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"THE IMPACT OF INSTRUCTIONAL MODULE ON CORONARY ARTERY DISEASE RISK FACTORS IN ASSESSING KNOWLEDGE AND PERCEPTION AMONG ADULTS"

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ABSTRACT

Introduction: Coronary artery disease is the single largest killer of both men and womenworldwide. Coronary artery disease (ischemic heart disease) has been defined as "impairment of heart function due to inadequate blood flow to the heart compared to its needs, caused by obstructive changes in the coronary circulation to the heart." There is anestimated 4.5 million patients of coronary artery disease in India. **Matrial And Methods:** The research design adopted for the study was quasi experimental design. The study was conducted at selected villages at Chhattisgarh. The samples selected were 60 of which 30 samples were allotted in the experimental group and remaining 30 were in the control group. The sample were recognized based on the inclusion criteria and selected by convenient sampling technique. Self-administered questionnaire on knowledge and perception statements based on 3 point likert scale was used as a tool for data collection after confirming validity and reliability. Instructional module was given to the experimental group only. The data obtained were analyzed and interpreted using descriptive and inferential statistics. **Results:** The scores of the instructional module were compared within the groups by unpaired 't test. The findings revealed the value of knowledge and perception of adults with control group were 1.16 ($p<0.001$) and 1.56($p<0.001$). The obtained "t" test value of knowledge and perception of adults within experimental group was 28.57($p<0.001$) and 23.34 ($p<0.001$). Thus, it infers that the experimental group and a higher score compared to the control group. The scores of the instructional module were compared between the two groups by independent 't' test. The independent 't' test value for comparison ofknowledge and perception between control and experimental group was 23.6 ($p<0.001$) and 23.8 ($p=<0.001$). This is said to be significant. **Conclusion:** The study results revealed that, there is

significant difference on the instructional module on coronary artery risk factors in control and experimental group. The study concluded that the implementation of instructional module on coronary artery risk factors will increase knowledge and perception of adults.

Keywords: H: Hypothesis, df: Degree of freedom

BACKGROUND OF THE STUDY

Achieving and maintaining health is an ongoing process, shaped by both the evolution of health care knowledge and practices, as well as personal strategies and organized interventions for staying healthy. Health is maintained and improved not only through the advancement and application of health sciences, but also through the efforts and intelligent lifestyle choice of the individual and society. A healthy lifestyle can help prevent diseases and help keep it from progressing. Health professional says that smoking, high blood pressure, and high cholesterol due to unhealthy dietary practices form the risk factors for heart diseases like coronary artery disease.

Coronary artery disease is the single largest killer of both men and women worldwide. Coronary artery disease (Ischemic heart disease) has been defined as "impairment of heart function due to inadequate blood flow to the heart compared to its needs, caused by obstructive changes in the coronary circulation to the heart. "There is an estimated 4.5 million patients of coronary artery disease in India.

The risk factors are characteristics or conditions that are statistically associated with high incidence of disease. Many risk factors have been associated with coronary artery diseases which are mainly of modifiable risk factors and non modifiable risk factors. Modifiable risk factor includes smoking, hypertension, elevated serum cholesterol level, physical inactivity, obesity and diabetes. Non modifiable risk factors include age, gender and family history.

NEED OF THE STUDY

From the above findings of literature, the researcher realized the severity of the problem of CAD, and deficiency of knowledge among population. So it is very essential to teach the people to take care of and be responsible for their own health. And also, the researcher has seen many persons with CAD during

her clinical experience. The investigator believes that this study would be a useful contribution for creating awareness to the adults regarding CAD. Nurses play a vital role in educatingthe people especially adults, in order to prevent the occurrence of CAD. As prevention is better than cure, many health problems can be prevented at early stage through education. Based on this fact, the researcher felt the need to assess the risk factors and improve the knowledge and perception of CADs among adults inorder to prevent consequences/ complications of CAD.

STATEMENT OF THE PROBLEM

A study to evaluate the impact of instructional module on coronary artery disease risk factors in assessing knowledge and perception among adults at selected villages in Chhattisgarh.

OBJECTIVES

1. To assess the knowledge and perception on coronary artery disease risk factors before and after instructional module in the control and experimental group.
2. To determine the effectiveness of Instructional module by comparing the pretest and posttest knowledge and perception in the control and experimentalgroup.
3. To determine the effectiveness of Instructional module by comparing the posttest scores between the control and experimental groups.
4. To find out the correlation between knowledge and perception on coronary artery disease risk factors among adults in the control and experimental groups.
5. To find out the association between the knowledge and perception among adults and their selected demographic variables in control and experimental group..

HYPOTHESIS

H_1 -There is a significant difference in the pre-test and post-test scores of knowledge and perception among control and experimental group.

H_2 - The mean post-test scores of knowledge and perception is significantly higher than the pretest score of knowledge and perception in the control and experimental group.

H_3– The mean posttest score of knowledge and perception is significantly higher in the adults who were

exposed to the instructional module than the adults who were not exposed to the instructional module.

H_4- There is a significant correlation between the knowledge and perception on coronary artery disease risk factors among adults in the control andexperimental groups.

H_5 - There is a statistically significant association between knowledge and perception scores with selected demographic variables in both control and experimental group.

ASSUMPTION

It is assumed that:

- The patients will have some basic knowledge on coronary arterydisease risk factors.
- Instructional module will improve the knowledge of the Adults.
- Knowledge and perception related to coronary artery disease riskfactors vary with selected demographic variables.

DELIMITATIONS

- The study is delimited to knowledge of adults in the selected villages.
- The study is delimited to knowledge and perception aspect only.
- Adults who were non corporative.
- The responses of the participants were elicited through the structuredquestionnaire.
- The participants constitute a convenience sampling that may limittransferability of results to other populations.

REVIEW OF LITERATURE

1. Review related to risk factors of coronary artery disease.
2. Review related to knowledge and perception
3. Review related to effectiveness of instructional module on CAD

RESEARCH METHODOLOGY

RESEARCH APPROACH

Quantitative approach was adopted

RESEARCH DESIGN

In this study, quasi experimental pre-test post-test control group design was adopted

VARIABLES

The present study has the following variables

Independent variable- Instructional module on coronary artery disease riskfactors.

Dependent variable- knowledge and perception on coronary artery disease riskfactors.

SAMPLE

The samples were the adults who fulfills the inclusion criteria.

SAMPLE SIZE

In this present study, the sample comprised of 60 adults from selected village in Madurai. Who met the inclusion criteria among which 30 adults were included under the experimental group and 30 adults to the control group.

SAMPLING TECHNIQUE

In this study, Convenience sampling technique was used to select the samples.

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

- Adult age group between 20-60years.
- Both genders.

Exclusion Criteria

- Adults who were not willing to participate in the study.
- Those who were not available at the data collection time.

RESULT

Frequency and percentage distribution of adults based on theirsocio-demographic and clinical variables.

(N=60)

S.No	Demographic variables	Control (n=30)		Experimental (n=30)	
		f	%	f	%
1.	**Age in years**				
20-30		5	17	5	17
31-40		9	30	9	30
41-50		11	36	9	30
51-60		5	16	7	23
2.	**Sex**				
Male		20	67	16	53
Female		10	33	14	47
3.	**Religion**				
Hindu		24	80	17	57
Christian		6	20	13	43
Islam		0	0	0	0
Others		0	0	0	0
4.	**Marital status**				
Married		27	90	26	87
Unmarried		3	10	4	13
Widow		0	0	0	0
Separated		0	0	0	0
5.	**Educational status**				
Primary		6	20	7	23
High school		17	57	15	50
Under graduate		6	20	5	17
Post graduate		1	3	3	10
Uneducated		0	0	0	0
6.	**Occupation**				
House wife		5	17	4	13
Coolie		13	43	12	40
Private employee		9	30	13	44
Government employee		3	10	1	3

Retired	0	0	0	0
7. Monthly income				
Nil	7	23	4	13
Rs. 3000-5000	6	20	5	17
Rs. 5000-8000	4	13	7	23
Rs. 8000-10000	10	34	5	17
Above 10000	3	10	9	30
8. Type of work				
Sedentary	7	23	10	33
Moderate	21	70	20	67
Heavy worker	2	7	0	0

SECTION: B

Mean score difference of pre-test and post-test on knowledge amongadults in the control group.

(n=30)

Control group	Mean	SD	Mean %	MD
Pre-test	8.13	2.167	40.65	0.13
Post-test	8.26	1.558	41.3	

Mean score difference of pre-test and post-test on knowledge amongadults in the experimental group.

(n=30)

Experimental Group	Mean	SD	Mean %	MD
Pre-test	6.63	2.08	33.15	10.77
Post-test	17.	1.54 87		

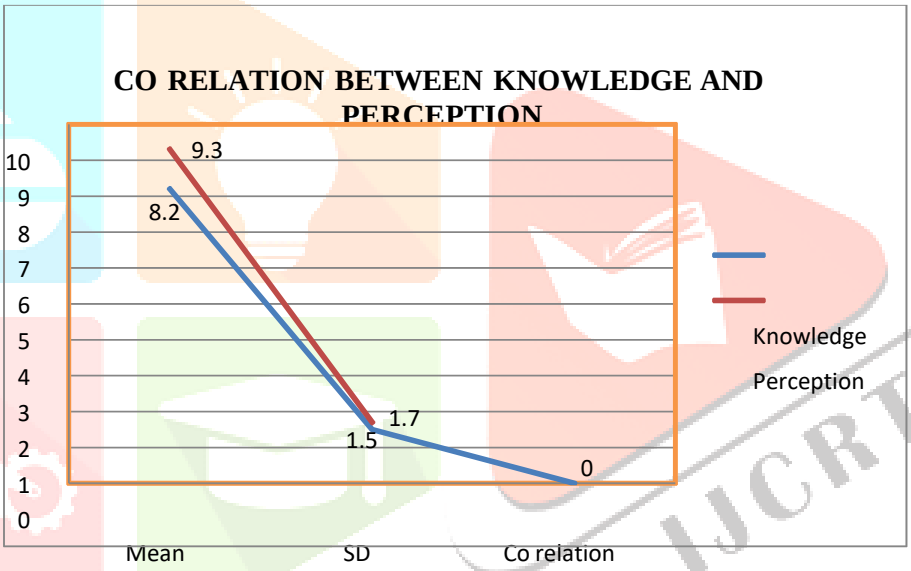
Mean score difference in knowledge among adults between thecontrol and experimental groups.

(n=30)

Group	Mean	SD	Mean %	MD
Control group post-test	8.26	1.558	41.3	
Experimental group post-test	17.	1.548	7	9.14

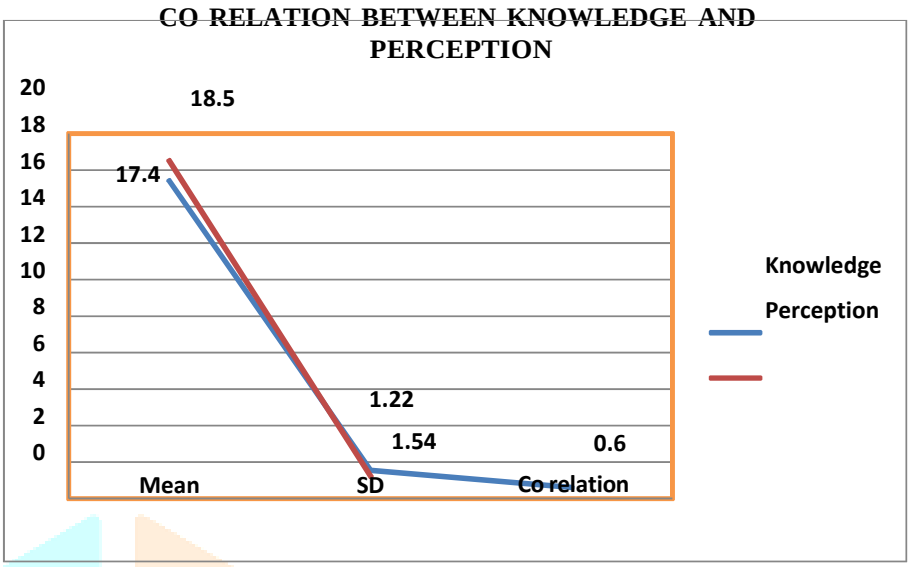
SECTION:C

Relationship between knowledge and perception of adults in controlgroup



above presents relationship between knowledge and perception. It is inferred that there is a negative correlation between knowledge and perception in the post test score "r" = 0. Hence, the research hypothesis (H_4) is not accepted.

Relationship between knowledge and perception of adults inexperimental group



above presents relationship between knowledge and perception. It is inferred that there is a positive correlation between knowledge and perception in the post test score "r" = 0.6. Hence, the research hypothesis (H_4) is accepted

SECTION: D

Association of knowledge with selected demographic variables incontrol group.

S.	Socio demographicvariable	Inadequate		Moderate		Adequate		Chi square	p-value
		f	%	f	%	f	%		

1.	Age in years								
	a) 20-30	5	17	0	0	0	0		
	b) 31-40	7	23	2	7	0	0	2.214	0.899
	c) 41-50	11	37	1	3	0	0		
	d) 51-60	4	13	0	0	0	0		
2.	Gender								
	a) Male	17	57	3	10	0	0	0.66	0.718
	b) female	10	33	0	0	0	0		
3.	Religion								
	a) Hindu	22	73	2	7	0	0		
	b) Christian	5	17	1	3	0	0	3.721	0.714
	c) Islam	0	0	0	0	0	0		
	d) Others	0	0	0	0	0	0		
4.	Marital status								
	a) Married	24	80	3	10	0	0		
	b) Unmarried	3	10	0	0	0	0	0.069	1.00
	c) Widow	0	0	0	0	0	0		
	d) Separated	0	0	0	0	0	0		
5.	Educational status								
	a) Primary	6	20	1	3	0	0		
	b) High school	15	50	2	7	0	0		
	c) Under graduate	5	17	0	0	0	0	0.429	0.999
	d) Post graduate	1	3	1	3	0	0		
	e) Uneducated	0	0	0	0	0	0		
6.	Occupation								
	a) House wife	5	17	0	0	0	0		
	b) Coolie	13	43	0	0	0	0		
	c) Private employee	7	23	2	7	0	0	3.512	0.898
	d) Government employee	2	7	1	3	0	0		
	e) Retired	0	0	0	0	0	0		

7.	Monthly income							
	a) Nil	723	0	0	0	0		
	b) Rs3000-5000	620	0	0	0	0		
	c) Rs5000-8000	413	0	0	0	0	5.555	0.696
	d) Rs8000-10000	723	3	10	0	0		
	e) Above 10000	310	0	0	0	0		
8	Type of work							
	a) Sedentary worker	723	0	0	0	0	0.526	0.970
	b) Moderately worker	1860	3	10	0	0		
	c) Heavy worker	27	0	0	0	0		

Association of knowledge with selected demographic variables in experimental group.

S. Socio demographicvariable	**Inadequate**		**Moderate**		**Adequate**		**Chi square**	**p-value**
	f	**% %**	**f**	**%**	**f**			

1.	Age in years								
	a) 20-30	4	13	1	3	0	0		
	b) 31-40	9	30	0	0	0	0	2.067	0.913
	c) 41-50	8	27	1	3	0	0		
	d) 51-60	7	23	0	0	0	0		
2.	Gender							0.005	0.997
	a) Male	15	50	1	3	0	0		
	b) female	13	43	1	3	0	0		
3.	Religion								
	a) Hindu	15	50	2	7	0	0		
	b) Christian	13	43	0	0	0	0	0.836	0.991
	c) Islam	0	0	0	0	0	0		
	d) Others	0	0	0	0	0	0		
4.	Marital status								
	a) Married	25	83	1	3	0	0		
	b) Unmarried	3	10	1	3	0	0	2.552	0.862
	c) Widow	0	0	0	0	0	0		
	d) Separated	0	0	0	0	0	0		
5.	Educational status								
	a) Primary	7	23	1	3	0	0		
	b) High school	14	47	0	0	0	0		
	c) Under graduate	5	17	0	0	0	0	4.059	0.851
	d) Post graduate	2	7	1	3	0	0		
	e) Uneducated	0	0	0	0	0	0		
6.	Occupation								
	a) House wife	4	13	0	0	0	0		
	b) Coolie	11	37	1	3	0	0		
	c) Private employee	12	40	1	3	0	0	0.133	1.000
	d) Government employee	1	3	0	0	0	0		
	e) Retired	0	0	0	0	0	0		
7.	Monthly income								
	a) Nil	7	23	0	0	0	0		
	b) Rs3000-5000	4	13	0		0	0		
	c) Rs5000-8000	5	17	1	3	0	0	3.3	0.914
	d) Rs8000-10000	3	10	1	3	0	0		

	e) Above 10000	9	0	0	0	0	0		
8	Type of work								
	a) Sedentary worker	9	30	1	3	0	0	0.346	0.986
	b) Moderately worker	19	63	1	3	0	0		
	c) Heavy worker	0	0	0	0	0	0		

CONCLUSION

It is imperative that nurses be able to think critically to face the challenges of today's fast paced technologically advanced nursing practice. The literature repeatedly stresses that nurse must be able to think critically in order to process complex data and make e clinical judgment of the planning, managing and evaluatingof the health care of their adults.

In this study instructional module have played the mode of education to adults in selected village to create awareness regarding coronary artery disease. Pretest resultshows that maximum adults had inadequate knowledge regarding coronary artery disease 28(93%). After implementation of instructional module, the adults have improved their knowledge and this they developed adequate knowledge 26(86.6%).

And regarding perception, pretest result shows that maximum adults had inadequate perception 18(60%) and after implementing the adults had adequate perception 30(100%).

This shows that instruction module has positive result in the improvement of knowledge and perception regarding coronary artery disease among adults.

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