

The effect of integrated intervention for service providers on partner notification and STD/HIV related consulting services in public STD clinics, Shanghai, China

Junqing Wu, PhD

WHO Collaborating Center on Human Research, China

Shanghai Institute of Planned Parenthood Research

Fudan University, China

NPFPC Key Laboratory of Contraceptives and Devices

E-mail: wujq1688@163.com

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INTRODUCTION

- **Sexually transmitted diseases (STDs)**
 - Infections that can be transferred through any type of sexual contact(vaginal, anal, oral...)
 - More than 30 different sexually transmissible bacteria, viruses and parasites
 - common(8) : gonorrhoea, chlamydial infection, syphilis, trichomoniasis, chancroid, genital herpes, genital warts, human immunodeficiency virus (HIV) infection, hepatitis B infection.



- **Estimated new cases of curable sexually transmitted infections (gonorrhoea, chlamydia, syphilis and trichomoniasis) by WHO region, 2008**



<http://www.who.int/mediacentre/factsheets/fs110/en/>

- **A major public problem in developing countries like China**
 - **High incidence & increasing trend**

Year	Syphilis	Gonorrhoea	Aids
2006	12022 ↑ ↑	8385	85 ↑ ↑
2007	10674	10152	53



– Disease & economic burden

- inflammatory disease
- ectopic pregnancy
- infertility
- fetal and neonatal morbidity and mortality
- facilitate the sexual transmission of HIV
- economic loss: account for 17%



- **The service of STD clinics**
 - **Focus on treatment rather than prevention**
 - over-treatment
 - **Ignore behavioral intervention**
 - the service rate of partner notification: 29%~48%
 - condom promotion: 26%~33%
- **Counseling and behavioral interventions offer primary prevention against STIs (including HIV), as well as against unintended pregnancies.**

- **Previous research**
 - Pay attention to cross-sectional survey
 - Lack of integrated intervention
- The **aim** of this study was to evaluate the effect of integrated intervention on partner notification and STD/HIV consulting services in public STD clinics, Shanghai, China.



MATERIALS & METHODS

- **Study Field**

- **Three levels of STDs care net-work(Shanghai)**
 - **municipal clinic, district clinic and community clinic**
- **Two representative clinic respectively in each level**
- **Six public STD clinics were selected, and randomly allocated into the intervention group(IG) and the control group(CG)**



- **The criteria of clients for recruitment**
 - **Older than 15 years old**
 - **Visiting the selected clinics for the first time and requiring for STDs-related service**
 - **Willing to participate in the research.**

- **Study design**

- **An intervention research**

- **The intervention group: a series of intervention measures were implemented for the service providers (6 months)**
 - **Qualified advocacy and mobilization, IEC related services, training, supervising, following up and integrated counseling, partner notification and condom promotion**
 - **The control group: routine work**

- **Data collection**
 - **Interception investigation**
 - **After 3 months of the integrated intervention**
 - **Using questionnaire**
 - **social demography**
 - **sexual behavior**
 - **symptom feature**
 - **content and availability of service**
 - **knowledge related to STDs/AIDS**
 - **.....**

- **Statistical analysis**

- **Data entry: Epidata 3.0 (The EpiData Association, Odense Denmark)**

- **Data analysis: SAS v9.1.3 (SAS Institute Inc., Cary, NC, USA).**

- **Descriptive analysis**

- **Logistic regression analysis**

- **Statistical significance defined as $P < 0.05$.**

- **This study was approved by the Ethics Committee of Shanghai Institute of Planned Parenthood Research**

RESULTS

- **Basic information**

	IG	CG
Pre-intervention	412	448
Post-intervention	451	418

- Related to characteristics(age, gender, marriage status, etc.), there is no significant difference between groups.



The situation of partner notification

Category	IG				CG			
	PRE (n=412)		POST(n=451)		PRE(n=448)		POST(n=418)	
	n	%	n	%	n	%	n	%
requirements of informing sexual partners condition								
yes	276	66.99	397	88.03	272	60.71	276	66.03
no	136	33.01	54	11.97	176	39.29	142	33.97
proposing partner check/treatment								
yes	302	73.30	402	89.14	344	76.79	323	77.27
no	110	26.70	49	10.87	104	23.22	95	22.73
informing reasons for the condition								
yes	82	19.90	303	67.18	81	18.08	89	21.29
no	330	80.10	148	32.82	367	81.92	329	78.71
providing contact card								
yes	60	14.56	142	31.49	37	8.26	36	8.61
no	352	85.44	309	68.51	411	91.74	382	91.39

partner notification

PRE VS. POST:

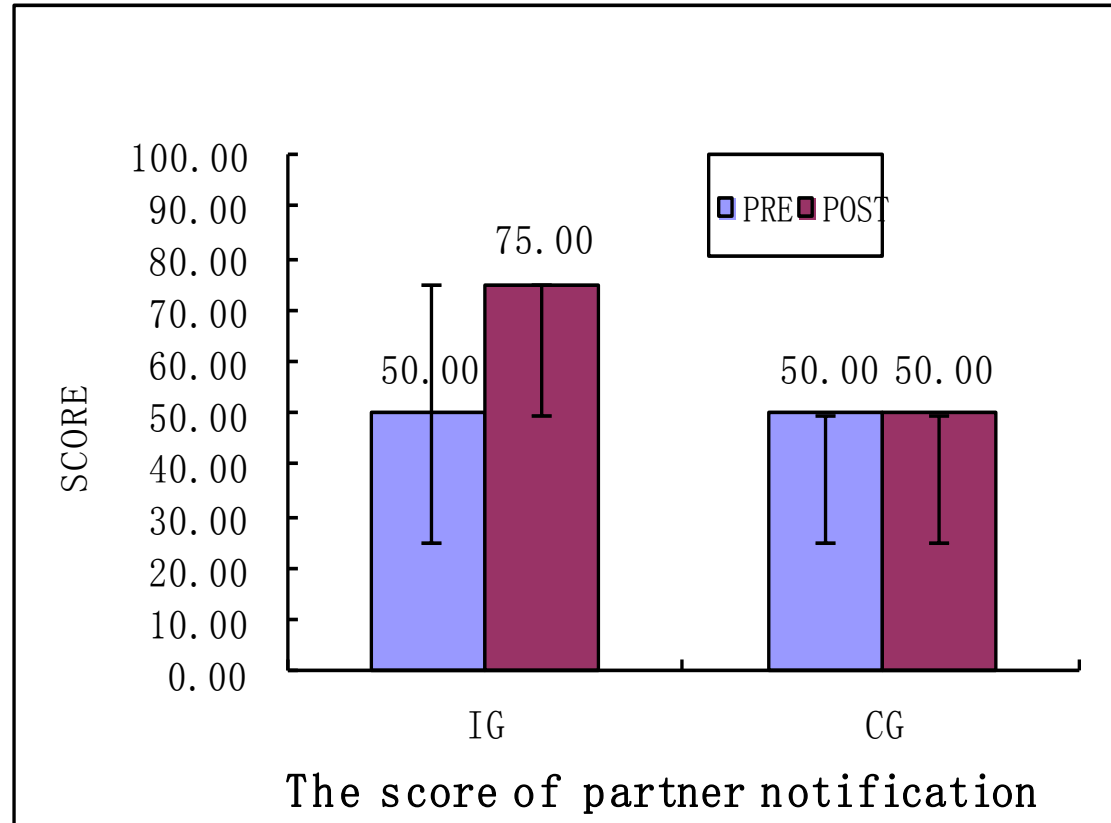
IG: $P < 0.0001$

CG: $P = 0.1415$

IG VS. CG:

PRE: $P = 0.0891$

POST: $P < 0.0001$



Control gender, age, group and time, integrated intervention has improved the partner notification service ($P < 0.0001$).

The influence factors analysis of partner notification (Logistic regression, n=1729)

Variables	β	OR	95%CI	P
Group : IG/CG	0.1614	1.175	0.924-1.494	0.1877
Time: post/pre	0.2032	1.225	0.963-1.559	0.0986
group*time	1.6935	5.438	3.825-7.732	<0.0001

Controlling gender and age

The situation of counseling service

Category	IG				CG			
	PRE (n=412)		POST(n=451)		PRE(n=448)		POST(n=418)	
	n	%	n	%	n	%	n	%
counseling								
yes	222	53.88	290	64.30	242	54.02	221	52.87
no	190	46.12	161	35.69	206	45.98	197	47.13
providing further counseling	222		290		242		221	
yes	142	63.96	224	77.24	136	56.20	148	66.97
no	80	36.04	66	22.76	106	43.80	73	33.03
suggestion for HIV testing								
yes	212	51.46	321	71.18	248	83.48	218	52.15
no	200	48.54	130	28.82	200	16.52	200	47.84
telling the place of HIV testing								
yes	224	54.37	303	67.18	234	52.23	213	50.96
no	188	45.63	148	32.81	214	47.76	205	49.04

counseling service

PRE VS. POST:

IG: $P < 0.0001$

($Z = -5.61$)

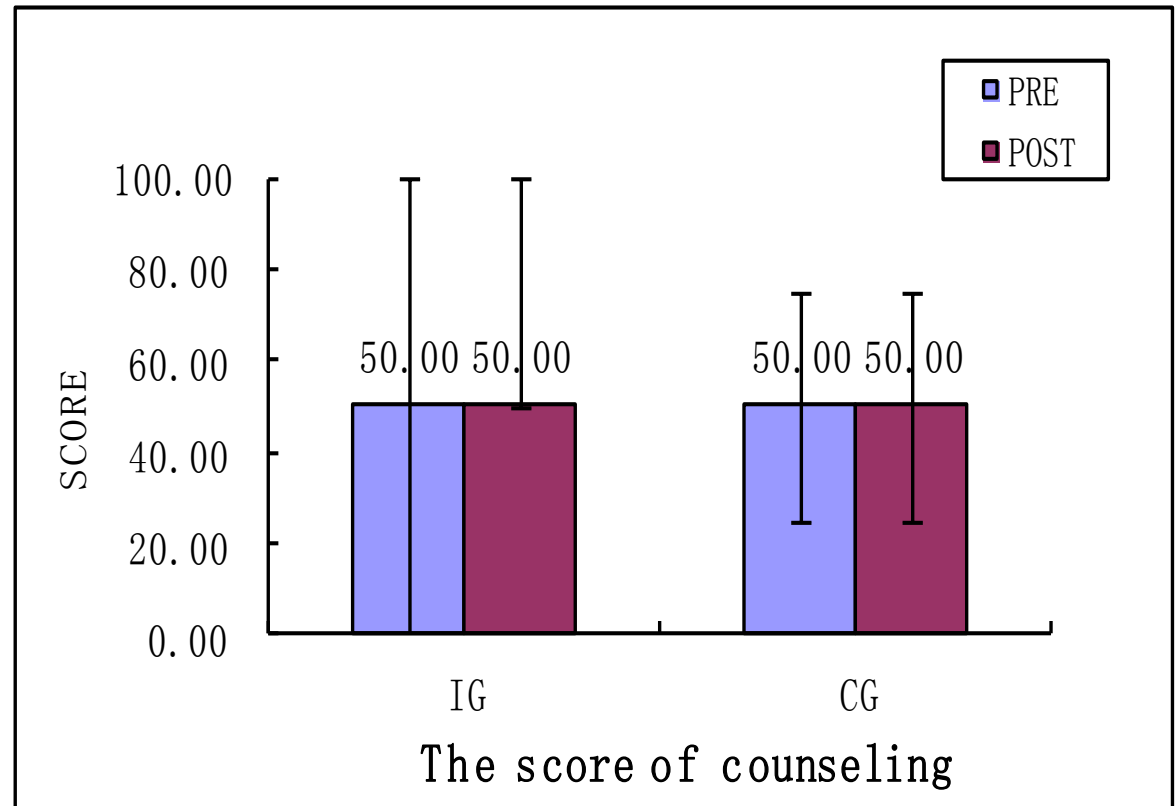
CG: $P = 0.9674$

IG VS. CG:

PRE: $P = 0.9278$

POST: $P < 0.0001$

($Z = -6.59$)



Control gender, age, group and time, integrated intervention has significant influence on the counseling service. ($P < 0.0001$).

The influence factors analysis of counseling service (Logistic regression, n=1729)

Variables	β	OR	95%CI	P
Group : IG/CG	-0.00612	0.994	0.784-1.259	0.9596
Time: post/pre	0.0121	1.012	0.798-1.283	0.9208
group*time	0.7596	2.137	1.526-2.995	<0.0001

Controlling gender and age

DISCUSSION

- **PARTNER NOTIFICATION (PN)** has been a cornerstone of STD control efforts in the United States since the 1940s, when Surgeon General Thomas Parran promoted the practice as a syphilis case-finding tool.

——Parran T.

- **In our study**
 - **PN services provided to only a very small minority of persons**
 - **The way of PN services is poor (only by patient)**
 - **The content is too simple, little emphasis on reason of partner notification**
 - **Notification card is rarely used**
 - **The rate of notification card using: 14.56%**
→ **31.49%(Post-intervention)**

- **Informed choice and counseling are the essential elements of QoC**
- **Counseling is the key safeguard of informed choice**
- **Counseling is also important to patient from STD clinics.**

- **In our study**
 - **Consulting services is limited to general need, rather than further need ;**
 - **Lack of interaction and consulting skills;**
 - **Misunderstanding of STD by service provider**
 - **The rate of counseling service: below 80%(post-intervention)**

CONCLUSIONS

Integrated intervention for service providers and managers can improve significantly the provision of partner notification and STD/HIV related consulting services in public STD clinics.

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