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Effect of video assisted teaching programme on knowledge and attitude regarding osteoporosis among housekeeping women at selected tertiary care hospital, Puducherry district

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Abstract

Background: “A Study to assess the effect of video assisted teaching programmer on knowledge and attitude regarding osteoporosis among housekeeping women at selected tertiary care Hospital, Puducherry District”. Osteoporosis is a growing health problem in developing countries and it is the most common bone disease, affects both genders, but predominantly affects women. It is characterized by decreased bone mass and structural deterioration of bone tissue, leading to an increased bone fragility and susceptibility to fractures in the hip, spine, and wrist, following minimal trauma. Since osteoporosis is a “silent disease”.

Methodology: The Quantitative research approach with a quasi-experimental one-group pretest-posttest research design was used. Sample and sampling technique: this study included 90 housekeeping women and the technique was Simple Random sampling technique (Lottery method). Setting: The research setting was Pondicherry Institute of Medical Science, Puducherry. Tools: The Socio-demographic variables and structured knowledge questionnaire and structured attitude questionnaires’ through 5 Point likert scale were used to collect the data. After assessing the pre-test level of knowledge and attitude of the sample video-assisted teaching programme on knowledge and attitude regarding osteoporosis was administered to housekeeping women. At the end post test was conducted.

Result: In the pretest knowledge score was 60% had poor knowledge, 24.4% had average knowledge and 15.6% had good knowledge. In posttest 12.2% had poor knowledge, 8.9% had average knowledge and 68.9% had good knowledge. Regarding overall attitude on osteoporosis, 54.4% had a poor attitude, 27.8% had an average attitude and 17.8 % had a good attitude in the pretest. In the posttest 11.1% had poor attitude, 25.6% had average attitude and 63.3% had good attitude. There was a significant association between the level of knowledge with selected socio-demographic variables such as age and residency. There was a significant association between levels of attitude with selected socio-demographic variable education.

Conclusion: The study findings revealed that there was a significant improvement in the knowledge and attitude among housekeeping women followed by the effect of video-assisted teaching programmes on osteoporosis.

Keywords: Osteoporosis, video assisted teaching programme, knowledge, attitude

1. Introduction

Osteoporosis is a growing health problem in developing countries and it is the most common bone disease, affects both genders, but predominantly affects women who experience more rapid bone loss in the early years following menopause. It is characterized by decreased bone mass and structural deterioration of bone tissue, leading to an increased bone fragility and susceptibility to fractures in the hip, spine, wrist, following minimal trauma. Since osteoporosis is a “silent disease” most people are not aware of their condition until they experience a fragility fact ^[1].

Osteoporosis is classified into two types primary and secondary. Primary osteoporosis occurs due to rapid trabecular bone loss after menopause and secondary osteoporosis occurs due to slow cumulative loss of both cortical and trabecular bone.

Osteoporosis quietly develops over years, most considerable risk factors include genetics, being female especially postmenopausal women, advanced age, petite body structure, low consumption of calcium and vitamin D, lack of exposure to sunlight, sedentary lifestyle, chronic ingestion of alcohol^[2].

The increased risk of fractures leads to increased morbidity and mortality of individuals. The major determinant symptoms of osteoporosis are back pain, hip pain, fracture kyphosis, loss of height and the disease is medically diagnosed by a DEXA scan it helps to identify the bone mineral density^[3].

Studies have shown that planning for osteoporosis management and prevention requires sufficient information about people's health knowledge and beliefs. Meanwhile, for early diagnosis of the disease, awareness of osteoporosis symptoms helps and encourages help-seeking behaviours and decreases the disease complications^[4].

1.1 Need for the Study

World Health Organization (2022) In worldwide Osteoporosis is estimated to affect 200 million women—approximately one-tenth of women aged 60, one-fifth of women aged 70, two-fifths of women aged 80 and two third of women aged 90. Osteoporosis causes more than 8.9 million fractures annually resulting in an osteoporosis fracture every 3 seconds. Osteoporosis affects an estimated 75 million people in Europe, USA, and Japan^[5].

A descriptive study was done by Reshma Babu (2017) to assess the level of knowledge on osteoporosis among 70 adult women in the Kanchipuram district, Tamil Nadu. The sample was selected by Simple random technique and data was collected using the structured questionnaires it helps to assess the level of knowledge of osteoporosis, the result shows that 7.14% of the women are having adequate knowledge and 91.42% having moderately adequate knowledge and 1.42% having inadequate knowledge^[6].

1.2 Statement of the problem

A Study to Assess the Effect of Video Assisted Teaching Programme on Knowledge and Attitude Regarding Osteoporosis Among Housekeeping Women at Selected Tertiary Care Hospital, Puducherry District”.

1.3 Objectives

1. To assess the level of knowledge and attitude regarding osteoporosis among housekeeping women.
2. To measure the effect of video assisted teaching Programmes on the knowledge and attitude regarding osteoporosis among housekeeping women.
3. To determine the association between the level of knowledge and attitude regarding osteoporosis among housekeeping women with their selected socio-demographic variables.

1.4 Hypotheses of the study

H₁: There will be a significant difference between the pretest and posttest levels of knowledge and attitude after the video assisted teaching Programme regarding osteoporosis

H₂: There will be a significant association between the level of knowledge and attitude regarding osteoporosis among housekeeping women with selected socio-personal variables.

2. Methodology

2.1 Research Approach: The Quantitative research approach.

2.2 Research designs: quasi-experimental one-group pretest-posttest research design was used.

2.3 Setting of the study: The research setting was Pondicherry Institute of Medical Science, Puducherry.

2.4 Population: Housekeeping women.

2.4 Sample: Housekeeping women working in PIMS Hospital and who fulfil the inclusion criteria.

2.5 Sample size and Sampling technique: The sample size was calculated with based on the review of literature support. Assuming 59% have inadequate knowledge of osteoporosis and it reduced to 30% after the intervention. Significance level 5%, power 80%, the sample size calculated was 81 accounting for 10% attrition sample size increased to 90 finally and the participant was selected by Simple Random sampling technique (Lottery method).

2.6 Independent variables: In the present study, it refers to Video assisted teaching regarding osteoporosis.

2.8 Dependent variables: In the present study, it refers to the level of knowledge and attitude on osteoporosis.

2.9 Tool used for data collection: Following tools were used for the data collection.

Section I: Structured questionnaires used to assess the socio-demographic variables. It consists of 10 socio-demographic variables such as age, education, religion, marital status, type of family, habit, number of children, income, and exposure to sunlight.

Section II: Structured questionnaires used to assess the level of knowledge regarding osteoporosis among housekeeping women working at selected tertiary care hospitals. It consists of 10 items to assess the knowledge of osteoporosis. Each question has 4 options with one correct answer and 3 incorrect answers.

Section III: Structured questionnaires used to assess the level of attitude regarding osteoporosis among housekeeping women working at selected tertiary care hospitals. It is a 5 Point Likert scale which contains 10 items which include 5 positive statements and 5 negative statements each statement has 5 options such as strongly agree, agree, neutral, disagree, and strongly disagree.

2.10 Reliability of The Tool: The reliability of the tool was determined by the test-retest method and Spearman correlation coefficient formula and the r-value of knowledge is 0.878, and attitude is 0.801. The tool was found to be statistically reliable for the main study.

2.11 Pilot Study: The pilot study was conducted in Joseph Cluny Hospital, Puducherry in the month of May 2022 among 10 housekeeping women. During the pilot study the investigator did not face any problem and found that the study was feasible.

3. Method of data collection

The study was conducted after obtaining permission from the concerned authority. The data was collected during the

month of June 2022 at Pondicherry Institute of Medical Sciences, Pondicherry. The data was collected by gathering the participants in the demonstration room of each ward and pre-test data was collected through the interview method by using structured questionnaires, 5 to 10 minutes was given for each participant to answer the questions. On the same day of the pretest, the osteoporosis related video assisted teaching Programme was given to housekeeping women through the laptop for 35 to 45 minutes, after 14 days of the video-assisted teaching Programme the post-test was collected by using the same questionnaires.

3.1 Ethical Consideration: The researcher had undertaken formal permission from the concerned authorities. Ethical clearance was obtained from the institute ethical committee (IEC No\RC/2021/62) Pondicherry Institute of medical science. All participants were explained in the language comprehensible to them, the details of the study and the level of risk/benefit associated with it written consent was obtained from the participants. Privacy and confidentiality were strictly maintained.

4. Results

Distribution of Study Participants According to the socio-demographic variables

The result shows that the majority of Housekeeping 33(36.7%) belongs to the age of 43-50 years. Most of them 46 (51.1%) were illiterate. One-third of the participants 33 (36.7%) belong to Hindu. A maximum number of the participants 79 (87.8 %) were married. The majority of them 45(50 %) were joint family. More than half of them 49 (54.4 %) were urban. One-third of them 29(32.2 %) had 2 children. The majority of them 42(46.7%) had habit of drinking tea or coffee more than 3 times per day. All of them 90 (100 %) got more than 5000 monthly incomes. Most of them 88 (97.8%) were exposed to sunlight.

Distribution of study participants according to pretest and posttest level of knowledge regarding osteoporosis among housekeeping women

Figure 1 shows that Pre-test and post-test knowledge scores of housekeeping women on osteoporosis. Regarding overall knowledge of osteoporosis, 54 of them (60%) had poor knowledge, 22 of them (24.4%) had average knowledge and 14 of them (15.6%) had good knowledge. In the pretest, in posttest 11 of those (12.2%) had poor knowledge and 17of them (18.9%) had average knowledge and 62 of them (68.9%) had good knowledge.

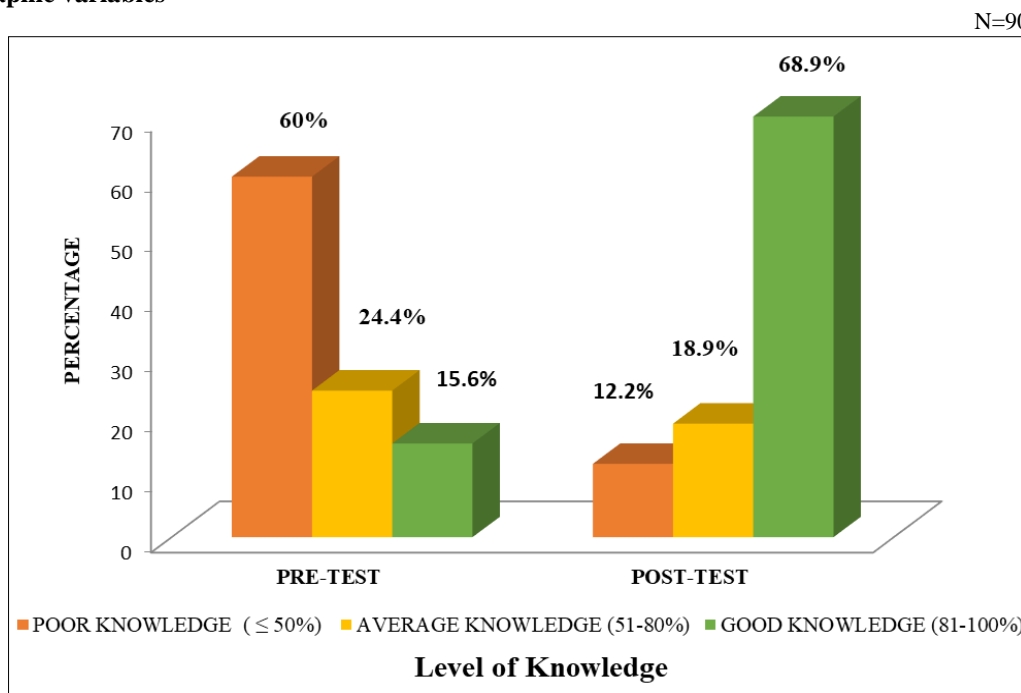


Fig 1: Distribution of level of knowledge on osteoporosis among housekeeping women

Distribution of study participants according to pretest and posttest level of attitude regarding osteoporosis among housekeeping women

Figure 2 shows that pre-test and post-test attitude scores of housekeeping women on osteoporosis regarding over all attitude toward osteoporosis 49 of them (54.4%) had a poor

attitude and 25 of them (27.8%) had average attitudes and 16 of them (17.8 %) had a good attitude in the pretest. In the posttest 10 of them (11.1 %) had poor attitudes and 23 of them (25.6%) had average attitudes and 57 of them (63.3 %) had good attitudes.

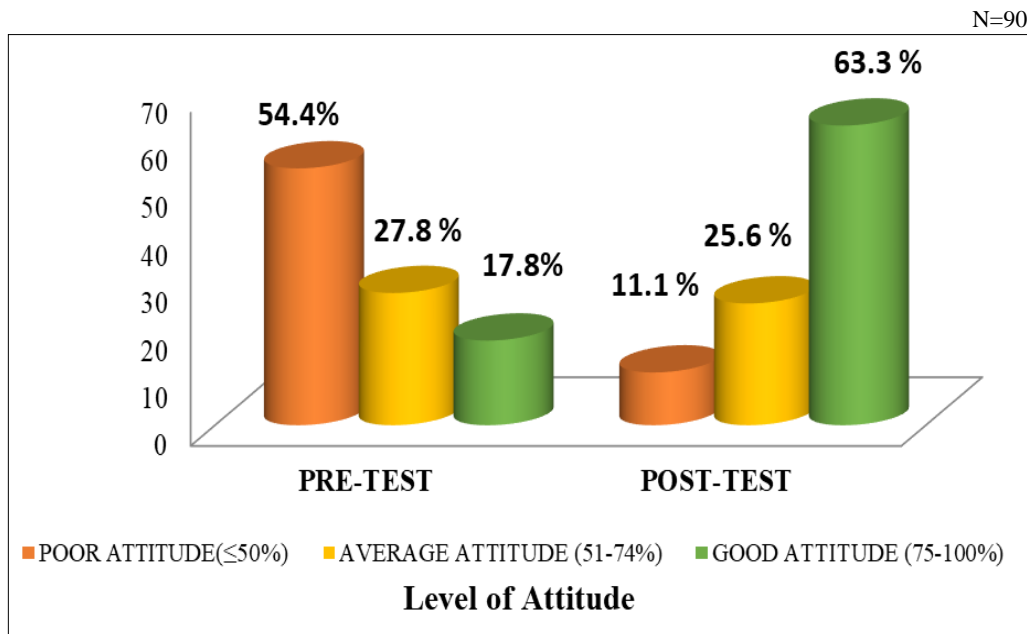


Fig 2: Distribution of level of attitude on osteoporosis among housekeeping women

Effect of video-assisted teaching programme on Knowledge and attitude regarding Osteoporosis among house keeping Women

Shows that comparison between the pre and post-test mean scores of knowledge. The pre-test mean score of knowledge was 5.80 with a standard deviation of 1.98 and the post-test mean level of knowledge was 8.29 with a standard deviation of 1.85 Wilcoxon signed rank test was applied to analyze. The Z -value was -6.132 at p -the value was < 0.001 which is statistically significant.

Effect of video-assisted Teaching on attitude regarding osteoporosis among housekeeping women

Shows that comparison between the pre and post-test mean scores of attitude. The pre-test mean score of attitude was 28.58 with a standard deviation of 8.13 and the post-test mean level of attitude was 39.76 with a standard deviation of 6.83. Wilcoxon signed-rank test was applied to analyze. The Z value was -6.838 at p value was <0.001 which is statistically significant.

Association of pretest level of knowledge and attitude regarding osteoporosis among housekeeping women with their selected socio-demographic variables

Shows that there was a significant association between the level of knowledge with selected socio-demographic variables such as age and residency. There was no significant association between the level of knowledge with selected socio-demographic variables such as education, religion, marital status, and type of family, number of children, habits and exposure to sunlight. Fisher's exact test was used to find out the association between the levels of knowledge with selected socio-demographic variables.

Association of pretest level of attitude regarding osteoporosis among housekeeping women with their selected socio-demographic variables.

Shows that there was a significant association between levels of attitude with selected socio-demographic variable education. There was no significant association between the level of attitude with selected socio-demographic variables

such as age, religion, marital status, and type of family, residency, number of children, habit and exposure to sunlight.

Fisher's exact test was used to find out the association between the levels of attitude with selected socio-demographic variables.

5. Discussion

Regarding the overall knowledge of osteoporosis, 54 (60%) of them had poor knowledge, 22(24.4 %) of them had average knowledge and 14 (15.6%) of them had good knowledge. In the posttest 11 (12.2 %) of them had poor knowledge and 17(18.9 %) of them had average knowledge and 62 (68.9%) of them had good knowledge regarding the overall pretest attitude on osteoporosis 49 (54.4%) of them had poor attitude and 25 (27.8%) of them had average attitude and 16 (17.8 %) of them had good attitude, in posttest attitude 10 (11.1 %) of them had poor attitude and 23 (25.6%) of them had average attitude and 57 (63.3 %) of them had good attitude. The pre and post-test Z-score was calculated, with that table value at 0.001 level of significance. This states that there is a significant difference between pre-and post-test knowledge and attitude regarding osteoporosis among housekeeping women. Therefore, the research hypothesis H_1 is supported and there was a significant association between the level of knowledge with selected socio-demographic variables such as age and residency and there was a significant association between levels of attitude with selected socio-demographic variable education. Here the research hypothesis H_2 is supported.

6. Conclusion

The study result showed that majority of the participants had good knowledge and a good attitude regarding osteoporosis. Hence it was concluded that video-assisted teaching programme has been an effective method to increase the knowledge and attitude regarding osteoporosis.

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