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A STUDY TO ASSESS KNOWLEDGE AND ATTITUDE OF MALES REGARDING VASECTOMY RESIDING IN SELECTED AREAS OF PUNE

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ABSTRACT

The present study with the title "A study to assess knowledge and attitude of males regarding vasectomy residing in selected areas of Pune with the objective which include To assess the knowledge of males regarding vasectomy and to find out the association between knowledge of males regarding vasectomy with selected demographic variables. To assess the attitude of males regarding vasectomy. To find out association between attitude regarding vasectomy with selected demographic variables. A single group was chosen for research study. The data was collected from the 100 males between the age group of 30 to 50 years residing in selected areas of Pune city. Tool used by the researchers consisted of three sections:

- SECTION I: Demographic variables.
- SECTION II: Knowledge based questioner regarding vasectomy.
- SECTION III: Attitude based modified Likert's scale.

Tool was validated by 11 different experts. A pilot study was done to assess the validity, reliability and feasibility of the tool.The dependent variables were knowledge and attitude of males regarding vasectomy. The final study was conducted in selected areas of Pune city. Major findings of the study: Findings of section I: Section I consists of demographic data which includes age, education, occupation, type of family, family income, number of children and source of information.Majority of males (61%) belongs to 30 to 35 years of age group. 33% of males were graduated where as 38% are doing business and 48% are from joint family. Data further shows that 42% of males were having 20,000₹ to 50,000₹ of income monthly, 64% of them were having two children and 36% of them got the information about vasectomy from mass media. Findings of section II: Section II consists of knowledge scores of males regarding vasectomy. The findings shows that majority 51% of males were having average knowledge about vasectomy, 9% of males were having good knowledge about vasectomy and 40% of males were having poor knowledge about vasectomy. Hence it can be interpreted that most of the males had average knowledge about vasectomy. Findings of section III: Section III consists of attitude scores of males regarding vasectomy. The finding shows that majority 84% of males were having neutral attitude towards vasectomy, 4% males were having negative attitude and 12% of males were having positive attitude towards vasectomy. Hence it can be interpreted that most of the males had neutral attitude towards vasectomy. Conclusion ; Most of the males had an average knowledge about vasectomy.Most of the males had neutral attitude towards vasectomy. There significant association between education and occupation with the level of knowledge score. There is no significant association between age, family type, family income, number of children and source of information about vasectomy with the level of knowledge score. There is no significant association between all the demographic variables and level of attitude score.

Key words: Vasectomy, Knowledge Score, Demographic Variables.

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INTRODUCTION

Family planning allows people to attain their desired number of children, and to determine the spacing of their pregnancies [1]. It is achieved through use of contraceptive method and the treatment of infertility [2]. Contraceptive information and series are fundamental to the health and human rights of all individuals [3]. The prevention of unintended pregnancies helps to lower maternal ill-health and the number of a pregnancy related death [4]. By reducing rates of unintended pregnancies, contraception also reduces the need for unsafe abortion and reduce HIV transmission from mother to newborns [5]. This can also benefit the education of girls and create opportunities for women to participate more fully in society, including paid employment. According to 2017 estimates, 14 million women of reproductive age in developing region have an unmet need for contraception [6]. Reasons for this include Limited access to contraception.[7] A limited choice of methods, A fear or experienced of side effects, Cultural or religious opposition, Poor quality of available services, Gender based barriers.

Birth control used in the ancient world:

The phrase birth control doesn't evoke mental images of herbs; women and men in ancient cultures used a variety of unusual methods to prevent pregnancy, with differing levels of success. Here are 9 forms of birth control used in the ancient world, from Greece to china - 1.Acacia and honey, 2.Silphium, 3.Sneezing, 4.Liquid, lead and mercury, 5.Crocodile excrement, 6.Olive oil, 7.Ghee and salt, 8.Juniper berries, 9.Pomegranate. [2]

Modern methods of birth control

Males and females can undergo for family planning. There are two methods of family planning. These are permanent male and female family planning and temporary male and female family planning.Method of contraception include oral contraceptive pills, implants injectable, patches, vaginal rings, intrauterine device, condoms, male and female sterilization, lactational amenorrhea methods, withdrawal and fertility awareness based methods.These methods have different mechanisms of action and effectiveness in preventing unintended pregnancy. Effectiveness of methods is measured by the number of pregnancies per 100 women using the method per year. [3]

Vasectomy is a surgical procedure for male sterilization as permanent contraception. during the procedure, the male vas differentia is cut and tide or sealed so as to prevent sperm from entering into the urethra and thereby prevent fertilization of a female through sexual intercourse. [4]

History of vasectomy

The first recorded vasectomy was performed on a dog in 1823[5] A short time after that R. Harrison of London performed the first human vasectomy. However, the surgery was done not for sterilization purpose but to bring about atrophy of prostate. [6]However it was believed to have benefits for eugenics. The first case report of a Vasectomy to be a simple, effective means for streaming the tide of racial degeneration widely believed to be occurring [7]

Procedure of vasectomy:

The traditional incision approach of vasectomy involves numbing of the scrotum with local anaesthetic after which scalpel is used to make 2 small incisions, on one each side of the scrotum at the location that allow the surgeon to bring each vasa deferens to the surface for excision. The vasa deferentia are cut separated and then at least one side sealed by ligating suturing, cauterizing or clamping. There are several variations to this method that may improve healing, effectiveness, and which help mitigate long term pain such as post vasectomy pain syndrome or epididymitis, however the data supporting one over another are limited. [15]

- Fascial Interposition-

  Recanalization of the vas deferens is a known cause of vasectomy failure(s). [16] Fascial interposition ("FI"), in which a tissue barrier is placed between the cut ends of the vas by suturing, may help to prevent this type of failure, increasing the overall success rate of vasectomy while leaving the testicular end within the confines of the fascia. [17]

  The fascia is a fibrous protective sheath that surrounds the vas deferens as well as all other body muscle tissue. This method, when combined with intraluminal cautery (where one or both sides of the vas deferens are electrically "burned" closed to prevent recanalization), has been shown to increase the success rate of vasectomy procedures.
- No scalpel Vasectomy-

  No scalpel vasectomy also known as key hope Vasectomy. Is a Vasectomy in which sharp haemostat is used to puncture the scrotum. • No needle anaesthesia-

  The numbering agent is forced/pushed into and deep enough into the scrotal tissue to allow for a virtually pain free surgery. Lidocaine applied in this manner achieves anaesthesia in less than one min. 18
- Open-ended Vasectomy-

  In this vasectomy the testicular end of the vas deferens is not sealed, which allows continued streaming of sperm into the scrotum. 19 • Vas irrigation-

  Injections of sterile water or euflavine are put into the distal portion of the vas at the time of surgery which then brings about a near-immediate sterile condition. 20
- Other techniques include: vas occlusion technique 1.Injected plugs [21]

2.Intra vas device [22]

Complications: Infection, Bruising, Bleeding, Post Vasectomy Pain syndrome, psychological effects, Dementia

Aim and Objective:

- To assess the knowledge of males regarding vasectomy.
- To find out association between knowledge of males regarding vasectomy with selected demographic variables.
- To assess the attitude of males regarding vasectomy.
- To find out association between attitude regarding vasectomy with selected demographic variables.

MATERIALS AND METHODS:

Research Methodology:-

Planned method is very essential for systematic and organized condition of research study without a scientific and logical method, empirical research study cannot be completed. Research methodology is way to systematically solve the research problem.61

According to Basavantappa BT 2009 the research methodology refers to orderly disciplined procedures involved in the purposeful collection analysis and interpretation of the data 61

Research methodology is way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically.61

Research approach:-

Quantitative Research: -

Quantitative research involves the collection of data in form of quanta/numbers that enables the researcher to undertaken statistical operations for data analysis. Using this approach, the research can determine the association/relationships between two or more variables [21]

Qualitative Research:-

Unlikely in quantitative research, qualitative research is focused on gaining a rich and complex understanding of people's lived experience, culture and human behaviour. Quantitative research is less concern with the generalization of findings to large population [22]

Research approach selected for this study was Quantitative research approach.

Setting of study:-

Setting is the location in which a study is conducted , there are three common settings for conducting research natural setting , partial controlled setting and highly controlled setting.

Natural Setting:

An uncontrolled setting implies that the study is conducted in its natural environment, with no manipulation or control by the researcher. It is generally a better option for exploratory or descriptive research. [23]

Partially controlled: -

Partially controlled setting means conducting a study in an environment, which is controlled or manipulated to some extent by the researchers. [30]

Highly controlled:-

Highly controlled setting means an environment, which is controlled or manipulated for all the independent, and intervening variables considered in the study. 63

The study was conducted in selected area of Pune City.

Identification of target and accessible Population:-

According to the polite and berk the population is complete set of individuals or objects that possesses some common characteristics of interest to the research

Target population:-

The aggregate of subject/Element/Objects for which the researcher wants to generalized the findings of the research study, in other words it is the population that is targeted for generalizing the findings of research study

In this study the target population is males in the age group of 30 -50 years residing in Maharashtra [24]

Accessible population:-

The aggregate offer subject/Elements/Objects that are accessible to the researcher as a pool of subjects from which researcher can recruit the study sample.[22]

In this study accessible population of present study is males between age group of 30 – 50 years residing at the selected areas of Pune city.

Samples:-

The sample subset of the accessible population on which the research study is conducted and data collected to answer the research question .In this study the sample are the males between the age group of 30 – 50 years residing in selected areas of Pune. [25]

Sampling technique:-

Sampling is a process of selecting a representative part of population does a carefully carried out sampling process helps to draw a sample that represents the characteristics of population from which the sample is drawn, there are the several methods or techniques of sampling however the basically sampling technique are classified into 2 broad categories that is probability and nonprobability sampling technique In this study non probability convenient sampling technique is used.

Sampling size:-

Sample size is the numerical value assigned to the subset of population selected to participate in the study. The sample size for the present study is 100

Criteria for sampling:-

Following criteria was set for selection of sampling

1. Only males
2. Age group of 30 to 50 years
3. Males who understand Marathi and English
4. Males who are willing to participate in the study
5. Males residing in selected area of Pune (Urban population) only

Tool preparation:-

Data collection tool is procedural instrument used by the researcher to observe and measure the key variables in the research problem, structured questionnaire and modified Likert scale is prepared to assist the knowledge of males of accessible population, it was found to be the most appropriate instrument to assist the knowledge. [27]

Development of tools:-

Polling steps were followed in the preparation of tools for present study

1. Extensive review of literature
2. Consultative with guide and subject expert content validity from expert
3. Content validity from expert
4. Pilot study [27]

Pilot study:-

A pilot study is small scale trial run undertaken before embarking on main study to identify unforeseen obstacles in the execution of the actual study plan.[29]

Pilot study was conducted between the period of 21/ 3/2021 to 25/3/2021 with Sample size of 10 males.

Data collection procedure:-

Data collection is a precise systematic method of gathering the information relevant to the research problem [30]

Permission from the consent authority –

Prior of a collection of data permission was obtained from the authority of NGO

Period of data collection

Data collection was done with Google form due to Pandemic situation, Tool had been translated in Marathi and then Google form is prepared in Marathi, as per sample's convenience Google form is provided. The data collection was done from 6 /4/2021 to 1/5/2021

Plan for data analysis :-

Data analysis is systematic organization and synthesis of research data and testing of research hypothesis using the data descriptive an infernal statistics will be used for data analysis the data will be presented in the form of tables, bars diagram and pie chart the data will be analyzed by the computing mean standard deviation testing and P value. [21]

RESULTS AND DISCUSSION:

Analysis and Interpretation of the Data

Analysis is a process of organizing and synthesizing data in such a way that research questions can be answered, and hypothesis tested. This chapter deals with the analysis and interpretation of the data collected from 100 samples with the objective of assessing the level of knowledge and attitude of males regarding vasectomy in the selected area of Pune. The collected data was tabulated in master sheet and analyzed by using descriptive and inferential statistics as per the objectives of the study.

The above-mentioned table deals with the demographic data of sample with regard to age, education, occupation, type of family, family income, number of children and source of information about vasectomy.

Pie diagram showing percentage wise distribution according to the Age of the respondents

Percentage wise distribution of respondents according to their Age depicts that highest percentage (61%) were in the age group of 30 to 35 years and 21% of them were in the age group of 36 to 40years. It can be interpreted that most of the respondents were in the age group of 30 to 35 years.

Line diagram showing percentage wise distribution according to the education of the respondents

Percentage wise distribution of respondents according to their education depicts that highest percentage (47%) were primary qualified and 37% of them were secondary qualified. It can be interpreted that most of the respondents were primary qualified.

Bar diagram showing percentage wise distribution according to their occupation

Percentage wise distribution of respondents according to their occupation depicts that highest percentage (38%) of the respondents were doing business and 29% were in service. It can be interpreted that most of the respondents were doing business.

Column diagram showing percentage wise distribution according to family type of the respondents.

Percentage wise distribution of respondents according to their type of family. depicts that highest percentage (48%) respondents were lived in joint family and (26%) of the respondents were lived in nuclear family. It can be interpreted that most of the respondents were lived in joint family.

Pie diagram showing percentage wise distribution according to the family income of the respondents

Percentage wise distribution of respondents according to the family income of the respondents, depicts that highest percentage (42%) of the respondents have 20000-50000 income per month, and 32% of them have 5000- 20000 per month. Hence it can be interpreted that most of the respondents have 20000-50000 income per month.

Scattered diagram showing percentage wise distribution according to the no of children of respondents

Percentage wise distribution of respondents according to the no of children depicts that highest percentage (64%) of the respondents have two child and 24% of them have only one child. Hence it can be interpreted that most of them have two children's.

Column diagram showing percentage wise distribution according to the source of information to the respondents

Percentage wise distribution of respondents according to the source of information depicts that highest percentage (36%) of the respondents got the information from mass media and 30% of them got information from friends. Hence it can be interpreted that most of the information got from mass media.

1. The present study shows that majority (71%) of respondents knows vas deferens is tube carrying eggs in female reproductive system.
2. The present study shows that majority (82%) of respondents didn't know the commonly used contraceptive method.
3. The present study shows that majority (64%) of respondents knows vasectomy is cut the vas deferens to prevent pregnancy in males.
4. The present study shows that majority (81%) of respondents didn't know what is inhibited in vasectomy.
5. The present study shows that majority (82%) of respondents didn't know what is associated with vasectomy.
6. The present study shows that majority (61%) of respondents know NSV is ligation and excision of vas deferens without use of scalpel.
7. The present study shows that majority (58%) of respondents know minimal incision is advantage of vasectomy.
8. The present study shows that majority (58%) of respondents didn't know common problems in males after vasectomy.
9. The present study shows that majority (74%) of respondents know prevent unplanned pregnancies is advantage of vasectomy.
10. The present study shows that majority (73%) of respondents didn't know how long one needs to get hospitalized for vasectomy.
11. The present study shows that majority (52%) of respondents knows one can resume sexual relation in one week after vasectomy.
12. The present study shows that majority (55%) of respondents didn't know when one can join his work after vasectomy.
13. The present study shows that majority (60%) of respondents didn't know where vasectomy was first launched.
14. The present study shows that majority (86%) of respondents didn't know initiatives given by government for undergoing vasectomy.
15. The present study shows that majority (61%) knows fortnight program of vasectomy.

Bar diagram showing percentage wise distribution according to the level of knowledge scores of males regarding vasectomy.

Percentage wise distribution of respondents according to the level of knowledge scores of males regarding vasectomy that highest percentage (51%) of them were having average knowledge score (9%) of them were having good knowledge score. Hence it can be interpreted that most of the respondents had average knowledge regarding vasectomy

Bar diagram showing percentage wise distribution according to the level of attitude scores of males regarding vasectomy.

Percentage wise distribution of respondents according to the level of knowledge scores of males regarding vasectomy that highest percentage (84%) of them were having neutral attitude (4%) of them were having negative attitude. Hence it can be interpreted that most of the respondents had neutral attitude regarding vasectomy.

Table 1: Description of demographic data **N = 100**

S No	Demographic variables		Samples	
			Frequency	Percentage (%)
1	Age	30-35 years	61	61
		36-40 years	21	21
		41-45 years	11	11

		46-50 years	07	07
2	**Education**	Illiterate	06	06
		Primary	30	30
		Secondary	27	27
		Graduate	33	33
		Post graduate	04	04
3	**Occupation**	Service	29	29
		Business	38	38
		Daily wages worker	08	08
		Any other	25	25
4	**Type of family**	Joint	48	48
		Nuclear	26	26
		Extended	15	15
		Separated	11	11
5	**Family income**	5000-20000	32	32
		20000-50000	42	42
		50000-1 lakh	17	17
		Above 1 lakh	09	09
6	**No of children**	One	24	24
		Two	64	64
		Three	07	07
		More than three	05	05
7	**Source of information**	Mass media	36	36
		Friends	30	30
		NGO/social worker	19	19
		Family forefathers	15	15

Section: II

Table 2: Assessment of level of knowledge and attitude regarding vasectomy.

S No	Questions	Correct answer		Wrong answer	
		F	%	F	%
1	What is vas deferens?	71	71	29	29
2	What is the most commonly used contraceptive method?	18	18	82	82
3	Which surgical procedure is done in vasectomy?	64	64	36	36
4	What is inhibited in vasectomy?	19	19	81	81
5	Which of the following is typically associated with vasectomy?	18	18	82	82
6	What is non-scalpel vasectomy (NSV).	61	61	39	39
7	What is the advantage of NSV?	58	58	42	42
8	What is the common problem seen in male after vasectomy?	42	42	58	58
9	Which of the following is the advantage of vasectomy?	74	74	26	26
10	How long do you think one need to go hospitalized for vasectomy procedure?	27	27	73	73
11	When one can resume sexual relation after vasectomy.	52	52	48	48
12	When person can joins his work after vasectomy.	45	45	55	55
13	Where was vasectomy launched first.	40	40	60	60
14	What are the incentives given by government for undergoing vasectomy?	14	14	86	86
15	What is vasectomy fortnight program?	61	61	39	39

Table 3: Frequency and percentage wise distribution of knowledge score of males regarding vasectomy in selected areas of pune.

SN	Score	Level	Frequency	Percentage
1	0-5	Poor knowledge score	40	40
2	6-10	Average knowledge score	51	51
3	11-15	Good knowledge score	9	9

Table 4: Frequency and percentage wise distribution of attitude score of males regarding vasectomy in selected areas of pune.

S No	Score	Level	Frequency	Percentage
1	16-32	Negative attitude	40	40
2	33-48	Neutral attitude	51	51
3	49-64	Positive attitude	9	9

Section-III: Association of knowledge and attitude score of samples.

Table 5: Contingency table to find out the association between level of knowledge score and age

S No	Age	Poor score		Average score		Good Score		Total	χ^2
		O	E	O	E	O	E		
1	30-35 years	26	24.4	32	31.11	03	5.49	**61**	12.4848
2	36-40 years	04	8.4	13	12.81	04	1.89	**21**	
3	41-45 years	07	4.4	02	6.71	02	0.99	**11**	
4	46-50 years	03	2.8	04	4.27	00	0.63	**07**	
Total		**40**		**51**		**09**		**100**	

Table value of χ^2 = 24.99

The above table shows that calculated value of chi square (12.4848) is less than table value (24.99) shows there is no significant difference between age and level of knowledge score.

Table 6: Contingency table to find out the association between level of knowledge score and Education

SN	Education	Poor score		Average score		Good Score		Total	χ^2
		O	E	O	E	O	E		
1	Illiterate	03	2.4	03	30.6	00	0.54	06	57.6525
2	Primary	10	12	20	15.3	00	2.7	30	
3	Secondary	09	10.8	14	13.77	04	2.43	27	
4	Graduate	14	13.2	14	16.83	05	2.97	33	
5	P.Graduate	04	1.6	00	20.4	00	0.36	04	
Total		**40**		**51**		**09**		**100**	

Table value of χ^2 = 31.41

The above table shows that calculated value of chi square (57.6525) is greater than table value (31.41) shows there is significant difference between education and level of knowledge score.

Table 7: Contingency table to find out the association between level of knowledge score and Occupation

S No	Occupation	Poor score		Average score		Good score		Total	χ^2
		O	E	O	E	O	E		
1	Service	08	11.60	18	14.79	03	2.61	29	43.3811
2	Business	14	15.20	21	19.38	03	3.42	38	
3	Daily wage worker	06	3.20	02	40.8	00	0.72	08	
4	Any other	12	10	10	12.75	03	2.25	25	
Total		**40**		**51**		**9**		**100**	

Table value of χ^2 = 24.99

The above table shows that calculated value of chi square (43.3811) is greater than table value (24.99) shows there is significant difference between occupation and level of knowledge score.

Table 8: Contingency table to find out the association between level of Emotional Quotient score and Family type.

S No	Family type	Poor score		Average score		Good score		Total	γ^2
		O	E	O	E	O	E		
1	Joint	14	19.20	30	24.48	04	4.32	48	7.3615
2	Nuclear	13	10.40	11	13.26	02	2.34	26	
3	Extended	06	6	07	7.65	02	1.35	15	
4	Separated	07	4.4	03	5.61	01	0.99	11	
Total		**40**		**51**		**09**		**100**	

Table value of $\gamma 2 = 24.99$

The above table shows that calculated value of chi square (7.3615) is less than table value (24.99) shows there is no significant difference between family type and level of knowledge score.

Table 9: Contingency table to find out the association between level of knowledge score and family income per month.

S No	Family income per month	Poor score		Average Score		Good score		Total	γ^2
		O	E	O	E	O	E		
1	5000 – 20000	14	12.8	16	16.32	02	2.88	32	3.3398
2	20000 – 50000	13	16.8	24	21.42	05	3.78	42	
3	50000 – 1 Lakh	09	6.8	07	8.67	01	1.53	17	
4	1 Lakh - Above	04	3.6	04	4.59	01	0.81	09	
Total		**40**		**51**		**09**		**100**	

Table value of $\gamma 2 = 24.99$

The above table shows that calculated value of chi square (3.3398) is less than table value (24.99) shows there is no significant difference between family income per month and level of knowledge score.

Table 10: Contingency table to find out the association between level of knowledge score and No. of children

S No	No. of children	Poor Score		Average Score		Good Score		Total	γ^2
		O	E	O	E	O	E		
1	One	04	9.6	16	12.24	04	2.16	24	13.0745
2	Two	28	25.60	31	32.64	05	5.76	64	
3	Three	06	2.8	01	3.57	00	0.63	07	
4	Four	02	2	03	2.55	00	0.45	05	
Total		**40**		**51**		**09**		**100**	

Table value of $\gamma 2 = 24.99$

The above table shows that calculated value of chi square (13.0745) is less than table value (24.99) shows there is no significant difference between Number of children and level of knowledge score.

Table 11: Contingency table to find out the association between the level of knowledge score and information about vasectomy.

S No	Information about vasectomy	Poor Score		Average Score		Good Score		Total	γ^2
		O	E	O	E	O	E		
1	Mass media	18	14.40	16	18.36	02	3.24	36	17.8727
2	Friend	16	12	12	15.30	02	2.7	30	
3	NGO/Social worker	03	7.6	11	9.69	05	1.71	19	
4	Family forefathers	03	6	12	7.65	00	1.35	15	
Total		**40**		**51**		**09**		**100**	

Table value of $\gamma 2 = 24.99$

The above table shows that calculated value of chi square (17.8727) is less than table value (24.99) shows there is no significant difference between information about vasectomy and level of knowledge score.

Table 12: Contingency table to find out the association between level of attitude score and age

S No	Age	Negative Attitude		Neutral Attitude		Positive Attitude		Total	γ^2
		O	E	O	E	O	E		
1	30-35 years	04	2.48	47	52.08	11	3.84	62	9.3375
2	36-40 years	00	0.84	21	17.64	00	2.52	21	

3	41-45 years	00	0.4	09	8.4	01	1.2	10	
4	46-50 years	00	0.28	07	5.88	00	0.84	07	
Total		04		84		12		100	

Table value of $_{\gamma}2 = 24.99$

The above table shows that calculated value of chi square (9.3375) is less than table value (24.99) shows there is no significant difference between age and level of attitude score.

Table 13: Contingency table to find out the association between level of attitude score and Education

S No	Education	Negative Attitude		Neutral Attitude		Positive Attitude		Total	γ^2
		O	E	O	E	O	E		
1	Illiterate	00	0.24	05	5.04	01	0.72	06	19.2037
2	Primary	02	1.2	24	25.2	04	3.6	30	
3	Secondary	00	1.08	25	22.68	02	3.24	27	
4	Graduate	02	1.32	29	27.72	02	3.96	33	
5	P. Graduate	00	0.16	01	3.36	03	0.48	04	
Total		04		84		12		100	

Table value of $_{\gamma}2 = 31.41$

The above table shows that calculated value of chi square (19.2037) is less than table value (31.41) shows there is no significant difference between education and level of attitude score.

Table 14: Contingency table to find out the association between level of attitude score and Occupation

S No	Occupation	Negative Attitude		Neutral Attitude		Positive Attitude		Total	γ^2
		O	E	O	E	O	E		
1	Service	00	1.16	28	24.36	01	3.48	29	6.6675
2	Business	02	1.52	31	31.92	05	4.56	38	
3	Daily wage worker	00	0.32	07	6.72	01	0.96	08	
4	Any other	02	01	18	21	05	03	25	
Total		04		84		12		100	

Table value of $_{\gamma}2 = 24.99$

The above table shows that calculated value of chi square (6.6675) is less than table value (24.99) shows there is no significant difference between occupation and level of attitude score.

Table 15: Contingency table to find out the association between level of attitude score and Family type

S No	Family type	Negative Attitude		Neutral Attitude		Positive Attitude		Total	γ^2
		O	E	O	E	O	E		
1	Joint	02	1.92	39	40.32	07	5.76	48	4.4079
2	Nuclear	01	1.04	22	21.84	03	3.12	26	
3	Extended	00	0.6	15	12.6	00	1.8	15	
4	Separated	01	0.44	08	9.24	02	1.32	11	
Total		04		84		12		100	

Table value of $_{\gamma}2 = 24.99$

The above table shows that calculated value of chi square (4.4079) is less than table value (24.99) shows there is no significant difference between family type and level of attitude score.

Table 16: Contingency table to find out the association between level of Attitude score and family income per month

S No	Family income per month	Negative Attitude		Neutral Attitude		Positive Attitude		Total	γ^2
		O	E	O	E	O	E		
1	5000 – 20000	01	1.28	25	26.88	06	3.84	32	5.6794
2	20000 – 50000	01	1.68	38	35.28	03	5.04	42	
3	50000 – 1 Lakh	01	0.68	13	14.28	03	2.04	17	
4	1 Lakh - Above	01	0.36	06	7.56	00	1.08	09	
Total		04		84		12		100	

Table value of $_{\gamma}2 = 24.99$

The above table shows that calculated value of chi square (5.6794) is less than table value (24.99) shows there is no significant difference between family income per month and level of knowledge score.

Table 17: Contingency table to find out the association between level of Attitude score and No. of children

S No	No. of children	Negative Attitude		Neutral Attitude		Positive Attitude		Total	$_{\gamma}^{2}$
		O	E	O	E	O	E		
1	One	03	0.96	17	20.16	04	2.88	24	7.5688
2	Two	01	2.56	57	53.76	06	7.68	64	
3	Three	00	0.28	06	5.88	01	0.84	07	
4	Four	00	0.2	04	4.2	01	0.6	05	
Total		04		84		12		100	

Table value of $_{\gamma}2 = 24.99$

The above table shows that calculated value of chi square (7.5688) is less than table value (24.99) shows there is no significant difference between Number of children and level of attitude score.

Table 18: Contingency table to find out the association between the level of Attitude score and information about vasectomy

S No	Information about vasectomy	Negative Attitude		Neutral Attitude		Positive Attitude		Total	$_{\gamma}^{2}$
		O	E	O	E	O	E		
1	Mass media	03	1.44	29	30.24	04	4.32	36	4.37319
2	Friend	01	1.2	24	25.2	05	3.6	30	
3	NGO/Social worker	00	0.76	17	15.96	02	2.28	19	
4	Family forefathers	00	0.6	14	12.6	01	1.8	15	
Total		04		84		12		100	

Table value of $_{\gamma}2 = 24.99$

The above table shows that calculated value of chi square (4.37319) is less than table value (24.99) shows there is no significant difference between information about vasectomy and level of attitude score.

Figure 1: Pie diagram showing percentage wise distribution according to the Age of the respondents N=100

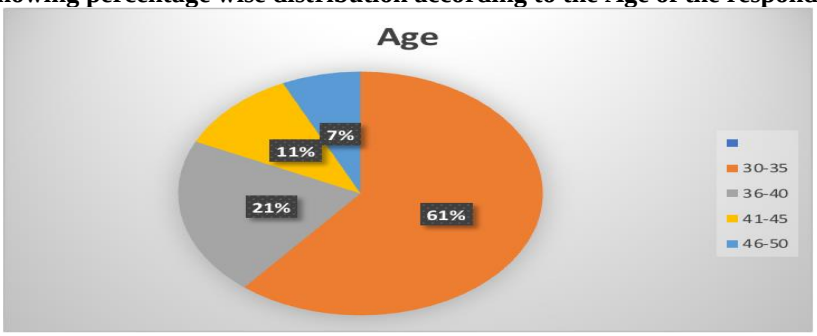


Figure 2: Line diagram showing percentage wise distribution according to the education of the respondents N=100

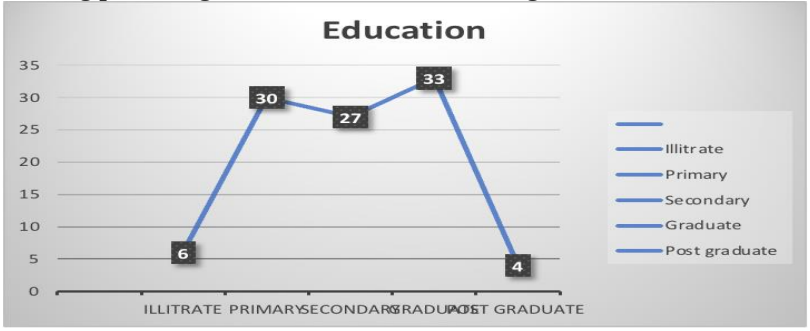


Figure 3: Bar diagram showing percentage wise distribution according to their occupation N=100

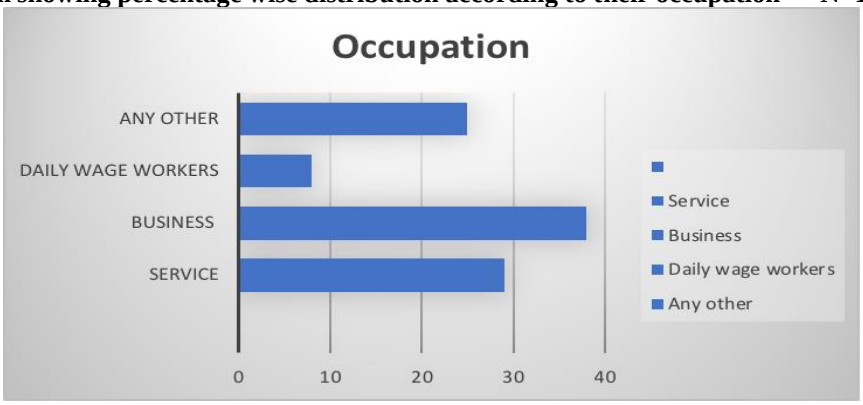


Figure 4: Column diagram showing percentage wise distribution according to family type of the respondents N=100

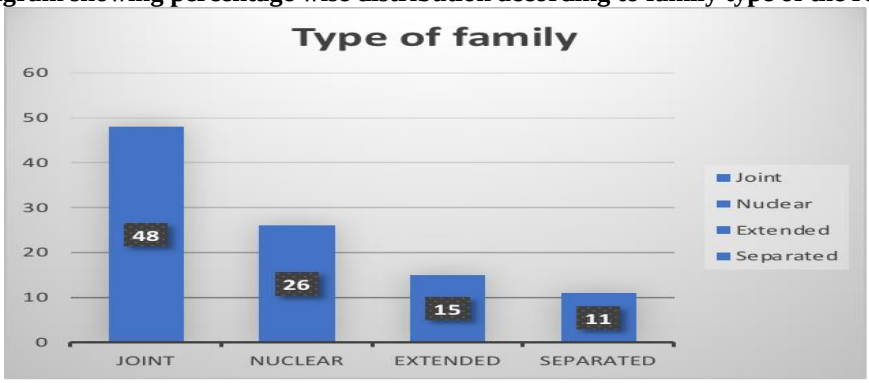


Figure 5: Pie diagram showing percentage wise distribution according to the family income of the respondents N=100

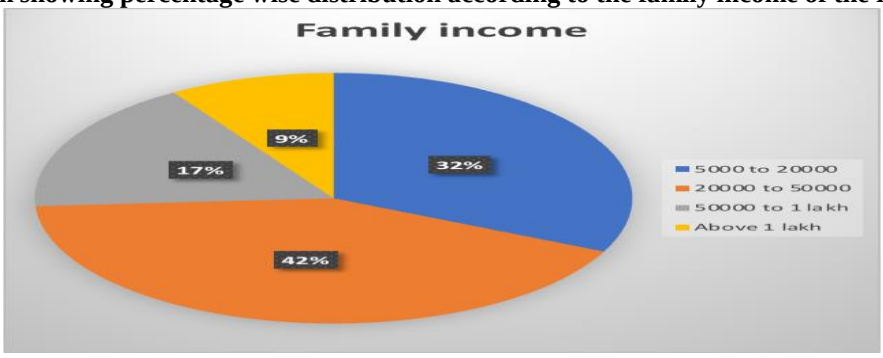


Figure 6: Scattered diagram showing percentage wise distribution according to the no of children of respondents N=100

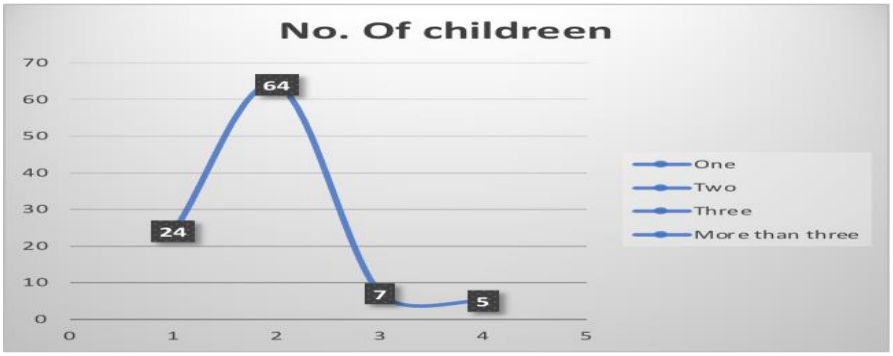


Figure 7: Column diagram showing percentage wise distribution according to the source of information to the respondents N=100

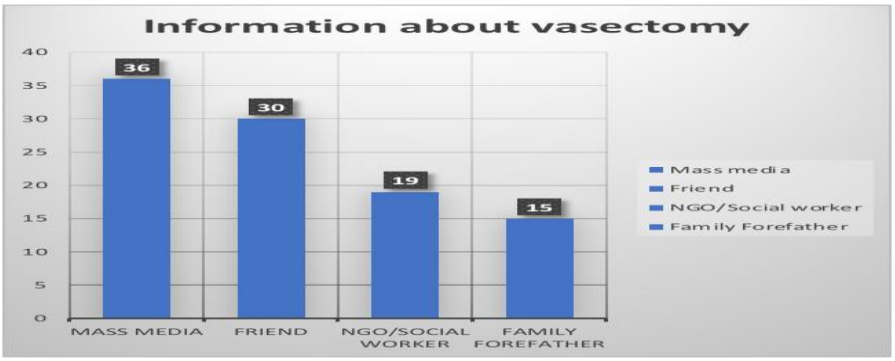


Figure 8: Bar diagram showing percentage wise distribution according to the level of knowledge scores of males regarding vasectomy.

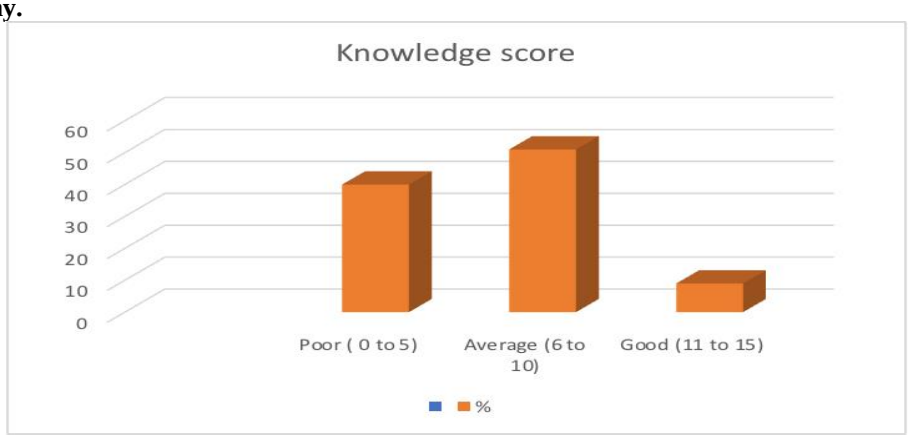
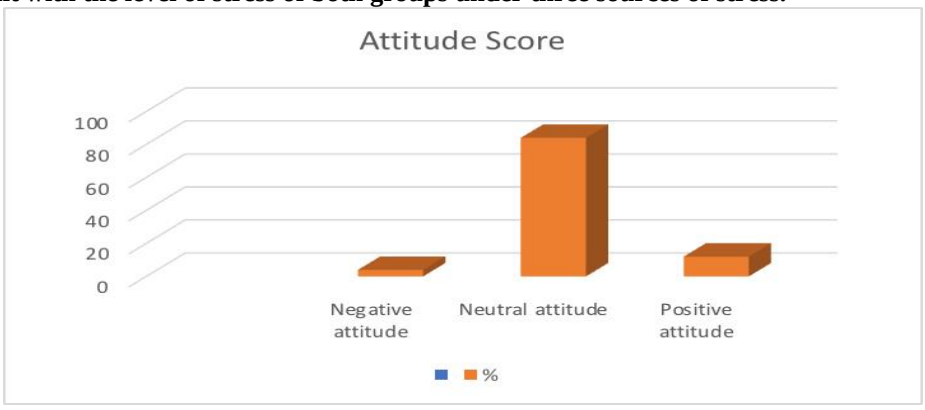


Figure 9: Bar diagram showing percentage wise distribution according to the level of attitude scores of males regarding vasectomy. le 1 dealt with the level of stress of both groups under three sources of stress.



DISCUSSION:

Summary Discussion, Conclusion Implication And Recommendations

Any research study cannot be considered complete till the research findings have been propagated among concerned fraternity & other significant people. The present chapter deals with making summary discussion, conclusion, implication, limitation & recommendations as per findings of present study.

SUMMARY

Problem Statement

A Study to assess knowledge and attitude of males regarding vasectomy residing in selected areas of Pune"

Objectives

1. To assess the knowledge of males regarding vasectomy.

2. To find out association between knowledge of males regarding vasectomy with selected demographic variables.
3. To assess the attitude of males regarding vasectomy.
4. To find out association between attitude of males regarding vasectomy with selected demographic variables.

ASSUMPTIONS

- Males have adequate knowledge regarding vasectomy.
- Males have positive attitude towards vasectomy.

MAJOR FINDINGS OF THE STUDY

The major findings of the study were drawn from the analysis done section wise as follows.

SECTION – I

The findings indicated the following

- Majority 61.4% of the samples group of 30 to 35 years, 21% of samples belongs to age group of 36-40 years, 11.1% age group of 41-45-years & 7% of Samples from age group of 46-50 years.
- In the study 47.4% of samples who participated in the study were primary qualified, 37% of them were secondary qualified,
- Majority 38% of the samples were doing business. & 29% were in service.
- Majority of the samples 48 % lived in Joint family, 26% of the respondents were lived in nuclear family.15% in extended family & 11% in separated family.
- In the study highest 42% of the samples have 20000 - 50000 income per month, 32% of them have 5000-20000 per month.
- In the study highest percentages of 64% of the samples have two child and 24% of them have only one child.
- Majority of the samples 36% got information from mass media, & 30% of them got information from friends. 19% from Social workers & 15% from family forefathers.

SECTION - II

- Item Analysis of knowledge scores of males regarding vasectomy
- Findings related to overall performance in knowledge section by the samples are as follows.
- Highest percentage51% of the samples having average knowledge score. 40% of them having Poor knowledge score and 9% of them have Good knowledge score it can be interpreted that most of them the respondents had knowledge regarding vasectomy.

SECTION – III

To find association between Study findings and selected demographic variables

The findings indicated the following.

- Calculated value of chi square for association between level of knowledge score & age is 12.4898 is less than table value 24.99 shows there is no significant difference between age and level of knowledge score
- Calculated value of chi square is 57 is greater than table value 31.41 there is significant difference between education & level of knowledge score
- Calculated value of chi square for association between level of knowledge Score & occupation is 43.3811 is greater than table value 24.95 shows there is significant difference between occupation & level of knowledge score.
- Calculated value of chi square 7.3615 is less than table value 24.99 shows there is no significant difference between family type and level of knowledge.
- The calculated value of chi square for association between level of knowledge score and family income per month is 3.3398 shows there is no significant difference between family income per month and level of knowledge.
- The calculated value of chi square for association between level of knowledge score and number of children is 13.0745 is less than table value 24.99 shows there is no significant difference between number of children and level of knowledge score .
- The calculated value of chi square for association between level of knowledge score and information about vasectomy is 17.8727 is less than table value 24.99 shows that there is no significant difference between information about vasectomy and level of knowledge score.
- The calculated value of chi square for association between level of attitude score and age is 9.3375 is less than table value 24.99 shows that there is no significant difference between age and level of attitude score.
- The calculated value of chi square for association between level of attitude score and education is 19.2037 is less than table value 31.4 shows that there is no significant difference between education and level of attitude score.
- The calculated value of chi square for association between level of attitude score and occupation is 6.6675 is less than table value 24.99 shows that there is no significant difference between occupation and level of attitude score.
- The calculated value of chi square for association between level of attitude score and family type is 4.4079 is less than table value 24.99 shows that there is no significant difference between family type and level of attitude score.

- The calculated Value of chi square for association between level of attitude score and family income per month is 5.6794 is less than table value 24.99 shows that there is no significant difference between family income per month and level of attitude score.
- The calculated value of chi square for association between level of attitude score and number of children is 7.5688 is less than table value 24.99 shows that there is no significant difference between number of children and level of attitude score .
- The calculated value of chi square for association between level of attitude score and information about vasectomy is 4.37319 is less than table value 24.99 shows that there is no significant difference between information about vasectomy and level of attitude score.

CONCLUSION

The following conclusion drawn from the study findings

- Most of the males had average knowledge about vasectomy
- Most of the males had neutral attitude towards vasectomy.
- There is significant association between education and occupation with the level of knowledge score.
- There is no significant association between age, family type, family income, number of children and source of information about vasectomy with level of knowledge score.
- There is no significant association between all the demographic variables and level of attitude score.

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