The HIV Netherlands Australia Thailand
Research Collaboration

HIV-NAT

สภากาชาดไทย
The Thai Red Cross Society
ศูนย์วิจัยโรคเอดส์

Strategies to improve the uptake of effective contraception in adolescents living with HIV

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On behalf of the HIVNAT 176 study team

A.P., 18 yrs-old at enrollment

- Born in 1995 with HIV; 9 years of schooling; lives alone
- Sexually active since the age of 14; 7 life-time sexual partners
- 2012: delivered a baby
- Contraceptive choice: condoms occasionally; pills, stopped when separated with partner; DMPA – too painful to have injection

- Sep, 2013: enrolled in the study
- ART occasionally, CD4=55
- Refused effective contraception (no partner)
- Dec, 2013: pregnant
- June, 2014: delivered a baby
- August, 2014: hormonal implant

Objective

- Develop/adapt and assess benefit of applying guided reproductive health educational activities, linked with HIV care, for improving safe sex practices among female adolescents living with HIV

- Assess the uptake and use of effective contraception (EC) by female adolescents living with HIV and the factors associated with it

Study design

Screening

- 12-24 years old; post-menarche
- HIV-positive; sexually active

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Knowledge assessment

Health Education

- movie / brochures / individual counselling

Knowledge assessment

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Contraceptive uptake

- COC tablets + condom
- DMPA injection + condom
- Hormonal implant + condom
- Cu-IUD + condom
- Male/female condom only

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Contraceptive use

- Follow up every 12 weeks for 48 weeks

(Continuous use of the same contraceptive method/change)

General baseline characteristics

	Variable	n	Median (IQR)/n (%)
1	**Age, years**	77	19 (18-20)
2	**Route of HIV infection-perinatally**	77	73 (95)
3	**Living with**	73	
	one/both parents		21 (29)
	relatives		24 (33)
	alone/partner/husband		28 (38)
4	**Education**	67	
	≤primary		10 (15)
	>primary to ≤secondary		41 (61)
	>secondary		16 (24)
5	**Currently studying**	69	39 (57)
6	**On ART**	77	70 (91)
7	**HIV-RNA, copies/mL**	75	
	<40		48 (64)
	<1000		6 (8)
	>1000 median 37 355 IQR(13875-212934)		21 (28)
8	**CD4, cells/mm^3**	77	526 (351-742)
9	**BMI**	77	19.7 (17.9-21.7)
10	**Smoking**	77	10 (13)
11	**Alcohol use**	77	34 (44)
12	**Drug use (any)**	77	7 (9)

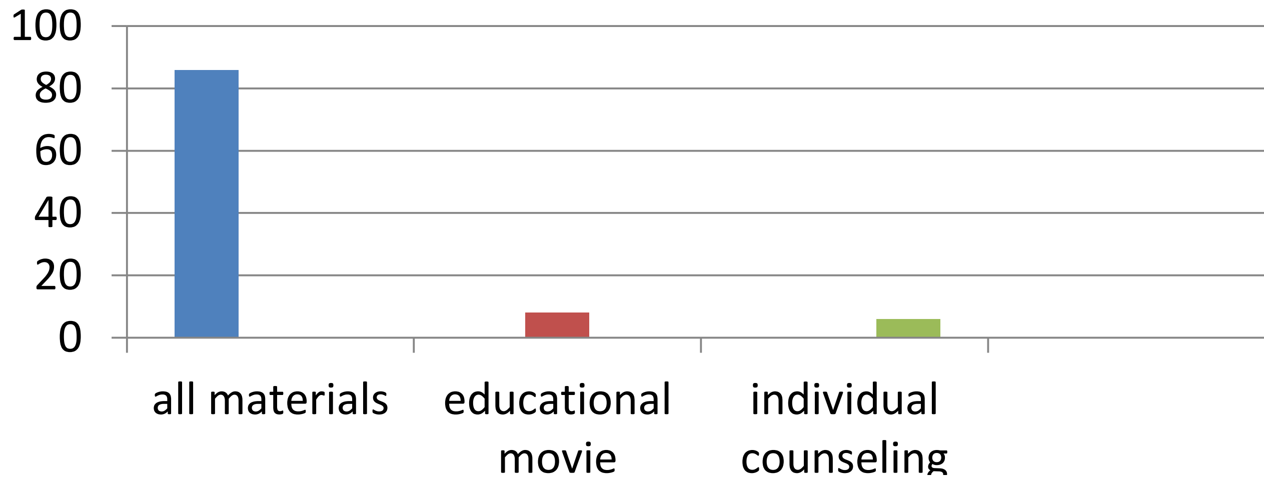
Develop/adapt educational materials

- educational movie / brochures / individual counseling

Knowledge assessment

No	Variable	Before HE, n (%)	After HE, n (%)	Change, %
Q1	List of known contraceptive methods (total 7)			
	1-3 methods	33 (43)	9 (12)	31
	4-6 methods	32 (41)	18 (23)	18
	7 methods	12 (16)	50 (50)	34
Q2	Male condom is put on penis, when erect	69 (90)	74 (96)	6
Q3	Male condom protects from STIs and pregnancy	77 (100)	76 (99)	1
Q4	Female condom is placed in the vagina	59 (77)	73 (95)	18
Q5	Condom should be used with every sexual intercourse	74 (96)	76 (99)	3
Q6	Pill should be taken every day at the same time	51 (66)	73 (95)	29
Q7	Injectable contraceptives can affect the menstrual cycle	32 (42)	60 (78)	36
Q8	Injectable contraceptives should be applied every week	34 (44)	65 (84)	40
Q9	IUD is placed in the womb	35 (46)	72 (96)	50
Q10	IUD can stay and protect from pregnancy 5 to 10 years, depending on the brand	24 (31)	59 (77)	46
Q11	Injectable contraceptives, pills, IUD protect from STIs	31 (40)	44 (57)	17
Q12	12. What is the most effective way to protect myself from both STIs and unintended pregnancy	37 (48)	60 (78)	30

Most helpful educational material



	Evaluation on a scale from 1 to 5 (least to most helpful), n=77	3	4	5
1	Educational movie	10%	44%	46%
2	Brochures	20%	58%	22%
3	Individual counseling	4%	34%	62%

Reproductive health baseline characteristics

	Variable	n	Median (IQR)/n (%)
1	Menarche, years	77	13 (12-15)
2	Age at first intercourse, years	77	16 (14-17)
3	Condom use at first intercourse	77	52 (68)
4	Life time number of sexual partners	77	3 (1-4)
	1 partner		24 (31)
	2-3 partners		27 (35)
	>3 partners		26 (34)
5	Current number of sexual partners	77	
	1 partner		71 (92)
	>1 partner		6 (8)
6	Disclosure to partner	60	39 (65)
7	Ever been pregnant	77	23 (30)
8	STI ever	60	22 (37)
9	Effective contraception at screening	77	
	no		37 (48)
	past		18 (23)
	ongoing		22 (29)
10	Long acting reversible contraception (LARC) at screening	77	2 (3)

What happened at the baseline visit?

Site, n	EC at screening, n (%)	EC choice at baseline				
		COC, n	DMPA, n	Implant, n	Cu-IUD, n	Total, n (%)
1, n=20	6 (30)	6	7	4	0	17 (85)
2, n=11	3 (27)	4	6	0	0	10 (91)
3, n=32	8 (25)	7	2	2	0	11 (34)
4, n=5	2 (40)	0	1	0	0	1 (20)
5, n=9	3 (33)	2	1	0	0	3 (33)
Total, n=77	**22 (29)**	**19**	**18**	**6**	**0**	**42 (55)**

No participant chose female condom; no participant chose Cu-IUD

Follow-up visits

	Screening, n=77, %	Baseline, n=77, %	p-value	M6, n=70, %	p-value	M12, n=70, %	p-value
Male condom only	71	45	<0.0001	29	0.0027	26	0.7815
EC	29	55		71		74	
LARC*	9	14	0.0455	20	0.0253	30	0.0253

LARC, long acting reversible contraception;

*LARC, implant only; no participant ever used IUD or started using during the study period

- Fear of the procedure was the main reason for not choosing LARC

Association between the use of EC at baseline visit and factors in the study				
Variable	**n**	**Univariate logistic regression**		
		OR	**95% CI**	**p-value**
Ever used EC at screening; no vs yes, no as reference	77	8.1	2.92-22.65	<0.0001
Study site	77			0.0001
5	77	ref		
4		0.5	0.04-6.68	0.600
3		1.0	0.22-5.02	0.954
2		20	1.68-238.6	0.018
1		11.3	1.78-72.17	0.01
Association between the use of EC at M12 and factors in the study				
Ever used EC at screening; no vs yes, no as reference	77	3.8	1.19-12.37	0.024

Association between ever used EC at screening and factors in the study				
Variable	**n**	**Univariate**		
		OR	**95% CI**	**p-value**
Having been pregnant; no vs yes, no as reference	77	3.82	1.3-11.2	0.0105

Discussion

- Safe sex education increased contraceptive uptake in this cohort of young women; educational materials should be adapted to address the main predictor for using a given contraceptive method
- Continued contraception-related training should be made available to health care providers caring for adolescents and young women, as they play a significant role in the process
- Short-acting contraceptive methods are an important initiation to contraception, and can improve the uptake of LARC in the future

Conclusion

- Integrating RH care with HIV services using adolescent-friendly approaches increased the use of effective contraception by adolescents with HIV
- Sexually active adolescents with (and without) HIV are in need of continuous free access to a variety of contraceptive methods to enhance uptake
- Providers should be encouraged to consider alternative strategies to deliver RH services to adolescents and young women

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