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## Original Research

### Youth friendly health principle and sensitisation of adolescents on reproductive and sexual health issues - a clinic-based study.

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**Key words:**

Adolescent, reproductive and sexual health issue, Condom, Menstruation, Masturbation, Sensitization, Youth-friendly.

**Abstract**

Background: Youth friendly health principle is an important mode of delivery of adolescent health services. Objective: To verify the impact of sensitization on reproductive and sexual health issues of adolescent clients in clinic setting using the youth-friendly principles. Design: An urban-based interventional study. Setting: Urban-based adolescent health clinic. Study Population: School-going adolescents in the age group of 14-18 years (both boys and girls). Intervention: Youth-friendly sensitization. Main outcome measures: Change in the knowledge on different reproductive and sexual health issues among adolescent clients. Result: Statistically significant improvement ( $p$  values < 0.05) in knowledge on various aspects of reproductive and sexual health issues among adolescent clients. Conclusion: Youth-friendly principle is an important tool for making positive changes in the knowledge of adolescents on reproductive and sexual health issues.

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## INTRODUCTION

The present generation of young people faces more complex challenges to their health and development than their parents did [1]. However, the major health problems for young people are largely preventable. Access to primary-health services is seen as an important component of care, including preventive health for young people. Young people need services that are sensitive to their unique stage of biological, cognitive, and psychosocial transition into adulthood [2]. Implementation of youth friendly health services is beneficial to health outcomes of young people [2].

Although adolescents report that they welcome the opportunity to discuss health issues such as contraception, substance use, and sexually transmitted infection with health-care providers [3], young people are reluctant to disclose their health-risk behaviors to health-care providers unless prompted [4]. With this

background, this study was done to verify the knowledge of adolescent clients on reproductive and sexual health issues and the impact of sensitization on those issues in an urban adolescent health clinic in Kolkata, West Bengal using the youth-friendly principle. Null hypothesis (H0) of this study is that sensitization of the school going adolescents using youth friendly health principle does not make any change in the knowledge of adolescent clients on reproductive and sexual health issues.

## METHODS:

It was a clinic-based interventional study conducted in an urban adolescent health clinic of Kolkata, West Bengal, India, well-equipped with trained adolescent health care givers and the study population was the adolescent clients in the age group of 14 to 18 years (both boys and girls). From the report of our adolescent

health clinic, we observed that 50% of the adolescent clients in the age group of 14-18 years visiting our clinic had basic knowledge on reproductive and sexual health issues. Taking prevalence of knowledge on sexual and reproductive health issues as 50% and allowable error of 10% of the prevalence value of 50%, we calculated the sample size to be 400 when  $p(\text{prevalence})=0.5$ ,  $q=0.5$  and  $L=0.05$ . We kept our projected sample size as 450, making an allowance of 50 for loss and refusal to participate during study period. Multi-stage sampling technique was adopted for the study. In the first stage of the sampling, five geo-political wards were randomly chosen from the existing total 171 wards (by balloting). As we planned to finish the sensitization sessions in less than a month period and planned to keep the number of adolescent clients less than twenty daily taking note of the workload of the clinic and stringent adolescent friendly measures, we restricted the number of geo-political wards to five. In the second stage one boys' and one girls' secondary/ or higher secondary school was randomly chosen from the schools in each of the selected wards (5 and 5 out of 5 wards). In the third stage, all the children aged 14 to 18 years in each of the ten selected schools were identified and registered for the study purpose following all ethical norms. We included school-going adolescents in the age group of 14-18 years, both boys and girls, without any obvious apparent physical and mental illnesses. Initially 1450 school going adolescent clients were registered for the study. Out of these 1450 students, we selected 450 students by random sampling method. Obvious physical illness, psychological illness, refusal to give assent & consent and reluctance of the parents to participate in the present study were the criteria for exclusion. We failed to convince the parents of nearly 100 [22% (approx)] eligible students to participate in the study and they were mostly parents of girl students. The reason cited by the parents for non-participation was mainly the contents of the questionnaires, particularly questionnaires on reproductive and sexual issues. Another 50 students were left due to other reasons. Finally, a total of 300 adolescent clients were enrolled for the study. Fifty adolescent clients did not turn up during the post sensitization session and they were dropped from our study record. Finally 130 male adolescent clients and 120 female adolescent clients prevailed during both pre- and post-sensitization sessions. Due Institutional Ethical Committee clearance and permission from the school authorities were obtained.

During the 1st visit of each enrolled client, the adolescent care giver in the clinic administered a set of structured pre-designed pre-tested anonymous questionnaires prepared consulting existing published questionnaires [5], to the adolescent client using strictly

the youth friendly health principle of privacy, confidentiality and non-judgmental approach. The main components of the questionnaires were on condom, HIV knowledge, menstruation, masturbation, oral pills, reproductive tract knowledge and knowledge on personal hygiene. Knowledge on mode of spread of HIV and role of condom in preventing HIV were assessed. Role of oral pills in preventing pregnancy was included in the questionnaires.

The responses were documented in the form of yes, no or no-response (i.e. declined to respond) format. The main components of the youth friendly principle were privacy, confidentiality and non-judgmental approach. The whole process of pre-sensitisation knowledge assessment of the adolescent clients was completed over a period of 15 days. After the pre-sensitization sessions, the parents of all the enrolled clients were properly advocated regarding sensitization of their children on reproductive and sexual health issues and this advocacy programme was completed in two days.

Sensitization of the adolescent clients was arranged on different days for boys and girls. Charts, pamphlets, posters and group discussion were used for better understanding. Condoms were demonstrated and its role in preventing human immunodeficiency virus infection (HIV) was adequately explained. Sensitization programme continued over a period of twenty days and total twenty sessions were conducted each for the boys and girls. After a gap of six months, the same set of questionnaires was used for post-sensitization knowledge assessment for each client using the same youth friendly principle in a similar way and was completed over a period of another 15 days.

Data were collected in a standard data sheet by our adolescent health care- giver team personnel. The study protocol was approved by the Institutional Ethical Committee prior to commencement of the study. Written informed consent of the parents of the enrolled adolescent clients and assent of the adolescents were collected.

#### **Statistical Analysis:**

We applied the Epi info version 6 for statistical analysis and chi square test was applied for testing association between the variables. P values < 0.05 were considered significant.

#### **RESULTS:**

Total two hundred fifty adolescents participated in all events in this clinic-based interventional study. There were one hundred and thirty male adolescent clients and one hundred and twenty female adolescent clients. Their pre-sensitization & post-sensitisation responses were documented in adolescent friendly way by trained

adolescent health team personnel. Their responses and “p” values on different aspects of reproductive and

sexual health issues in boys and girls are shown in tabular form. [Table no 1 & 2]

**Table 1.** Showing responses from boys (Clinic)

QUESTIONNAIRES	PRE-SENSITISATION KNOWLEDGE RESPONSE n= 130(%)			POST-SENSITISATION KNOWLEDGE RESPONSE n= 130(%)			CHANGE IN KNOWLEDGE FOLLOWING SENSITIZATION	P Value
	Y	N	NR	Y	N	NR		
KNOWLEDGE ON CONDOM	60 (46)	58	12	104 (80)	22	04	34%+	0.000001
KNOWLEDGE ON HIV	54 (41)	64	12	98 (75)	22	10	34%+	0.0000001
KNOWLEDGE ON ORAL PILLS	62 (47)	64	04	102 (78)	28	00	31% +	0.000001
KNOWLEDGE ON FEMALE REPRODUCTIVE ORGAN	54 (41)	52	24	90 (69)	00	20	28%+	0.000003
KNOWLEDGE ON MALEREPRODUCTIVE ORGAN	120 (92)	00	10	126 (96)	04	00	4% +	0.09***
KNOWLEDGE ON MASTURBATION	48 (36)	72	10	102 (78)	18	10	42% +	0.000001
KNOWLEDGE ON MENSTRUATION	56 (43)	54	20	96 (73)	30	04	30%+	0.000001
KNOWLEDGE ON PERSONAL HYGIENE	80 (61)	32	18	120 (92)	00	10	31%+	0.000001

Y= YES, N= NO, NR= NO RESPONSE, n=number  
\*\*\* = value> 0.05 and not significant.

**Table 2.** Showing responses from girls (Clinic)

QUESTIONNAIRES	PRE-SENSITISATION KNOWLEDGE RESPONSE n= 120(%)			POST-SENSITISATION KNOWLEDGE RESPONSE n= 120(%)			CHANGE IN KNOWLEDGE FOLLOWING SENSITIZATION	P VALUE
	Y	N	NR	Y	N	NR		
KNOWLEDGE ON CONDOM	35 (29)	85	0	92 (76)	28	00	47%+	0.000001
KNOWLEDGE ON HIV	46 (38)	60	14	112 (93)	04	04	54%+	0.000001
KNOWLEDGE ON ORAL PILLS	80 (66)	20	20	116 (96)	04	00	30% +	0.000001
KNOWLEDGE ON FEMALE REPRODUCTIVE ORGAN	100 (83)	20	00	120 (100)	00	00	17% +	0.000075
KNOWLEDGE ON MALEREPRODUCTIVE ORGAN	76 (63)	40	04	120 (100)	00	00	37%+	0.000001
KNOWLEDGE ON MASTURBATION	52 (43)	56	12	92 (76)	18	10	33% +	0.000001
KNOWLEDGE ON MENSTRUATION	100 (83)	20	00	120 (100)	00	00	17% +	0.000075
KNOWLEDGE ON PERSONAL HYGIENE	82 (68)	38	00	120 (100)	00	00	32% +	0.000001

Y= YES, N= NO, NR= NO RESPONSE, n=number  
\*\*\* = value> 0.05 and not significant.

Pre-sensitisation knowledge of the boys on condom, HIV, oral pills,, female reproductive organ, male reproductive organ, masturbation, menstruation and personal hygiene were respectively 46%, 41%, 47%, 41%, 92%, 36%,43% an 61%. Knowledge on above

components changed to 80%, 75%, 78%, 69%, 96%, 78%, 73% and 92% respectively following sensitization.

Similarly , Pre-sensitisation knowledge of the girls on condom, HIV, oral pills,, female reproductive organ,

male reproductive organ, masturbation, menstruation and personal hygiene were respectively 29%, 38%, 66%, 83%, 63%, 43%, 83% and 68%. Knowledge on above components changed to 76%, 93%, 96%, 100%, 100%, 76%, 100% and 100% respectively following sensitization. All the p values were < 0.05 except knowledge of the boys in the respect of male reproductive organ which was 0.09.

## **DISCUSSION:**

With the exception of knowledge of boys on male reproductive organ ( $P > 0.05$ ), there was statistically significant improvement in knowledge on various aspects of reproductive and sexual health issues ( $P < 0.05$ ).

This clinic-based study demonstrated that knowledge on menstruation, masturbation and personal hygiene, female reproductive organ and oral pills improved in the range of 20-40% among the girls. Among the boys, improvement in knowledge on menstruation, oral pills, personal hygiene and female reproductive organ was observed almost in the same range. Improvement in knowledge on masturbation and male reproductive organ was 54% and 6% respectively among the boys. Knowledge on condom and HIV showed higher positive responses among the girls than the boys. Though the change in knowledge among the boys and girls regarding their own gender's anatomic knowledge was comparatively less but it was due to the fact that they were already at the higher side before sensitisation.

Three studies [6-8] had measured the effect on young people's health-risk behaviors of an intervention providing youth-friendly services. One of these studies [6], in which young people were invited to attend a nurse-led general-practice visit, reported only minor changes in participants' health-risk behaviors. The other studies [7,8], which focused on reductions in sexual-risk behaviors, reported a positive effect of the intervention. In a study, information and education activities of health workers in health facilities were considered key contributors to the changes in reported behaviors of the adolescents [9]. Most studies [10-12] suggest that access to all settings can be improved through youth-friendly interventions.

In the present study too, there was statistically significant ( $P < 0.05$ ) improvement in the knowledge of adolescents on different aspects of reproductive and sexual health issues [except the knowledge on male reproductive organ among boys ( $P > 0.05$ )] following sensitization programme in youth friendly manner maintaining privacy, confidentiality and non-judgmental approach. Failure of improvement in knowledge on male reproductive organ among boys

may be due to poor structuring of the questionnaire or less emphasis on those parts of the reproductive and sexual health issues.

During the teenage years, parents still continue to be the main care providers and source of health information to the teenagers. So parents should know how to address the contraceptive issues to their teenagers [13]. To support these contribution from parents, sensitization of the parents along with their children were arranged in this study.

Adolescents are used to the fact that much of what they say about themselves and the way they behave is not treated as confidential by their family, friends, peers, and teachers. Health care givers are not appropriately sensitive to their needs in specific areas such as contraception, often taking it to the point of embarrassment of the teenagers [13]. To obviate these negative factors, privacy & confidentiality of the adolescents and attitude of the health care givers were given special priority in this study.

A cross-sectional national register-based study from 2002-04 in Norwegian general practice revealed that GPs seem to assign especially low priority to young people when workload is high or free capacity low. The same study also showed that the mean annual consultation rate with young people was 1.4 (95% confidence interval 1.4-1.5) and 2.2 (2.1-2.2) for the age groups of 15-19 and 20-24 years respectively [14].

A questionnaire-based survey, undertaken in North London state secondary schools, illustrated some stumbling blocks and a lack of knowledge that is likely to inhibit an effective use of general practice among 12-18 year olds. A review of the current arrangements and some adjustment of current services might increase the likelihood of achieving Health of the Nation targets for teenage pregnancies, and may also improve health care for this important and vulnerable section of the population [15]. The present study endorses these views.

The present study establishes that our adolescent clients need a youth friendly approach which should incorporate privacy, confidentiality and non-judgmental components for a positive change in the knowledge on different reproductive and sexual health issues. The null hypothesis ( $H_0$ ) is cancelled and alternative hypothesis ( $H_1$ ), stating that sensitization of the adolescents using youth friendly health principle resulted in substantial improvement in the knowledge of adolescent clients on different aspects of reproductive and sexual health issues, is upheld ( $p$  values < 0.05).

As the study period was very short and no tools were

applied to assess the change in practice following improvement and alteration of knowledge, this study fails to document any such changes and that is a great limitation of this study. But satisfactory improvements in knowledge following youth friendly approach lend support to the research findings of other workers [10-12]. Though it was an interventional study, we purposefully avoided maintaining control group due to ethical and operational constraints. This is also an important limitation of this study.

Further wide and larger clinic-based prospective longitudinal study is required to document such changes.

Conclusion: Sensitization of adolescents in clinics using youth friendly health principle resulted in substantial improvement in the knowledge of adolescent clients on different aspects of reproductive and sexual health issues.

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