



A PRE-EXPERIMENTAL STUDY ON HAZARDS OF MOBILE PHONE ON PREGNANCY AMONG STAFF NURSES

Ms. Shubhangi Rajendrakumar Chavan*

M.Sc. Nursing In Obstetric And Gynecological Nursing, Pragyan College Of Nursing, Bhopal MPMSU. *Corresponding Author

Dr. Sunita Lawrence

Ph.D (N), M.Sc.(N), M.A.(Sociology), Principal Pragyan College Of Nursing, Bhopal, Madhya Pradesh, India.

ABSTRACT Each year thousands of women get exposed to radiation. Usually termination of pregnancy and anxiety occurs due to lack of knowledge. For some patient exposure is appropriate and dose less risk on the fetus. Radiofrequency waves are emitted by the mobile phone in the form of electromagnetic radiation which helps to make and receive the calls. The female who utilizes mobile during pregnancy are prove to have children with disorder. The non-ionizing radiation emitted by X-rays, radiation therapy machine and CT scan are much milder than the ionizing radiation. Non-ionizing radiation are unlikely to have less harm on unborn baby. It is necessary to investigate, understand and monitor potential health impact and prevent further complication of mobile phones used by people including pregnant mother, hence having proper knowledge regarding mobile phone is necessary during pregnancy.

KEYWORDS :

INTRODUCTION

Someone has rightly said : Everything in true for the Mobile communication technology. Even **Alexander Grahambell**, who invent the first telephone, wouldn't have imagined in his wildest dreams that telephone technology would go this far! Thousands of pregnant women are exposed to ionising radiation each year. Lack of knowledge is responsible for great anxiety and probably unnecessary termination of pregnancies.

Radiation exposure is medically appropriate and the radiation risk to the fetus is minimal. Most current mobile phones connecting to a coverage of cell site, which in turn is interlinked to the peoples used mobile network. Radiofrequency waves are emitted by the mobile phone in the form of electromagnetic radiation which helps to make and receive the calls.

It was determined that fetus is at the risk of brain injury causing hyperactivity due to exposure of radiation during pregnancy. Non-ionizing electromagnetic radiation are being transmitted by mobiles and have low levels of radio waves. This type of radiation are being emitted by television, computer and microwaves.

PROBLEM STATEMENT

A Pre-experimental study to assess the effectiveness of Nurse Led Education on knowledge regarding hazards of mobile phone on pregnancy among staff nurses in selected Maternity Hospital, Bhopal M.P.

OBJECTIVES

- Assess the pre-interventional level of knowledge score regarding the hazards of mobile phone on pregnancy among staff nurses.
- Assess the post-interventional level of knowledge score regarding the hazards of mobile phone on pregnancy among staff nurses.
- Find out the significant difference between pre-interventional and post-interventional level of knowledge score regarding the hazards of mobile phone on pregnancy among staff nurses.
- Associate the pre interventional knowledge score regarding the hazards of mobile phone on pregnancy with selected demographic variables.

HYPOTHESIS

H₁: There will be significant difference between mean pre and post test knowledge score regarding hazards of mobile phone on pregnancy among staff nurse at ≤ 0.05 level.

H₂: There will be significant association between the pre test knowledge scores regarding hazards of mobile phone on pregnancy with their selected demographic variables at ≤ 0.05 level

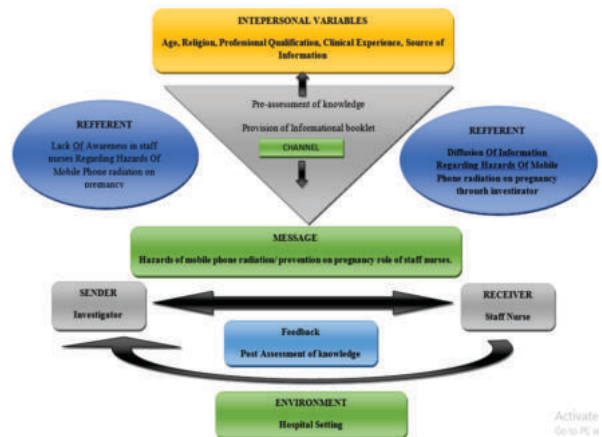


Fig 1.1: Theoretical Framework Of Modified Interpersonal Communication Model Given By Roger's For Hazards Of Mobile Phone Radiation On Pregnancy Among Staff Nurses.]

METHODOLOGY

A pre-experimental on group pre-test and post-test design was used in this study. The population consisted of nurses who were included staff nurses in Sultania Zanana, Hospital Bhopal.

A sample of 60 staff nurse was selected using purposive sampling technique. Structured questionnaire were used by the investigator for the data collection. Information Booklet was distributed to staff nurses to enhance the knowledge. The structured questionnaire and Informational Booklet were validated by experts. Furthermore, Pilot study was conducted on 10 samples to assess the reliability of the questionnaire where Karl Pearson correlation coefficient ($r=0.81$) proved the reliability.

After conducting the pilot study, full study was carried out on 60 staff nurses. First, pre-interventional knowledge of staff nurses assessed. Thereafter, informational booklet was provide to the same sample. The same teaching materials were also provide in the Informational Booklet form. Finally, post interventional knowledge were taken after 7 days with the same sample.

RESULTS:

Description Of Demographic Variables

The study finding showed that among 60 staff nurses

- Majority of the selected staff nurses 31 (51.66%) belonged to the age group 26-30 years.
- Majority of the selected staff nurses 42 (70%) belonged to the

- Hindu religion.
- Majority of the selected 42 staff nurses (70%) belonged to GNM.
 - Majority of the selected staff nurses 24 (40%) belonged to more than 6 years of clinical experience.
 - Majority of the selected staff nurses 48 (80%) had not knowledge regarding hazards of mobile phone on pregnancy.

Table :2 (a):Showing Associate the pre interventional knowledge score regarding the hazards of mobile phone on pregnancy with selected demographic variables.

(N=60)

Selected demographic variables	Pre- Interventional knowledge score				df	X2
	Poor	Average	Good	Excellent		
1. Age in Year						
a. 21-25	0	3	1	0	6	8.1
b. 26-30	12	12	7	0		
c. 31-35	7	10	1	0		
d. 36 and above	4	2	1	0		
2. Religion						
a. Hindu	13	22	7	0	4	4.5
b. Christian	6	4	2	0		
c. Muslim	4	1	1	0		
d. Other	0	0	0	0		
3. Professional qualification						
a. General Nursing Midwifery	21	18	3	0	6	16.45
b. Revised General Nursing Midwifery.	1	2	0	0		
c. Post B.Sc. Nursing	0	3	0	0		
d. B.Sc. Nursing	1	4	7	0		
4. Clinical Experience						
a. 1-3 year	8	6	5	0	4	3.0
b. 4-6 year	6	8	3	0		
c. More than 6 year	10	12	2	0		
5. Do you know regarding Hazards of Mobile Radiation						
a. Yes	0	2	10	0	2	49.14
b. No	23	25	0	0		

*Significant at $p \leq 0.05$ level

Table :2 (b):Showing frequency and percentage distribution according to level of knowledge of pre-interventional and post interventional score among staff nurses.

N= 60

SCORE	GRADING	PRE-INTERVENTIONAL SCORE		POST-INTERVENTIONAL SCORE	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
0-10	Poor	23	38.33	00	00
11-20	Average	27	45	20	33.33
21-30	Good	10	16.66	25	41.66
31-40	Excellent	00	00	15	25

The above table shows that the comparison between pre interventional and post interventional score. The pre interventional knowledge score shows that the majority of staff nurses that 38.33 percent had poor knowledge, 45 percent had average knowledge 16.66 percent had good knowledge and none of staff nurses had excellent knowledge regarding hazards of mobile phone on pregnancy.

The post interventional knowledge score shows that the majority of staff nurses that 41.66 percent had good knowledge, 33.33 percent had average knowledge 25 percent had excellent knowledge and none of the staff nurses had poor knowledge regarding hazards of mobile phone on pregnancy.

Mean post interventional knowledge (24.91) is apparently higher than the mean pre-interventional knowledge (14.13). The computed 't' value 14.24 ($df=59$ $p \leq 0.05$) shows that there is a significant difference between pre-interventional and post-interventional knowledge. This indicate that the hypothesis H1 is accepted, stating that the mean post-interventional knowledge is significantly higher than the mean pre-interventional knowledge at 0.05 level of significance.

There is a significance association of pre-interventional knowledge with selected demographic variables of staff nurses i.e. professional qualification and do you know regarding hazards of mobile phone on pregnancy at 0.05 level of significance. This indicates that hypothesis H2 is partially accepted.

CONCLUSION

The conclusion is drawn from the study based on the assessment of the effect of informational booklet on hazards of mobile phone on pregnancy among staff nurse in selected hospital of Bhopal. After detail analysis of the study finding and experience of investigator, the study leads to the following conclusion. It can be concluded that Informational Booklet is an effective education strategy to enhance the knowledge of staff nurses in hazards of mobile phone on pregnancy. Moreover, it can be used in early prevention of maternal and neonatal complication for staff nurses.

REFERENCES

- Basvanthappa, B.T. (2006) 2nd edition. Nursing research, New Delhi. Jaypee Brothers Medical Publishers.
- Choi KH, Et al. (2017) Neurodevelopment for three years following prenatal mobile phone use, radio frequency radiation and lead exposure environmental Research Vol. 156 Issue 333
- Axi V. Et al (2017). Assessment of smartphone addiction among undergraduate students of sumandeev vidyapeeth, Vadodra. International journal of nursing education and research (IJNER). Vol 5; issue; 16-18.
- Mahmoudabadi FS.(2015) use of mobile phone during pregnancy and risk of spontaneous abortion. Journal of Environmental Health Science an Engineering. vol.19 issue 4
- Vanessa A.(2008).Retrieved from Mobile phone danger to unborn child: Use could cause behavioral problem. <http://www.consumeraffairs.com/news/04/05/2017>
- AY Rezk. Et al (2008) .Retrieved from Fetal and neonatal response following maternal exposure to mobile phones. <http://www.scholar.google.co> 08/11/2017
- Lean G.(2008).Retrieved from Warning: using a mobile phone while pregnant can seriously damage your baby. <https://www.independent.co.uk> 01/06/18
- Pagare P. And Dwivedi P. A descriptive study to assess the awareness and knowledge regarding usages of mobile and its disadvantage among school going children in selected school.(M.P.)2016-2017
- WebMD Health News, Mann D.(2010) Retrieved from. Cell Phone Use in Pregnancy: Risk for child? <https://www.webmd.com> On 12th October 2017
- Gala V. (2017) retrieved from. Harmful electromagnetic and mobile radiation.(SSIL transformational Program) www.suresuccessinlife.com On 25th November 2017