

Knowledge on mother to child transmission of HIV among newly registered antenatal mothers in MOH area Ragama.

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Abstract

Sri Lanka has remained a low prevalent country for HIV for past three decades. One important aspect of maintaining this low prevalence is preventing mother to child transmission (MTCT) of HIV. As highly effective strategies are now available to reduce the risk of MTCT, early diagnosis of HIV in antenatal mother is important. Good knowledge about HIV and MTCT will promote mothers to take up HIV testing. Though mothers in this study population had a reasonably good education their knowledge about MTCT of HIV was poor.

Introduction

For past three decades Sri Lanka has remained a low prevalence country for HIV. By end of 2013, number of HIV positive patients reported to the National STD/AIDS Control Programme (NSACP) was 1995. Seventy one cases of MTCT of HIV have been reported up to end of June 2014. MTCT of HIV was responsible for 6% of new HIV cases in 2013¹

With the introduction of highly active antiretroviral treatment (HAART) during pregnancy risk of MTCT is reduced by 98%. Early introduction of ART during pregnancy minimises the risk². Therefore, early detection of HIV positive antenatal mothers is important. Good knowledge about HIV and MTCT will motivate antenatal mothers to take up HIV testing. Antenatal clinics are a good opportunity to provide this knowledge. Having an idea about knowledge of antenatal mothers on HIV and MTCT will help to identify areas that need strengthening in future interventional programs. This study was conducted in the MOH area Ragama to assess the

knowledge about HIV and MTCT among newly registered antenatal mothers.

Method

Study setting

Sri Lanka is divided in to 25 administrative districts. According to the department of Census and Statistics, in 2009 Gampaha district had a population of 2,066,096 which is about 12% of the total Sri Lankan population. Accordingly Gampaha is the second most populous district in Sri Lanka. With regard to socio-economic standards, Gampaha District is only second to Colombo District³. Gampaha District is divided into 16 MOH areas out of which Ragama is the smallest, with a land area of 26 Km² and a population of 81244. Ragama MOH area consists of socio-economically mixed population. This is divided in to sixteen public health midwife (PHM) areas. Four antenatal clinics, Batuwaththa, Jayasrigama, Horape and Ragama are conducted every week in the area. Total of 1427 antenatal mothers were registered in these clinics in 2008⁴. In addition to clinical examination and investigations, antenatal mothers receive health education, and food supplements.

Study design

A descriptive cross sectional study was carried out over a period of six months from September 2008 to February 2009.

Sample size and sampling method

According to the Lwanga and Lemeshow formula sample size of 384 was required for this study. One

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hundred newly registered ante natal mothers were recruited from each clinic on all inclusive consecutive basis. Informed written consent was obtained from mothers and none refused to consent.

Data collection

Data was collected using a pretested and validated interviewer administered questionnaire. Data collection was carried out by two pre-intern doctors supervised by the principal investigator. Data analysis was carried out using statistical package SPSS version 16.

Results

The majority (38%) of the mothers were in the age category of 25 -29 years, followed by 25% in 20 -24 years category. More than 60% mothers had passed GCE ordinary level, while 26% had passed GCE advanced level. Out of 400 mothers only 14% were employed. Forty seven percent had family income between Rs10,000 and Rs 20,000. Some of the socio-demographic characteristics of the study population are given in table 1

Table 1: Socio-demographic characteristics of ante-natal mothers (N=400)

Characteristics	Category	Frequency	Percentage
Age	15 -19	14	3.5
	20 -24	99	24.8
	25 -29	152	38.0
	30 -34	96	24.0
	35 -39	34	8.5
	40-44	05	1.2
	Total	400	100.0
Level of Education	No schooling	04	1.0
	Grade 1 -5	05	1.2
	Grade 6 -10	145	36.3
	Passed GCE(O/L)	133	33.3
	Passed GCE(A/L)	103	25.7
	University/ Technical	10	2.5
	Total	400	100.0
Monthly income	<10,000	65	16.3
	Sri Lankan Rupees		
	10,001-20,000	185	46.3
	20,001-30,000	90	22.5
	30,001-40,000	30	7.5
	More than 40,000	25	6.3
	Not reported	05	1.3
	Total	400	100.0

Distribution of the parity of mothers is given in table 2

Table 2: Parity of mothers

Parity of mothers	Number	Percentage
P1	161	40.3
P2	152	38.0
P3	66	16.5
P4	13	3.2
P5	08	2.0
Total	400	100

Out of 400 mothers 390 were aware about the existence of a disease called HIV. Out of this 40 did not have any idea how HIV is transmitted. The majority 84% knew HIV is transmitted through unprotected sex, but only 14 (3.5%) knew that it is transmitted from mother to the baby. None of the

mothers knew about specific methods to reduce the risk of transmission. Only one mother knew all four possible modes of transmission. Table 3 gives the frequency distribution of knowledge of mothers on modes of HIV transmission.

Table 3. Mothers who knew about a specific modes of transmission

Mode of transmission	Number	Percentage
Unprotected sex	334	83.5
Blood transfusion	209	52.3
Unsterilized needles and syringes	83	20.8
Mother to child transmission	14	3.

Only one mother knew about all four possible modes. Three hundred and sixty nine antenatal mothers (95%) knew that having multiple sexual partners could transmit HIV virus. Two hundred and seventy seven mothers (71.0%) had knowledge that

changing partners could transmit the virus.

Table 4 gives the frequency distribution of knowledge on risky sexual behaviours for HIV transmission (N=390)

Table 4 Knowledge on risky sexual behaviour for HIV transmission (N=390)

Sexual behaviour	Number	Percentage
Sex with multiple partners	369	94.6
Frequent change of partners	277	71.0.

Out of 390 mothers who knew about HIV, only 220 (56.0%) knew that a women with HIV could get

pregnant. One-hundred and five (27.0%) mothers did not know that woman with HIV could get pregnant, while others did not answer this question.

Discussion

Considering the high education level observed in this study population the knowledge about HIV seems to be unsatisfactory. Knowledge about MTCT of HIV appears to be especially poor. If specific interventions to reduce MTCT of HIV are to be successful it is important to make an early diagnosis of HIV among antenatal mothers. Even though testing facilities are made available at antenatal clinics, if antenatal mothers fail to identify its importance they might not comply.

Health education sessions are carried out by the PHM in all 4 clinics for twenty minutes each day. The PHMs educates mothers on personnel care, nutrition, and regular exercise, rest, care of new born baby, breast feeding and family planning. However, information given on STIs HIV/AIDS is minimum during their health education session. On average PHM spent only two to three minutes on the topic of STIs, HIV/AIDS. These education sessions should be used to provide more knowledge about HIV. PHMs should receive training on how to provide accurate knowledge at these sessions.

At present general public use television to obtain information than any other media. However time dedicated in television channels to HIV is minimal. Using television with paid advertisements is also very expensive. Social networks like face book, twitter have become very popular among youth. The possibility of using these social networks to disseminate knowledge about HIV and other STIs should be explored.

Conclusions

Though Sri Lankan antenatal mothers are well educated, their knowledge about MTCT of HIV is poor. Tailor-made educational programmes are needed to achieve this.

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