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## Effectiveness of self-instructional module regarding therapeutic use of play materials among pediatric nurses in selected hospitals, Bengaluru

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### Abstract

**Background:** Decades of research has documented that play has a crucial role in the optimal growth, learning, and development of children from infancy through adolescence. Yet, this need is being challenged, and so children's right to play must be defended by all adults, especially educators and parents and also nurses. The time has come to advocate strongly in support of play for all children in hospital also.

**Methodology:** The research design used in this study was the pre-experimental one group pre-test, post-test design. 35 pediatric nurses were selected by purposive sampling technique. The tools used for data collection was a structured knowledge questionnaire. As an intervention, administration of self-instructional module on knowledge regarding therapeutic use of play materials in hospital.

**Results:** The study revealed that 37% of nurses were excellent, and 31.43% were good in terms of gaining knowledge on therapeutic use of play materials in hospital after self-instructional module. In pretest Mean score was 14.5, SD 6.10 AND MEAN percentage was 41.62%. Whereas In post-test Mean was 22.06, SD was 6.48 and mean percentage was 63.03%. The 't' test ( $t_{49}=6.69$ ,  $p < 0.05$ ) revealed that self-instructional module was highly effective in gaining knowledge among pediatric nurses.

**Conclusion:** The findings of the study concluded that self-instructional module was highly effective in gaining knowledge among pediatric nurses.

**Keywords:** Effectiveness, self-instructional module, pediatric nurses, knowledge

### Introduction

Children are the most valuable asset for any society. The future of the country depends upon the present children <sup>[1]</sup> all children go through stages of social development. An infant or very young child will play alone happily. The elder child is able to play with another child, gradually learning to share and take turns. Eventually the group grows larger, to three or four children. By the time a child enters kindergarten, he or she is usually able to join in and enjoy group experiences <sup>[2]</sup>.

Play is an integral part of a child's life. In the words of Alfred Adler play is a child's work and is not a trivial pursuit. Play provides children the opportunity to be free, creative and expressive. Play is synonymous with being a child and it is the universal language of children. Play allows children to learn social behavior, develop cognitive ability as well as gross and fine motor skills and work through emotional conflicts <sup>[3]</sup>. Through the universal medium of play children learn what no one can teach them. They learn about their world and how to deal with this environment of objects, time, space, structure, and people. They learn about themselves operating within that environment-what they can do, how to relate to things and situation, and how to adapt themselves to the demand society makes on them <sup>[4]</sup>.

Children from all cultures play. Even in cultures where young children are expected to assume adult work responsibilities, anthropologists cite examples of how children manage to integrate play into their daily tasks. This suggests that play is not only universal but essential to human development. Indeed, research has repeatedly shown that the benefits associated with play are profound and wide-ranging. Following a meta-analysis of 800 studies, Fisher concluded there was cogent evidence for the positive impact of play on children's developmental outcomes. Play was found to significantly promote cognitive and social aspects of development and these effects were magnified when adults participated in play with children.

Accordingly, childhood play is understood to be critical to children's development for multiple reasons, including the opportunity to communicate feelings, misunderstandings and concerns in their own language using both verbal and behavioral expression. Since play teaches children how to handle the world and the social roles in it, play is the predominant context in which children interface with their environment [5].

Toys are the 'tools' of play and provide a more 'natural' environment for a child. The proper selection and use of toys can reduce the traumatic effects of a hospitalization experiences and aid in the recovery phase of illness. Because play is a child's way of learning, toys, materials, and equipment are learning tools. Paints, modeling clay dolls, games, blocks, books, toys and interactive computer technology are some of the materials with which children rebuild the world to their size a world they bring with them of people special belongings (e.g. blanket or toy), and feelings [6].

The value of play in a child's development is recognized by experts and, for the child or adolescents in hospital, play have a very special significance. It is not a way of keeping them quiet or passing the time; it is a part of the treatment they receive. Play is important, both in preparing children for what is going to happen and in providing ways for them to work through anxieties and fears and deals with their experiences in hospital [7].

Play can be broadly defined as any activity in which children spontaneously engage and find pleasurable. For children in the hospital, specific forms of play can provide an effective venue for personal development and increased well-being. In particular, therapeutic play refers to specialized activities that are developmentally supportive and facilitate the emotional well-being of a pediatric patient. The discourse on play acknowledges important distinctions between therapeutic play and play therapy. Although these terms are often used interchangeably, the focus of therapeutic play is on the promotion of continuing 'normal development' while enabling children to respond more effectively to difficult situations such as medical experiences [8]. In contrast, play therapy addresses basic and persistent psychological issues associated with how a child may interact with his or her world. Therefore, therapeutic play, in a less structured way, focuses on the process of play as a mechanism for mastering developmental milestones and critical events such as hospitalization. Since therapeutic play comprises activities that are dependent on the developmental needs of the child as well as the environment, it can take many forms. For example, therapeutic play can be delivered through interactive puppet shows, creative or expressive arts, puppet and doll play, and other medically oriented play. It can be directive or non-directive in approach and may include re-enactments of medical situations to facilitate children's adaptation to hospitalization [5].

Regardless of the form that therapeutic play takes, the child life specialist (CLS) ensures that the play is developmentally appropriate while using language that is understandable to the child.

During therapeutic play children are encouraged to ask questions to clarify misconceptions and express feelings related to their fears and concerns. In this way, therapeutic play acts as a vehicle for eliciting information from children while also sharing information about what to expect from medical procedures and what sensations may be experienced

[9].

Therapeutic play typically consists of at least one of the following types of activities: 1) the encouragement of emotional expression (e.g. re-enactment of experiences through doll play), 2) instructional play to educate children about medical experiences, and 3) physiologically enhancing play (e.g. blowing bubbles to improve breathing) [16]. The studies reviewed here predominantly address medically oriented play, including emotional expression and instructional play forms.<sup>5</sup>

Working with children in the hospital is based on the worldly view that claims that the patient is first and foremost a child. Investing in his mental well-being will assist him and his parents to better cope with his illness and hospitalization. It is vital that the nurses work in cooperation with the educational staff and also integrate components of play during routine activity, in preparing children for surgeries and invasive procedures, and during painful or uncomfortable interventions. Children can suffer much anxiety and stress on entering the hospital environment. Play, in all its forms, can help to alleviate such stress, and facilitate a smoother adjustment to the new and potentially frightening surroundings of the children [10].

### Objectives of the study

1. To assess the knowledge of nurses regarding the therapeutic use of play material.
2. To evaluate the effectiveness of self-instructional module in terms of gain in post-test knowledge scores.
3. To find the association between nurses knowledge on therapeutic use of play material with selected demographic variable.

### Hypothesis

All hypothesis will be tested at 0.05 level of significance.

**H<sub>1</sub>** The mean post test score is significantly higher than the mean pretest score regarding the therapeutic use of play articles among Pediatric nurses.

**H<sub>2</sub>** There is a significant association between the knowledge levels with selected demographic variables among pediatric nurses.

### Methodology

**Research Approach:** Qualitative Approach

**Research design:** Experimental one group pretest post-test design

**Setting:** Selected hospital Bengaluru

Sample size: 35 Pediatric nurses

Sampling Technique; Purposive sampling.

### Tool for data collection

Part I: was the demographic proforma: consist of 7 items related to demographic data of participants.

Part II: was the structured knowledge questionnaire: Structured knowledge questionnaire consisted of multiple choice questions on therapeutic use of play articles.

### Method of data collection

Data was collected personally by the investigators with due permissions from the concerned authorities, and informed consent was obtained from the participants in a consent form. Institutional ethics committee approval was obtained.

Pretest was conducted for the pediatric nurses and self-instructional material was given in hospital setting. Post test was conducted after seven days using same structured knowledge questionnaire. Collected data was analysed

through descriptive and inferential statistics.

**Results**

**Section 1: Demographic profile of the staff nurses.**

**Table 1:** Distribution of Respondents according to demographic variables N=35

Characteristics	Category	Respondents	
		Frequency	Percentage
Age in Years	20-25	5	14.29%
	26-30	26	74.29%
	31 & above	4	11.42%
Gender	Male	5	14.29%
	Female	30	85.71%
Education	ANM	0	0
	GNM	30	85.71%
	B.Sc.	5	14.29%
	M.Sc.	0	0%
Work Experience	Below 1 year	3	8.57%
	1-3 years	22	62.86%
	4-6 years	7	20%
	Above 6 years	3	8.57%
Type of Hospital	Nursing Home	0	0
	Private Hospital	0	0
	Semi Private Hospital	0	0
	Govt. Hospital	35	100%
Source of information related to play therapy	Health Personnel	23	65.71%
	Mass Media	10	28.57%
	Family members/ Friends/ Neighbors	0	0%
	Others	2	5.71%
Did you ever use play articles in the hospital	Yes	30	85.71%
	No	5	14.29%

The result indicates that Out of 35 samples, about 14.29% belong to the age group 20-25 years, 74.29% belong to age group 26-30 years, and 11.42% belong to age group 31 years and above (Fig.3). Based on Gender, 14.29% of the respondents were males and 87.58% were females (Fig. 4). It is also evident that, 0% of the respondents were ANM, 85.71% were GNM, 14.29% were B.Sc nurses and 0% was M.Sc nurses (Fig.5). It is also evident from the table that Out of 35 samples, about 8.57% were below 1yr experienced 62.86% were 1 to 3 yr experienced, 20% was 4 to 6 yr

experienced and 8.57% had an experience of 6 yr and above. Out of 35 samples all of the respondents were working in government hospital. The table shows that for 65.71% of the samples the source of information regarding play therapy was health personal, for 28.59% it was mass media, for 0% family members/friends/neighbors were the source of information and for 5.71% gained information from other sources. It also indicate that out of 35 sample, about 85.71% respondent used play article in hospital and 14.29% respondent were not used play article in hospital.

**Table 2:** Mean and standard deviation for the knowledge of Staff Nurses regarding Therapeutic use of play articles (Pretest): N=35

Pre Test Knowledge Score					
Sl. No	Aspect of Knowledge	Max. Score	Mean	S.D	Mean %
1.	Play	11	5.2	2.38	47.27
2.	Play Therapy.	12	4.54	2.47	37.83
3.	Therapeutic use of play articles	12	4.83	2.38	40.25
Overall Knowledge Score		35	14.57	6.10	41.62

N=35

**Table 3:** Frequency and percentage distribution of level of knowledge of Staff Nurses regarding Therapeutic use of play articles (Pretest) N=35

Sl. No.	Knowledge Aspects	Inadequate (<50)		Moderate (50-75)		Adequate (>75)	
		F	%	F	%	F	%
1.	Play	18	51.43	16	45.71	1	2.86
2.	Play Therapy.	20	57.14	15	42.86	0	0
3	Therapeutic use of play articles	21	60	14	40	0	0
Overall knowledge		23	65.71	12	34.29	0	0

The above table depicts that 51.43% of the subjects have inadequate knowledge on play and 45.71% have moderate knowledge and 2.86% have adequate knowledge. Regarding play therapy, 57.14% have inadequate knowledge, 42.86% have moderate knowledge and 0% has adequate knowledge.

Regarding therapeutic use of play article, 60% have inadequate knowledge, 40% have moderate knowledge and 0% has adequate knowledge. In overall, 65.71% have inadequate knowledge, 34.29% have moderate knowledge and 0% has adequate knowledge.

**Table 4:** Mean and standard deviation of level of knowledge of Staff Nurses regarding Therapeutic use of play articles (Post test): N=35

Post Test Knowledge Score					
Sl. No	Aspect of Knowledge	Max. Score	Mean	S.D	Mean %
1.	Play	11	7.51	2.18	68.27
2.	Play Therapy.	12	6.71	2.90	55.92
3.	Therapeutic use of play articles	12	7.83	2.20	65.25
Overall Knowledge Score		35	22.06	6.48	63.03

**Table 5:** Frequency and percentage distribution of level of knowledge of Staff Nurses regarding Therapeutic use of play articles (post-test): N = 35

Sl. No.	Knowledge Aspects	Inadequate (<50)		Moderate (50-75)		Adequate (>75)	
		F	%	F	%	F	%
1.	Play	7	20	13	37.14	15	42.86
2.	Play Therapy.	14	40	12	34.29	9	25.71
3.	Therapeutic use of play articles	12	34.29	13	37.14	10	28.57
Overall knowledge		11	31.43	11	31.43	13	37.14

The above table depicts that the 20% of the subjects have inadequate knowledge on play and 37.14% have moderate knowledge and 42.86% have adequate knowledge. Regarding play therapy, 40% have inadequate knowledge, 34.29% have moderate knowledge. 71% have adequate

knowledge. Regarding therapeutic use of play article, 34.29% have inadequate knowledge, 37.14% have moderate knowledge and 28.57% have adequate knowledge. In overall, 31.43% have inadequate knowledge, 31.43% have moderate knowledge and 37.14% have adequate knowledge.

**Table 6:** Mean and standard deviation of level of knowledge of Staff Nurses regarding Therapeutic use of play articles (Comparison of Pre and Post test):-N = 35

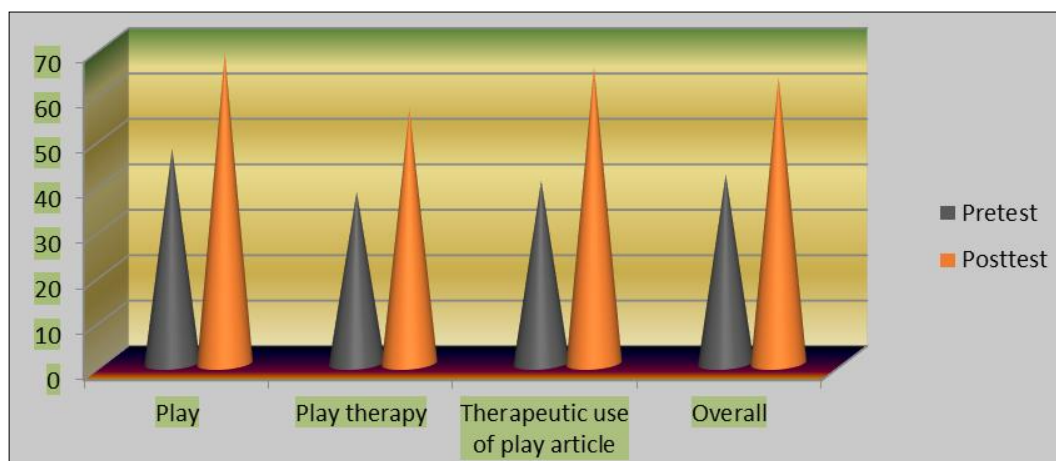
Comparison of Pre and Post Test Knowledge Scores					
Sl. No	Aspect of Knowledge	Max. Score	Mean	S.D	Mean %
1.	Play	11	2.31	2.53	21
2.	Play Therapy.	12	2.17	3.99	33.25
3.	Therapeutic use of play articles	12	3	4.8	40
Overall Knowledge Score		35	7.49	6.63	63.03

**Table 7:** The Comparison of pre and post test knowledge scores of Staff Nurses regarding Therapeutic use of play articles N=35

Sl. No.	Knowledge Aspects	Pre Test			Post Test			Paired t-value	Inference
		Mean	Mean%	SD	Mean	Mean%	SD		
1.	Play	5.2	47.27	2.38	7.51	68.27	2.18	5.37	HS
2.	Play Therapy.	4.54	37.83	2.47	6.71	55.92	2.90	3.24	HS
3	Therapeutic use of play articles	4.83	40.25	2.38	7.83	65.25	2.20	3.70	HS
Overall knowledge		14.57	41.62	6.10	22.06	63.03	6.48	6.69	HS

The obtained ‘t’ value 2.021 is less than the table value in 3 aspects, at 0.05 significance. Therefore the obtained ‘t’ value is found to be highly significant for four values. The above table indicates that there was improvement in mean knowledge score in all knowledge aspects. The overall knowledge score shows that there was positive improvement

score 6.69 which is greater than the table value 2.021 and found to be highly significant at the level of  $p < 0.05$  hence it is evident that the Self instructonal module was effective in improving the knowledge level of Pediatric nurses on therapeutic use of play article.



**Fig 1:** Distribution Of Mean Percentage Pre and Post Scores Pediatric Nurses:



**Table 8:** Association between pre-test knowledge scores with their selected Personal variables N=35

Sl. No.	Personal variables	Table value	d(f)	Chi square value	Level of significance
1	<b>Age in years</b>				
	<ul style="list-style-type: none"> <li>▪ 20-25</li> <li>▪ 26-30</li> <li>▪ &gt;30</li> </ul>	5.99	02	3.34	Not Significant
2	<b>Gender</b>				
	<ul style="list-style-type: none"> <li>▪ Male</li> <li>▪ Female</li> </ul>	3.84	01	0.21	Not Significant
3	<b>Education</b>				
	<ul style="list-style-type: none"> <li>▪ ANM</li> <li>▪ GNM</li> <li>▪ BSC</li> <li>▪ MSC</li> </ul>	7.82	03	0.41	Not significant
4	<b>Work experience</b>				
	<ul style="list-style-type: none"> <li>▪ &lt;1year</li> <li>▪ 2 to 3 years</li> <li>▪ 4 to 5 years</li> <li>▪ 6 years &amp; Above</li> </ul>	7.82	03	17.22	Significant
5	<b>Type of hospital</b>				
	<ul style="list-style-type: none"> <li>▪ Nursing home</li> <li>▪ Private hospital</li> <li>▪ Semiprivate hospital</li> <li>▪ Government</li> </ul>	3.84	03	0.79	Not significant
6	<b>Source of Information</b>				
	<ul style="list-style-type: none"> <li>▪ Mass media</li> <li>▪ Health Personnel</li> <li>▪ Family members/Friends/Neighbors</li> <li>▪ Others</li> </ul>	7.82	03	7.7	Significant
7	<b>Did you ever use play article</b>				
	<ul style="list-style-type: none"> <li>▪ Yes</li> <li>▪ No</li> </ul>	3.84	01	1	Not significant

The data presented in the table shows that the computed Chi-square value for association between pre-test level of knowledge pediatric nurses regarding therapeutic use of play article is found to be statistically not significant at 0.05 levels for age, gender, education, type of hospital and previous of use play article and significant for work experience and sources of information. Therefore, the findings did not support the research hypothesis H<sub>2</sub> for demographic variables for age, gender, education and previous of use play article and support the research hypothesis H<sub>2</sub> for work experience and sources of information. Hence the research hypothesis is accepted inferring that nurses pretest level of knowledge regarding therapeutic use of play article is significantly associated with their demographic variables age and years of clinical experience.

#### Conflict of Interest

Not available

#### Financial Support

Not available

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