A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Advanced Maternal Age Pregnancy Complications Among Female Degree Students

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***Abstract*—Background of The Study; Compared with olden days modern women are much serious about their carrier. And they are postponing the pregnancy as it will break their continuity in the carrier. They are planning marriage or pregnancy until achieving required position in the carrier. Science is also advanced and methods dealing with problems of advanced maternal age are now available. Even though compared with pregnancies in twenties, pregnancies in elderly women are undoubtedly risky. There is lack of knowledge regarding advanced maternal age pregnancy complications. This is an attempt to assess the knowledge of the degree students regarding advanced maternal age pregnancy complications and to prepare a structured teaching programme, which may be used as a study aid to improve the knowledge level of degree students. Methodology Research design is the overall plan for obtaining answers to the questions being studied and handling some of the difficulties encountered during the research process. The research design selected for the study is one group pre-test, post-test, pre-experimental design. The study design is depicted in the table; 1 show that on day one, a pre-test was given in the form of a structured knowledge questionnaire. After 30 minutes, the questionnaire was collected back and STP in English on advanced maternal age pregnancy complications was given on the same day. On the 7th day a post-test was given by using same questionnaire to assess the gain in knowledge regarding advanced maternal age pregnancy complications. Group Pre-test Intervention Post-test A group of 60 female degree students studying in T. john college of nursing. Results Findings shows that 15.0% of the subjects had moderate level of knowledge and 85.0% of the subjects had inadequate knowledge regarding advanced maternal age pregnancy complications. Findings show that highest percentage (100.0%) of the sample had a adequate level of knowledge in the post test. Paired 't' test was used to compare the pre-test and post-test knowledge scores of degree students regarding advanced maternal age pregnancy complications. The total mean percentage of the pre-test and post-test knowledge score was 46.49% and 85.06% respectively and the effectiveness of the STP showed an increase in the mean percentage by 38.57%. Conclusion On the basis of the findings of the study 0% of degree students had an adequate, 15.0% of the subjects had moderate level of knowledge and 85.0% of the subjects had inadequate level of pre-test knowledge regarding advanced maternal age pregnancy complications and also the study revealed that STP on advanced maternal age pregnancy complications was effective by getting post-tests scores as 100%.**

***Index Terms*—Advanced maternal age, Human chorionic gonadotropin, Triiodothyronine Thyroxine, Luteinizing hormone, Gestational diabetes mellitus.**

I. INTRODUCTION

"When a child is born, there are two births; the birth of the child & the birth of the mother"
Laura Ramirez
"A pregnancy that occurs when a person is 35 years or older is known as an advanced maternal age pregnancy. In the medical world, it's also known as a geriatric pregnancy". There are some risks associated with giving birth at a later age.
Pregnancy is the only time in a women's life when she can see God work a miracle. Mothers and children are the vulnerable group in any population. The health of the mother is a strong foundation to the health of the nation. Data suggest that around 40% of all women develop some complications. One such risk factor is elderly pregnancy that leads to many complications during pregnancy, labour and also for the baby. Now a

day's women because of their career and other problems delay pregnancy. Elderly women are at high risk of complications including instrumental deliveries, mal-presentations, malposition's, prolonged labour, caesarean section rate, induction of labour, pregnancy induced hypertension, diabetes mellitus, ante and postpartum haemorrhage. In recent times, women have changed their life style such as in the pursuit of higher education and entry into work forces and career advancement outside the home. Consequently, this has led to postponement of child bearing, resulting in an increasing maternal age and increase in the rate of divorce followed by remarriage etc. Nowadays prevalence of elderly women is increasing with changing trend of life expectancy, economic growth and social changes.

II. DATA COLLECTION PROCEDURE

Data collection is the precise, systematic gathering of information relevant to the research purpose or specific objectives, questions or hypothesis of a study. The data collection date, time, and place were confirmed after discussing with the principal and class coordinators. The data collection period extended from June 12th 2021 to June 22nd 2012 to assess the feasibility of the study, plan of statistical analysis and also to determine the flaws in the design. By using non probability convenient sampling technique 60 female degree students of management studies were selected. The purpose of the study was explained and informed consent was obtained prior to the administration of structured knowledge questionnaire to ensure their co-operation and prompt answers. Confidentiality was assured to all the subjects. The data was collected by using structured knowledge questionnaire in a class room and the average time taken was 30mts. The STP was given for 1 hour. Information was given regarding the post-test and the date and time was confirmed. The post-test was conducted after seven days by using the same structured knowledge questionnaire to the female degree students of Government first grade college for women. All students were co-operated during the data collection period. Students understood and were happy about the STP. The data collection processes were terminated after thanking the degree students for their cooperation, willingness to participate in the study and prompt responses. The collected data were compiled for data analysis.

III. HYPOTHESIS

H1 - There will be significant difference between pre-test and the post-test knowledge score of female degree students regarding advanced maternal age pregnancy complications.

H2 - There will be significant association between selected socio demographic variables and the knowledge of female degree students on advanced maternal age pregnancy complications.

IV. REVIEW OF LITERATURE

A study was conducted on Finnish university students to assess the actual and desired number of children, and compare the economic and educational situations of students with and without children. The study population consisted of Finnish undergraduate students of 35 years. The randomly selected sample was 5,030 subjects. The data were collected by postal questionnaire. Result showed that 7.5% of students had children, 90% desired to have children. Study concluded that University students are seldom parents, though they are at the ideal age for childbearing and the majority desire to have children. The risk of unintended childlessness exists, when pregnancies are postponed because of unfinished studies.

A study was conducted on highly educated women in Finland suffer from childlessness more often than less women in Europe. The aim of the study was to establish Finnish university students' actual and desired number of children, and compare the economic and educational situations of students with and without children. The sample for the study was 5,030 subjects consisted of Finnish undergraduate students under 35 years of age. The study was suggested that data were collected by postal questionnaire, the response rate being 62.7%. Frequency distributions, cross-tabulations, and descriptive statistics were used. Categorical variables were tested by the Cochran-Mantel-Haenzel test. The result had shown that 7.5% of students had children.

A retrospective analyzed study was conducted on women aged 45 years and older who gave birth at the Charita University Hospital Berlin conducted by Campus Mitte and Campus Virchow Klinikum, between January 2004 and May 2015. The objective of the study was to identify electronical birth record. The sample for the study was 53546 women gave birth at

the Charita University Hospital Berlin. The study suggests that of these 1237 women were in the age group ≤ 18 years (2.3%), 23195 in the age group 19–29 years (43.3%), 26137 in the age group 30–39 years (48.8%) and 2791 were 40 to 44 years old (5.2%). 186 patients were aged ≥ 45 years 25 at the time of giving birth (0.34%). The result had shown that in 2004 only 4 women aged ≥ 45 years gave birth compared to 18 women in 2014. In the years 2010–2015 this number increased to an average of 19 women per year.

A systematic review was conducted on maternal age (35-39 years) and perinatal outcomes in English were published between 2000 and 2010. The objective of the study was investigated to relation to advanced maternal age (35-39 years), and adverse perinatal outcome (stillbirth, low birth weight, preterm birth) in high-income countries. The sample for the study was 102 retrieved publications. The study suggests that rates of adverse perinatal outcome, such as stillbirth, are linked to maternal age 35-39 years. However, rates of increase are modest until 40 years of age or more. The impact of changing maternal socio demographics appears to be of importance but is not yet well understood. The result had shown that rates of adverse perinatal outcome such as stillbirth, low birth weight, preterm birth are related to maternal age 35-39 years.

V. RESEARCH DESIGN

Research design is the overall plan for obtaining answers to the questions being studied and handling some of the difficulties encountered during the research process. The research design selected for the study is one group pre-test, post-test, pre-experimental design. The study design is depicted in the table; 1 show that on day one, a pre- test was given in the form of a structured knowledge questionnaire. After 30 minutes, the questionnaire was collected back and STP in English on advanced maternal age pregnancy complications was given on the same day. On the 7th day a post-test was given by using same questionnaire to assess the gain in knowledge regarding advanced maternal age pregnancy complications.

SECTION-1: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF STUDY PARTICIPANTS

TABLE–1: Classification of study participants by socio-demographic variables. N=60

SL. NO	SOCIO DEMOGRAPHIC VARIABLES	CATEGORIES	FREQUENCY	PERCENTAGE OF FREQUENCY
1	Age in years	18 - 21 years	57	95.0%
		22 - 25 years	3	5.0%
		26 - 34 years	0	0.0%
		35 years and above	0	0.0%
2	Marital Status	Married	2	3.3%
		Unmarried	58	96.7%
3	Religion	Hindu	52	86.7%
		Muslim	5	8.3%
		Christian	3	5.0%
		Others	0	0.0%
4	Occupation of the head of family	Govt. employee	6	10.0%
		Self-employee	50	83.3%
		Private employee	4	6.7%
		Others	0	0.0%
5	Class of studying	1st year degree	60	100.0%
		2nd year degree	0	0.0%
		3rd year degree	0	0.0%
		Final year degree	0	0.0%
6	Age of puberty	12-13th year of age	17	28.3%
		14 -15th year of age	21	35.0%
		16-17th year of age	22	36.7%

		18th year and above	0	0.0%
7	Educational status of mother	No formal education	15	25.0%
		Primary or secondary education	17	28.3%
		PUC	26	43.3%
		Degree and above	2	3.3%
8	Educational status of father	No formal education	7	11.7%
		Primary or secondary education	15	25.0%
		PUC	33	55.0%
		Degree and above	5	8.3%
9	Monthly income of family (in rupees)	Below 5000	5	8.3%
		6000 - 10000	1	1.7%
		110000 -15000	44	73.3%
		Above 16000	10	16.7%
10	previous information	Mass media	8	13.3%
		Health care professionals	4	6.7%
		Friends and relatives	3	5.0%
		No previous information	45	75.0%

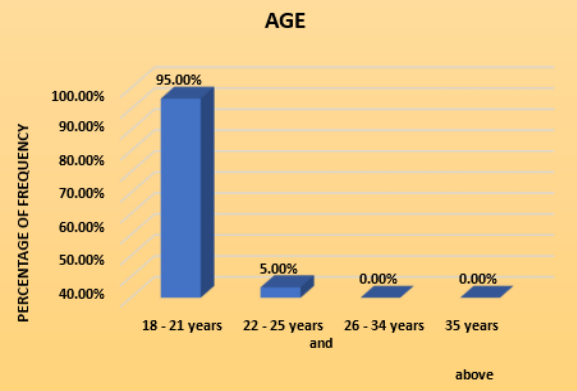

Figure 1: Bar diagram showing distribution of female degree students by their Age

REFERENCES

[1] K. Gaither, "Geriatric pregnancy risks," 2018. [Online]. Available: https://www.insider.com/geriatric-pregnancy-risks-2018-12

[2] K. Nagarwal, C. Chandrakanta, K. Gaur, and R. K. Manohar, "Maternal health study," *Int. Multispecialty J. Health (IMJH)*, vol. 1, no. 1, Mar. 2015.

[3] "Advanced maternal age in IVF," *Frontiers in Endocrinology*, Feb. 20, 2019. doi: 10.3389/fendo.2019.00094

[4] "Pregnancy outcome in elderly gravida," *Paripex – Indian Journal of Research*, vol. 6, no. 3, Mar. 2017. [Online]. Available: https://www.worldwidejournals.com/paripex/recentissues/149181210705pf

[5] W. F. Almhfooth and M. B. Dahos, "Advanced maternal age and pregnancy outcome," *Karbala J. Medicine*, vol. 6, no. 1, Jun. 2013. [Online]. Available: https://www.researchgate.net/publication/310426529

[6] "Pregnancy outcomes in women of advanced maternal age: A retrospective cohort study from China," D. Shan *et al.*, *Scientific Reports*, Aug. 2018, doi: 10.1038/s41598-018-29889-3

[7] R. C. Fretts, "Management of pregnancy in women of advanced age," *UpToDate*. [Online]. Available: https://www.uptodate.com

[8] "Delayed pregnancy," *Seasons India*, Jan. 2009. [Online]. Available: http://www.seasonsindia.com

[9] A. C. Eke and G. U. Eleje, "Pregnancy outcome in elderly primigravida," presented at *FIGO Conference*, 2009. [Online]. Available: http://www.postersessiononline.com

[10] J. P. Hanson, "Older maternal age and pregnancy outcome," *Obstetrics & Gynecology Survey*, vol. 41, pp. 726–742, 1986.

[11] F. Fernando, "Complications in pregnancy in women aged 35 years and above," *Rev. Gaúcha Enferm.*, vol. 38, no. 4, 2017.

[12] A. Khalil, A. Syngelaki, N. Maiz, *et al.*, "Maternal age and adverse pregnancy outcome: A cohort

study," *Ultrasound Obstetrics & Gynecology*, vol. 42, pp. 634–639, 2013.

[13] G. S. Berkowitz, M. L. Skovron, R. H. Lapinski, and R. L. Berkowitz, "Delayed childbearing and the outcome of pregnancy," *New England Journal of Medicine*, 1990. [Online]. Available: https://www.nejm.org/doi/full/10.1056/NEJM199003083221004

[14] A. Budds and K. Budds, "Age, infertility risk and the timing of pregnancy in older first-time mothers," *Health Risk & Society*, pp. 525–542, Sep. 2013. doi: 10.1080/13698575.2013.827633

[15] World Health Organization, "Maternal mortality," Dept. of Making Pregnancy Safer. [Online]. Available: http://www.who.int/making_pregnancy_safer/topics/maternal_mortality/en/

[16] E. R. Fowles and J. A. Horowitz, "Clinical assessment of mothering during pregnancy," *JOGNN*, vol. 35.