



A study to assess the effectiveness of computer assisted teaching programmes on knowledge regarding constipation and its management during pregnancy among antenatal mothers in selected hospitals at hassan

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Abstract

Background and objectives: This is an attempt to assess the knowledge regarding constipation and its management during pregnancy among antenatal mothers in selected hospitals. And to prepare a learning package which may be used as a study aid to improve the knowledge level of antenatal mothers.

Constipation is the most common digestive complaint in the India as per survey data, it occurs in 2% to 20% of the population. It is more common in pregnant women, 12% of the world-wide reports having constipation. In India the incident rate of constipation in pregnancy is 11-38% of total pregnant women.

Pregnant is a significant period of Joy full Health feeling altered due to facing of constipation & its Management due to lack of knowledge. I found that less research studies have been performed among Antenatal mothers regarding their knowledge level improvement is required, these are facts encouraged me to conduct a study regarding constipation & its management knowledge improvement among Antenatal mothers conducted Pre and Post Test knowledge level score after implemented computer assisted teaching program on constipation before post-test. Assessed knowledge level in pretest

their was lacking of knowledge. After intervention significance knowledge enhanced in their post test score sheets, it means health education is good strategies to enhanced knowledge of pregnant health with minimize the constipation & its complication with proper early management.

Objectives of the study: To assess the existing knowledge regarding constipation and its management during pregnancy among antenatal mothers in terms of pre-test.

To assess the knowledge of antenatal mothers regarding the constipation and its management after computer assisted teaching program in terms of post-test.

To determine the effectiveness of computer assisted teaching programme on constipation and its management during pregnancy among the antenatal mothers by comparing pretest and post-test.

To find out the association between pre-test and post-test knowledge scores of antenatal mothers regarding constipation and its management during pregnancy with their selected demographic variables.

Methodology: The conceptual framework adopted for the study was based on the Van Lundwig Bertalanfly helping art theory. The approach used for this study was

evaluative one. Pre experimental study one group pretest and posttest design is used to collect the data. The independent variable of the study is Computer assisted teaching programme and dependent variable is Knowledge of antenatal mothers regarding constipation and its management. The tool used to collect data was structured knowledge questionnaire. The pilot study was conducted to find the feasibility of the study from 03/05/2017 to 10/05/2017 among antenatal mothers in selected hospital. The main study was conducted from 02-06-2017 to 09-06-2017 among 60 subjects the subject was selected by convenient sampling technique and data was analyzed and interpreted using descriptive and inferential statistics.

Results: The results of the study showed that the overall mean pretest knowledge of antenatal mothers was 59.48% with the standard deviation of 2.37. The mean knowledge gain by the antenatal mothers was 78.33% with the standard deviation of 1.59. The obtained "t" value 16.740 is greater than the table value at 0.01 level of significance. Therefore, "t" value is found to be significant. It means there is gain in knowledge level of antenatal mothers. This supports that computer assisted teaching program on constipation and its management during pregnancy among the antenatal mothers is effective in increasing the knowledge level of antenatal mothers.

Conclusion: The present study attempted to assess the effectiveness of computer assisted teaching program on constipation and its management during pregnancy among the antenatal mothers in selected Hospitals, at Hassan and concluded that there was a significant improvement in the knowledge after computer assisted teaching program. Thus, computer assisted teaching program is effective in improving the knowledge of the antenatal mothers.

Keywords: Assess the knowledge, computer assisted teaching program, constipation and its management, selected hospitals, Hassan.

Introduction

“Maternal health is a nation’s wealth. There is a chance for the welfare of the world only when the condition of women improves. It is not possible for a bird to fly on only one wing.” – (Swami Vivekananda)

Pregnancy period is a time of physical and psychological preparation of birth and parenthood. Each week of the pregnancy bring its new changes and feelings. During the pregnancy not only the genital organ changes, but also the changes occurs in anatomical, physiological and also to all systems of the body.¹

The anatomical, physiological and hormonal changes during pregnancy may result in occurrence of some minor problems in the pregnant women which are termed as minor disorder of pregnancy. Because of the changes occurring in various system of the body may result in appearance of some minor disorder include nausea, vomiting, heart burn, ptylism, leucorrhoea, constipation and varicosities, back ache, leg cramps frequency of micturition.¹

Constipation symptoms are as followed by Abdominal Pain, Bloating, Fullness in the rectum, Straining (and bleeding as a result), Pain on intercourse (women) other symptoms referred to as constipation by patients may be reduced stool volumes or a sense of incomplete evacuation. Dangerous causes of constipation such as cancers and strictures (narrowing) are thankfully rare but may need to be excluded by a specialist. The sign of constipation includes having hard dry stool and the sensation of incomplete bowel evacuation. Reduced defecations, fewer than three bowel movements per week and painful bowel movements. Constipation can cause

discomfort for women, as they are still recovering from the delivery process.

Reviews articles

Constipation is the most common digestive complaint in the India as persurvey data, it occurs in 2% to 20% of the population. It is more common in pregnant women, 12% of the world-wide reports having constipation. In India the incident rate of constipation in pregnancy is 11-38% of total pregnant women.²

One of study showed that the prevalence of functional constipation among pregnant women was 13.01% in Shanghai, China. A high fiber diet and moderate exercise were factors for preventing constipation during pregnancy. Pathogenesis of constipation is caused by multiple factors which make constipation difficult to treat. Further research into the etiology of constipation will help to reduce the incidence and the risk of constipation in pregnant women.¹⁴

In German the present study was an open base-line controlled study to show the efficacy, safety and acceptability of dry lactulose (Duphalac Dry) in pregnant women suffering from chronic or occasional constipation. It was a multi-center study in 12 gynecological practices. 62 women aged between 19 and 40 years were treated during 4 weeks with lactulose. 34% had chronic constipation and the remaining 66% constipation due to the pregnancy. The main criteria for efficacy were frequency of defecation and consistency of stools.²⁶

Later studies have found that constipation affects up to 25% of women during pregnancy: A prospective case series study (Bradley et al 2007) found prevalence rates of 24% (95% CI 16–33%), 26% (95% CI 17–38%), 16% (95% CI 8–26%) in the first, second, and third trimesters, respectively. In multivariable longitudinal analysis, iron supplements (OR 3.5; 95% CI 1.04–12.10) and past

constipation treatment (OR 3.58; 95% CI 1.50–8.57) were A co relational study (Ponce et al 2008) found prevalence rates of 29.6%, 19% and 21.8% in the first, second and third trimesters respectively. This study also reported laxative use among pregnant women as 11% (95% CI 7–16), 15% (95% CI 10–21) and 13.5% (95% CI 8–19) in the first, second and third trimesters.²⁰

The estimated rate of total pregnancy in India is approximately 15,662,802 out of the total population and the incidence rate of constipation in pregnancy is 11-38% of total pregnant women. Constipation affects about thirty percent (1 in 3) pregnancies. It occurs most frequently during the first and third trimesters.²⁰

A study was conducted to analyze the occurrence of constipation in pregnancy. The sample size was 41 pregnant women. The finding of overall incidence of constipation was 27.6% excluding the subjects with previous history. As a result, it was found that incidence of constipation is lower than expected and generally occurs since the beginning of pregnancy.²⁴ associated with constipation during pregnancy.¹⁹

Material and methods

The research design used in this study the pre - experimental with one group pretest and post-test design has been used to evaluate the effectiveness of computer assisted teaching programme on knowledge regarding constipation and its management during pregnancy among antenatal mothers. In Hassan District at selected hospitals. To accomplish the objectives of the study, one group pre-test post -test design was adopted. The population of the study included antenatal mothers of accessible population was the Antenatal mothers those who came for the OPD checkup of Hospital in Hassan City. Study included 60 Antenatal mothers were selected using simple random sampling techniques. In this study that willing to participate to study from them consent

form have been taken. provided pretest structured questionnaire in the local language of Kannada MCQ Questions were used to collect the knowledge level of antenatal mothers regarding constipation and its management after Assessment enhanced significance of knowledge of causes and management of constipation with aiding of computer assisted teaching program followed conducted posttest, pregnant women's knowledge enhanced with health education.

Description of the tool

The tool was organized as follows. **Section A:** Socio-Demographic variables of the Antenatal mothers. **Section B:** Structured knowledge questionnaire Consists of the Questionnaire with 33 items related to General information regarding Constipation, Risk factors and Causes of Constipation, Symptoms and Management of Constipation and Lifestyle Modification to prevent constipation during pregnancy.

Development of criterion check list

Criteria check list for validation of the tool was developed **Part I:** Comprised demographic data **Part II:** Comprised structured knowledge questionnaire for Antenatal mothers on constipation and its management, which had very relevant, need modification, not relevant and remarks of experts.

Development of computer assisted teaching programmes

The first draft of the computer assisted structured teaching program on constipation and its management was developed based on the objectives of the study and was given to 8 experts in the field of Obstetrics and Gynecological Nursing along with objectives, criteria rating scale based on their suggestions and recommendations (i.e. expansions of abbreviations used and correction of certain items), the final draft of

computer assisted structured teaching program was prepared.

Development of criterion rating scale

A criterion rating scale was prepared to assess the validity of the plan i.e., to find out the relevancy of the content according to the objectives of the teaching, appropriateness, sequence, presentation of the language of content and appropriateness of visual aid.

Validation of the tool

Validity refers to whether an instrument accurately measure what it is supposed to measure. When an instrument is valid, it truly reflects concept, it is supposed to measure. Content validity of the instruments was assessed by obtaining opinion from Obstetrics and Gynecological Nursing experts and medical experts. As per the suggestions of the experts the investigator had made necessary modification in the tool with the permission of the guide.

Reliability of the tool

During pilot study the reliability of the tool was tested. Reliability of research instrument is defined as the extent to which the instrument yields the results on repeated measures. It is concerned with consistency, accuracy, precision, stability, equivalence, and homogeneity. Where is the estimated reliability of the items' is the correlation coefficient computed on split halves. For computing the co-efficient of correlation, the formula used was:

Raw score method

In order to establish reliability of the tool, the technique called Split Half method was used and reliability co- the focus of this study was to evaluate the effectiveness of computer assisted teaching programmes on knowledge regarding constipation and its management during pregnancy among antenatal mothers in selected Hospitals at Hassan and to compare the knowledge level of the

antenatal mother efficient was calculated by using raw score formula. The calculated 'r' value is 0.82 and the developed tool was found to be highly reliable.

Results

Objective 1: To assess the existing knowledge regarding constipation and its management during pregnancy among antenatal mothers in terms of pre-test. Based on the above objective of the study, the data collected by the investigator during the pretest was analyzed and the findings revealed that the pretest knowledge of antenatal mothers on constipation and its management was 85%. This level of knowledge was considered as Moderate.

According to the study findings the pretest mean knowledge score of the antenatal mothers on constipation and its management, the mean score is 19.63 with a mean percentage of 59.48 with a The above objective is supported by this study. The objective of the study was to study the types and frequency of constipation and its management in antenatal mothers and the effect of these problems on daily routine. Antenatal mothers selected in the age group 18– 35 years for the study. Data was collected by personal interviews on a pre-tested, structured knowledge questionnaire. The questions covered on General information regarding Constipation, Risk factors and Causes of Constipation, Symptoms and Management of Constipation and Lifestyle Modification to prevent constipation during pregnancy. Analysis was done using SPSS version 12. Percentages were calculated for drawing inferences. Results include the assessment of knowledge among antenatal mothers in terms of pre test scores regarding constipation and its management. In general aspect the mean score is 4.13 with a mean percentage of 68.83 and a standard deviation of 0.873. In the aspect of risk factors and causes of constipation the mean score is 3.97 with a mean percentage of 56.71 and a standard deviation of 1.025 in symptoms and

management aspect the mean score is 7.63 with a mean percentage of 58.69 and a standard deviation of 1.551. In the last aspect of lifestyle modification to prevent constipation the mean score is 3.90 with a mean percentage of 55.71 and a standard deviation of 1.349.

Objective 2: To assess the knowledge of antenatal mothers regarding the constipation and its management after computer assisted teaching program in terms of post-test. Based on the above objective of the study, the data collected by the investigator during the pre test was analyzed and the findings revealed that the post test knowledge of antenatal mothers on constipation and its management was 86.7%. This level of knowledge was considered as Moderate. standard deviation o According to the study findings the post test mean knowledge score of the antenatal mothers on constipation and its management, the mean score is 25.85 with a mean percentage of 78.33 with a standard deviation of 1.59 The above objective is supported by this study. The objective of the study was to study the types and frequency of constipation and its management in antenatal mothers and the effect of these problems on daily routine. Antenatal mothers selected in the age group 18– 35 years for the study. Data was collected by personal interviews on a pre-tested, structured knowledge questionnaire. The questions covered on General information regarding Constipation, Risk factors and Causes of Constipation, Symptoms and Management of Constipation and Lifestyle Modification to prevent constipation during pregnancy. Analysis was done using SPSS version 12. Percentages were calculated for drawing inferences. Results include the assessment of knowledge among antenatal mothers in terms of post test scores regarding constipation and its management. In general aspect the mean score is 4.72 with a mean percentage of 78.66 and a standard deviation of 0.49. In the aspect of risk factors

and causes of constipation the mean score is 5.60 with a mean percentage of 80 and a standard deviation of 1.045. In symptoms and management aspect the mean score is 9.9 with a mean percentage of 76.15 and a standard deviation of 1.037. In the last aspect of lifestyle modification to prevent constipation the mean score is 5.63 with a mean percentage of 80.42 and a standard deviation of 1.593.

Objective 3: To determine the effectiveness of computer assisted teaching program on constipation and its management during pregnancy among the antenatal mothers by comparing pre test and posttest.

The above objective is supported by this study reveals the comparison of overall knowledge scores on constipation and its management before and after the computer assisted teaching programmes. The mean pretest score 19.63 and the mean post test score is 30.82. The mean difference is 14.238 with a standard deviation of 0.779. The student's paired t test value $t=16.740$ and is significant.

The knowledge scores on constipation and its management before and after the computer assisted teaching programmes. In all aspects the antenatal mothers have improved their knowledge after the administration of computer assisted teaching programmes. The difference between pretest and posttest knowledge score is large and it is significant. Statistical significance was calculated using student's paired t test.

Therefore, it is confirmed that computer assisted teaching programmes was an effective method for updating the knowledge of the antenatal mother's constipation and its management.

Objective 4: To find out the association between pre-test and posttest knowledge scores of antenatal mothers regarding constipation and its management during pregnancy with their selected demographic variables.

The findings of the study revealed that the association between socio-demographic variables and the pretest level of knowledge regarding constipation and its management. All the selected demographic variables such as Age, religion, education, occupation, family type, family income, type of diet, Gravida status, number of children, gestational age and sources of information are not significantly associated with the pretest knowledge scores. The association was determined by using Pearson chi square test.

The findings of the study revealed that the association between socio-demographic variables and the posttest level of knowledge regarding constipation and its management. All the selected demographic variables such as age, religion, education, occupation, family type, family income, type of diet, Gravida status, number of children, gestational age and sources of information are not significantly associated with the posttest knowledge scores. The association was determined by using Pearson chi square test.

Hypothesis testing

Hypothesis testing is done to evaluate the effectiveness of computer assisted teaching programmes regarding constipation and its management among antenatal mothers in selected Hospitals at Hassan. The paired t test and chi-square test were used to test the hypothesis and to test the significant difference in the level of knowledge between the pretest and post test. In antenatal mothers the overall mean knowledge score of the pretest was 59.48 and overall mean knowledge score of posttest was 78.33. It indicates that there is a statistically increase in the post test knowledge.

Hypothesis

H1: There will be significant difference between pre-test and post-test knowledge scores of Antenatal

mothers regarding constipation and its management among antenatal mothers.

H2: There will be significant association between pretest and posttest knowledge scores with the selected Demographic variables of antenatal mothers.

Conclusion

The antenatal mothers had gained knowledge about constipation and its management during pregnancy. They gave free and frank responses regarding constipation and its management during pregnancy. From the data analysis and findings of the present study it is concluded that there were significant differences between the pretest and posttest knowledge scores. Pretest knowledge on constipation and its management during pregnancy and posttest of the study is measured.

Implications of the study

The findings of the study can be used in the following areas of nursing profession.

Nursing Practice

1. Nurses are the key personnel of health team, who play a major role in health promotion and maintenance. Nursing is a practicing profession. So, the investigation generally integrates findings into practice.
2. Nursing professionals working in the hospitals as well as in the community can understand the importance of health education regarding constipation and its management during pregnancy.
3. Nursing professionals can play key role in enhancement of knowledge of antenatal mothers regarding constipation and its management during pregnancy.
4. Nursing professionals can play a key role in enhancement of knowledge of antenatal mothers

regarding constipation and its management during pregnancy

Nursing education

This study emphasizes on the enhancement of knowledge regarding constipation and its management during pregnancy. In order to prevent the complications due to constipation and among the antenatal mothers in the developing countries, they should follow the idea that prevention is better than the cure in the health services by improving their knowledge and quality of education.

As a nurse educator there are abundant opportunities for nursing professionals to educate the antenatal mothers regarding constipation and its management during pregnancy. The study emphasizes significance of information related to prevention practice services in community.

Various educational programme can be held by nurses, educationists, health workers to bring in awareness regarding constipation. As the trend is towards promotion of health and prevention of these symptoms the nursing teachers should emphasize the importance of remedies against constipation. And ensure safe practice of home prepared relief measures.

Nursing administration

Nurse administrators should take great interest in formulating procedures based on remedies. Antenatal mothers should gain some kind of information according to their needs.

Nurse administrators will serve as a resource person for other nurses, students, patients and relatives. There should be a regular supervision related to minor ailments to control these disorders to antenatal mothers. The nurse administrator should ensure safe measures in the management of constipation during pregnancy. Health camps can be conducted and cared adequately. A booklet constipation and its management should be available for

use by the antenatal mothers in the OPD wards and community health centre.

Nursing research

There is good scope for nurses to conduct research in the area to find the effectiveness of various strategies to educate antenatal mothers, their care givers and the public at large. Research should be done on preparation on innovative method of teaching, better practice of nursing care and development of good and effective teaching material, awareness programme to antenatal mothers, perception and attitude of antenatal mothers related constipation and its management.

Limitations

- Study was conducted in specific geographic area imposes limits on generalization
- The findings could be generalized only to the population which fulfilled the criteria in the study.
- The study limited to assessment of knowledge.
- The sample was limited to 60 only
- Long-term follow-up could not be carried out due to time constraints.

Recommendations

On the basis of the findings of the present study the following recommendations have been made for the further study.

- A similar study can be replicated on a large sample to generalize the findings.
- A similar study may be conducted in different setting.

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