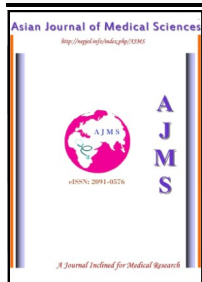


ASIAN JOURNAL OF MEDICAL SCIENCES



Sensitization and its impact on Reproductive and sexual health issues of adolescents in clinics and schools - a comparative study

Arun Kr De^{1*}, Souvik Mitra¹, Kollol Das¹, Sebanti Goswami², Sukanta Chatterjee¹

¹Department of Paediatric Medicine and Department of Gyne & Obs, Medical College Kolkata, India

Abstract

Objective: Adolescent Reproductive and Sexual Health Issue is an important component of Youth Friendly Health Services. The objective of this study to compare the impact of sensitization on adolescent reproductive and sexual health issues of adolescent clients between clinic and school setting using the youth-friendly principles.

Material & Methods: An urban-based prospective longitudinal study, conducted at adolescent health clinic and schools. The participants are 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 ARSH issues among adolescent clients in both clinics and schools.

Results: Statistically significant improvement (p values < 0.05) in knowledge on various aspects of ARSH issues among adolescent clients in both clinic and school setting.

Conclusion: Youth-friendly sensitization makes positive change in the knowledge of adolescents on ARSH issues in both clinics and schools.

Key Words: Adolescent; ARSH (adolescent reproductive and sexual health); Condom; Menstruation; Sensitization

1. 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 providers³, young people are reluctant to disclose their health-risk behaviours to

health-care providers unless prompted.⁴ With this background, this study was done to assess the knowledge of adolescent clients on adolescent reproductive and sexual health issues and the impact of sensitization on those issues in both clinic and schools using the youth-friendly principle.

2. Material and Methods

Two hundred and fifty adolescent children in the age group of 14-18 years were enrolled for the present study. There were 150 children for the clinic and 100 children for the schools. Obvious physical illness, psychological illness, refusal to give consent and reluctance of the parents and teachers were the criteria for exclusion.

For both the clinic and schools, we followed the same method. All parents of the enrolled adolescents and the class teachers of the respective schools were properly advocated and sensitized before sensitizing the adolescents. ARSH issues were discussed in details and all mis-beliefs were resolved.

*Correspondence:

Dr Arun Kumar De, Anandalok Co-Operative Housing Society Ltd. Flat No: 2/1, Premises No: 05-109, Plot No: Bb-50 Action Area: I B. New Town Rajarhat, Kolkata-700156, India. E-mail: arunkrde@rediffmail.com

A set of structured pre-designed pre-tested anonymous questionnaires⁵ was given to each adolescent client before sensitization and they were requested to respond to the questionnaires with yes, no or no-response form. After the pre-sensitization assessment, sensitization of the adolescent clients was done on ARSH issues using the youth friendly principle. Special emphasis was given on issues like menstruation, masturbation and condom. Group discussion, charts, posters, pamphlets, diagram and booklets were used for better understanding. Condoms were demonstrated. Boys and girls were sensitized on different dates. After a gap of six months, the same set of questionnaires was used for post- sensitition knowledge assessment.

The study protocol was approved by the Institutional Ethical Committee prior to commencement of the study. Permission from the respective school authorities and written informed consent from the parents of the enrolled adolescents were collected.

Fifty adolescents in the clinic-group did not turn up during the post-sentisatin assessment and they were dropped from our study record.

We applied the Epi info version 6 for statistical analysis and P values. P values < 0.05 are considered significant.

3. Results

Total two hundred adolescents participated in all events in this prospective longitudinal study, 100 each in clinics and schools. Ratio of boys and girls was 1:1 in both clinics and schools. Their pre-sensitization & post-sensitization responses were documented in adolescent friendly way by trained adolescent health team personnel. Their responses and “p” values on different aspects of ARSH issues are shown in tabular form (Table no 1, 2, 3 & 4).

4. Discussion

With the exception of knowledge on oral pills among boys in school-based study ($P>0.05$) and knowledge on male reproductive organ among boys in both school-based and clinic-based study ($P>0.05$), there was statistically significant improvement in knowledge on various aspects of ARSH issues ($P< 0.05$).

School-based data revealed that knowledge on menstruation, masturbation and personal hygiene improved to 100% in girls. It was not that much significant in boys. Knowledge on Cndom and HIV also

showed better response in girls than in boys. Regarding knowledge on reproductive organ also, girls were better responders than boys.

Table-1: Showing Responses From Boys (Schools)

Questionnaires	Pre-Sensitisation	Post-Sensitisation	Change In Knowledge	P Value
Knowledge on Condom	Y-36 N-52 NR-12	Y-84 N-12 NR-4	48%+	0.001
Knowledge On HIV	Y-44 N-48 NR-8	Y-88 N-12 NR-0	44%+	0.003
Knowledge on Oral Pills	Y-60 N-32 NR-8	Y-72 N-28 NR-0	12% +	0.2 ***
Knowledge on Female Reproductive Organ	Y-48 N-36 NR-16	Y-90 N-0 NR-10	42%+	0.0000 01
Knowledge on Male reproductive Organ	Y-90 N-0 NR-10	Y-96 N-4 NR-0	6% +	0.09***
Knowledge on Masturbation	Y-24 N-52 NR-4	Y-84 N-12 NR-4	60% +	0.003
Knowledge on Menstruation	Y-46 N-54 NR-0	Y-66 N-30 NR-4	20%+	0.004
Knowledge on Personal Hygiene	Y-56 N-32 NR-12	Y-90 N-10 NR-0	34%+	0.0001

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.

Three studies had measured the effect on young people’s health-risk behaviors of an intervention providing youth-friendly services.⁶⁻⁸

One of these studies⁶, in which young people were invited to attend a nurse-led general-practice visit reported only minor changes in participants’ health-risk

behaviours. The other studies, which focused on reductions in sexual-risk behaviours, reported a positive effect of the intervention.^{7,8} 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 suggest that access to all settings can be improved through youth-friendly interventions.¹⁰⁻¹²

Table-2: Showing Responses From Boys (Clinic)

Questionnaires	Pre-Sensitization	Post-Sensitization	Change In Knowledge	P Value
Knowledge On Condom	Y-30 N-58 NR-12	Y-74 N-22 NR-4	44%+	0.000001
Knowledge On Hiv	Y-24 N-64 NR-12	Y-68 N-22 NR-10	44%+	0.000001
Knowledge On Oral Pills	Y-32 N-64 NR-12	Y-72 N-28 NR-0	40% +	0.000001
Knowledge On Female Reproductive Organ	Y-24 N-52 NR-24	Y-60 N-0 NR-20	36%+	0.00003
Knowledge On Male reproductive Organ	Y-90 N-0 NR-10	Y-96 N-4 NR-0	6% +	0.09***
Knowledge On Masturbation	Y-18 N-72 NR-10	Y-72 N-18 NR-10	54% +	0.000001
Knowledge On Menstruation	Y-26 N-54 NR-20	Y-66 N-30 NR-4	40%+	0.000001
Knowledge On Personal Hygiene	Y-50 N-32 NR-18	Y-90 N-10 NR-0	40%+	0.000001

In the present study too, there was statistically significant ($P < 0.05$) improvement in the knowledge of adolescents on different aspects of ARSH issues [except the knowledge on male reproductive organ among boys in clinic-based and school-based study ($P > 0.05$) and knowledge on oral pills among boys in school-based study ($P > 0.05$)] following sensitization programme in youth friendly manner maintaining privacy, confidentiality and non-judgmental approach. Failure of improvement in knowledge on male reproductive organ and oral pills among boys may be due to poor structuring of the questionnaire or less emphasis on those parts of the ARSH 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.

Table-3: Showing Responses From Girls (Schools)

Questionnaires	Pre-Sensitisation	Post-Sensitisation	Change In Knowledge	P Value
Knowledge On Condom	Y-20 N-80 NR-0	Y-72 N-28 NR-0	52%+	0.001
Knowledge On Hiv	Y-36 N-60 NR-4	Y-92 N-4 NR-4	56%+	0.0001
Knowledge On Oral Pills	Y-80 N-20 NR-0	Y-96 N-4 NR-0	16% +	0.01
Knowledge On Female Reproductive Organ	Y-80 N-20 NR-0	Y-100 N-0 NR-0	20% +	0.003
Knowledge On Malereproductive Organ	Y-56 N-40 NR-4	Y-100 N-0 NR-0	44%+	0.004
Knowledge On Masturbation	Y-52 N-36 NR-12	Y-100 N-0 NR-0	48% +	0.001
Knowledge On Menstruation	Y-80 N-20 NR-0	Y-100 N-0 NR-0	20% +	0.0008
Knowledge On Personal Hygiene	Y-72 N-28 NR-0	Y-100 N-0 NR-0	28% +	0.0005

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 15-19 and 20-24, 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.

Table-4: Showing Responses from Girls (Clinic)

Questionnaires	Pre-Sensitization	Post-Sensitization	Change In Knowledge	P Value
Knowledge On Condom	Y-15 N-85 NR-0	Y-72 N-28 NR-0	57%+	0.000001
Knowledge On Hiv	Y-26 N-60 NR-14	Y-92 N-4 NR-4	66%+	0.000001
Knowledge On Oral Pills	Y-60 N-20 NR-20	Y-96 N-4 NR-0	36% +	0.000001
Knowledge On Female Reproductive Organ	Y-80 N-20 NR-0	Y-100 N-0 NR-0	20% +	0.000075
Knowledge On Malereproductive Organ	Y-56 N-40 NR-4	Y-100 N-0 NR-0	44%+	0.000001
Knowledge On Masturbation	Y-32 N-56 NR-12	Y-72 N-18 NR-10	40% +	0.000001
Knowledge On Menstruation	Y-80 N-20 NR-0	Y-100 N-0 NR-0	20% +	0.000075
Knowledge On Personal Hygiene	Y-62 N-38 NR-0	Y-100 N-0 NR-0	38% +	0.000001

*** = value > 0.05 and not significant

Result from the present study in both school-based and clinic-based data endorses the view that improvement in knowledge on ARSH issues among adolescent clients is possible through youth-friendly approach.

The present study establishes that our adolescent clients need a youth friendly approach which incorporates privacy, confidentiality and non-judgmental components for a positive change in the knowledge on different ARSH issues.

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. But satisfactory improvements in knowledge following youth friendly approach lend support to the research findings of other workers.¹⁰⁻¹²

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

5. Conclusion

Youth-friendly sensitisation makes positive change in the knowledge of adolescents on ARSH issues in both clinics and schools.

Acknowledgement: We are grateful to the parents of the enrolled adolescent children in Kolkata for allowing us conducting this study. We are also thankful to the authorities of Medical College, Kolkata for granting us necessary ethics clearance for the present study.

6. References

- Raphael D. Determinants of health of North-American adolescents: evolving definitions, recent findings, and proposed research agenda. *J Adolesc Health* 1996; 19: 6-16. [doi:10.1016/1054-139X\(95\)00233-1](https://doi.org/10.1016/1054-139X(95)00233-1)
- Tylee A, Haller DM, Graham T, Churchill R, Sanci L A. Youth-friendly primary-care services: how are we doing and what more needs to be done? *Lancet* 2007; 369:1565-73 [doi:10.1016/S0140-6736\(07\)60371-7](https://doi.org/10.1016/S0140-6736(07)60371-7)
- Klein JD, Matos Auerbach M. Improving adolescent health outcomes. *Minerva Pediatrica* 2002; 54: 25-39.
- Kramer T, Garralda ME. Psychiatric disorders in adolescents in primary care. *Br J Psychiatry* 1998; 173: 508-13. [doi:10.1192/bjp.173.6.508](https://doi.org/10.1192/bjp.173.6.508)
- Chatterjee S, Chatterjee R. Adolescent health screening questionnaire. *JIMA* 2005; 103: 623-25.
- Walker Z, Townsend J, Oakley L, et al. Health promotion for adolescents in primary care: randomised controlled trial. *BMJ* 2002; 325: 524. [doi:10.1136/bmj.325.7363.524](https://doi.org/10.1136/bmj.325.7363.524)
- Mari KN, Magnani RJ. Does making clinic-based reproductive health services more youth-friendly increase service use by adolescents? Evidence from Lusaka, Zambia. *J Adolesc Health* 2003; 33: 259-70. [doi:10.1016/S1054-139X\(03\)00062-4](https://doi.org/10.1016/S1054-139X(03)00062-4)
- Asarnow JR, Jaycox LH, Duan N, et al. Effectiveness of a quality improvement intervention for adolescent depression in primary care clinics: a randomized controlled trial. *JAMA* 2005; 293: 311-19. [doi:10.1001/jama.293.3.311](https://doi.org/10.1001/jama.293.3.311)

9. Klein JD, Levine LJ, Allan MJ. Delivery of smoking prevention and cessation services to adolescents. *Arch Pediatr Adolesc Med* 2001; 155: 597-602.
10. Martinez J, Bell D, Dodds S, et al. Transitioning youths into care: linking identified HIV-infected youth at outreach sites in the community to hospital-based clinics and or community-based health centers. *J Adolesc Health* 2003; 33 (suppl): 23-30. [doi:10.1016/S1054-139X\(03\)00159-9](https://doi.org/10.1016/S1054-139X(03)00159-9)
11. Naccarella L. Evaluation of the rural South Australian Tri-division Adolescent Health Project. *Aust J Rural Health* 2003; 11: 116-20. [doi:10.1046/j.1440-1584.2003.00486.x](https://doi.org/10.1046/j.1440-1584.2003.00486.x)
12. Raine T, Marcell AV, Rocca CH, Harper CC. The other half of the equation: serving young men in a young women's reproductive health clinic. *Perspect Sex Reprod Health* 2003; 35: 208-14. [doi:10.1363/3520803](https://doi.org/10.1363/3520803)
13. McPherson A. ABC of adolescence, Adolescents in primary care. *BMJ* 2005; 330: 465-67. [doi:10.1136/bmj.330.7489.465](https://doi.org/10.1136/bmj.330.7489.465)
14. Oystein H, Kjell H, Sturla G. Young people and their GP: a register-based study of 1717 Norwegian GPs. *Oxford Journals. Family Practice* 2010; 27(1):3-8.
15. Kari J, Donovan C, Li J, Taylor B. Adolescents' attitudes to general practice in north London. *Br J Gen Pract* 1997; 47:109-10.