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"A STUDY TO ASSESS THE KNOWLEDGE REGARDING IMPORTANCE OF ROBOTICS NURSING IN PATIENT CARE AMONG THE STAFF NURSES OF RAMA HOSPITAL, KANPUR."

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Abstract:

Robotics in nursing is an interdisciplinary discipline that studies methodologies, technologies, and ethics for developing robots that support and collaborate with physicians, nurses, and other healthcare workers in practice. A study was conduct to to assess the knowledge regarding importance of robotics nursing in patient care among the staff nurses of Rama hospital, Kanpur. Objectives of the study was 1. To assess the knowledge level of the staff nurses regarding importance of robotics nursing. 2. To find out the association between knowledge level of staff nurses with socio demographic variables. Cross sectional survey approach was adopted in the present study. Descriptive design was appropriate to assess the knowledge. Sample Comprises of 100 staff nurses. Result shows that shows that 83.33% have moderate knowledge about importance of robotics nursing, 13.34% having adequate knowledge and 3.33% having inadequate knowledge.

Introduction:

Technological advancements have led to the use of robots as prospective partners to complement understaffing and deliver effective care to patients. This article discusses relevant concepts on robots from the perspective of nursing theories and robotics in nursing and examines the distinctions between human beings and healthcare robots as partners and robot development examples and challenges. Robotics in nursing is an interdisciplinary discipline that studies methodologies, technologies, and ethics for developing robots that support and collaborate with physicians, nurses, and other healthcare workers in practice. Robotics in nursing is geared toward learning the knowledge of robots for better nursing care, and for this purpose, it is also to propose the necessary robots and develop them in collaboration with engineers. Two points were highlighted regarding the use of robots in health care practice: issues of replacing humans because of human resource understaffing and concerns about robot capabilities to engage in nursing practice grounded in caring science. This article stresses that technology and artificial

intelligence are useful and practical for patients. However, further research is required that considers what robotics in nursing means and the use of robotics in nursing.

Need Of The Study:

The inclusion of advancements in technologies is heightened by the demands of healthcare in a highly technological world. The preference for a reimagined landscape fully determined by a humanizing care environment, as emphasized in Locsin's theory in which technology, caring, and nursing have become inseparable, coexisting as conceptual models of humanizing care. Robotics in nursing practice continues to be a challenge to ethical deployment to ensure safe, secure, competent, and emotive functions of healthcare robots. Pivotal to the recognition of robots as partners in nursing is their continued proficiency, continuously deliberated with future policies and regulations in mind. As stated by Maaloufelat. Distinct functional foci are represented by various types of healthcare robot applications in the diversified subject of robotics in nursing.

Statement Of the Problem:

"A study to assess the knowledge regarding importance of robotics nursing in patient care among the staff nurses of Rama hospital, Kanpur."

Objectives:

1. To assess the knowledge level of the staff nurses regarding importance of robotics nursing.
2. To find out the association between knowledge level of staff nurses with socio demographic variables.

Hypothesis:

Null Hypothesis:

1. **H_{01}-** There is no significant knowledge of the staff nurses regarding importance of robotics nursing.
2. **H_{02}-**There is no significant association between knowledge score on robotics nursing with their selected Socio demographic variables.

Positive Hypothesis:

1. **H_1-** There is significant knowledge of the staff nurses regarding importance of robotics nursing.

2. **H_2-**There is significant association between knowledge score on robotics nursing with their selected Socio demographic variables.

Methodology:

Research Approach:

Cross sectional survey approach was adopted in the present study.

Research Design:

Descriptive design was appropriate to assess the knowledge.

Setting Of The Study:

Rama Hospital & Research Center, Kanpur, UP.

Population:

Population of the present study was staff nurses who are working at Rama Hospital & research Center, Kanpur.

Sample Size :

Sample Comprises of 100 staff nurses

Sampling Technique :

Non-probability convenient sampling technique was used in this study.

KNOWLEDGE SCORE:

S. N.	LEVEL OF KNOWLEDGE	SCORE	PERCENTAGE
1	Adequate	21-30	70-100%
2	Moderate	11-20	36-69%
3	Inadequate	0-10	0-35%

Result:

SECTION-A

Percentage distribution of staff nurses according to their Knowledge score with mean, median and SD.

Sl.no	Level of knowledge	Score Range	Frequency	Score In percentage	Mean	Median	SD

1	Inadequate	0-10	1	3.33%			
2	Moderate	11-20	25	83.33%			
3	Adequate	21-30	4	13.34%	16.48	10	4.005

Percentage distribution of staff nurses knowledge score shows that 83.33% have moderate knowledge about importance of robotics nursing, 13.34% having adequate knowledge and 3.33% having inadequate knowledge.

SECTION-B

Association of knowledge level according to their demographic variables.

DEMOGRAPHIC VARIABLES	CATEGORY	X^2	df	INFERENCE
1. Age	21-30 31-40 >41	28.99	4	S at 0.05 level T=12.59
2. Gender	Male Female	32.2	1	S at 0.05 level T=3.84
3. Marital status	Married Unmarried Divorced Widow	33.4	6	S at 0.05 level T=12.59
4. Working hour	6hr	4.07	4	N.S

	8hr 12 hr			at 0.05 level T=12.59
5. Experience	<11 months 11-36 months >36 months	3.07	4	N.S at 0.05 level T=9.49
6. Qalification	Diploma Graduation Post graduation or above	15.49	4	S at 0.05 level T=9.49
7. Working Area	General ward ICU OT Emergency	4.01	8	N.S at 0.05 level T=15.51
8. Monthly salary	<10,000/- 10,001 to 20,000/- 20,001/- Upper class	15.49	4	S at 0.05 level T=9.49
9. Recidence	UP Other state	1.27	1	N .S at 0.05 level T=3.84

Hence it shows that mostly demographic variables are significant except working hour, experience, working area & residence at the level of 0.05.

Discussion :

In the present study it shows that among the staff nurses 83.33% have moderate knowledge about importance of robotics nursing, 13.34% having adequate knowledge and 3.33% having inadequate knowledge& mostly demographic variables are significant except working hour, experience, working area & residence at the level of 0.05.

The study was supported by a simple descriptive study which was conducted in Hariyana among the staff nurses. In this study it shows that only 33% staff nurses having moderate knowledge regarding robotics nursing remaining having inadequate knowledge.

Conclusion:

Technological advancements have led to the use of robots as prospective partners to complement understaffing and deliver effective care to patients. In the present study it shows that among the staff nurses 83.33% have moderate knowledge about importance of robotics nursing, 13.34% having adequate knowledge and 3.33% having inadequate knowledge & mostly demographic variables are significant except working hour, experience, working area & residence at the level of 0.05.

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