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## **A study to assess the knowledge and attitude among HIV positive antenatal mothers regarding prevention of parent to child transmission of infection in selected areas with a view of developing an information booklet**

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### **Abstract**

“A study to assess the knowledge and attitude among HIV positive antenatal mothers regarding prevention of parent to child transmission of infection in selected areas with a view of developing an information booklet”

The tool consisted of 3 sections: section I consist of demographic data of HIV positive antenatal mothers consists of questions seeking information on the background data HIV positive antenatal mothers, section II consist of a semi structured questionnaire and section III consist of rating scale. To assess the attitude of the mothers regarding PPTCT five point likert scale was used. Marks were distributed as per the positive and negative statements. Majority (90%) of mothers had good attitude (score 71-85) while 10% of mothers had excellent attitude (score 86-100) regarding PPTCT. That means all mothers had positive attitude towards PPTCT except for some questions like majority of mothers agreed to the statement, “It is a sin to be HIV positive and HIV positive people do not have any status in society. Since p-values corresponding to education and social media are small, (less than 0.05), so demographic variables education and social media were found to have significant association with the knowledge of HIV positive antenatal mothers regarding PPTCT.

The researcher has adopted descriptive research approach. In the present study the investigator has adopted a Non-experimental Survey Research Design. In this study sample size used 30. Summary: Total of 30 samples were taken by non probability purposive sampling technique. For generating necessary data a structured questionnaire and attitude scale was developed for identifying knowledge and attitude of couples. The analysis of the study was divided into various sections. In general the mothers performed well in the test. 47% of mothers had excellent knowledge (score 16 to 20) regarding PPTCT, 46% had good knowledge (score 11 to 15) while only 7% had average knowledge score (score 5 to 10). The score was obtained by the participants on 20 questions. Since p-values corresponding to all demographic variables except use of social media are large (greater than 0.05), there is no correlation between knowledge and selected demographic variables except use of social media. This means only social media had significant association with the knowledge score. Conclusion: here is significant association between social media and attitude score as well as education and attitude score while other demographic variables do not have significant co-relation since the p values are more than 0.05. This study was successful in achieving its aims and objectives as well as in using the research process appropriately. The researcher plans to publish the study in accredited nursing journal.

**Keywords:** HIV positive, antenatal mothers, child transmission

### **Introduction**

Parent-to-child-transmission of HIV is the transmission of HIV from an HIV-positive mother to her child during any stage of pregnancy, labor, delivery or breastfeeding. It is the most significant route of transmission of HIV worldwide, among individuals below 15 years of age; nearly 90% of the newly infected children with HIV are due to PTCT. In the absence of any intervention, the risk of PTCT ranges from 20% to 45%. This risk can be decreased to 2% and 5% in non-breastfeeding and breastfeeding women respectively with anti retrovirals. Without such intervention, it is estimated that about a third of HIV-infected children would die before the first year of life, and a half would die before two years.

In India, only about 20% of the estimated number of pregnant women with HIV received ARVs in 2008, which, in all likelihood, would not have fulfilled the UN General Assembly

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Special Session goal of ensuring ARVs to 80% of pregnant women by 2010. India is amongst the top 10 countries in the world currently with the highest burden of pregnant women living with HIV and nearly 80% of these women do not receive antiretroviral drugs to prevent parent-to-child transmission of HIV.

An estimated 1.49 million pregnant women in low- and middle-income countries are living with the human immunodeficiency virus. Close to 90 per cent of all pregnant women living with HIV in low- and middle-income countries live in 22 priority countries. Expanding HIV testing and counseling among pregnant women is critical for identifying those in need of follow-up care and increasing coverage of subsequent interventions to reduce the risk of mother-to-child transmission of HIV. The transmission of the virus from HIV positive mothers to their babies during pregnancy, childbirth, and through breastfeeding is creating a new generation of HIV-positive children. Focusing on methods to eliminate the transmission of the disease to the fetus, early infant diagnosis and adequate medical services for mothers and children can help stop the transmission of HIV/AIDS.

Each year over a million infants are born to HIV-infected mothers. 210000 of the 1.3 million infants born to mothers with HIV/AIDS in 2012 became infected. HIV exposure is a life-long condition that continues to impact the health and well being of a child long after exposure has ended. A better understanding of the impact of HIV on exposed infants is needed and new programs and interventions must take into consideration the long-term health needs of this growing population. The introduction of lifelong treatment for all HIV-infected pregnant women is an opportunity to rethink how we provide services adapted for the long-term retention of mother-infant pairs.

**Research approach:** The researcher has adopted descriptive research approach.

**Research design:** In the present study the investigator has adopted a Non-experimental Survey Research Design to assess the knowledge and attitude of HIV positive antenatal mother regarding PPTCT in selected hospitals of Pune.

**Research setting:** The setting for this study was Yashwantrao Chavan Memorial Hospital, PCMC which includes HIV positive antenatal mothers for the actual study

**Population:** In this study the population comprised all the HIV positive antenatal mothers in selected hospitals

**Sample:** Sample refers to the representative unit of population under study. The sample selected for the present study comprised the HIV positive antenatal mothers in selected hospitals of Pune

### Criteria for Sample Selection

#### Inclusive criteria:

- HIV positive antenatal mothers visiting HIV clinics
- Women who can understand English or Marathi

#### Exclusive criteria

- Mothers who are not willing to give consent

**Development of tool:** The tool was developed after the review of literature on relevant topic, discussion with experts and respected guide.

Tool for the present study included semistructured questionnaire and attitude scale for assessing the knowledge and attitude among HIV positive antenatal mothers regarding PPTCT.

### Description of The Tool

The researcher prepared a Semistructured Questionnaire and five point Likert Scale as a tool for study The semistructured questionnaire included two sections:-

**Section I: Patient's Demographic Data** The baseline Performa consisted of 8 questions like age, education, occupation, family type, addiction, use of social media and grvida.

**Section II: Questionnaire to assess the level of knowledge**

Section II, contains questionnaire, which helps to assess the patients level of knowledge. Questionnaire consists of 20 questions and 4 options. The questions included causes and prevention of HIV, PPTCT, use of effective contraception method, ART, breastfeeding, follow up treatment and care and potential complications of newborn. Total marks are 20; each right answer carries 1 mark and wrong answer 0. Categories included in this section is excellent knowledge (16-20 marks), good knowledge (11-15 marks), average knowledge (06-10 marks) and poor knowledge (00-05 marks).

**Section III: Five point Likert Scale to assess the attitude**

Section III, contains five point Likert Scale to assess the attitude among HIV positive antenatal mothers regarding PPTCT. Likert scale consists of 20 statements and five points like strongly agree, agree, none, disagree, strongly disagree. The marks are allotted as per the statement type whether positive or statement.

For positive statements:

Strongly agree	-	05
Agree	-	04
None	-	03
Disagree	-	02
Strongly Disagree	-	01

For negative statements:

Strongly agree	-	01
Agree	-	02
None	-	03
Disagree	-	04
Strongly Disagree	-	05

Statements 1, 3, 6, 7, 15, 18 are negative statements

**Validity:** The tool for validity was sent to 20 experts from different specialities i.e obstetrics and gynecological nursing, medical surgical nursing, child health nursing and statistics. The validity was established by 16 experts. They were requested to give their opinion on the appropriateness and relevance of the items in the tool. As a whole the suggestions and comments of experts included content corrections. The tool was found to be valid. The necessary modification has been done as per the expert's advice. The valuable suggestions from the experts were used to receive a positive direction for the study. After validation, the tool was translated from English to Marathi.

**Ethical consideration**

**Reliability:** The scores were calculated by split half reliability method. The time taken per respondent was 25 to 30 minutes. Reliability was done by using Cohen's Kappa and was found to be 0.91. It was reliable.

**Plan of data collection**

**Pilot study:** The pilot study was conducted from 4-11-2014 to 7-11-2014 on 06 selected patients to assess the feasibility of the study and to decide the plan for data analysis. Prior permission was taken to collect the samples from nursing superintendant in Jijamata Hospital, Pimpri, Pune. The investigator approached the subjects, informed them regarding the objectives of the study and obtained consent after assuring the subjects about the confidentiality of the data.

The data was collected through questionnaire and attitude scale. The study was found to be feasible.

**Result**

This chapter deals with a summary as well as its implication for nursing and health care services followed by its

limitations as well as suggestions and recommendations for future research in this field.

**Major Findings of the study**

The major findings of the study are.

**Section I- Description of Demographic Data**

- Majority (46.66%) of females were from the age group 18 to 23 years, 36.66 were from 24 to 29 years and 16.66 were from 30 to 35 years of age.
- 90% of males were labourers and 10% had their own business while 70% of females were unemployed and 20% were labourers.
- Majority (73.33%) of males were addicted while 80% females had no addiction and 20% females had addiction to tobacco.
- 76.66% females stayed in nuclear family while 23.33 percent stayed in joint.
- 93.33% females were literate.
- Most of the females (46.66%) were second time pregnant and only 0.3% were third time pregnant.
- 90% of females used television as social media and only 0.03 percent used internet.

**Table 1:** Description of samples according to Demographic characteristics by frequency and percentage

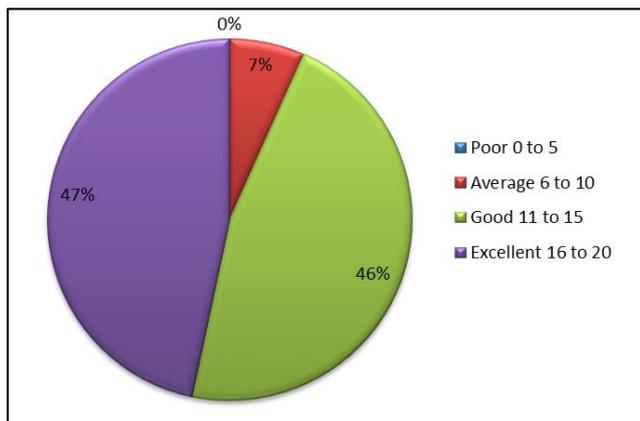
S	Variable	Frequency	Percentage
	<b>Age</b>		
	a. Below 18	00	00
	b. 18-23	14	47
	c. 24-29	11	37
	d. 30-35	05	16
	e. Above 35	00	00
	<b>Occupation</b>		
	<b>Male</b>		
	a. Service	27	90
	b. Business	03	10
	c. Unemployed	00	00
	<b>Female</b>		
	a. Service	06	20
	b. Business	03	10
	c. Unemployed	21	70
	<b>Addiction</b>		
	<b>Male</b>		
	a. Yes	22	73
	b. No	08	27
	<b>Female</b>		
	a. Yes	06	20
	b. No	24	80
	<b>Family type</b>		
	Joint	07	23
	Nuclear	23	77
	<b>Education</b>		
	Literate	28	93
	Illiterate	02	7
	<b>Gravida</b>		
	First	10	33
	Second	14	47
	Third	06	20
	More than 3	00	00
	<b>Use of social media</b>		
	Internet	01	0.03
	Television	27	90
	Radio	17	56.66
	Newspaper	25	83.33

**Section II- Description of data related to knowledge of HIV positive antenatal mothers regarding PPTCT**

Majority of females have answered correctly to the questions 3,4,8,10,11,14,17 and 19. While minimum have answered correctly to question numbers 12 and 13.

Majority (47%) females had excellent knowledge (score 16 to 20), 46% females had good knowledge (score 11 to 15) while only 7% females had average knowledge (score 0 to 5) regarding PPTCT.

**Section II Analysis of data related to knowledge score obtained by HIV positive antenatal mothers regarding PPTCT**



**Fig 1:** Analysis of data related to knowledge score obtained by HIV positive antenatal mothers regarding PPTCT

**Section III- Description of data related to attitude of HIV positive antenatal mothers regarding PPTCT**

Majority (90%) of mothers had good attitude (score 71-85) while 10% of mothers had excellent attitude (score 86-100) regarding PPTCT

**Section IV- Description of data to find relationship between knowledge and selected demographic variables**

The Investigator has tried to classify the answers given by mothers according to the different variables such as Age, Occupation, Addiction, Family type, Education, Gravida and Use of social media. The association between knowledge and selected demographic variables was assessed by using chi square test. Since p-value corresponding to use of social media and knowledge score is 0.04 (greater than 0.05), it has a very low positive co-relation while all others have no co-relation between knowledge and selected demographic variables. Only social media had significant association with knowledge while others do not have any association.

**Section V- Description of data to find relationship between attitude and selected demographic variables**

p-values corresponding to education and social media are small, (less than 0.05), so demographic variables education and social media were found to have significant association with the knowledge of HIV positive antenatal mothers regarding PPTCT.

**Section V**

**Table 2:** An analysis of data to find relationship between attitude and selected demographic variables.

Variable	p-value
Age	0.38
Occupation	
Male	0.64
Female	0.42
Addiction	
Male	0.36
Female	0.30
Family type	<b>0.51</b>
Education	0.04
Gravida	0.42
Social media	0.00

**Discussion**

The present study was designed to assess the knowledge and attitude among HIV positive antenatal mothers regarding PPTCT In selected hospital of Pune (Yashwantrao Chavan Memorial Hospital)

The study design used was non-experimental survey research design conducted over a period of 11-11-2014 to 22-11-2014. Data was collected from 30 HIV positive antenatal mothers who visited YCMH.

The findings of the study are discussed with reference to the objectives and findings of the similar studies. Discussion of the findings is presented as for demographic variables, knowledge of HIV positive antenatal mothers regarding PPTCT, Practices of HIV positive antenatal mothers regarding PPTCT, relationship between knowledge of HIV positive antenatal mothers regarding PPTCT with the demographic variables and relationship between the attitudes of HIV positive antenatal mothers regarding PPTCT with demographic variables.

A survey research study was conducted to assess the knowledge among HIV positive antenatal mothers regarding PPTCT in Nigeria. Total of 142 antenatal mothers had participated in the study. The study showed that 7% of mothers had good knowledge while rest of the mothers had poor knowledge regarding PPTCT.<sup>21</sup>

Similarly the present study aimed in assessing the knowledge among HIV positive antenatal mothers regarding PPTCT. Sample size was 30 HIV positive antenatal mothers. It was found out that only 7% of mothers had average knowledge (score 5 to 10) while 46% and 47% had good (score 11 to 15) and excellent knowledge (score 16 to 20) respectively.

An exploratory study was conducted to assess the attitude of HIV positive females towards ART in Bhutan. Sample size was 116 HIV positive females. It was found out that 41% of females had good attitude, 26% females had average attitude while 33% had poor attitude towards ART.<sup>22</sup>

In present study attitude of HIV positive antenatal mothers regarding PPTCT was assessed. It was found out that

majority (90%) of mothers had good attitude (score 71-85) while 10% of mothers had excellent attitude (score 86-100) regarding PPTCT.

### Summary

A non experimental survey research study to identify the knowledge and attitude among HIV positive antenatal mothers in selected areas with a view of developing an information booklet was carried out. The study was based on Maternal Goal Attainment Theory. Total of 30 samples were taken by non probability purposive sampling technique. For generating necessary data a structured questionnaire and attitude scale was developed for identifying knowledge and attitude of couples. The analysis of the study was divided into various sections.

In general the mothers performed well in the test. 47% of mothers had excellent knowledge (score 16 to 20) regarding PPTCT, 46% had good knowledge (score 11 to 15) while only 7% had average knowledge score (score 5 to 10). The score was obtained by the participants on 20 questions. Since p-values corresponding to all demographic variables except use of social media are large (greater than 0.05), there is no co-relation between knowledge and selected demographic variables except use of social media. This means only social media had significant association with the knowledge score.

### Conclusion

Mother's good knowledge and attitude is very important to prevent her baby from the vertical transmission of infection. The co-relation coefficient was found out by using chi square test. There is significant association only between social media and knowledge while all other demographic variables do not have any co-relation with knowledge since the p values were more than 0.05. There is significant association between social media and attitude score as well as education and attitude score while other demographic variables do not have significant co-relation since the p values are more than 0.05. This chapter provided a summary of the study, a presentation of the main findings, limitations of the study as well as recommendations for nursing practice, education and research. This study was successful in achieving its aims and objectives as well as in using the research process appropriately. The researcher plans to publish the study in accredited nursing journal.

- Limitation HIV positive pregnant women who are available in the selected hospitals at the time of data collection
- Sample size is limited to 30 HIV positive women
- Data collection period was limited.

### Recommendations

A similar study may be replicated on large samples; thereby findings can be generalised for a large population.

- A comparative study may be conducted using urban and rural population
- An experimental study may be conducted using selected coping patterns of HIV positive antenatal mothers
- A similar study may be conducted to investigate more coping patterns of HIV positive antenatal mothers
- A similar study may be conducted to find out practices of HIV positive antenatal mothers regarding PPTCT
- An evaluative study can be done to find out the effect of health teaching on HIV positive antenatal mothers

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