KNOWLEDGE REGARDING CONSANGUINEOUS MARRIAGE AND ITS GENETIC EFFECTS AMONG YOUNG ADULTS

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Abstract

Introduction: Consanguineous marriages are marriages contracted between blood relatives and it is an important risk factor in genetic diseases and congenital malformations. Objective: To assess the knowledge regarding the consanguineous marriage and its genetic effects among young adults. Research approach and design: A quantitative research approach with descriptive cross sectional design. Participants: Young adults studying in selected Degree College between 17-25 years of age in Moradabad. Purposive sampling technique was used to select 100 samples for the study. Results: around 59% of young adults had moderately adequate knowledge, 38% had inadequate knowledge and 3% had adequate knowledge regarding consanguineous marriage and its genetic effects. Conclusion: maximum number of samples had moderately adequate knowledge on consanguineous marriage.

Introduction

"Marriage is the agreement to let a family happen"

Marriage is a social, religious, spiritual and legal union of individuals. Wedding ceremonies are important features of any culture. They can mark the beginning of a new life, the joining of two families or act as a public confirmation of the love between two people. Indian marriages are deemed necessary in the Indian society. Arranging a marriage is the responsibility of Indian parents and other relatives of both bride and groom. In India, there is no greater event in a family than a wedding.[4]

Consanguineous marriages are marriages contracted between blood relatives. World Health Organization defines it as a marriage between people who are second cousins or more closely related.

In India 23.3% of all Muslim marriages are consanguineous, compared to 10.6% of all Hindu marriages, 10.3% of all Christian marriages and 17.1% of all Buddhist marriages.

Consanguinity is an important risk factor in genetic diseases and congenital malformations.

Despite that hereditary diseases are

widespread among the Arab population due to high rates of consanguineous marriages, research regarding community awareness towards premarital carrier screening in some countries such as Oman, is extremely scarce. This study aimed to investigate knowledge and attitude towards premarital carrier screening (PMCS) in Oman. A cross-sectional study was conducted using a self-administered questionnaire which was distributed to 400 Omani adults aged 20–35 years who attended primary healthcare institutions at the South Batinah Governorate in Oman. The majority of the participants (84.5%) believed that PMCS was necessary and about half of them (49.5%) supported the view of making PMCS compulsory. On the contrary, approximately one third (30.5%) of the participants reported that they were not in favour of taking the blood screening test. Overall, unwillingness to perform pre-marital testing was associated with female gender, younger age, being single, less education, and increased income. Despite the relatively high level of knowledge, about one third of the participants were still reluctant to carry out premarital testing. Such attitude calls for immediate need for community-based campaigns to encourage the public to do premarital testing.[3]

The Maternal age is important risk for consanguineous marriages. Overall risk in 10,000 populations 1:800 are affected adolescent girls. There is a relatively high incidence of mental retardation and congenital malformation. An increased risk of premature death is also noted in such offspring.

Prevalence and type of consanguinity and its effects on pregnancy outcome in Belgaum, Karnataka, illustrate that the prevalence of consanguinity marriage was 36%. 54.44% of the marriages were between first cousins and fetal loss was significantly higher in the consanguineous group as compared to non-consanguineous group. Only 7.6% of the women were aware about the hazards of consanguineous marriages.[5]

While assessing the consequence of consanguineous against non - consanguineous marriages in health and disease, several scientific studies have shown that consanguinity leads to death of infants before, during or immediately after birth, increased incidence of birth defects , genetic diseases including blinding disorders, blood cancer, acute lymphocytic leukemia, breathing problems for children at birth apnea, increased susceptibility to disease, deafness, skin diseases, neurodegenerative conditions, congenital heart disease, multiple malformations, mental retardation, developmental disorders, still birth rate, inborn errors of metabolism and congenital cataract, bifid tongue, cyanotic heart disease, cleft palate, hydrocephalus

also consanguineous pregnancy to induce rates of involuntary sterility and prenatal losses.[5]

Consanguineous couples should be adequately informed about their increased reproductive risk and possibilities for genetic counseling. Information may only be effective if it meets the needs of the target group.

More than half of the respondents thought that information should be given before marriage, whereas only 10% thought it should never be provided and they have stated. The general practitioner was most often mentioned (54%) as the designated professional to inform people. Information about genetic risks related to consanguinity should be offered early, preferably before marriage.[2]

Purpose of the study

The main purpose of the study is to enhance the knowledge regarding the consanguineous marriage and its genetic effects among young adults.

Objectives

1. To assess the knowledge regarding the consanguineous marriage and its genetic effects among young adults.
2. To determine the association between knowledge regarding consanguineous marriage and its genetic effects among young adults and their selected demographic variable.
3. To develop and distribute the information booklet regarding consanguineous marriage and its genetic effects.

Hypothesis

H_1 – There is a significant association between the knowledge regarding consanguineous marriage and its genetic effects among young adults with their selected demographic variables.

Methods and Material :

A quantitative research approach was used to evaluate the knowledge regarding the consanguineous marriage and its genetic effects among young adults and to find out the association between knowledge regarding consanguineous marriage and its genetic effects among young adults with their selected demographic variables. Descriptive cross sectional design was used to collect data. Young adults studying in selected Degree College between 17-25 years of age in Moradabad. Purposive sampling technique was used to select 100 samples for the study. The knowledge questionnaire used to collect data after testing validity and reliability. Data analysis was done by both descriptive and inferential statistic on the basis of objective and hypothesis of study.

Findings of the study

Demographic variables		Frequency	%
Age in years	17 to 19	60	60
	20 to 22	33	33
	23 to 25	07	07
Sex	Male	44	44
	Female	56	56
Religion	Hindu	55	55
	Muslim	40	40
	Others	05	05
Educational status	Illiterate	25	25
	10^{th} and below	13	13
	12^{th}	28	28
	Degree Holder	34	34
Type of family	Joint Family	65	65
	Nuclear Family	35	35
Family income per month in Rs	< 5,000	14	14
	5,001 to 10,000	18	18
	10,001 to 15,000	20	20
	>15,000	48	48
History of consanguineous marriage	Yes	30	30
	No	70	70
Source of	News paper / Mass media	31	31
health information	Family members	20	20
	Friends	11	11
	Health personal	07	07
	Nil	31	31

Table – 1: Distribution of young adults according to their demographic variables.

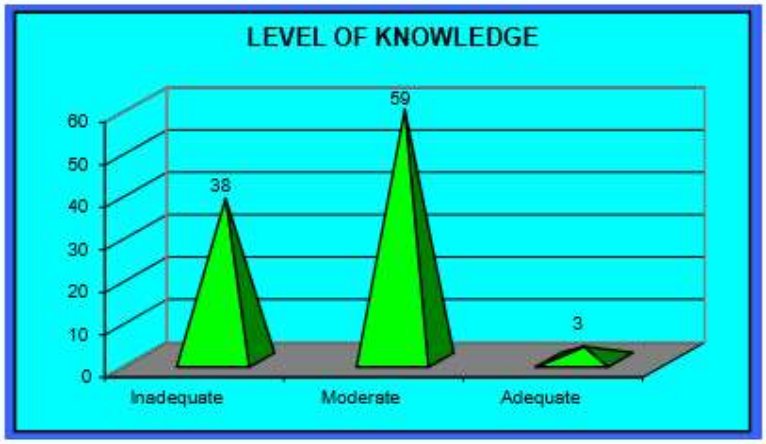

Fig 1; Pyramid diagram shows the level of knowledge of young adults.

The Pyramid diagram shows that around 59% of young adults had moderately adequate knowledge, 38% had inadequate knowledge and 3% had adequate knowledge regarding consanguineous marriage and its genetic effects.

It shows that the maximum level of knowledge regarding consanguineous marriage and its genetic effects among young adults is moderately adequate.

Table – 2: Association between level of knowledge and demographic variables

N-100

Demographic variables		Adequate		Moderately adequate		Inadequate		df	chi-squre F2	Level of Significance
		F	%	F	%	F	%			
Age (in years)	17 - 19	1	1	29	29	30	30	4	26.092	P< 0.05 S*
	20 - 22	0	0	25	25	8	8			
	23 - 25	2	2	5	5	0	0			
Sex	Male	1	1	26	26	17	21	2	0.147	P>0.05 NS
	Female	2	2	33	33	17	21			
Religion	Hindu	2	2	34	34	19	19	4	0.832	P>0.05 NS
	Christian	0	0	0	0	0	0			
	Muslims	1	1	22	22	17	17			
	Others	0	0	3	3	2	2			
Type of family	Joint family	3	3	38	38	24	24	2	1.681	P>0.05 NS
	Nuclear family	0	0	21	21	14	14			

Demographic Data		F	%	F	%	F	%	df	F2	Level of Significance
Family Income	< Rs.5,000	0	0	8	8	6	6	6	3.817	P>0.05 NS
	Rs.5,001 to Rs.10,000	0	0	11	11	7	7			
	Rs.10,001 to Rs.15,000	1	1	17	17	6	6			
	> Rs.15,001	2	2	23	23	19	19			

Parents educational status	terate	0	0	18	18	7	7	6	10.763	P>0.05 NS
	ow 10th	2	2	7	7	4	4			
	h std	1	1	15	15	12	12			
	gree holder	0	0	19	19	15	15			
History of consanguineous marriage	s	2	2	18	18	10	10	2	2.174	P>0.05 NS
		1	1	41	41	28	28			
Source of information	ws paper/ dia	0	0	19	19	12	12	8	25.226	P<0.05 S*
	nily embers	1	1	16	16	3	3			
	ends	0	0	6	6	5	5			
	alth ofessionals	0	0	5	5	1	1			
		2	2	13	13	17	17			

NS = Not significant

S*=Significant at the level of 0.05

df = Degree of freedom

Table-2 shows that 60 % of young adults were in the age group of 17 – 19 years, 56 of young adults were females, 55% of the young adults were Hindus, 34 % of the parents were degree holder, 65 % of young adults belong to joint family, 48 % of young adults were in the income group of above Rs.15, 000, where as 70 % of the young adults have no family history of consanguineous marriage, 31% of the young adults had information through news paper/ mass **media.**

Association between level of knowledge regarding consanguineous marriage and its genetic effects among young adults and with their demographic variables

Study findings shows that the 'p' value is greater than 0.05 levels for all the demographic variables and hence the results are not significant at 5% level except age and source of information. So it is concluded that there is a close association between the age and source of information of the respondents and level of knowledge.

Nursing implication

The findings of the study have implication in the field of nursing education, nursing practice, nursing research and nursing administration.

Nursing Education

- During basic nursing education courses, students may given clinical assignments regarding adverse effects of consanguineous marriage.
- The nursing curriculum should consist of adequate hours in community area to provide awareness regarding consanguineous marriage and its genetic effects.

Nursing Practice

Considering these factors, nursing personnel can contribute much for prevention by creating awareness in community through school health programmes, camps and special programmes at colleges and mass media education regarding consanguineous marriage and its genetic effects.

Nursing Research

The nurses should conduct research on various aspects of consanguineous marriage and its genetic effects to provide more scientific data and adds more scientific body of information to the nursing profession.

Nursing Administration

The knowledge of nurse must be updated through in-service and refresher courses regarding consanguineous marriage and its genetic effects. education and refresher courses regarding consanguineous marriage and its genetic effects.

A hospital policy should be adopted to provide health education or written information on consanguineous marriage and its genetic effects.

Recommendations

Based on the findings of the study the following recommendations are made;

- A similar study can be replicated on a sample with different demographic characteristics.
- A similar study may be replicated with a control group.
- A similar study may be replicated on a large population for wider generalization.
- Comparative study can be done between the people in rural community and urban community.
- An extensive teaching programme may be conducted including all aspects of consanguineous marriage and its genetic effects and its prevention for better understanding.

Limitations

- The data was collected only from young adults those who were present in the study area.
- The study was limited to age group of 17 to 25 years of young adults.

Suggestions

- Genetic counselors are to be appointed and posted in the maternal and child health centre and hospitals.

- Every genetic clinic should have a display board regarding consanguineous marriage and its genetic effects and its prevention.

- Simple appropriate teaching on human genetics should be incorporated into the school curriculum at a point where it can reach every child.

- Professionals in genetics, health education and the mass media should work together to increase the awareness of adults.

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