Supplemental material

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BMJ Open

S1 Table CONSORT checklist

CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	p 1
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	p 2 and 3
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	p 4-6
	2b	Specific objectives or hypotheses	p 6
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	p 7
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	NA
Participants	4a	Eligibility criteria for participants	p 7 and 8
	4b	Settings and locations where the data were collected	p 7
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	p 9-11
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	p 11 and 12
	6b	Any changes to trial outcomes after the trial commenced, with reasons	NA
Sample size	7a	How sample size was determined	p 8
	7b	When applicable, explanation of any interim analyses and stopping guidelines	NA
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	p 8
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	p 8
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	p 8

Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	p 8
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	p 8
	11b	If relevant, description of the similarity of interventions	NA
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	p 13
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	p 13
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	p 14
	13b	For each group, losses and exclusions after randomisation, together with reasons	p 14 and Figure 1
Recruitment	14a	Dates defining the periods of recruitment and follow-up	p 7 and 12
	14b	Why the trial ended or was stopped	p 7 and 12
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	Table 2
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	p 14
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	p 15-16
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	p 15-16
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	p 14 and S2-10 Tables
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	NA
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	p 19
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	p 19
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	p 16-20
Other information			
Registration	23	Registration number and name of trial registry	p 3 and 13
Protocol	24	Where the full trial protocol can be accessed, if available	p 7
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	p 20

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.

Table S2. Baseline characteristics of women lost to follow up in the intervention and control groups

Column key: For each Month block there are two groups — Intervention (I) and Control (C). Within each group: Reached (n, %), Lost to follow-up (n, %), and p-value. Abbreviations below: M#-I/C = Month, group; Rch = Reached; LFU = Lost to follow-up.

Variables	M2-I Rch n	M2-I Rch %	M2-I LFU n	M2-I LFU %	M2-I p	M2-C Rch n	M2-C Rch %	M2-C LFU n	M2-C LFU %	M2-C p	M4-I Rch n	M4-I Rch %	M4-I LFU n	M4-I LFU %	M4-I p	M4-C Rch n	M4-C Rch %	M4-C LFU n	M4-C LFU %	M4-C p	M6-I Rch n	M6-I Rch %	M6-I LFU n	M6-I LFU %	M6-I p	M6-C Rch n	M6-C Rch %	M6-C LFU n	M6-C LFU %	M6-C p	M8-I Rch n	M8-I Rch %	M8-I LFU n	M8-I LFU %	M8-I p	M8-C Rch n	M8-C Rch %	M8-C LFU n	M8-C LFU %	M8-C p
1) Socio-demographic characteristics																																								
Age in years, mean (SD)	30.6	(6.5)	29.8	(6.7)	0.291	30.5	(7.0)	27.7	(5.8)	**<0.001**	30.4	(6.4)	30.5	(6.9)	0.965	30.2	(6.9)	28.1	(6.1)	**0.006**	30.6	(6.4)	29.5	(6.8)	0.166	30.1	(6.9)	28.3	(6.2)	**0.016**	30.6	(6.4)	29.5	(7.2)	0.158	30.1	(6.9)	28.5	(6.1)	**0.044**
Education																																								
Never	114	29.8	31	32.0	0.674	78	22.2	39	30.2	0.070	122	30.1	23	31.1	0.859	88	23.1	29	29.3	0.201	118	30.0	27	31.4	0.791	88	21.7	29	30.5	0.119	119	29.4	26	34.7	0.360	87	22.6	30	31.6	0.068
Primary and more	269	70.2	66	68.0		273	77.8	90	69.8		284	70.0	51	68.9		293	76.9	70	70.7		276	70.1	59	68.6		297	77.1	66	69.5		286	70.6	49	65.3		298	77.4	65	68.4	
Religion																																								
Christian	356	93.0	94	96.9	0.150	320	91.2	116	89.9	0.675	378	93.1	72	97.3	0.170	345	90.6	91	91.9	0.674	366	92.9	84	96.9	0.097	349	90.7	87	91.6	0.779	376	92.8	74	98.7	0.055	349	90.7	87	91.6	0.779
Muslim	27	7.1	3	3.1		31	8.8	13	10.1		28	6.9	2	2.7		36	9.5	8	8.1		28	7.1	2	3.1		36	9.4	8	8.4		29	7.2	1	1.3		36	9.4	8	8.4	
Wealth index																																								
Poor	139	36.3	37	38.1	0.821	119	33.9	39	30.2	0.070	142	35.0	34	46.0	0.190	133	34.9	25	25.3	0.188	139	35.3	37	43.0	0.134	135	35.1	23	24.2	0.119	143	35.3	33	44.0	0.112	135	35.1	23	24.2	0.119
Middle	133	34.7	35	36.1		93	26.5	48	37.2		145	35.7	23	31.1		108	28.4	33	33.3		136	34.5	32	37.2		111	28.8	30	31.6		140	34.6	28	37.3		111	28.8	30	31.6	
Rich	111	29.0	25	25.8		139	39.6	42	32.6		119	29.3	17	23.0		140	36.8	41	41.4		119	30.2	17	19.8		139	36.1	42	44.2		122	30.1	14	18.7		139	36.1	42	44.2	
No. of children, mean (SD)	3.2	(1.7)	3.0	(1.7)	0.428	3.0	(1.9)	2.7	(1.7)	0.099	3.2	(1.7)	3.1	(1.9)	0.859	3.0	(1.9)	2.6	(1.7)	**0.044**	3.2	(1.7)	3.0	(1.8)	0.394	3.0	(1.8)	2.8	(1.9)	0.343	3.2	(1.7)	3.0	(1.9)	0.438	2.9	(1.9)	2.8	(1.8)	0.607
Pregnancy intention																																								
No	81	21.2	19	19.6	0.891	76	21.7	20	15.5	0.195	83	20.4	17	23.0	0.391	78	20.5	18	18.2	0.126	84	21.3	16	18.6	0.349	77	20.0	19	20.0	0.190	88	21.7	12	16.0	0.442	75	19.5	21	22.1	0.462
Yes	271	70.8	71	73.2		247	70.4	94	72.9		288	70.9	54	73.0		274	71.9	67	67.7		276	70.1	66	76.7		278	72.2	63	66.3		284	70.1	58	77.3		278	72.2	63	66.3	
Don't know	31	8.1	7	7.2		28	8.0	15	11.6		35	8.6	3	4.1		29	7.6	14	14.1		35	8.6	4	4.7		33	8.2	13	13.7		33	8.2	5	6.7		32	8.3	11	11.6	
Partner's pregnancy intention																																								
No	57	14.9	12	12.4	0.462	53	15.1	15	11.6	0.293	55	13.6	14	18.9	0.454	57	15.0	11	11.1	0.541	58	14.7	11	12.8	0.896	55	14.3	13	13.7	0.833	61	15.1	8	10.7	0.600	54	14.0	14	14.7	0.799
Yes	259	67.6	63	65.0		235	67.0	96	74.4		276	68.0	46	62.2		262	68.8	69	69.7		263	66.8	59	68.6		267	69.4	64	67.4		269	66.4	53	70.7		268	69.6	63	66.3	
Don't know	67	17.5	22	22.7		63	18.0	18	14.0		75	18.5	14	18.9		62	16.3	19	19.2		73	18.5	16	18.6		63	16.4	18	19.0		75	18.5	14	18.7		63	16.4	18	19.0	
History of unintended pregnancy																																								
No	245	64.0	68	70.1	0.257	248	70.7	87	67.4	0.497	266	65.5	47	63.5	0.739	265	69.6	70	70.7	0.824	258	65.5	55	64.0	0.787	265	68.8	70	73.7	0.356	261	64.4	52	69.3	0.414	266	69.1	69	72.6	0.501
Yes	138	36.0	29	29.9		103	29.3	42	32.6		140	34.5	27	36.5		116	30.5	29	29.3		136	34.5	31	36.1		120	31.2	25	26.3		144	35.6	23	30.7		119	30.9	26	27.4	
Multiple sex partners																																								
No	360	94.0	92	94.9	0.750	333	94.9	123	95.4	0.832	382	94.1	70	89.2	0.864	361	94.8	95	96.0	0.623	371	94.2	81	94.2	0.993	365	94.8	91	95.8	0.693	380	93.8	72	96.0	0.461	365	94.8	91	95.8	
Yes	23	6.0	5	5.2		18	5.1	6	4.7		24	5.9	4	10.8		20	5.3	4	4.0		23	5.8	5	5.8		20	5.2	4	4.2		25	6.2	3	4.0		20	5.2	4	4.2	
2) HIV-related characteristics																																								
HIV status																																								
Negative	351	91.6	87	89.7	0.543	313	89.2	123	95.4	**0.038**	372	91.6	66	89.7	0.495	343	90.0	93	93.9	0.229	359	91.1	79	91.9	0.825	347	90.1	89	93.7	0.282	372	91.9	66	88.0	0.278	347	90.1	89	93.7	0.282
Positive	32	8.4	10	10.3		38	10.8	6	4.7		34	8.4	8	10.3		38	10.0	6	6.1		35	8.9	7	8.1		38	9.9	6	6.3		33	8.2	9	12.0		38	9.9	6	6.3	
Partner's HIV status																																								
Negative	308	80.4	78	80.4	0.834	266	75.8	107	83.0	0.163	326	80.3	60	81.1	0.509	289	75.9	84	84.9	0.122	313	79.4	73	84.9	0.225	295	76.6	78	82.1	0.431	324	80.0	62	82.7	0.646	295	76.6	78	82.1	0.431
Positive	26	6.8	8	8.3		33	9.4	6	4.7		27	6.7	7	9.5		35	9.2	4	4.0		27	6.9	7	8.1		34	8.8	5	5.3		28	6.9	6	8.0		34	8.8	5	5.3	
Don't know	49	12.8	11	11.3		52	14.8	16	12.4		53	13.1	7	9.5		57	15.0	11	11.1		54	13.7	6	7.0		56	14.6	12	12.6		53	13.1	7	9.3		56	14.6	12	12.6	
Disclosure of HIV status																																								
No	18	4.7	3	3.1	0.489	15	4.3	4	3.1	0.559	19	4.7	2	2.7	0.444	17	4.5	2	2.0	0.267	18	4.6	3	3.5	0.657	16	4.2	3	3.2	0.655	20	4.9	1	1.3	0.161	15	3.9	4	4.2	0.888
Yes	365	95.3	94	96.9		336	95.7	125	96.9		387	95.3	72	97.3		364	95.5	97	98.0		376	95.4	83	96.5		369	95.8	92	96.8		385	95.1	74	98.7		370	96.1	91	95.8	
HIV/STI risk perception																																								
No risk at all	47	12.3	15	15.5	0.748	67	19.1	20	15.5	0.789	47	11.6	15	20.3	0.193	71	18.6	16	16.2	0.922	43	10.9	19	22.1	**0.044**	70	18.2	17	17.9	0.949	48	11.9	14	18.7	0.395	70	18.2	17	17.9	0.999
Small	140	36.6	37	38.1		130	37.0	48	37.2		154	37.9	23	31.1		142	37.3	36	36.4		148	37.6	29	33.7		145	37.7	33	34.7		149	36.8	28	37.3		143	37.1	35	36.8	
Moderate	112	29.2	24	24.7		90	25.6	34	26.4		117	28.8	19	25.7		97	25.5	27	27.3		116	29.4	20	23.3		98	25.5	26	27.4		117	28.9	19	25.3		99	25.7	25	26.3	
Great	84	21.9	21	21.7		64	18.2	27	20.9		88	21.7	17	23.0		71	18.6	20	20.2		87	22.1	18	20.9		72	18.7	19	20.0		91	22.5	14	18.7		73	19.0	18	19.0	
3) HEC use																																								
Type of HECs																																								
Injectables	198	51.7	54	55.7	0.901	178	50.7	68	52.7	0.910	207	51.0	45	60.8	0.478	190	49.9	56	56.6	0.673	193	49.0	59	68.6	**0.010**	190	49.4	56	59.0	0.380	204	50.4	48	64.0	0.199	190	49.4	56	59.0	0.450
Implants	127	33.2	28	28.9		107	30.5	41	31.8		135	33.3	20	27.0		120	31.5	28	28.3		135	34.3	20	23.3		120	31.2	28	29.5		136	33.6	19	25.3		121	31.4	27	28.4	
IUDs	34	8.9	9	9.3		41	11.7	13	10.1		38	9.4	5	6.8		43	11.3	11	11.1		38	9.6	5	5.8		47	12.2	7	7.4		39	9.6	4	5.3		47	12.2	7	7.4	
OCPs	22	5.7	5	5.2		24	6.8	7	5.4		24	5.9	3	4.1		27	7.1	4	4.0		26	6.6	1	1.2		27	7.0	4	4.2		24	5.9	3	4.0		26	6.8	5	5.3	
Female sterilization	2	0.5	1	1.0		1	0.3	0	0.0		2	0.5	1	1.4		1	0.3	0	0.0		2	0.5	1	1.2		1	0.3	0	0.0		2	0.5	1	1.3		1	0.3	0	0.0	
Partner's recognition of contraceptive use																																								
No	32	8.4	4	4.1	0.158	29	8.3	14	10.9	0.378	34	8.4	2	2.7	0.088	33	8.7	10	10.1	0.655	34	8.6	2	2.3	**0.044**	32	8.3	11	11.6	0.318	35	8.6	1	1.3	**0.027**	32	8.3	11	11.6	0.318
Yes	351	91.6	93	95.9		322	91.7	115	89.2		372	91.6	72	97.3		350	91.3	89	89.9		353	91.4	84	97.7		353	91.7	84	88.4		370	91.4	74	98.7		353	91.7	84	88.4	
Partner's attitude about contraceptive use																																								
Positive	344	89.8	88	90.7	0.795	320	91.2	119	92.3	0.838	363	89.4	69	93.2	0.472	350	91.9	89	89.9	0.725	351	89.1	81	94.2	0.292	353	91.7	86	90.5	0.880	361	89.1	71	94.7	0.224	353	91.7	86	90.5	0.880
Negative	30	7.8	6	6.2		26	7.4	9	7.0		33	8.1	3	4.1		26	6.8	9	9.1		33	8.4	3	3.5		27	7.0	8	8.4		34	8.4	2	2.7		27	7.0	8	8.4	
Don't know	9	2.4	3	3.1		5	1.4	1	0.8		10	2.5	2	2.7		5	1.3	1	1.0		10	2.5	2	2.3		5	1.3	1	1.1		10	2.5	2	2.7		5	1.3	1	1.1	
4) Other psychosocial characterics																																								
HIV-related knowledge (HIV-KQ-18), mean (SD)	12.0	(2.6)	11.9	(2.6)	0.829	11.3	(3.0)	11.1	(2.8)	0.597	11.9	(2.6)	12.1	(2.6)	0.632	11.2	(3.0)	11.4	(2.9)	0.563	12.0	(2.6)	11.8	(2.8)	0.507	11.3	(3.0)	11.2	(2.9)	0.946	12.0	(2.6)	11.8	(2.4)	0.527	11.2	(3.0)	11.3	(2.8)	0.992
Condom use self-efficacy scale, mean (SD)	22.3	(9.2)	22.1	(9.9)	0.794	21.6	(8.4)	23.2	(7.9)	0.058	22.0	(9.4)	23.6	(9.0)	0.193	21.7	(8.4)	23.4	(8.0)	0.080	22.1	(9.3)	22.9	(9.7)	0.478	21.9	(8.2)	22.7	(8.7)	0.422	22.3	(9.2)	22.1	(10.2)	0.848	22.0	(8.2)	22.4	(8.8)	0.608
Sexual Relationship Power Scale																																								
Low	141	36.8	32	33.0	0.484	114	32.5	38	29.5	0.763	151	37.2	22	29.7	0.416	123	32.3	29	29.3	0.146	144	36.6	29	33.7	0.561	121	31.4	31	29.5	0.442	146	36.1	27	36.0	0.327	122	31.7	30	31.6	0.526
Medium	129	33.7	39	40.2		130	37.0	52	40.3		138	34.0	30	40.5		150	39.4	32	32.3		140	35.5	28	32.6		151	39.2	31	40.3		137	33.8	31	41.3		150	39.0	32	33.7	
High	113	29.5	26	26.8		107	30.5	39	30.2		117	28.8	22	29.7		108	28.4	38	38.4		110	27.9	29	33.7		113	29.4	33	30.2		122	30.1	17	22.7		113	29.4	33	34.7	

SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill
† Based on Chi-squared test for categorical variables and t-test for continuous variables.

Table S3. Effects of intervention on dual-method contraceptive use at last sexual intercourse among women at 2 months after enrollement

Variables	Model 1			Model 2			
	OR	(95% CI)	p-value	AOR[a]	(95% CI)		p-value
Intervention							
Control	Ref.			Ref.			
Intervention	4.62 (	3.18 -	6.71)	**<0.001**	1.19 (	0.48 - 2.95)	0.712
Time					2.89 (	1.70 - 4.89)	**<0.001**
Intervention*time[b]					4.12 (	2.02 - 8.39)	**<0.001**
1) Socio-demographic characteristics							
Age in years					1.00 (	0.96 - 1.04)	0.958
Education							
Never					Ref.		
Primary and more					0.98 (	0.66 - 1.47)	0.935
Religion							
Christian					Ref.		
Muslim					1.42 (	0.78 - 2.58)	0.246
Wealth index							
Poor					Ref.		
Middle					1.35 (	0.89 - 2.05)	0.164
Rich					1.31 (	0.84 - 2.05)	0.240
No. of children					0.87 (	0.75 - 1.00)	0.057
Pregnancy intention							
No					Ref.		
Yes					1.17 (	0.66 - 2.09)	0.592
Don't know					1.54 (	0.71 - 3.34)	0.274
Partner's pregnancy intention							
No					Ref.		
Yes					0.45 (	0.24 - 0.85)	**0.013**
Don't know					0.49 (	0.25 - 0.96)	**0.038**
History of unintended pregnancy							
No					Ref.		
Yes					0.93 (	0.64 - 1.34)	0.680
Multiple sex partners							
No					Ref.		
Yes					3.50 (	1.85 - 6.62)	**<0.001**
2) HIV-related characteristics							
HIV status							
Negative					Ref.		
Positive					1.57 (	0.71 - 3.49)	0.267
Partner's HIV status							
Negative					Ref.		
Positive					1.27 (	0.54 - 2.99)	0.583
Don't know					0.95 (	0.57 - 1.58)	0.837
HIV/STI risk perception							
No risk at all					Ref.		
Small					0.80 (	0.47 - 1.37)	0.421
Moderate					1.05 (	0.60 - 1.83)	0.858
Great					1.18 (	0.65 - 2.15)	0.588
3) Non-barrier modern contraceptive use							
Methods in use							
Injectables					Ref.		
Implants					0.94 (	0.65 - 1.35)	0.726
IUDs					1.21 (	0.69 - 2.12)	0.505
OCPs					0.83 (	0.40 - 1.72)	0.611
Female sterilization							Perfect success
4) Other psychosocial characteristics							
HIV-related knowledge (HIV-KQ-18)					1.03 (	0.97 - 1.11)	0.338
Condom use self-efficacy scale					1.02 (	1.00 - 1.05)	**0.035**
Sexual Relationship Power Scale							
Low					Ref.		
Medium					1.13 (	0.76 - 1.69)	0.551
High					1.07 (	0.70 - 1.66)	0.748

OR: odds ratio; AOR: adjusted odds ratio; SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill

a. Adjusted for cluster effect, individuals, age, education, religion, wealth index, number of children, pregnancy intention, partner's pregnancy intention, history of unintended pregnancy, multiple sex partnership, non-barrier modern contraceptive methods, HIV status, partner's HIV status, HIV/STI risk perception, HIV-related knowledge, condom use self-efficacy, and sexual relationship control power.

b. Intervention*time represents the status of the intervention group at follow-up in comparison with the control group at baseline.

Table S4. Effects of intervention on dual-method contraceptive use at last sexual intercourse among women at 4 months after enrollement

Variables	Model 1			Model 2			
	OR	(95% CI)	p-value	AOR[a]	(95% CI)		p-value
Intervention							
Control	Ref.			Ref.			
Intervention	2.13 (	1.49 - 3.06)	**<0.001**	1.66 (	0.87 -	3.16)	0.121
Time				3.55 (	2.08 -	6.08)	**<0.001**
Intervention*time[b]				1.66 (	0.84 -	3.30)	0.146
1) Socio-demographic characteristics							
Age in years				0.99 (	0.95 -	1.03)	0.530
Education							
Never				Ref.			
Primary and more				0.79 (	0.51 -	1.22)	0.278
Religion							
Christian				Ref.			
Muslim				1.28 (	0.66 -	2.49)	0.465
Wealth index							
Poor				Ref.			
Middle				1.12 (	0.71 -	1.76)	0.624
Rich				1.14 (	0.70 -	1.85)	0.608
No. of children				0.92 (	0.78 -	1.08)	0.314
Pregnancy intention							
No				Ref.			
Yes				0.75 (	0.40 -	1.42)	0.376
Don't know				1.17 (	0.51 -	2.66)	0.715
Partner's pregnancy intention							
No				Ref.			
Yes				0.55 (	0.28 -	1.09)	0.085
Don't know				0.55 (	0.26 -	1.15)	0.113
History of unintended pregnancy							
No				Ref.			
Yes				0.62 (	0.40 -	0.94)	**0.026**
Multiple sex partners							
No				Ref.			
Yes				2.87 (	1.45 -	5.67)	**0.002**
2) HIV-related characteristics							
HIV status							
Negative				Ref.			
Positive				1.61 (	0.69 -	3.80)	0.273
Partner's HIV status							
Negative				Ref.			
Positive				1.40 (	0.55 -	3.52)	0.480
Don't know				1.26 (	0.74 -	2.15)	0.389
HIV/STI risk perception							
No risk at all				Ref.			
Small				0.84 (	0.47 -	1.49)	0.544
Moderate				1.01 (	0.56 -	1.83)	0.975
Great				0.96 (	0.50 -	1.84)	0.894
3) Non-barrier modern contraceptive use							
Methods in use							
Injectables				Ref.			
Implants				0.94 (	0.62 -	1.44)	0.788
IUDs				1.18 (	0.63 -	2.21)	0.603
OCPs				2.35 (	1.17 -	4.74)	**0.017**
Female sterilization				0.97 (	0.05 -	19.29)	0.986
4) Other psychosocial charactericts							
HIV-related knowledge (HIV-KQ-18)				1.01 (	0.94 -	1.08)	0.858
Condom use self-efficacy scale				1.04 (	1.01 -	1.06)	**0.002**
Sexual Relationship Power Scale							
Low				Ref.			
Medium				1.44 (	0.91 -	2.27)	0.119
High				1.21 (	0.74 -	1.98)	0.443

OR: odds ratio; AOR: adjusted odds ratio; SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill

a. Adjusted for cluster effect, individuals, age, education, religion, wealth index, number of children, pregnancy intention, partner's pregnancy intention, history of unintended pregnancy, multiple sex partnership, non-barrier modern contraceptive methods, HIV status, partner's HIV status, HIV/STI risk perception, HIV-related knowledge, condom use self-efficacy, and sexual relationship control power.

b. Intervention*time represents the status of the intervention group at follow-up in comparison with the control group at baseline.

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Table S5. Effects of intervention on dual-method contraceptive use at last sexual intercourse among women at 6 months after enrollement

Variables	Model 1			Model 2			
	OR	(95% CI)	p-value	AOR[a]	(95% CI)		p-value
Intervention							
Control	Ref.			Ref.			
Intervention	2.53 (	1.69 – 3.79)	**<0.001**	1.40 (	0.53 –	3.67)	0.494
Time				2.17 (	1.25 –	3.76)	**0.006**
Intervention*time[b]				2.03 (	0.99 –	4.14)	0.052
1) Socio-demographic characteristics							
Age in years				0.97 (	0.93 –	1.02)	0.208
Education							
Never				Ref.			
Primary and more				0.89 (	0.56 –	1.41)	0.618
Religion							
Christian				Ref.			
Muslim				1.36 (	0.70 –	2.65)	0.366
Wealth index							
Poor				Ref.			
Middle				0.96 (	0.60 –	1.55)	0.875
Rich				0.75 (	0.45 –	1.27)	0.283
No. of children				1.02 (	0.86 –	1.20)	0.853
Pregnancy intention							
No				Ref.			
Yes				0.84 (	0.44 –	1.61)	0.602
Don't know				1.29 (	0.55 –	3.03)	0.565
Partner's pregnancy intention							
No				Ref.			
Yes				0.69 (	0.34 –	1.41)	0.307
Don't know				0.62 (	0.29 –	1.35)	0.228
History of unintended pregnancy							
No				Ref.			
Yes				0.73 (	0.48 –	1.13)	0.157
Multiple sex partners							
No				Ref.			
Yes				2.96 (	1.50 –	5.85)	**0.002**
2) HIV-related characteristics							
HIV status							
Negative				Ref.			
Positive				1.24 (	0.52 –	2.97)	0.629
Partner's HIV status							
Negative				Ref.			
Positive				1.67 (	0.64 –	4.31)	0.292
Don't know				**1.09** (	0.62 –	1.92)	0.758
HIV/STI risk perception							
No risk at all				Ref.			
Small				0.76 (	0.41 –	1.40)	0.377
Moderate				1.03 (	0.55 –	1.92)	0.937
Great				0.77 (	0.38 –	1.53)	0.452
3) Non-barrier modern contraceptive use							
Methods in use							
Injectables				Ref.			
Implants				0.92 (	0.60 –	1.42)	0.715
IUDs				1.19 (	0.63 –	2.25)	0.589
OCPs				2.03 (	0.99 –	4.17)	0.054
Female sterilization							Perfect success
4) Other psychosocial characterics							
HIV-related knowledge (HIV-KQ-18)				1.05 (	0.97 –	1.13)	0.226
Condom use self-efficacy scale				1.04 (	1.01 –	1.06)	**0.006**
Sexual Relationship Power Scale							
Low				Ref.			
Medium				1.59 (	0.99 –	2.54)	0.056
High				1.19 (	0.71 –	1.97)	0.513

OR: odds ratio; AOR: adjusted odds ratio; SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill

a. Adjusted for cluster effect, individuals, age, education, religion, wealth index, number of children, pregnancy intention, partner's pregnancy intention, history of unintended pregnancy, multiple sex partnership, non-barrier modern contraceptive methods, HIV status, partner's HIV status, HIV/STI risk perception, HIV-related knowledge, condom use self-efficacy, and sexual relationship control power.

b. Intervention*time represents the status of the intervention group at follow-up in comparison with the control group at baseline.

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Table S6. Effects of intervention on dual-method contraceptive use at last sexual intercourse among women at 8 months after enrollement

Variables	Model 1			Model 2			
	OR	(95% CI)	p-value	AOR[a]	(95% CI)		p-value
Intervention							
Control	Ref.			Ref.			
Intervention	2.76 (	1.79 - 4.26)	**<0.001**	1.39 (	0.59 -	3.31)	0.452
Time				1.60 (	0.92 -	2.77)	0.094
Intervention*time[b]				2.16 (	1.06 -	4.41)	**0.034**
1) Socio-demographic characteristics							
Age in years				0.97 (	0.93 -	1.01)	0.114
Education							
Never				Ref.			
Primary and more				1.03 (	0.66 -	1.62)	0.884
Religion							
Christian				Ref.			
Muslim				1.13 (	0.57 -	2.21)	0.728
Wealth index							
Poor				Ref.			
Middle				1.11 (	0.71 -	1.75)	0.647
Rich				0.89 (	0.54 -	1.48)	0.664
No. of children				1.04 (	0.88 -	1.22)	0.676
Pregnancy intention							
No				Ref.			
Yes				0.82 (	0.44 -	1.55)	0.550
Don't know				1.66 (	0.75 -	3.65)	0.210
Partner's pregnancy intention							
No				Ref.			
Yes				0.65 (	0.33 -	1.28)	0.214
Don't know				0.71 (	0.35 -	1.47)	0.359
History of unintended pregnancy							
No				Ref.			
Yes				0.83 (	0.55 -	1.25)	0.375
Multiple sex partners							
No				Ref.			
Yes				3.22 (	1.69 -	6.12)	**<0.001**
2) HIV-related characteristics							
HIV status							
Negative				Ref.			
Positive				0.97 (	0.40 -	2.31)	0.938
Partner's HIV status							
Negative				Ref.			
Positive				2.04 (	0.82 -	5.09)	0.128
Don't know				1.04 (	0.60 -	1.81)	0.887
HIV/STI risk perception							
No risk at all				Ref.			
Small				0.68 (	0.39 -	1.20)	0.187
Moderate				0.79 (	0.44 -	1.42)	0.437
Great				0.77 (	0.41 -	1.47)	0.429
3) Non-barrier modern contraceptive use							
Methods in use							
Injectables				Ref.			
Implants				0.86 (	0.56 -	1.31)	0.483
IUDs				1.23 (	0.67 -	2.25)	0.511
OCPs				1.36 (	0.66 -	2.80)	0.408
Female sterilization							Perfect success
4) Other psychosocial characteristics							
HIV-related knowledge (HIV-KQ-18)				1.04 (	0.96 -	1.12)	0.312
Condom use self-efficacy scale				1.03 (	1.00 -	1.05)	**0.029**
Sexual Relationship Power Scale							
Low				Ref.			
Medium				1.29 (	0.81 -	2.05)	0.290
High				1.42 (	0.87 -	2.31)	0.165

OR: odds ratio; AOR: adjusted odds ratio; SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill

a. Adjusted for cluster effect, individuals, age, education, religion, wealth index, number of children, pregnancy intention, partner's pregnancy intention, history of unintended pregnancy, multiple sex partnership, non-barrier modern contraceptive methods, HIV status, partner's HIV status, HIV/STI risk perception, HIV-related knowledge, condom use self-efficacy, and sexual relationship control power.

b. Intervention*time represents the status of the intervention group at follow-up in comparison with the control group at baseline.

Table S7. Effects of intervention on consistent dual-method contraceptive use among women at 2 months after enrollment

Variables	Model 1			Model 2			
	OR	(95% CI)	p-value	AOR[a]	(95% CI)		p-value
Intervention							
Control	Ref.			Ref.			
Intervention	11.98 (	4.74 -	30.29)	**<0.001**	14.53 (	3.63 - 58.13)	**<0.001**
1) Socio-demographic characteristics							
Age in years				1.01 (	0.94 - 1.08)	0.856
Education							
Never				Ref.			
Primary and more				0.69 (	0.34 - 1.39)	0.298
Religion							
Christian				Ref.			
Muslim				0.93 (	0.30 - 2.85)	0.898
Wealth index							
Poor				Ref.			
Middle				1.47 (	0.70 - 3.11)	0.307
Rich				1.37 (	0.61 - 3.09)	0.441
No. of children				0.89 (	0.69 - 1.16)	0.396
Pregnancy intention							
No				Ref.			
Yes				0.56 (	0.20 - 1.54)	0.264
Don't know				1.51 (	0.39 - 5.84)	0.551
Partner's pregnancy intention							
No				Ref.			
Yes				0.89 (	0.30 - 2.64)	0.834
Don't know				0.59 (	0.17 - 2.05)	0.405
History of unintended pregnancy							
No				Ref.			
Yes				0.76 (	0.39 - 1.48)	0.421
Multiple sex partners							
No				Ref.			
Yes				3.21 (	1.06 - 9.67)	**0.039**
2) HIV-related characteristics							
HIV status							
Negative				Ref.			
Positive				1.47 (	0.39 - 5.52)	0.566
Partner's HIV status							
Negative				Ref.			
Positive				1.23 (	0.28 - 5.43)	0.785
Don't know				1.15 (	0.48 - 2.77)	0.747
HIV/STI risk perception							
No risk at all				Ref.			
Small				1.98 (	0.57 - 6.91)	0.283
Moderate				2.37 (	0.67 - 8.43)	0.181
Great				4.04 (	1.10 - 14.82)	**0.035**
3) Non-barrier modern contraceptive use							
Methods in use							
Injectables				Ref.			
Implants				0.53 (	0.27 - 1.04)	0.064
IUDs				0.47 (	0.14 - 1.57)	0.219
OCPs				0.16 (	0.02 - 1.37)	0.093
Female sterilization							Perfect success
4) Other psychosocial characterics							
HIV-related knowledge (HIV-KQ-18)				1.02 (	0.90 - 1.16)	0.722
Condom use self-efficacy scale				0.98 (	0.94 - 1.02)	0.359
Sexual Relationship Power Scale							
Low				Ref.			
Medium				1.36 (	0.62 - 2.95)	0.445
High				1.87 (	0.84 - 4.17)	0.124

OR: odds ratio; AOR: adjusted odds ratio; SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill

a. Adjusted for cluster effect, individuals, age, education, religion, wealth index, number of children, pregnancy intention, partner's pregnancy intention, history of unintended pregnancy, multiple sex partnership, non-barrier modern contraceptive methods, HIV status, partner's HIV status, HIV/STI risk perception, HIV-related knowledge, condom use self-efficacy, and sexual relationship control power.

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Table S8. Effects of intervention on consistent dual-method contraceptive use among women at 4 months after enrollment

Variables	Model 1			Model 2		
	OR	(95% CI)	p-value	AOR[a]	(95% CI)	p-value
Intervention						
Control	Ref.			Ref.		
Intervention	5.22 (	2.42 - 11.28)	**<0.001**	6.30 (	2.20 - 18.03)	**0.001**
1) Socio-demographic characteristics						
Age in years				1.05 (	0.98 - 1.12)	0.181
Education						
Never				Ref.		
Primary and more				0.56 (	0.28 - 1.13)	0.104
Religion						
Christian				Ref.		
Muslim				0.73 (	0.19 - 2.82)	0.651
Wealth index						
Poor				Ref.		
Middle				1.63 (	0.74 - 3.56)	0.224
Rich				1.51 (	0.65 - 3.54)	0.340
No. of children				0.79 (	0.59 - 1.05)	0.104
Pregnancy intention						
No				Ref.		
Yes				0.37 (	0.13 - 1.06)	0.063
Don't know				0.61 (	0.16 - 2.43)	0.488
Partner's pregnancy intention						
No				Ref.		
Yes				1.45 (	0.47 - 4.49)	0.523
Don't know				1.08 (	0.32 - 3.67)	0.907
History of unintended pregnancy						
No				Ref.		
Yes				0.52 (	0.24 - 1.12)	0.094
Multiple sex partners						
No				Ref.		
Yes				0.37 (	0.05 - 3.05)	0.356
2) HIV-related characteristics						
HIV status						
Negative				Ref.		
Positive				1.01 (	0.24 - 4.31)	0.985
Partner's HIV status						
Negative				Ref.		
Positive				1.84 (	0.36 - 9.30)	0.462
Don't know				1.63 (	0.68 - 3.92)	0.275
HIV/STI risk perception						
No risk at all				Ref.		
Small				2.14 (	0.58 - 7.93)	0.253
Moderate				2.15 (	0.56 - 8.32)	0.268
Great				1.65 (	0.39 - 7.03)	0.499
3) Non-barrier modern contraceptive use						
Methods in use						
Injectables				Ref.		
Implants				1.01 (	0.49 - 2.06)	0.987
IUDs				1.58 (	0.54 - 4.62)	0.400
OCPs				0.66 (	0.13 - 3.32)	0.618
Female sterilization						Perfect success
4) Other psychosocial charactericts						
HIV-related knowledge (HIV-KQ-18)				0.92 (	0.81 - 1.03)	0.148
Condom use self-efficacy scale				1.02 (	0.97 - 1.06)	0.443
Sexual Relationship Power Scale						
Low				Ref.		
Medium				0.72 (	0.32 - 1.63)	0.434
High				0.96 (	0.42 - 2.21)	0.932

OR: odds ratio; AOR: adjusted odds ratio; SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill

a. Adjusted for cluster effect, individuals, age, education, religion, wealth index, number of children, pregnancy intention, partner's pregnancy intention, history of unintended pregnancy, multiple sex partnership, non-barrier modern contraceptive methods, HIV status, partner's HIV status, HIV/STI risk perception, HIV-related knowledge, condom use self-efficacy, and sexual relationship control power.

Table S9. Effects of intervention on consistent dual-method contraceptive use among women at 6 months after enrollment

Variables	Model 1			Model 2			
	OR	(95% CI)	p-value	AOR[a]	(95% CI)		p-value
Intervention							
Control	Ref.			Ref.			
Intervention	6.58 (	2.53 – 17.07)	**<0.001**	8.04 (	1.17 –	55.08)	**0.034**
1) Socio-demographic characteristics							
Age in years				1.05 (	0.96 –	1.15)	0.311
Education							
Never				Ref.			
Primary and more				1.18 (	0.45 –	3.13)	0.738
Religion							
Christian				Ref.			
Muslim				1.75 (	0.46 –	6.61)	0.409
Wealth index							
Poor				Ref.			
Middle				1.35 (	0.53 –	3.47)	0.528
Rich				0.75 (	0.26 –	2.20)	0.604
No. of children				0.90 (	0.64 –	1.28)	0.560
Pregnancy intention							
No				Ref.			
Yes				0.73 (	0.18 –	2.92)	0.657
Don't know				1.31 (	0.23 –	7.51)	0.763
Partner's pregnancy intention							
No				Ref.			
Yes				1.27 (	0.30 –	5.40)	0.743
Don't know				0.84 (	0.17 –	4.17)	0.836
History of unintended pregnancy							
No				Ref.			
Yes				0.79 (	0.32 –	1.96)	0.607
Multiple sex partners							
No				Ref.			
Yes				1.59 (	0.29 –	8.78)	0.597
2) HIV-related characteristics							
HIV status							
Negative				Ref.			
Positive				4.08 (	0.86 –	19.27)	0.076
Partner's HIV status							
Negative				Ref.			
Positive				0.51 (	0.07 –	3.47)	0.489
Don't know				0.93 (	0.30 –	2.92)	0.901
HIV/STI risk perception							
No risk at all				Ref.			
Small				1.21 (	0.29 –	5.09)	0.791
Moderate				0.91 (	0.20 –	4.25)	0.907
Great				0.98 (	0.20 –	4.82)	0.983
3) Non-barrier modern contraceptive use							
Methods in use							
Injectables				Ref.			
Implants				1.09 (	0.44 –	2.67)	0.853
IUDs				1.95 (	0.55 –	6.93)	0.304
OCPs				1.51 (	0.27 –	8.57)	0.642
Female sterilization							Perfect success
4) Other psychosocial charactericts							
HIV-related knowledge (HIV-KQ-18)				1.02 (	0.87 –	1.18)	0.834
Condom use self-efficacy scale				1.02 (	0.97 –	1.07)	0.549
Sexual Relationship Power Scale							
Low				Ref.			
Medium				0.93 (	0.36 –	2.43)	0.885
High				0.56 (	0.18 –	1.71)	0.310

OR: odds ratio; AOR: adjusted odds ratio; SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill

a. Adjusted for cluster effect, individuals, age, education, religion, wealth index, number of children, pregnancy intention, partner's pregnancy intention, history of unintended pregnancy, multiple sex partnership, non-barrier modern contraceptive methods, HIV status, partner's HIV status, HIV/STI risk perception, HIV-related knowledge, condom use self-efficacy, and sexual relationship control power.

Table S10. Effects of intervention on consistent dual-method contraceptive use among women at 8 months after enrollement

Variables	Model 1			Model 2			
	OR	(95% CI)	p-value	AOR[a]	(95% CI)		p-value
Intervention							
Control	Ref.			Ref.			
Intervention	9.43 (	3.70 - 24.06)	**<0.001**	10.72 (	2.03 -	56.64)	**0.005**
1) Socio-demographic characteristics							
Age in years				1.05 (	0.96 -	1.14)	0.270
Education							
Never				Ref.			
Primary and more				0.90 (	0.40 -	2.00)	0.788
Religion							
Christian				Ref.			
Muslim				1.15 (	0.31 -	4.29)	0.832
Wealth index							
Poor				Ref.			
Middle				1.46 (	0.63 -	3.38)	0.373
Rich				1.52 (	0.61 -	3.80)	0.373
No. of children				0.89 (	0.65 -	1.22)	0.463
Pregnancy intention							
No				Ref.			
Yes				0.40 (	0.12 -	1.34)	0.137
Don't know				0.93 (	0.22 -	3.98)	0.923
Partner's pregnancy intention							
No				Ref.			
Yes				1.80 (	0.47 -	6.86)	0.390
Don't know				1.34 (	0.34 -	5.24)	0.674
History of unintended pregnancy							
No				Ref.			
Yes				0.86 (	0.40 -	1.83)	0.688
Multiple sex partners							
No				Ref.			
Yes				0.94 (	0.17 -	5.16)	0.942
2) HIV-related characteristics							
HIV status							
Negative				Ref.			
Positive				1.16 (	0.20 -	6.63)	0.868
Partner's HIV status							
Negative				Ref.			
Positive				1.12 (	0.18 -	7.00)	0.905
Don't know				0.41 (	0.12 -	1.36)	0.146
HIV/STI risk perception							
No risk at all				Ref.			
Small				0.85 (	0.27 -	2.70)	0.782
Moderate				0.96 (	0.29 -	3.16)	0.944
Great				1.20 (	0.33 -	4.34)	0.785
3) Non-barrier modern contraceptive use							
Methods in use							
Injectables				Ref.			
Implants				0.85 (	0.38 -	1.89)	0.685
IUDs				2.55 (	0.87 -	7.46)	0.087
OCPs				0.60 (	0.11 -	3.37)	0.566
Female sterilization							Perfect success
4) Other psychosocial charactericts							
HIV-related knowledge (HIV-KQ-18)				1.02 (	0.89 -	1.16)	0.779
Condom use self-efficacy scale				1.00 (	0.96 -	1.05)	0.858
Sexual Relationship Power Scale							
Low				Ref.			
Medium				0.90 (	0.37 -	2.16)	0.806
High				1.11 (	0.44 -	2.83)	0.829

OR: odds ratio; AOR: adjusted odds ratio; SD: standard deviation; IUD: intrauterine device; OCP: oral contraceptive pill

a. Adjusted for cluster effect, individuals, age, education, religion, wealth index, number of children, pregnancy intention, partner's pregnancy intention, history of unintended pregnancy, multiple sex partnership, non-barrier modern contraceptive methods, HIV status, partner's HIV status, HIV/STI risk perception, HIV-related knowledge, condom use self-efficacy, and sexual relationship control power.