

Assessing the Impact of Aalambana Mobile App on Knowledge Levels of Anganwadi Workers and Rural Mothers

Bilquis, K M Madhumathi, G Shainy and B Prashanthi

Dept. of Human Development and Family Studies, College of Community Science, Lam, Guntur, A. P.

ABSTRACT

The current study was undertaken to test the efficacy of the developed Mobile App Aalambana in enhancing the knowledge levels of rural mothers and Anganwadi workers in the area of child health, nutrition and development. The sample consist of 120 (60 Rural mothers and 60 Anganwadi workers), where in 60 participants were taken as experimental group (30 Rural mothers and 30 Anganwadi workers) and 60 as control group (30 Rural mothers and 30 Anganwadi workers). A pre-post experimental design was adopted for the study. The experimental group were educated for a period of six months by using mobile App Aalambana. The knowledge of rural mothers and anganwadi workers was assessed before the education programme in the areas of health, nutrition, development and life skills were the standardized questionnaire. The experimental group was educated for period of six months by using mobile App. After six months post test was done to both experimental and control groups to assess the in knowledge levels. Results indicated a significant improvement in the knowledge levels of experimental group respondents. The developed mobile App Alambana was found to be useful in enhancing the knowledge levels of Rural mothers and Anganwadi workers.

Keywords: *Aalambana, Anganwadi workers, Development, Health, Life skills components, Mobile App, Nutrition and Rural mothers.*

Smart phone is considered as an important innovation that has changed the human life in several aspects. Android has emerged as the most widely used operating system in Smart Phones. Android operating system is open source and freely accessible to everyone. On Android operating system, many applications (apps) are available for fun, entertainment and education. With cut-throat competition for various examinations, students have moved from conventional way of learning to Mobile learning for preparation.

There is a growing demand for smart mobiles and apps related to health, agriculture, education, stress management, shopping, music etc. in both rural and urban areas. The usage of internet has been increased with the increase in usage of smart mobile

and apps. These apps helps in monitoring, analyzing and also provides updated information within reach to all mobile users which enable to empower in different fields. Mobile app is a medium through which the information reaches a larger group individually. There are many apps to help out the rural population of the country in different areas like health, education. But there is a need to provide need based information to the field level functionaries and women in rural areas to provide a path to quality life of rural families in general and children in particular.

Advances in communication technology enabled the dissemination of information even to remote areas. Use of devices has become part of life of all sections of people living in urban, rural and tribal

areas, though the main usage is for entertainment. The technological devices like smart phones completely replaced traditional modes of communication and people irrespective of place of residence are at ease in use of these tools.

Studies indicate that the use of mobile apps in health sector, education sector and agriculture showed positive effects on health, learning outcomes and production respectively. There are apps available for monitoring of crops and empower farmers to increase crop productivity but there are no such apps available for enhancing quality of life of farm families based on human development indicators.

Literature on incidence of Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), Under-nutrition and Pre-maturity are increasing which can be prevented by empowering field level functionaries, farm families through awareness generation, timely advice. Hence, the present study is proposed to empower farm families and field level functionaries through mobile app.

MATERIAL AND METHODS

The present study was undertaken to educate the farm families and field functionaries by using a developed Mobile App – AALAMBANA. The mobile app “Aalambana” was developed by the Department of Human Development and Family Studies, College of Community Science, ANGRAU, Lam, Guntur as an outcome of the State Plan Project in the year 2021. The study was carried out in Guntur district of Andhra Pradesh in the year 2020-21.

Sample Size

The sample size comprised of 100 members out of which 50 respondents (25 Anganwadi workers and 25 rural mothers) formed experimental group and 50 respondents formed control group.

Location of the study

Jonnalagadda village (Experimental) and Thulluru village (Control Group) of Guntur District.

Period of education

The rural mothers and Anganwadi teachers of experimental group were educated by the developed mobile App on the components of

- Ø Nutritional and Health Care of Pregnant and lactating
- Ø Child health care and stimulation
- Ø Developmental milestones
- Ø Parenting styles
- Ø Life skills for four months.

Pre and Post test

Knowledge assessment was done for the both experimental and control group respondents before and after education.

RESULTS AND DISCUSSION

The data were collected from the experimental and control group respondents before and after the educational programme by using the developed mobile App. The results are furnished below.

The data shows that pre test results of experimental group revealed that nearly less than fifty percent of the rural mothers and anganwadi workers had average knowledge in the component of nutritional and health care followed by poor and good knowledge levels. This indicates that the information provided in the Mobile App in the components of maternal and child nutrition, pre and post natal health care was appropriate and informative to educate rural mothers and extension functionaries. However 25% of the respondents were found to have poor knowledge levels during the post test who did not attend the education programme regularly.

Table 1. Nutritional and health care of pregnant and lactating

Category	Experimental Group N=50				Control Group N=50			
	Pre test		Post test		Pre test		Post test	
	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)
Good	21	19	49	35	22	26	26	32
Average	46	54	31	40	44	50	45	52
Poor	33	27	20	25	34	24	29	16

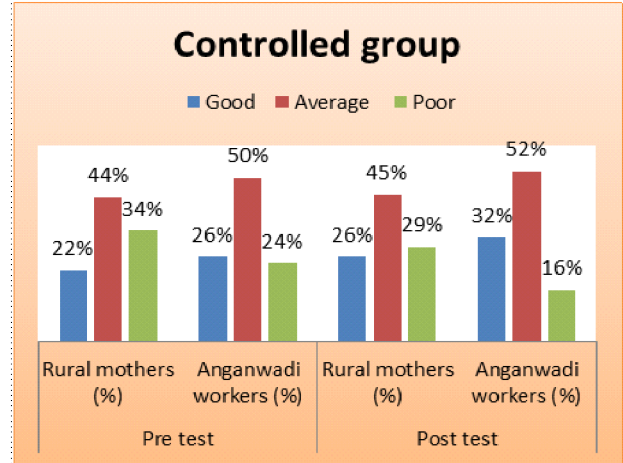
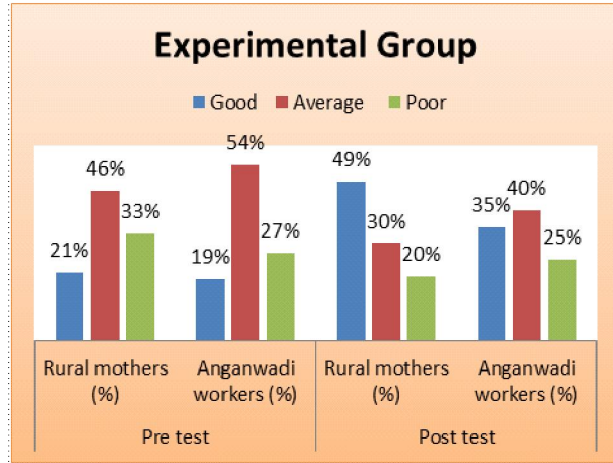


Fig 1. Nutritional and Health Care of pregnant and lactating

Table 2. Child health care and stimulation

Category	Experimental Group N=50				Control Group N=50			
	Pre test		Post test		Pre test		Post test	
	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)
Good	25	39	54	55	23	32	23	35
Average	29	30	33	35	26	26	29	30
Poor	46	31	23	10	51	42	48	35

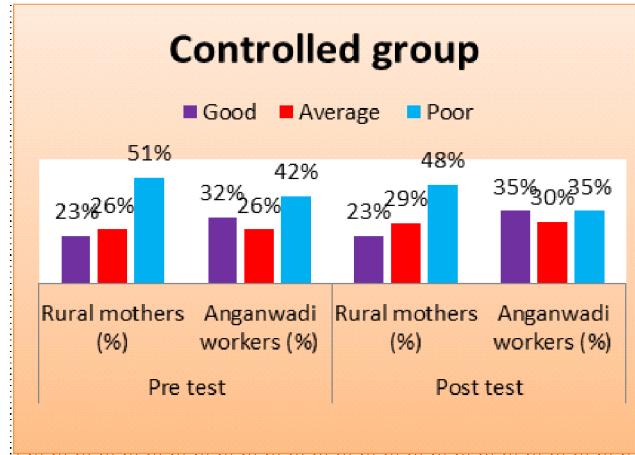
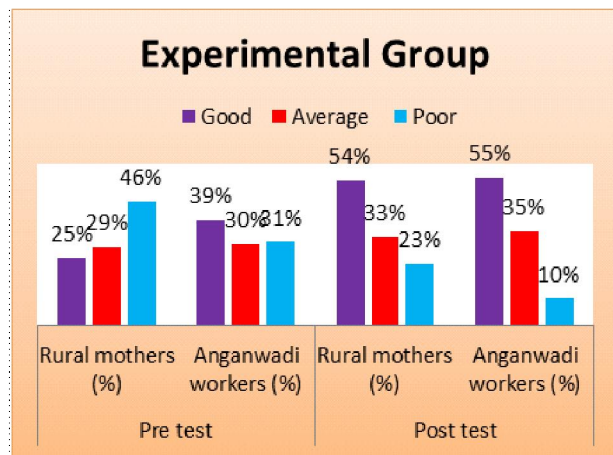


Fig 2. Child health care and stimulation

The pre test results of controlled group revealed that nearly fifty percent of the anganwadi workers and forty four percent of rural mothers had average knowledge level for the component of nutritional and health care followed by good and poor. The post test results indicated a slight increase in the knowledge levels which was not significant compared to experimental group.

The pre test results of experimental group revealed that forty six percent of the rural mothers and thirty one percent anganwadi workers had poor knowledge *regarding child health care and*

stimulation aspects. After educating the participants with the developed mobile App which contained information on importance of stimulation and developmental outcomes in children a significant rise in the knowledge levels was observed in anganwadi workers and rural mothers during the pos test.

The controlled group respondents were found to have average to poor levels of knowledge in the areas of child health care and stimulation during pre test. However a slight increase in the post test was observed.

Table 3. Developmental milestones

Category	Experimental Group N=50				Control Group N=50			
	Pre test		Post test		Pre test		Post test	
	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)
Good	22	51	48	79	20	48	23	50
Poor	78	49	52	21	80	52	77	50

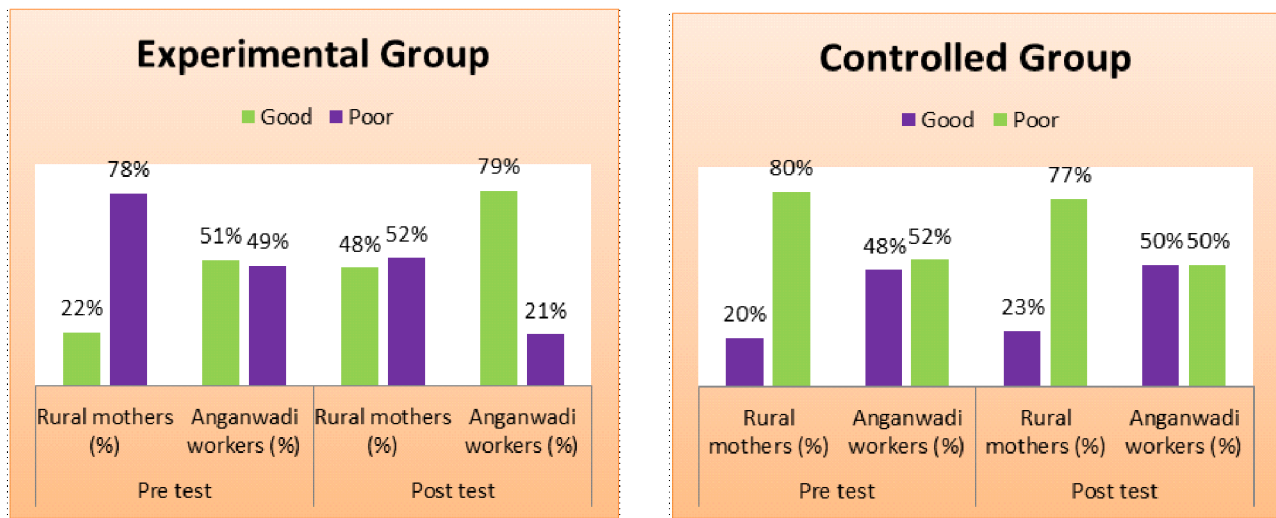


Fig 3. Developmental milestones

The data inferred that both experimental and controlled group anganwadi workers had fifty percent of knowledge in the areas of developmental milestones. Majority of the rural mothers (78%) had poor knowledge levels *regarding developmental mile*

stones. After experimental group respondents were educated with the help of the App information which contains posters, picture and videos related to the developmental mile stones there was a significant rise in the knowledge levels compare to controlled group.

Table 4. Parenting styles

Category	Experimental Group N=50				Control Group N=50			
	Pre test		Post test		Pre test		Post test	
	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)
Good	29	25	49	51	27	31	33	36
Average	47	45	30	23	44	47	49	51
Poor	29	30	21	26	29	22	12	13

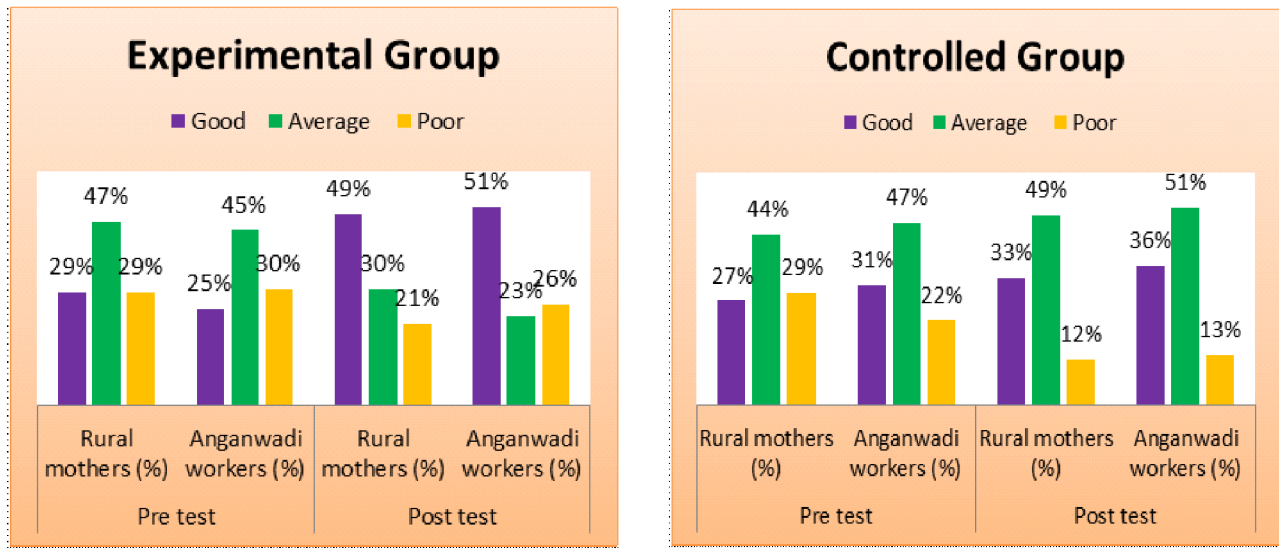


Fig 4. Parenting styles

From the above table it is interesting to note that rural mothers and anganwadi workers of both experimental and controlled group did not have much knowledge about the types of parenting styles and its impact on children developmental outcomes. The developed mobile App explains about the four major

parenting styles and tips for the parents which helps them for promoting optimum development in children. The post test data indicates a proportionate increase in the knowledge levels of experimental group compared to controlled group.

Table 5. Life skills

Category	Experimental Group N=50				Control Group N=50			
	Pre test		Post test		Pre test		Post test	
	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)	Rural mothers (%)	Anganwadi workers (%)
Good	26	32	59	64	27	30	30	32
Poor	74	68	41	36	73	60	70	68

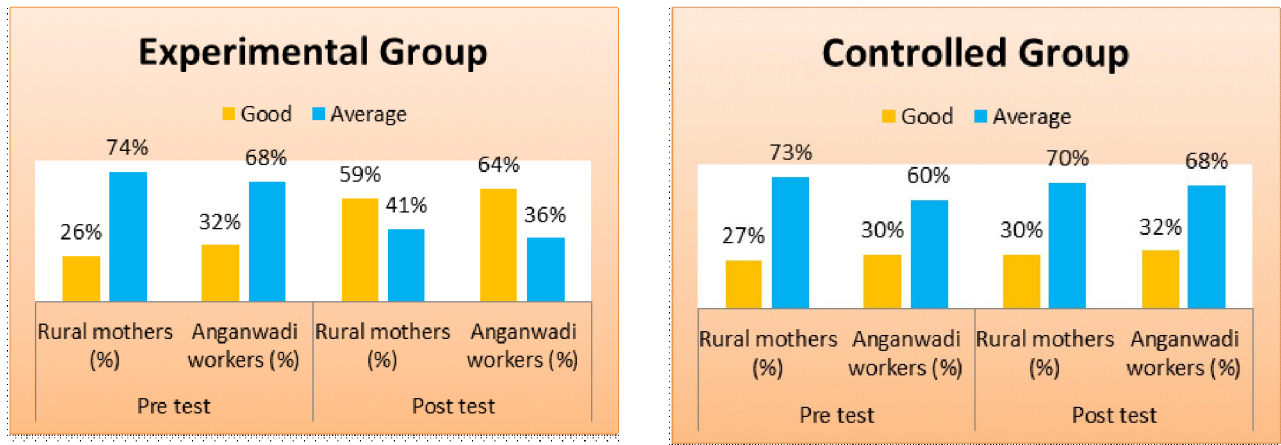


Fig 5. Life skills

The data on life skills component reveals that majority of the (70%) experimental and controlled group respondents had poor knowledge during pre test. The Mobile App contains information on major life skills- Decision making, communication, creative thinking, problem solving, critical thinking, stress management. Experimental group were educated on life skills for a period of four months the post test results indicate a significant increase in the knowledge on life skills components.

CONCLUSION

The mobile App “Aalambana” was found to be useful in improving the knowledge levels of the

rural mothers and extension functionaries of experimental group in the areas of health, nutrition, developmental mile stones, parenting styles and life skills. The mobile App contains information in the form of text, audio and video forms. This helped the stakeholders to understand the concepts and easy to follow. The study concluded a significant improvement in the knowledge of experimental group respondents than controlled group. The respondents who have installed the App and read the contents could enhance their knowledge in the post test. Overall, the mobile app was found to be user friendly and apt technology for educating the mothers and anganwadi workers.