



## Effectiveness of Planned Teaching Programme on Pelvic Rocking Exercises in Reducing Dysmenorrhoea in Terms of Knowledge and Practice Among 1<sup>st</sup> Year General Nursing and Midwifery Students in Selected School of Nursing, Kolkata, West Bengal

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### Abstract

The investigation conducts a experimental study to identify the "effectiveness of planned teaching programme regarding dysmenorrhoea and pelvic rocking exercises among 1<sup>st</sup> year General Nursing Midwifery students in terms of knowledge and practice in selected School of Nursing, Kolkata, West Bengal". She adopted only post-test control group study design and selected 60 1<sup>st</sup> year General Nursing Midwifery students by simple random sampling techniques. Structured knowledge questionnaire and observation check list was used to collect the data. Result shows that the mean difference of post-test knowledge and practice scores are statistically significant for calculated 't' value  $t_{58} = 2.05$ ,  $p < 0.05$ , which indicates the effectiveness of planned teaching programme. No association between the post test knowledge and practice scores and the selected demographic characteristics of the nursing students.

**Keywords:** Effectiveness; Planned Teaching Programme; Pelvic Rocking Exercises; Dysmenorrhea; Knowledge; Practice; GNM Students

### Introduction

The word adolescence is derived from Latin verb "adolescere", which means to grow into maturity. The World Health Organization (WHO) defines adolescents as individuals between 10 and 19 years of age. Today, approximately 1/5 of the world's population is adolescents, with more than four-fifth in developing countries. An adolescent is a traveller who has left one place, has not reached the next without assistance" [1].

Menarche expresses normal, regular menstruation that lasts for a few days, but anywhere from 2 to 8 days is considered nor-

mal [2]. Menstruation can be defined as a periodic physiologic discharge of blood mucous and other cellular debris from the uterine mucosa [3]. Menstruation is a normal physiological phenomenon for a women indicating her capability for procreation. It is often associated with some degree of sufferings and embarrassment. It is a common observation that every woman experiences one or other type of menstrual problems in her lifetime. The prevalence of menstrual disorders has been recorded as high as 87% [4].

Among the menstrual disorders, dysmenorrhea is the most common one being reported in half of the women of child bearing

age and of these 10% experience incapacitating pain for 1-3 days, every month [5]. In 60-90% of adolescent girls in India, dysmenorrhea is a major cause for absenteeism from school or restriction of activities of daily living or social interaction [6].

Dysmenorrhea is characterized by cramping lower abdominal pain that may radiate to the lower back and upper thighs, commonly associated with nausea, headache, fatigue and diarrhoea. It can be classified into two subtypes. Primary dysmenorrhea occurs when there's no identifiable pelvic disease and tends to occur in every ovulatory cycle. Secondary dysmenorrhea can occur many years after menarche and is associated with identifiable pelvic pathology [7].

Studies on dysmenorrhea have shown that many factors like younger age, BMI, smoking and alcoholism, early menarche, prolonged menstrual flow, family history, stress, personality type influences the prevalence and severity of dysmenorrhea [8].

Dysmenorrhoea affects half of all female adolescents today and represents the leading cause of periodic college or school absenteeism among that population, in contrast to an adult woman, whose cycles typically range between 21 to 35 days. The mean duration of menses is 4.7 days; 89 percent of cycles last 7 days, the average blood loss per cycle is 35 ml. Recurrent bleeding in excess of 80 ml per cycle's results in anaemia. Dysmenorrhoea is the most common gynaecologic disorder among female adolescents, with a prevalence of 60 percent to 93 percent. Menstrual cycle is the cyclical shedding of endometrium every  $28 \pm 7$  days in response to hormones. Moreover women who do work when they have dysmenorrhea tend to have reduced work capacity and lower output. As women constitute an increasingly large percentage (44.6%) of the workforce, the economic impact of dysmenorrhea will continue to exist [9]. Most of the woman's used home remedies for relieving the dysmenorrhea. Therefore, most of the home remedies for menstrual cramps are centred around dilating the blood vessels and easing the muscles. The home remedies for dysmenorrhea includes, hot application measures, exercise, diet, herbs and rest and sleep [10].

## Background of the Study

A national survey conducted among adolescent girls showed that 40% of the students frequently missed their school and college because of severe dysmenorrhea is responsible for signifi-

cant absenteeism from work. A study conducted by Rostammi M. (2000) among Taiwanese college of nursing students showed that 85percent of nursing students were suffering from dysmenorrhea. This was affecting their curricular, co curricular activities as well as their clinical practice [11].

While in India 75 percent of adolescents experience pain with menstruation. In recent times, a study conducted by Sundell, *et al.* (1992) in UP concluded that about 88 percent of adolescents suffered from dysmenorrhea. A study conducted by Hetheny and Smith(1989) in Madras city revealed that 42 percent of the college and 34 percent of the school-going students reported problems during menstruation [12].

In Karnataka a study was conducted by Aganoff and Boyle (1994) on the incidence of dysmenorrhea among 1648 adolescents, which showed that the incidence was 87percent. Of these, 47% had severe problems of perceived pain during menstruation. A study was conducted among 104 women in Belgham, shows that about 92 were affected with dysmenorrhoea [11].

Study conducted in Kadapa, Andhra Pradesh on prevalence of dysmenorrhea among adolescent girls has shown that among 183(urban = 98, rural = 85) adolescent girls 65% had dysmenorrhea. The study results showed that early age of menarche, family history of dysmenorrhea were statistically significant ( $p < 0.05$ ). Medications were used by 26.9% and 44.8% of rural and urban girl's respectively [12].

Study conducted in Queensland to examine the effects of regular, moderate exercise on mood states and menstrual cycle symptoms. A group of female regular exercisers (N = 97), and a second group of female non-exercisers (N = 159) was selected. The regular exercisers obtained significantly lower scores on impaired concentration, negative effect on behaviour change and pain.

Another study conducted among Taiwanese college of nursing students showed that 85percent of nursing students were suffering from dysmenorrhoea and about 80percent do not use prescription of medication. Among them pelvic rocking exercises help to limit menstrual discomfort.

An experimental study was conducted by Mohammad M. Shatin to determine the effects of exercise on primary dysmenorrhea among 150 school girls in Iran. The results revealed that a statisti-

cally significant change in the intensity of pain from nine to five and duration of pain from eight to four in experimental group, whereas, the variation of pain in the controlled group was not significant.. Hence, there is need to provide information regarding exercise to decrease dysmenorrhea. An experimental study was conducted to estimate the effect of exercise on dysmenorrhoea among 250 adolescents in Iran. About 55 percent of adolescents were suffering from dysmenorrheal. The researcher assessed the effect of 12 week physical fitness programme of psychological and physical symptoms of dysmenorrheal. The result showed that the training programme contributed to substantial reduction in dysmenorrheal from 55 to 39 percent.

### Aims and Objectives

To assess the effectiveness of planned teaching programme on pelvic rocking exercises in reducing dysmenorrhea in terms of difference in knowledge score and practice score between experimental group and control group.

### Materials and Methods

The researcher adopted Quasi experimental research approach considering experimental research design. Total population for this study was selected 60 GNM 1<sup>st</sup> yea. Among them 30 was selected for experimental group and another 30 was selected for control group. For pilot study experimental group was selected from Ruby General Hospital, Kolkata and control group was selected from KPC Medical College and Hospital, Kolkata. For final study experimental group was taken from Rabindra Nath Tagore International Institute of Cardiac Sciences, Kolkata and control group from Desun Hospital, Kolkata. Structured questionnaire schedule for background information, educational status and monthly family income. A structured knowledge questionnaire schedule was used for assessing knowledge on pelvic rocking exercises in reducing dysmenorrhoea and observation check list for assessing the practice of the students regarding pelvic rocking exercises also developed.

For data collection students inclusion criteria included subjects who were available during the study period, willing to participate, attending in exercise training period, having a minimum one cycle exercises experiences period. Ludwig Bertanffly General System Theory (1968) was used as a conceptual framework.

### Results

The study findings revealed that 70% respondents in experimental group and 46.66% from control group belong the age group of 19-20 years. 77% participants were belong from higher secondary and 23% were Graduate level in experimental and in control group. Majority of students 100% were not attended any pelvic rocking exercises. The mean post-test knowledge score (24.97) of experimental group was higher than the mean post-test knowledge score (12.6) of control group. The mean post-test practice score (14.8) of experimental group was higher than the mean post-test practice score (6.6) of control group. The mean post test practice score of experimental group was found significantly higher than the mean post test practice score of control group with a 't' value of 9.21 at df 58 at 0.05 level, suggesting the effectiveness of planned teaching programme on pelvic rocking exercises in reducing dysmenorrhea among 1<sup>st</sup> year GNM students. There was positive relationship between post-test knowledge score and post-test practice score with a mean knowledge score (24.97) and mean practice score (15.83), with 'r' value (0.76) which is statistically significant, as evident from 't' value (8.85). For identifying the effectiveness of planned teaching programme unpaired 't' test used and the results were significant at 0.05 level of significance which shows change the knowledge and practice on pelvic rocking exercises in reducing dysmenorrhea after exposure the planned teaching programme of experimental group. The study findings were supported by the findings of Wijesiri HS, Suresh TS. (2012), Santina T, Wehbe N, Zidade F (2012) and Brown J. Brown S. (2010) and Sharma P, Malhotra C, Taneja DK., *et al.* (2010).

### Conclusion

There was no established research study according the pelvic rocking exercises in reducing dysmenorrhea in adolescence girls specially in West Bengal. Therefore, the study findings recommend that there is an active participation in training and motivating the nursing students to reduce the dysmenorrhea. This concluded that they were motivated to gain knowledge and practice through the planned teaching programme. The knowledge and practice of experimental group was positively co-related to each other.

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