Play Intervention in Hospital Ward Towards Recovery of Hospitalized Children

Usman Bukar WAKAWA
PhD Student, Department of Landscape Architecture, Faculty of Built Environment, Universiti Teknologi Malaysia 81310 Johor, Skudai Malaysia, angilibukar@yahoo.com

Ismail SAID
Associate Professor, School of Postgraduate Studies Universiti Teknologi Malaysia 81310 Johor, Skudai Malaysia, Dr. b-ismail@utm.my

Abstract: Hospitalization in Nigeria focused mostly on medical satisfaction, with children treated to recover from sickness in an unfamiliar environment. As such, the children tend to develop a regressive behavior like clinging to their parents, crying, and not cooperating to medication intake. This study aims to explore how play interventions using loose play items inside the ward with sand, wooden logs, water, shells, cardboard, cartons, and stones can minimize the effect of acquired hospital stressors on early and middle childhood children. The study was conducted at the paediatric ward of Abubakar Tafawa Balewa University Teaching Hospital, Bauchi. Children behaviors were elicited through participatory research with twelve caregivers, using notes documentation and interview. Data were analyzed using content analysis. It was found that ward with play intervention provided more positive behavior than the ward without play intervention. Progressive performances were noticed on the children, from passive to physically active and from being alone to active interaction with fellow patients. It means that ward as play environment stimulates the inherent play behavior of children during their hospitalization process. The play activities represent a useful technique for a more friendlier and restorative hospital environment which can reduce the negative effect of children hospitalization.

Keywords: Children; Hospital ward; Environment; Play items; Caregivers; Performance

1. Introduction

Children hospitalization take place in an unfamiliar environment away from home, family and friends, with changes in child routine and activities, that can results to regressive behaviour which may leads to negative psychological outcomes (Rennick & Rashotte, 2009). Child adjustment to medical norms and hospital protocols has been an avenue for acquiring stressful hospital experiences (Hoon, Chi Sally, & Hong-Gu, 2013). This is as a result of changes they experience in the ward environment that restrict their movement, activities, play and interaction. Previous studies indicates behaviors such as anger, aggression, pain, apathy, anxiety and sleep disturbances as negative behaviors during hospitalization (Hsieh & Shannon, 2005). Priorities in the healthcare delivery focused on pathogenic treatment which emphases on functionality and treatment with efforts towards the control and the spreading of diseases (Dijkstra, Pieterse, & Pruyn, 2006). Less concern is given towards patients emotional feelings and psychological wellbeing. Children in paediatric ward settings are in an environment which they cannot influence or alter to suit their needs with little or no provision for them to interact and move freely (Adams, Theodore, Goldenberg, McLaren, & McKeever, 2010a; Said, 2006). This type of settings are the most common types found in Nigerian hospital with the hospital

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ward equipped with clinical and diagnostic equipment like ultrasound, blood pressure, tongue depressors, medical thermometers, and disposable gloves (Veerabadran & Parkinson, 2010). The sighting of such medical items alongside medical protocol induces fear and stress that make children worry, cry, cling to their parents, and developed resistance to medical procedures.

The hospital wards for children needs to be configured to provide a setting that allows children to have access to positive relationship attributes (Adams, Theodore, Goldenberg, McLaren, & McKeever, 2010b). The children need to feel that they come first, not the usual hospital protocols and routines (Wadley, Vetere, Hopkins, Green, & Kulik, 2014). Children’s view and demands that is normal as possible can influence their hospitalization and improves on their health restoration. Ward environment as play space can have a positive influence on child’s mood, improves in reducing stress level, and give a child a sense of psychological balance (Gatrell, 2013; Wadley et al., 2014). Moreover, Play to children is inherent and a process that is naturally motivated (Wing, 1995). Which shows that children chooses and selects the content of their play by following their own instincts, ideas and interests, in their own way for their own reasons (Josie & Issy, 2012; Russ & Christian, 2011, Russ & Christian, 2011). The desire to play is natural and a social necessity which is fundamental to children development (Josie & Issy, 2012). As such the healthcare indoor space arrangement need to be changed from the geometric style of providing space towards incorporating children perceptions in a space (Kosmadoudi et al., 2013).

Therefore, the hospital environment in Nigerian context can be improved upon by incorporating conventional play material in the ward indoors spaces (Loveday et al., 2014). For a child, the introduction of play can create the needed familiar home environment. The play intervention as a solution is through the use of loose items like sandpitch containing sand and water, wooden logs, water, shells, cardboard sheets, building blocks and stones on early and middle childhood paediatric patients.

This play items indicates children eagerness and willingness to engage in play, forget their worries, become friendlier and response to medication intake. It bridges the gap and make up the difference between children familiar home environment and their hospital ward (Adams et al., 2010b). The psychological aspect of healing employed through contact with nature oriented activities such as play can sustain children’s interest and attention, elicits their positive feelings, reduced fear and stress acquired as a result of hospitalization (Maller, Townsend, Pryor, Brown, & Leger, 2006). Play improves on their functioning, physically as they move and play around, socially as they communicate and interact during their play, and cognitively where they manipulate the items and share ideas during their play.

- To what extent do paediatric ward settings provide space for psychological and emotional health restoration for paediatric patients?
- What are the experience of hospitalized children without the benefits of play intervention?

2. Preparation

The study was conducted with twelve caregivers, four doctors and eight nurses. The participant were recruited to observe children behavior in the ward cubicle that was controlled, where play intervention using play items like sandpitch box, wooden logs and building blocks were incorporated alongside hospital norms and protocols. And uncontrolled ward cubicles that does not have any play intervention introduced in the ward space. All participants involved were contacted by the head matron of the
paediatric ward and obtained their consent to participate in the study. Consent for the patients were obtained from the hospital ethical and research committee and all parents were requested to sign the form. A total of eight weeks observation was performed with notes taken on daily basis.

The participants involved in the evaluation agreed that the team be divided into two groups, the first group consist of two doctors and four nurses that will monitor children response and behavior during the morning shift and ward round from six oclock to two oclock in the afternoon. And the second group consisting of equal number staff that will monitor and record behaviour during the evening shift from two oclock to ten oclock in the night. Participants were given a coloured note books for recording of children behavior, the books are returned to the leader of each group after each shift and issued out again to the participants at the commencement of each shift. This is to ensure that the note book and the information regarding the patients noticed behavior are secured for the period of the research.

2.1 Ward

The ward is a single block of flat building that covers an area of 680 M², equipped with nine cubicles, with an aisle of 2.6m wide used as the main traffic area in the ward. The cubicles are the same size of 5.8 x 4.8 m. The controlled cubicle for the experiment is located beside the uncontrolled cubicle, both having six beds, a cabinet and chair for each bed. This is the common arrangement in most hospital ward, but for the purpose of this study, the number of beds in controlled cubicle was reduced to three. This is to create the needed space for movement, play and the play items. Other sections are the emergency room, nurses station, one isolation room, observation, staff changing, staff resting room, offices, bathrooms and toilets. On collation of pre-intervention results, the study moved to the next stage which is the introduction of the play intervention in the ward cubicle with the following changes to the ward settings.

- Carpeting of the whole floor area with leather carpet for easier cleaning.
- Fixing synthetic grass carpet on 50% floor area in the ward cubicle.
- Reduce the number of beds in the cubicle from six to three which eventually reduces the number of patients relative and their visitors in the ward.
- Change the conventional beddings (Bed spread) to a more coloured pattern and images.
- Putting up new signs that has educational features on the different parts of the walls.
- Putting sandpitch box and water container with other manipulative play items sourced locally like stone of different sizes and shapes, shells, and wooden logs, blocks, and toys.
- A staff who monitors and take care of the play items including washing, changing play water, and cleaning the items.

3.0 Methods

The data were elicited from observation and notes taking, then followed by interview. The participants were specifically asked to evaluate their general perception of children behavior in the ward environment that has conventional play items and the ward environment that does not have the play environment. Note books were given to record children’s behavior for the period of the study and followed by structured interview to elicit the participants perception of children’s behavior during hospitalization. No clue was given to the participants on the kind of interview questions they will be asked, this is to avoid influencing their answers (Borlund & Dreier, 2014). Caregiver’s were only asked to explain their observation and perception of the two given ward spaces on the behavior of their patients during
the study period. Apart from their behavior the study intends to find out if the play environment can be integrated together with medical norms and hospital protocols. The verbatim of the interview with the caregivers as

Table 3.1. Children changes of behavior in relation to play environment of the ward as shown from interview with caregivers in the ward.

<table>
<thead>
<tr>
<th>Verbatim</th>
<th>Preliminary codes</th>
<th>Final codes</th>
<th>Themes</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 We noticed that the children began to feel at home, they were more relaxed, when we are not attending to them that is when they play, if a patient is more relaxed it will help him recover faster.</td>
<td>They feel at home, more relaxed, recover faster, it does not affect our work, and they accept their medication.</td>
<td>Home, Relaxed, Recovery, medication</td>
<td>Benefits, Duration, Nuances, Anomalies, Restoration, Positive Relationship and enabling environment</td>
<td></td>
</tr>
<tr>
<td>2 Right from the inception of this play environment, there is increase in their way of recovering, there is change in their mood and Behaviour, and it is about patient management, it has nothing to do with ethics, in the hospital, it can influence on the length of hospital stay, and creation of such play environment is a great achievement.</td>
<td>Play with peers, Increase in recovery, Improves on norms, Length of stay, Change in mood, Management of patient</td>
<td>Peers, Recovery, Norms, Stay, Mood management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 The play environment is an additional edge, we see it on the way they recover faster, the way they accept medication, and the way they relate around, they take the place like home, and also improves on their length of stay.</td>
<td>Recover, Relates with peers, feel at home, accept medication, improves on ethics, and reduces length of stay, more cooperating.</td>
<td>Recovery, Medication, Relationship cooperating</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4 The playground established here has aid on quick recovery of children, children like to play a lot, depriving them from play with their peer group will hinder on their healing and recovery; play improves on their quick recovery; they can be discharge before their time, paediatric should have playground for children, policy makers should provide the playground for children to help in their recovery. It helps children in accepting their medication; it will divert their attention during procedure.

| 4 | The playground established here has aid on quick recovery of children, children like to play a lot, depriving them from play with their peer group will hinder on their healing and recovery; play improves on their quick recovery; they can be discharge before their time, paediatric should have playground for children, policy makers should provide the playground for children to help in their recovery. It helps children in accepting their medication; it will divert their attention during procedure. | Quick recovery | Recovery |
| 5.1 Results |  | Part of ethics | Ethics |
| 5.2 Ward without play Intervention |  | Play is intervention | Intervention |
|  |  | Acceptance to medical | Acceptance |
|  |  | Attention | |

4.0. Analysis

Hospitalized children are the main unit of analysis, moreover, data obtained in each cubicle were compared with one another and verbal interview with caregivers were analyzed using content analysis, i.e responses were categorized and transcribed into words. The interview were transcript and analzed into three context to get an understanding of the text (Svendsen & Bjork, n.d.) The categorization comments were compared with the notes taking to elucidate patients behavioural responses in the ward with play intervention and the ward without play intervention.

5.1 Results

5.2 Ward without play Intervention

The largest percentage (73%) of the responses indicated that children are restless, bored and stressed, with regared to their coping abilities to medical norms and protocols, slightly more participants perceived this as a problem (79%) with only few children noticed to cope with the demand of hospitalization without any intervention. The most troubling issues identified by the caregivers in the ward without natural play intervention was less cooperation from children on the acceptance of routine medication, treatment and dressing of wound. Observation indicates that children frequently develop excessive fear, change in mood and facial expression when ever they noticed the presence of medical personals or being asked to undergo certain medical procedures.

Other identified issues as observed are excessive noise due to high number of patients in a ward cubicle in addition to their parents and patients relations. Overwhelmingly, the qualitative comments focused on poor environment settings with no nature inclined attributes that can make children feel at home, with lack of adequate space to move around and less motivation were mentioned in 80% of the
comments. Children always stick to their beds almost all the day, except those that are referred to another section of the hospital.

5.3 Ward with Intervention

Two weeks after the initial pre-intervention test, when the intervention arrangement was completed, one month of observation by the caregivers was conducted in the ward with play intervention. The results indicate significant improvement in the post intervention cubicle environment regarding access to increase mobility and movement skills and reduction in noise. It is observed that the children are more relaxed, friendlier and more cooperating to medical norms and protocols in the ward. The field notes and oral interview further indicate that the provision of natural play intervention, contributed to the children's responses to medication intake, more peaceful relationship with their peers and caregivers. More significant behavior indicates on the ability of children to respond to treatment and recover faster than the children in the ward without play interventions. A similar study by (Erika, 2012), examines the value of risky play for the development of children relationship in a natural outdoor environment in Norwegian kindergarten. The study found the following development to include communication, peers interaction, self-efficacy and children participation.

There is indication on few occasions that children prefer the ward environment with natural play intervention as children from other cubicle try to find their way into the ward cubicles to enjoy play with their peers. The biggest gain was reported in the last question of the interview with the participants who are the caregivers and the teams that took part in the pre-intervention and post intervention research. They were asked if they prefer the intervention and their views on whether it can work alongside hospital norms and medical protocols. Pre-intervention, the data shows that only 12% of the respondents like the ward environment without the intervention. Post intervention, 78% of the respondents reported to prefer the ward with play intervention and believed that it can work with hospital norms and medical protocols. At the end of the one month into the research, the hospital management have shown their readiness to introduce the play intervention in the other wards cubicle in the ward, but there was argument with the reduction of patients number in each cubicle for more play space.

6. Discussion

Other related studies has shown that children gained a lot of health benefits from play activities, where there is provision of play affordance especially in outdoor environment. The study shows that the combination of the two; play activities and the use of conventional loose play items in paediatric healthcare settings has more positive benefits as against the use of modern toys in a play rooms and the use of landscape elements and garden features for the same purpose for health restoration in children healthcare settings. The study shows that play activities and conventional loose play items indoors, beside children’s sick beds can enhance on children’s ability to recover faster, accept medication intake, become more friendlier and physically mobile. The findings showed significant improvement on children access to play items, their ability to socialise and play with peers, adopting to hospital routines, interaction which resulted into more relaxed, excited, cooperating and peaceful behavior that translated to positive relationship in the environment.

7. Conclusion

The findings of this study indicates that children are concerned with the play space in their ward settings. Clinical practice that can not be replaced should therefore value the time needed for children and allow them to engage in non-clinical approach alongside. As medical norms and hospital routines...
which cannot be avoided in paediatric healthcare. Using conventional loose play items inside the ward play space, rather than just distraction for the purpose of procedure or investigation. This kind of intervention can provide and fill the gap for the needed psychological and emotional healthcare aspect especially in under-developed countries where emphasis is toward pathogenic treatment.

Physical activities and peer play was reiterated through most of the interview as being the main achievement of using this non-clinical approach of play intervention using loose play items; cooperation to medication was equally mentioned in the interview. The caregivers claimed that the ward as play environment has helped them to have a more understanding relationship with the children, making the children more willing to accept their medication with less stress during procedure.

It is clear that the patients in the cubicle with play activities are developing a more tolerant behaviour, and changes in their cognitive, physical and social functioning. The patients behaviour has changed from passive behaviour to a more active behaviour; from looking sad, boredom, fearful, and disturbing behaviour to being cheerful, relax and more cooperative; and from being in bed and alone to playing actively with peers and caregivers. However, such scenerior was observed during the study to have no effect on children that are critically ill or recovering from major surgery in the ward. Future studies should focus on exploring different non-clinical methods that can be helpful in assisting children during their hospital stay.

8. Acknowledgment

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9. References


