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Effectiveness of Information Booklet on Knowledge Regarding Gross and Fine Motor Milestones of Toddlers

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ABSTRACT

INTRODUCTION: The development of children has been considered as an integral part of national development. Milestone provide a framework for observing and monitoring a child over time. **Gross motors skills** are bigger movements-such as rolling over and sitting. **Fine motor skills** are small movements-such as picking up **small** objects. A **toddler** is a child between the ages of one to three.

AIM OF STUDY: The aim of the study is to assess the effectiveness of information booklet on knowledge regarding gross and fine motor milestones of toddlers among anganwadi workers working in selected rural areas of District Sri Muktsar Sahib.

MATERIALS AND METHODS: Study was conducted in block Malout and block Lambi District Sri Muktsar sahib, Punjab. An pre experimental design in which one-group pretest-posttest research design was used to assess the knowledge of anganwadi workers regarding gross and fine motor milestone of toddlers. A sample size of 60 i.e. selected by convenience sampling technique. and the The data was collected by self structured knowledge questionnaire and was analyzed and interpreted according to the objectives.

RESULTS: The data analysis reveals pre-test knowledge mean ±S.D is 7.88±1.69 and post-test knowledge mean ± S.D is 16.71 ± 1.39 which was found statistically significant (paired t value was found to be 37.896**, df=59) at 0.05 level of significance. So there is statistically significant difference in the mean pre-test and mean post-test knowledge. There was significant association between knowledge level with age, and previous training regarding milestones of toddlers as statistically analyzed.

CONCLUSION: finding of the present study was conducted that information booklet is effective in increasing knowledge of anganwadi workers regarding gross and fine motor milestones of toddlers.

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KEYWORDS: *Gross and Fine Motor Milestones of Toddlers, Information Booklet, Knowledge.*

INTRODUCTION

The development of children has been considered as an integral part of national development. Milestone provide a framework for observing and monitoring a child over time**Gross motors skills** are bigger movements-such as rolling over and sitting-that use the **large** muscles in the arms, legs, torso, and feet. **Fine motor skills** are small movements-such as picking up **small** objects and holding a spoon-that use the small muscles of the fingers, toes, wrists, lips, and tongue. A **toddler** is a child between the ages of one to three. The toddler years are a time of great cognitive, emotional, and social development. The word is derived from "to toddle", which means to walk unsteadily, like a child of this age.[1]

Need of study

1. Knowledge of developmental milestones is essential for assessing normal development and to identify any delay in development..
2. It is important for the health workers to understand this early period as well as the total life cycle of an individual and understand the behavior of parents and other adults who provide care for the child.
3. A well-balanced nutrition is needed for proper growth and development of toddlers, there is a strong relationship between physical growth and dietary intake.

Objectives of the study

1. To assess the pre-test knowledge regarding fine and gross motor milestone of toddlers among anganwadi workers .
2. To assess the post-test knowledge regarding fine and gross motor milestone of toddlers among anganwadi workers.
3. To compare the pre-test and post-test knowledge regarding fine and gross motor milestone of toddlers among anganwadi workers .
4. To find out the association of knowledge with selected demographic variables.

MATERIAL AND METHODS

Quantitative research approach, pre-experimental design in which one-group pretest –posttest design will be used to carry out the study. The present study was carried out to evaluate the effectiveness of Information booklet on knowledge regarding gross and fine motor milestones of toddlers among anganwadi workers working in selected rural areas of District Sri Muktsar Sahib. The target population consists of anganwadi workers working in selected rural areas Malout, block Lambi of district Sri Muktsar Sahib. Anganwadi workers from block Malout i.e. Malout and village block Lambi i.e. Lambi and village .In this study convenience sampling technique will be used. The sample size of the study comprises of 60 anganwadi workers out of which selected from block Malout and block Lambi rural areas district Sri Muktsar Sahib. Convenience sampling was used to select the samples.

Part A**:** Demographic data of the study participants. Demographic data of the study participants which comprised of items seeking information pertaining to the selected variables such as age, religion, marital status, type of family, educational status, experience of anganwadi workers and previous training regarding milestone of toddlers (anganwadi workers) and Part B**:** Self Structured questionnaires to assess knowledge of anganwadi workers regarding gross and fine motor milestone of toddlers which comprised 20 knowledge question. Each item has a single correct answer. Every correct answer was awarded a score of „one" and every incorrect answer was awarded a score of „zero". Thus the maximum possible score was 20 and minimum possible score was „zero" on the structured knowledge questionnaire.

The formal administrative approval was obtained from Child Development Project Officer of block Malout i.e. Malout and village block Lambi i.e. Lambi and village district in Sri Muktsar Sahib to conduct the main study. Study was conducted in the month of Fab, 2017 to evaluate the effectiveness of Information booklet on knowledge regarding gross and fine motor milestones of toddlers among anganwadi workers working in selected rural areas of District Sri Muktsar Sahib.

Prior to data collection, permission is obtained from the research ethical committee and concerned authority of anganwadi workers for conduction of study. Total 60 anganwadi workers is selected on the basis of inclusion and exclusion criteria through convenience sampling technique. Informed consent will be obtained. Pretest is conducted on group by using structured questionnaire. An information booklet will be given to the group regarding gross and fine motor milestones of toddlers. After 7 days, posttest is conducted on group.

Results

Table 3. reveals that during pre-test majority 35(58.33%) of anganwadi worker, had average level of knowledge, 25(41.66%) of anganwadi workers had poor and 0 (0.00%) of anganwadi workers had good level of knowledge regarding gross and fine motor milestone of toddlers. Table 4. revels that pre-test mean knowledge score is 7.88 and standard deviation is 1.69. Table 5 reveals that during the post-test, majority 55(91.66%)of anganwadi workers had good, 5(8.33%) of anganwadi workers had average and 0(0.00%) of anganwadi workers had poor level of knowledge. Table 5 reveals that during the post-test, majority 55(91.66%)of anganwadi workers had good, 5(8.33%) of anganwadi workers had average and 0(0.00%) of anganwadi workers had poor level of knowledge. Table 6. revels that post-test knowledge score is 16.71 and standard deviation is 1.39.

Table 7. Comparison of pre-test and post-test knowledge regarding gross and fine motor milestone of toddlers among anganwadi workers.

Level of knowledge	Mean ± Standard deviation (S.D.)	Paired 't' test (p-value)
Pretest	7.8833 ± 1.69837	37.896** (0.000) Df = 59
Posttest	16.7167 ± 1.39115	

** significant at 0.05 level of significance.

Table 7. depicts that the pre-test knowledge mean ± S.D of anganwadi workers is 7.88 ± 1.69 whereas post-test knowledge mean ± S.D is 16.71 ± 1.39 which was found statistically significant (paired t value was found to be 37.896**, df=59) at 0.05 level of significance. So there is statistically significant difference in the mean pre-test and mean post-test knowledge of anganwadi workers.

Hence it is concluded that there is statistically significant difference in mean knowledge score during pre and post level of knowledge at 0.05 level of significance.

Table 8 depicts the association between level of knowledge and selected demographic variable. On analysis there was a statistically significant association between Age (in years) and level of knowledge as evidenced by chi square value 8.594***, df = 3 at 0.05 level of significance. While calculated chi-square value 21.42*** for previous training regarding milestone of toddlers was and df = 1 at 0.05 level of significance respectively which was found to be significant. But there is no significant association of pre-test level of knowledge with religion, type of family, marital status, educational and year of experience status of anganwadi workers .

Table 9 depicts that there was no significant association of post-test level of knowledge with selected demographic variables of anganwadi workers.

DISCUSSION

This chapter includes the discussion of the findings of the study interpreted from statistical analysis. The findings are discussed in relation to the objectives, need for the study and related literature of the study. It is presented in line with the objectives of the study the problem stated as "**A study to assess the effectiveness of Information booklet on knowledge regarding gross and fine motor milestones of toddlers among anganwadi workers working in selected rural areas of District Sri Muktsar Sahib."** The objective is fulfilled by the findings shown in Table 4. revels that pre-test mean knowledge score is 7.88 and standard deviation is 1.69. As above objective is supported by **Santos MM et al (2013)** A study was conducted to assess Comparison of motor and cognitive performance of children attending public and private center. Participants were divided into 2 groups, 1 of children attending public day care center (69 children). All children and another of children attending private day care center (47children). All children were healthy and regularly attended day care full time for over 4 months. Children in public day care centers exhibited lower cores on the cognitive development scales beginning at 13 month old. The fine and gross motor performance of children over the age of 25 months attending public centers. The scores of cognitive performance as well a fine and gross motor performance of children who attend public day care centers are lower than children attending private care centers[2]. The objective is fulfilled by the findings shown in Table 6. revels that post-test knowledge score is 16.71 and standard deviation is 1.39.

The above objective is supported by **Suraj JM et al (2006)** A descriptive cross-sectional study conducted to assess the development milestone and the health of toddlers at village Dadu Majara, Chandigarh. A total of 160 children between the age group of 12 to 24 months comprised the sample of the Denver Development Screening Test. Majority of the children were able to achieve the development milestone. Some of the activities that the children had difficulty according to their age were broad jump, pedaling tricycle, jumping in place (gross motor), imitating vertical line, tower of 4 and 8 cubes (fine motor). The physical health assessment revealed that children were suffering from varied degrees of malnutrition ranging from grade to grade. About 15.6% of subjects were found with found with abnormal physical characteristics.[3] The objective is fulfilled by the findings shown in Table 7 depicts that the pre-test knowledge mean ± S.D of anganwadi workers is 7.88 ± 1.69 whereas post-test knowledge mean ± S.D is 16.71 ± 1.39 which was found statistically significant (paired t value was found to be 37.896**, df=59) at 0.05 level of significance. So there is statistically significant difference in the mean pre-test and mean post-test knowledge of anganwadi workers.

Hence it is concluded that there is statistically significant difference in mean knowledge score during pre and post level of knowledge at 0.05 level of significance.

As above objective is supported by **Meenkshi M et al (2017)** A comparative study conducted from

jyotsnadevi patil pediatrics centre medical college, Jabalpur, Madhya Pradesh India. The aim of the study is to teaching of non professional health workers in a simple technique of developmental screening of infants and young children 20 anganwadi workers were trained for developmental screening of infants and young children (6 weeks-2years) and there results compared with that of trained medical praticitoner. The screening tool was used the wood side system screening a reference test (GESCLL'S Developmental schedule) was give to 56.5% of the sample. That tester reliability worked out on 50% of testers was comparable. The results of the tester reliability worked out on 150 children were statically comparable. A high level of proficiency of workers were retrained throughout the study through constant supervision and cross checked y the author the successfully training of insufficiently used paramedical manpower for decreasing the cost of medical care and improving the utilization of the health delivery system was highlighted in these cross sectional study 619 children were assessed by the anganwadi workers.[4]

The objective is fulfilled by the findings shown in Table 8 depicts the association between level of knowledge and selected demographic variable. On analysis there was a statistically significant association between Age (in years) and level of knowledge as evidenced by chi square value 8.594***, df = 3 at 0.05 level of significance. While calculated chi-square value 21.42*** for previous training regarding milestone of toddlers was and df = 1 at 0.05 level of significance respectively which was found to be significant. But there is no significant association of pre-test level of knowledge with religion, type of family, marital status, educational and year of experience status of anganwadi workers .

As above objective is supported by **Patel NV, Kaul KK et al(1981),** A study conducted include the knowledge and practice of anganwadi worker about infant development in Gondi district a total of 36 female anganwadi supervisors are registered and included in the study group before the trailing the score of the participants are as followed-very good-23,(63.88%), good-7(19.44%), average-and 2(5.5%) below average scores. The lowest pretest score was 11(55%), the highest was 18(90%) which was out of a maximum score of 20% the lowest post test score was 14(70%) while the highest was 20(100), which was out of a maximum score of 20, 16 (14.44% of the participant got very good scores, 19 (52.77%) got good, and 1 (2.77%) got an average score. There were no below average scores in the post test all almost all 100% of the supervisors have correct knowledge about development assessment in infants.[5]

Limitations of the study

1. The study did not assess the attitude and practice of anganwadi workers.
2. The study is limited to gross and fine motor milestones of toddlers.

Recommendations

On the basis of the findings of the study following recommendations have been made-

1. A similar study can be replicated on large sample.
2. A similar study can be conducted among other health personnel and mothers of toddlers.
3. A comparative study can be conducted to provide a complete or consistent picture about gross and fine motor of milestones of toddlers and its prevention among toddlers.
4. Similar study can be done by using other teaching strategies i.e. self instruction/computer assisted instructions.
5. A similar study can be conducted to check the attitude and practice of anganwadi workers knowledge regarding gross and fine motor milestones of toddlers.

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