

A Study to Assess the Effectiveness of Video Assisted Module Regarding the Prevention of Neonatal Infection Among the Mothers of Neonate at Selected Hospital of Jaipur City

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Abstract

Background: Neonatal infections remain a major cause of neonatal morbidity and mortality, particularly in developing countries. Mothers' knowledge regarding the prevention of neonatal infections plays a crucial role in reducing infection-related complications and improving newborn survival. Educational interventions, such as video-assisted teaching modules, may enhance maternal awareness and preventive practices.

Methodology: A quasi-experimental, two-group pre-test and post-test research design was adopted. Sixty mothers of neonates (30 experimental and 30 control) were selected using purposive sampling from selected hospitals in Jaipur. Data were collected using a structured knowledge questionnaire. The experimental group received a video-assisted teaching module, while the control group received routine care. Descriptive and inferential statistics, including the chi-square test, were used for data analysis.

Results: The experimental group showed a marked improvement in post-test knowledge following the video-assisted teaching module, whereas the control group demonstrated minimal change in knowledge scores. Significant associations were observed between maternal knowledge and selected demographic variables, including age, educational status, type of family, and residential area. The findings confirmed that the video-assisted teaching module was effective in improving mothers' knowledge regarding the prevention of neonatal infections.

Conclusion: The video-assisted teaching module significantly enhanced mothers' knowledge about neonatal infection prevention. Incorporating such educational interventions into routine maternal and neonatal healthcare services may improve maternal awareness, promote preventive practices, and contribute to reducing neonatal morbidity and mortality.

Keywords: assess; effectiveness; video assisted module; prevention; neonatal infection

Introduction

The birth of an infant is one of the most emotional events that can occur in one's lifetime. After 9

months of anticipation and preparation, the neonate arrives with a flurry of excitement. But the transition from the intra uterine to extra uterine life is a critical event in life.

The first week of life is the most crucial period in the life of an infant. In India 50-60% of all infant death occurs within the first month of life. The risk of death is the greatest during the first 24-48hrs after birth. Neonatal deaths now account for up to two-thirds of all infant deaths and half of under five child mortality in developing countries.

The world health organization (WHO) estimates that more than 4 million neonates die each year. In 1995 neonatal deaths were 5 million; the numbers of neonatal deaths decreased to 4 million in 2005, but 98% still occurred in the less developed countries among them Infection was the main cause.¹³

The present figure of 40 per 1000 live births in India is too high neonatal morbidity was found to be 56.8% and 37.3% amongst slum and non-slum that severe neonatal illnesses were higher among slums as compared to non-slum areas.

The main aim of the study was to assess the effectiveness of the video assisted module regarding the prevention of neonatal infection among the mothers of neonate at selected hospitals of Jaipur city.

OBJECTIVES OF THE STUDY

1. To assess the knowledge of the mothers regarding prevention of neonatal infections without administering video assisted module in experimental group.
2. To assess the knowledge of the mothers regarding prevention of neonatal infections by administering video assisted module in experimental group.
3. To assess the knowledge of the mothers regarding prevention of neonatal infections without administering video assisted modules in the control group.
4. To evaluate the effectiveness of video assisted modules on prevention of neonatal infections.
5. To associate the knowledge of mothers regarding prevention of neonatal infections with selected demographic variables.

HYPOTHESIS

H₁ – The mean post test knowledge scores on prevention of neonatal infection among mothers of

neonates will be significantly higher than their mean pre test knowledge score.

H₂ – There will be a significant association between pretest knowledge scores of mothers of neonates regarding prevention of neonatal infection with selected demographic variables such as age, educational status, religion, economic status, type of family, etc.

ASSUMPTIONS

The study assumes that:

Mothers may have inadequate knowledge regarding prevention of neonatal infections.

Video assisted modules will enhance the mothers to gain knowledge regarding prevention of neonatal infections.

Improvement in knowledge of mothers may help to reduce the risk of neonatal infections.

Adequate knowledge of the mother regarding prevention of neonatal infection will help to reduce neonatal mortality rate.

MATERIALS AND METHODS

The research approach adopted for the study was an evaluative research approach. The research design was quasi experimental two group pre-test and post-test research design was used and the study was conducted at Bhandari Hospital and Research Centre, Jaipur and Tagore Hospital and Research Institute Jaipur. The independent variable in the study was the video assisted teaching module regarding the prevention of neonatal infections and the dependent variable was the knowledge of the mothers of neonates. Purposive sampling technique was used to select the samples. The samples consisted of 60 mothers of neonate admitted at the selected hospitals of Jaipur city.

The investigator prepared a structured knowledge questionnaire with 30 questions and a video assisted teaching module for which the content validity was established by seven experts. The pilot study was conducted among ten mothers of neonate at Liberty Hospital, Jaipur from 09-08-2017 to 18-08-2017. The validity of the tool was carried out by Karl Pearson's correlation formula and Spearman's Brown prophecy formula with split half technique

and the tool was found reliable ($r=0.89$). Data collection was done using a baseline Performa and a structured knowledge questionnaire on the knowledge of mothers of neonate on prevention of neonatal infections. The main study was done from 09-09-2017 to 26-09-2017.

RESULT

Analysis of the obtained data was planned based on the objectives and hypothesis of the study. Both descriptive and inferential statistics were used for data analysis. Descriptive statistics used were frequency, mean, median, range and standard deviation. The data was also presented graphically. To test the hypotheses the level of significance was set at 0.05.

In an experimental group majority of the samples (53%) were in the age group of 21-25 years, majority of subjects (56.66%) were Hindus, maximum number of mothers (50%) had studied up to graduation and PG, majority of women (56.66%) were housewives, majority of women (56.66%) had nuclear type of family, majority of women (70%) had family income of above Rs.10000 and most of the respondents (56.66%) were from semi urban area. In the control group the majority comprised the same variables with slight difference in percentage as that of the experiment group.

A very high significant difference was found between post-test knowledge scores of the mothers of neonate on prevention of neonatal infection in both the groups. The study showed that VAM was very highly effective in improving the knowledge of the mothers of neonate on prevention of neonatal infections.

Chi-square test was done to analyze the association between the knowledge score of the mothers of neonate regarding prevention of neonatal infections with selected demographic variables that is age, educational status, type of family and residential area are found significantly associated with the knowledge score. Hence the hypothesis is accepted.

On the whole carrying out the present study was an enriching experience to the investigator. It also helped a great deal to explore and improve the knowledge of the researcher and respondents. The

constant encouragement and guidance by the guide, cooperation of the family, and interest of the respondents in the study contributed to the fruitful completion of the study. Respondents were satisfied and happy with the information they received. The present study identifies a great need for the mothers of neonates to update their knowledge regarding prevention on neonatal infection. The study reveals that the VAM can be used as an effective teaching strategy.

DISCUSSION

In an experimental group the mean of pre-test is 13.50 and SD is 1.943 whereas the mean of post-test is 23.93 and SD is 1.617 which is significantly higher than the mean of pre-test knowledge score. The calculated value of 'z' is 35.928 at the 0.05 level of significance and the tabulated value of 'z' is 2.05 at the 0.05 level of significance on the 29th degree of freedom. This indicates there was a significant increase in the knowledge of the mothers regarding the prevention of neonatal infections. Hence the hypothesis is accepted.

In control group the mean of pre-test is 13.53 and SD is 1.978 whereas the mean of post-test is 14.47 and SD is 2.862. The calculated value of 'z' is 1.800 at the 0.05 level of significance and the tabulated value of 'z' is 2.05 at the 0.05 level of significance on 29th degree of freedom. The calculated value is less than the tabulated value. This indicates there was insignificant increase in the knowledge of the mothers regarding the prevention of neonatal infections.

CONCLUSION

The pre-test knowledge score among the mothers of neonates were average. The introduction of the VAM among the mothers helped them to learn more about prevention of neonatal infection, which was evident, in the post test knowledge scores of both the groups. The VAM proved its validity as one of the effective teaching method of information transmission. It was well appreciated and accepted by the mothers.

RECOMMENDATIONS

The following recommendations were drawn based on the findings of the study:

A similar study can be replicated with different demographic variables.

A similar study can be conducted by taking samples from two different settings like government hospitals, nursing homes and other clinical facilities.

A similar study can be conducted on a large sample that may help to draw more definite conclusions and make generalization.

A similar study can be conducted by a descriptive approach which often serves to generate hypotheses for future research.

A similar study can be conducted using different research designs.

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