Both groups received a written information sheet, which included specific details of their role in the research, the importance of confidentiality and reassurance of withdrawal at any stage. Consent under 16 years was sought from
both the child or young person and parent/guardian where appropriate. If the young person was over 16 years and over they consented themselves.

An adult gatekeeper (Senior Play Therapist who was not an active researcher for this project) was assigned from the outset in order to protect potential participants. She was thus able to gain consent without coercion before they commenced the study. All data collected were identified numerically; no names of participants or children’s expert group was used or recorded. All consent forms were kept separately by the gatekeeper. Once all taped interviews were transcribed the tapes were destroyed.

**Findings**

Findings from the exploratory interviews of Phase 1 and the survey results from Phase 2 highlighted similar issues. Consequently, they are presented collectively in the broad themes as outlined in Table 1.

**Thematic design**

Participants at both phases commented on the need for both functionality and appropriateness of a thematic design within the new hospital environment. Throughout, all age groups, there were strong preferences for designs and textures, as illustrated in Table 1. Areas of the hospital were analysed separately
**Entrance/reception/outpatient areas**

Above all, children and young people felt that the hospital entrance should appear welcoming, inviting and clean. In addition, it was felt that there should be plenty of light, paintings and some welcoming signs especially geared for children. Comments included:

- ‘You need a sign saying – children are welcome here too!’
- ‘You need a design that both adults and children relate to’

**Corridors**

Along the hospital corridors, thematic design focused around simplicity of design, with common agreement that the most important aspect was to have large pictures or paintings and improved thematic signposting such as coloured arrows or footprints. Comments extracted include:

- “Arrows that stand out in different colours for different wards”,
- “Footsteps painted on the floor”

**The Ward**

The idea of having a theme for the ward was very well received by all participants at Phases 1 and 2. Overall, most popular designs or textures for the ward included sea, nature, animals, and shapes like waves along with a preference for metal, stars, glitter and shiny textures (see Table 1). In both phases, only very young children showed a
preference for animals and/or characters and ‘Disney’ type designs. A majority agreed at both phases that any theme decided upon should be incorporated throughout all areas of the ward. Further, comfort was important in the thematic design with a ‘home from home feel’ provided by accessory items like cushions, pictures, lamps and rugs.

Whilst there was common agreement about the themes of sea, nature and animals these appeared to alter with age and cognitive development. For example, in terms of the sea, the younger children aged 3-5 years old preferred the sea to be almost cartoon like focusing on symbols like a simple boat or a bucket and spade; the children aged 6-10 years viewed the sea as having a beach, fish, sea shells, boats, people and created an almost idyllic holiday scene and the young people aged 11 years above often viewed the sea more conceptually in waves, patterns and quite abstract in design. Further, at Phase 1, the young people aged 11 years and above, were clear that they preferred powerful but simple design, graphic art shapes and graffiti words in the design (n = 9). Several young people also referred to wanting mood lighting in order to change the thematic design of the ward (room or bed space walls).

It was also indicated in the findings that certain themes were not appropriate for both sexes. For example, at Phase 1 interviews a number of girls chose fairies or ballet dancing and similarly boys chose football but when this was explored in the survey at Phase 2 such views were found to be a minority. Overall it was agreed that themes had to work for all sexes. Comments are illustrated:
‘I think you could make it a different and interesting everywhere we look there should be something happening and changing like when you look underwater at the sea side. Everywhere we look there should be something new to look at’

‘I think it should be a design that hides the hospital so a fish or tree painted across a door and when the door closes you see the fish or whatever it is … this will help me stay calm I think’

**Colour**

Three colour ranges were used to analyse data at both Phases and were blue-green, red-pink-purple and orange-yellow spectrums. Exploration of colour highlighted the most interesting findings of the study. Overall, the most popular colour preferences were the mid blue-green colours, but some of the young people aged 11 years and above preferred the darkest range of blues and a range of mid, warm yellow-oranges, ‘bold’ pinks, silver and black. In the red-pink-purple colour range only eighteen (n=18/180 at both phases) participants showed a preference for mid red-pink-purple. All of the colours chosen were not bright colours as previous studies indicated (Redshaw and Smithell, 2000), but rather pale to mid colour ranges. Colour preference was also explored to ascertain specific colour preferences for different parts of the hospital.

**Entrance/reception/outpatient areas**

At both phases participants were asked to choose whether the preferred a single colour or more than one colour in the entrance of the hospital. For these areas, far greater numbers
(n= 123/180) preferred a single colour scheme, most commonly mid warm blue, pastel green and accent yellow, cream or orange. No participant chose any vivid single colours such as white, reds or green and only a few chose pastel colours. Accent colours were also used not only to supplement colours of the areas but also suggested as a way to add interest to the space such as using a paint effect.

**The corridors**

Overall participants felt that the corridors should be in warm, inviting colours but predominantly that they should be a single colour (or zoned areas in single colours) (n=112/180). Colours included warm blue, pastel green, pale or mid yellow (not lemon) or mid oranges. Children and young people repeatedly made the comment at Phase 1 that hospital corridors were often painted in cream or white, which they did not like as a single colour but these were acceptable as an accent. One comment here illustrates another point:

‘*Bright colours are good because they are eye catching and welcoming*  
*and feel clean, but not too bright as along the corridors you are trying to get somewhere*’

**The ward area**

Whilst respondents indicated a preference for one colour at the hospital entrance, suggestions for the children’s ward colour scheme were divided. Sixty-eight preferred one colour and 72 preferred multiple colours (see Tables 2 and 3). Preferred single
colours were blue, accent and pastel yellow and pastel orange whilst colour combinations were shades of blue, orange, pink, neutral and yellows. These responses were also echoed in the choice of playroom colours and/or chilling out rooms. Colour differences across the range of age groups of respondents was not found to be significantly different with respect to colour preference but this may reflect the small sample sizes in the study. Comments are extracted:

‘We do need variety in the ward but I don’t think it should be crazy colours’

‘You don’t it want it dull but you don’t want it over the top’

‘I think you could have one colour like blue and just change it in the different kids areas so like the little ones get more pale colours and we older ones get stronger colours and used more like art pictures kind of graphically d’you know what I mean... Yeah .. I’d like that’
Discussion

The novelty of the approach described was that it was driven by the opinions of children and young people through a combination of interviews and questionnaires. Thus, children’s choices offered interesting insights and challenge some of the ‘traditional’ perceptions in terms of hospital preferences for thematic design and colour (L4A 1990; Anshen Dyer, 1999; Redshaw and Smithell, 2000; Civi, 2002; Boylan, 2004; Haines and Johnston, 2001; BDP, 2004). Most notable findings included strong preferences for colour. It was ‘expected’ that the children and young people might choose the brighter colours on the selection colour and thematic charts offered but without any prompts at the interviews and questionnaires the children and young people repeatedly choose the mid and paler range of colours with blue-green colours being the most popular. This may be because of the calming effect of blue but green adds the warmth that they also preferred. There are some key examples of published work about children’s preferences for the hospital environment (Civi, 2002; Carney et al., 2003; CFHI, 2003; Boylan, 2004; Coyne, 2006). Many of these are about general facilities and do not explore the specific preferences for colour and design. Other notable studies are focused in dedicated children’s hospitals (L4A 1990; Anshen Dyer, 1999; Redshaw & Smithell, 2000; Haines and Johnston, 2001, Davies, 2004; BDP, 2004; New Evelina Children’s Hospital, 2007). Therefore, this project attempted to explore design and colour in a new district general hospital build using specifically designed colour tools more commonly used in choosing paint colour for homes.
One limitation of the study could have been that the tools offered too many choices to participants. Indeed, the Children and Young People’s Advisory Group and adult researchers had initially been concerned about this but clear patterns did emerge as outlined in the findings. Several also mentioned that they did not like the colours of the current hospitals and wards that they had accessed, but that they had not been previously asked using such a simple but helpful tool. Following the study, the Trust responded to the views of the children and all areas were painted in a range of blue-green using pastels for the younger children and mid-deeper colours the adolescent unit.

In exploring views about thematic design overall preferences included the use of water, nature, the beach and the sea. The majority of children and young people indicated that an underwater or sea environment was preferred. In Omaha, U.S.A. and in the U.K. (BDP, 2004) other children’s units have décor and themes based around water, attempting to bring the outside in (English and Holm, 2004). Whilst this study found a common theme of sea, nature and water, it should be noted that interpretation varied across the ages and abilities sampled as described in the findings. This could have been if the facilities were for example one ward, which all children and young people accessed. However, in this study, the new unit comprised of number of dedicated facilities and so the Trust were able to respond to the findings by adapting the décor and thematic design in each of the areas where the various ages of children and young people would access.
Use of artwork and simple thematic design was generally preferred. Overall, children and young people demonstrated preference for textures that incorporated metal; glitter or shiny textures and patterns, stars and striped materials. Several participants referred to wanting the ability to control their environment such as change the colour of walls and lighting. The concept of comfort was also a high priority in thematic design with a ‘home from home feel’ provided by accessory items like cushions, pictures, lamps and rugs and were subsequently supplied by the Trust. There were common patterns as highlighted in the findings and it may be that this study reflects contemporary children and young people choices in terms of health care facilities. This was also implied in the work by Carney et al (2003) and could be that the design choices are reflections of their environments at home and/or exposure to media such as television programmes (such as the plethora of DIY and home environment programmes). This might also explain the earlier points about colour. In this way, children and young people might have been attempting to find commonality in hospital to their home environments (or in some cases ‘the ideal home’).

Arguably, one concern is that there are no absolutes in colour and design preferences due to the many psychological or cultural reasons why someone would choose a colour and/or design or not. Such reasons will thus change from time to time and place to place. For example, an association might be popularity or a ‘fad’ (i.e. cartoon or Harry Potter type character); if there were a cultural association such as festivals or celebration (i.e. Christmas) and historical association (i.e. flag colour). In this project data collection took
place over a nine-month period (Spring to Autumn) and may have influenced children and young people’s choice around the popular sea and nature themes that emerged.

There is another important issue to discuss about this project and that was that informing the process were the Children and Young People’s Advisory Group. The group were given training as described, and with support, developed all data collection tools and verified data analysis. There are, however, several reflections for consideration in setting up and maintaining such a group. It was crucial that the children and young people advisory group were integrally involved in the project in terms of designing and piloting tools prior to use. Time was also allocated for the children and young people’s advisory group to firstly get to know each other, develop relationships of trust, gain confidence and skills to participate prior to commencing any research related activities. Determining ground rules from the start was essential and included being clear about their (and the adult researchers’) roles in the project and the balance of power in the decision-making processes.

Ongoing training was provided in a convenient location, at hours that fitted around school (or in one case college) and was delivered at a pace appropriate to the needs and abilities of the young people involved (Clark et al, 2001). Decision-making was facilitated as a group, with the children working alongside the adult researchers at Phase 1 and 2 took place (Coad and Evans, 2007). However, it should also be recognised that children, individually and collectively, may not always initiate all the ideas, and where an idea has come from adults, children should always be fully informed (Christensen and James,
2000; Lewis and Lindsay, 2000; Fraser et al, 2004). Payment for children’s contributions in research project has been considered in literature and is contentious, due to parental attitudes and potential negative effects on welfare benefits by adding cash to the household income (Jones, 2004). In this project the children and young people advisory group were asked preferences and it was agreed that vouchers of their choice should be given once the project was complete.

**Conclusion and final recommendations**

The recent drive to give meaningful choice to children and young people represents a significant change in health care policy and practice. This study actively consulted with and involved children and young people about their new hospital environment, revealing invaluable data on their preferences. Further, in the study children and young people acted as an advisory group in order to develop data collection tools, contribute to data analysis and verify findings. This was not only an innovative approach, but was also a positive strategy in informing the planning and designing of a new hospital aiming to best meet the needs of children and young people. Whilst this approach and findings was useful in the planning and decoration of the purpose built Children’s Services in University Hospital, Coventry, it is hoped that it will also be applicable further afield in other similar projects.
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L4A (1990) *Building the Best, the New Derbyshire Children’s Hospital*: Report of a Consultation Workshop with Staff, Parents and Children.


The New Evelina Children’s Hospital


Table 1: Common preferences for thematic design

Preferences only represented if total responses = 10 and over

<table>
<thead>
<tr>
<th>Design/Textures</th>
<th>Phase 1 (40)</th>
<th>Phase 2 (140)</th>
<th>Total phases 1&amp;2 (180)</th>
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<tbody>
<tr>
<td>Sea, water, beach or ocean designs</td>
<td>20</td>
<td>35</td>
<td>55</td>
</tr>
<tr>
<td>Metal, glitter or shiny</td>
<td>21</td>
<td>22</td>
<td>43</td>
</tr>
<tr>
<td>Nature, plants, trees or flowers</td>
<td>16</td>
<td>20</td>
<td>36</td>
</tr>
<tr>
<td>Patterns, stars and striped materials</td>
<td>13</td>
<td>19</td>
<td>32</td>
</tr>
<tr>
<td>Animals</td>
<td>11</td>
<td>20</td>
<td>31</td>
</tr>
<tr>
<td>Character designs (e.g Disney)</td>
<td>6</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>Space and Sci-fi</td>
<td>3</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Rainbow designs</td>
<td>1</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Children’s own design pictures</td>
<td>1</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>
Table 2. *Top six single colour choice for the Children’s ward (n = 68/180 Phases 1 and 2)*

<table>
<thead>
<tr>
<th>Colour</th>
<th>Number of times suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Blue</td>
<td>16</td>
</tr>
<tr>
<td>Accent Yellow</td>
<td>10</td>
</tr>
<tr>
<td>Pastel Yellow</td>
<td>10</td>
</tr>
<tr>
<td>Pastel Orange</td>
<td>9</td>
</tr>
<tr>
<td>Pastel Blue</td>
<td>8</td>
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<tr>
<td>Neutral tones</td>
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</tbody>
</table>

Table 3. *Top six multiple colour combinations for the Children’s Ward (n= 72/180 Phases 1 and 2)*

<table>
<thead>
<tr>
<th>Colour scheme</th>
<th>Number of times suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Blue, Pastel Blue &amp; Neutral</td>
<td>15</td>
</tr>
<tr>
<td>Neutral, Pastel Yellow &amp; Pastel Orange</td>
<td>13</td>
</tr>
<tr>
<td>Two shades of Mid Orange</td>
<td>10</td>
</tr>
<tr>
<td>Pastel Blue &amp; Pastel Pink</td>
<td>9</td>
</tr>
<tr>
<td>Neutral &amp; Mid Lilac</td>
<td>8</td>
</tr>
<tr>
<td>Mid Blue &amp; White</td>
<td>4</td>
</tr>
</tbody>
</table>