

"A Study To Assess Effectiveness Of Information Booklet On Knowledge Regarding Consanguineous Marriage Among Adults In Selected Areas Of Pune City."

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ABSTRACT

Introduction

Consanguineous marriage, defined as marriage between individuals related by blood, is a common practice in many parts of India due to cultural, social, and economic factors. Although such marriages are believed to strengthen family ties, they are associated with increased risks of genetic disorders, congenital anomalies, infant mortality, and adverse pregnancy outcomes. Many studies shows that association between parent's consanguinity and occurrence of many diseases in childlike Alzheimer's disease, hypertension, cardiovascular diseases, stroke, cancer, depression, osteoporosis, epilepsy. Blood disorders like Sickle cell anemia and thalassemia are common in countries like Kingdom of Saudi Arabia (KSA), the population of India, Pakistan, Bangladesh, Southeast Asia and Pacific islands. Mental illness like depression, schizophrenia may also more prevalent in families that practice consanguineous marriage. Lack of awareness regarding these health consequences highlights the need for effective educational interventions among adults of reproductive age.

Materials and Methods

A quantitative research approach with a pre-experimental one-group pretest–post-test design was used. Non-probability purposive sampling technique was adopted, with a sample size of 120. The tool consisted of two sections: demographic data and a self-structured questionnaire.

Results

The paired t-test value ($t = 36.27$, $p < 0.05$) indicated that the information booklet was highly effective. Significant associations were found between knowledge scores and selected demographic variables such as age, gender, education, and prior knowledge.

Conclusion

The purpose of the present study was to assess the effectiveness of an information booklet on knowledge regarding Consanguineous marriage among adults in selected areas of Pune City. The study concluded that the information booklet was effective in significantly improving the knowledge of adults regarding consanguineous marriage.

Keywords: Knowledge, Consanguineous marriage, Information booklet, Adults, Pune city.

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INTRODUCTION

Consanguineous marriage can be defined as marriage between two individuals who are related with each other by blood most common in three generations.^[1] Consanguineous marriage is practiced for the reasons of culture, Royalty, rural background, poverty, small size population. People believes that it strengthens the family relations.

But it increases the risk of Genetic disorders such as thalassemia sickle cell anemia, congenital abnormalities including neural tube defect. It also increases the risk of infant mortality. Some studies shows that consanguineous marriage increases risk of miscarriage and stillbirth. It also causes the emotional stress to the family members if the affected children are born.^[1] Many studies shows

that association between parent's consanguinity and occurrence of many diseases in childlike Alzheimer's disease, hypertension, cardiovascular diseases, stroke, cancer, depression, osteoporosis, epilepsy.^[2] Blood disorders like Sickle cell anemia and thalassemia are common in countries like Kingdom of Saudi Arabia (KSA), the population of India, Pakistan, Bangladesh, Southeast Asia and Pacific islands. Mental illness like depression, schizophrenia may also more prevalent in families that practice consanguineous marriage.^[3] Study shows that the practice of consanguineous marriage is influenced by the socioeconomic status, education level, location and size of area and attitude of people. Better understanding of this helps in implementation of intervention. Preventive strategies like genetic counselling, premarital

screening, health education, community awareness programmes can be done to Risk of genetic conditions in consanguineous marriage. By using the strategies, we can prevent the occurrence of genetic conditions in future generation. Consanguineous marriage is defined as union between individuals who are related by a blood are significant practice in the world.^[4] Consanguineous marriage is mostly practiced in rural areas of India than the urban areas because rural peoples follow the traditional beliefs more than urban areas. In Urban areas education may affect on marriage choices.^[4] The survey done by National Family Health Survey -5 (NFHS – 5) from 2019-2021 approximately 10.8% to 11% women did Consanguineous marriage. This study shows that it is more common in 15-49 yrs women's. Highest prevalence is occurred in some regions and parts of India such as Tamil Nadu (28%), Karnataka (27%), Andhra Pradesh (26%), Puducherry (19%), Telangana (18%). Studies indicate that regions like Tamil Nadu report even higher rates with approximately 47% of marriage being consanguineous. Northern and eastern states exhibit lower rates of Consanguinity, often below 10%.^[3]

NEED OF THE STUDY:

Consanguineous marriage is practiced in worldwide and many parts of India. Many communities practicing consanguineous marriage in India. The actual reason given for preference of consanguineous marriage are primarily social. But consanguineous marriages increase the risk of genetic disorders, congenital abnormalities, increases child mortality. It increases risk of thalassemia, sickle cell Anemia, intellectual disability among children.^[1] Currently, incidence of thalassemia is 10,000 to 15,000 new cases.

In India, currently 70 million are living with rare genetic conditions. Consanguineous marriage increases the risk of genetic conditions 2-3 times more than non-consanguineous marriage. In populations with higher consanguinity rate and common inherited blood disorders, community programmers for premarital screening to detect carriers of hemoglobinopathies such as thalassemia and sickle cell anemia are in progress as for example in Jordan, Saudi Arabia, Iran. Carrier detection and genetic counselling programs have been very successful in reducing inherited disorders in some population of Iran.^[1]

Pre- conception genetic counselling for Consanguineous marriage is considered one of the important preventive measures in consanguineous couples.^[1] Premarital counselling is also important preventive measure for early identification of health risk. Adults should have education regarding health risk associated with Consanguineous marriage and how they can prevent this health risks. Main motive behind this study is to improve knowledge of adults regarding preventive strategies in consanguineous

marriage By using these preventive strategies, they can safeguard the future. A study conducted by S. Palani Ammal in Chennai, India on knowledge and practice regarding effect of consanguineous marriage, the results showed that 71.43% are aware of consanguineous marriage while 28.57% are not aware about consanguineous marriage. The findings suggest that there is need to increase knowledge regarding consanguineous marriage among adults.^[4]

RESEARCH OBJECTIVES

- 1) To assess the knowledge regarding consanguineous marriage among adults before and after administration of information booklet.
- 2) To compare the pre -test and post-test knowledge score.
- 3) To assess the effectiveness of information booklet on knowledge among adults after administration of information booklet.
- 4) To find out the association between research findings with Selected demographic variables.

METHODOLOGY

A quantitative research approach with a pre-experimental one-group pretest-post-test design was used. Nonprobability purposive sampling technique is used. Sample size is 120.

Self -structured questionnaire is developed for data collection. Questionnaire contains two sections – section A: Demographic Data (Age, Gender, Marital status, education, have any knowledge regarding consanguineous marriage) and Section B: Self -structured questionnaire.

For content validity of research tool, research tool was submitted to 5 nursing experts. Necessary modifications were made in the tool and then final tool is prepared for data collection. S-CVI Value= 0.84

Reliability of tool is done in selected areas of Pune City. A total of 12 samples were selected for the reliability test. The test- retest method was used to for reliability of tool. Karl- Pearson correlation coefficient was used. 'r 'value is 0.91, tool is reliable.

A total of 12 participants were included in the pilot study. The process involved taking informed consent, administering the self-structured questionnaire on the first day and then provided with information booklet on consanguineous marriage and a post test on the seventh day. There is no problem faced during pilot study, so it is found to be feasible to do main study.

RESULTS

Analysis of Demographic Characteristics of samples.

Table 1: Demographic Data
n=120

Demographic Data	Frequency	Percentage
1.Age		
a.18-22 yrs	46	38.33%
b.23-27 yrs	29	24.16%
c.28-32 yrs	24	20%
d.33-35 yrs	21	17.5%
2.Gender		
a. Male	74	61.66%
b. female	46	38.33%
3.Marital status		
a. Married	64	53.33%
b. Unmarried	56	46.66%
4. Educational Background		
a. No formal education	1	0.83%
b. SSC	17	14.16%
c. HSC	26	21%
d. Graduate	56	46 %
e. Postgraduate	20	16.66 %
5.Do you know about Consanguineous Marriage?		
a. Yes	41	34.16 %
b. No	79	65.83%

Table 1 show that, Majority of participants i.e.38.33% are from age group 18-22 yrs, 24.16% participants are from 23-27 yrs, 20% from 28-32 yrs and 17.5% are from 33-35 yrs of age. Majority of 61.88% participants were male and 38.33% were female. Majority of 53.66% participants were married and 46.66% were unmarried. Majority of 46 % participants graduate,21% were HSC, 15% were SSC and 16.66

% were postgraduate and none of the participants is from no formal education.

Majority 65.83% participants have previous knowledge and 34.83 % participants does not have previous knowledge regarding Consanguineous Marriage.

Findings related to knowledge among adults before and after administration of information booklet.

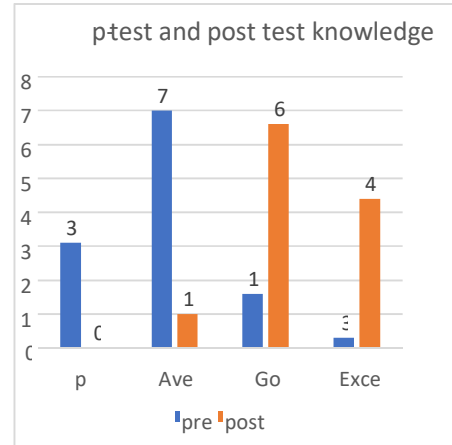


Fig 1: Pre-test & Post-test knowledge regarding the consanguineous marriage.

Fig 1: Describes 25.83% participants have poor knowledge, 58.33% have average knowledge, 13.33% have good knowledge and 2.5% participants have excellent knowledge in pre-test. In post-test none of the participants have poor knowledge, 8.33% have average knowledge, 56% have good knowledge and 36.66 % have excellent knowledge.

Findings related effectiveness of information booklet regarding Consanguineous Marriage.

Table 2: findings related to effectiveness of information booklet on consanguineous marriage.

Knowle dge	Mea n	S D	D F	t test	P val ue	Remark
Pre test	7.675	3.16	119	36.27	0.000	Significant
Post test	14.375	2.69				

Table 2 shows that mean score of post- tests is 14.37 is more than pre-test mean 7.675 and post-test SD is 2.69 less than pre- test SD is 3.16. Calculated value of paired t test was 36.27 with P value 0.000 so P value is less than 0.05 level of significance which means null hypothesis rejected and there is effectiveness of information booklet regarding Consanguineous marriage.

DISCUSSION

This study, "A Pre- experimental Study to Assess the Effectiveness of an Information Booklet on Knowledge Regarding consanguineous marriage

among adults in Selected Areas of Pune City," was conducted to determine participants' demographic characteristics and effectiveness of information booklet. The results of the study are subsequently interpreted and discussed in relation to existing literature.

Comparable results were presented by Reddy et al. (2019), whose participants were predominantly within the 18– 25 age group. The study by Kumar & Rajan (2020) further supports this, suggesting that awareness programs concerning consanguineous marriage achieve greater efficacy among younger, as they are actively engaged in the reproductive decision-making phase.

A comparable male predominance was observed in an investigation by Ahmed et al. (2018), where 60% of the participants were male. The findings of the present study are further substantiated by Sharma & Thomas (2020), who also reported higher male involvement in community-based surveys assessing marriage-related knowledge.

A study conducted by Fatima et al. (2017) indicated that married participants exhibited a superior grasp of the consequences associated with consanguineous marriage, which was attributed to their familiarity with family histories and genetic issues. The current findings are consistent with these earlier observations.

This observation aligns with the findings of Sultana & Devi (2021), where 40% of participants, being graduates, exhibited a superior conceptual understanding of the hereditary risks associated with consanguineous marriages. Furthermore, Khan & Jahan (2019) documented elevated awareness levels among educated adults, which corroborates the present study.

CONCLUSION

The purpose of the present study was to assess the effectiveness of an information booklet on knowledge regarding Consanguineous marriage among adults in selected areas of Pune City. Pre experimental pre-test post-test one group design was used for the study, which consisted of 120 samples that were selected on the basis of the non-probability purposive sampling technique.

Based on the findings of the present study, it was concluded that adults had limited knowledge regarding consanguineous marriage before receiving the information booklet. Most participants had only average knowledge, some had poor knowledge, and very few had good or excellent knowledge.

After reading the information booklet, the knowledge level of the participants improved considerably. Most participants showed good knowledge, many achieved excellent knowledge, and only a few remained at the average level. No participant had poor knowledge after the intervention.

Overall, the study showed that the information booklet was effective in improving the knowledge of adults regarding consanguineous marriage.

This shows that there was an increase in the level of knowledge of the adults after giving the information booklet. It shows there is effectiveness of information booklet on knowledge regarding consanguineous marriage.

There is association between knowledge about consanguineous marriage with selected demographic variables (Age, Gender, Education, previous knowledge).

CONFLICT OF INTEREST

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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