

# Promoting HIV Testing and Condom Use among Filipina Commercial Sex Workers

## Findings from A Quasi-Experimental Intervention Study

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# HIV/AIDS in the Philippines

- Estimated 9000 HIV cases as of 2004  
(UNAIDS, 2005)
- Majority transmitted through heterosexual contact
- HIV/AIDS prevalence still very low although numerous factors contribute to the potential for an epidemic

# Sex Industry

- Technically illegal but thriving
- Largely working in entertainment based establishments as *guest relation officer* (commercial sex worker, CSW)
- Paid a small commission from *ladies drinks* (sales of food/drinks) by the establishment owners

# HIV Prevention Research among CSWs

- Mostly focused on individual-level behavior change, but ineffective at developing and sustaining preventive behaviors

(Sweat & Denison, 1995; Yang, et al., 2005)

- Environmental factors interacting to reduce HIV-associated risky behaviors

(Crosby et al., 2003; Di Clemente & Wingood, 2003)

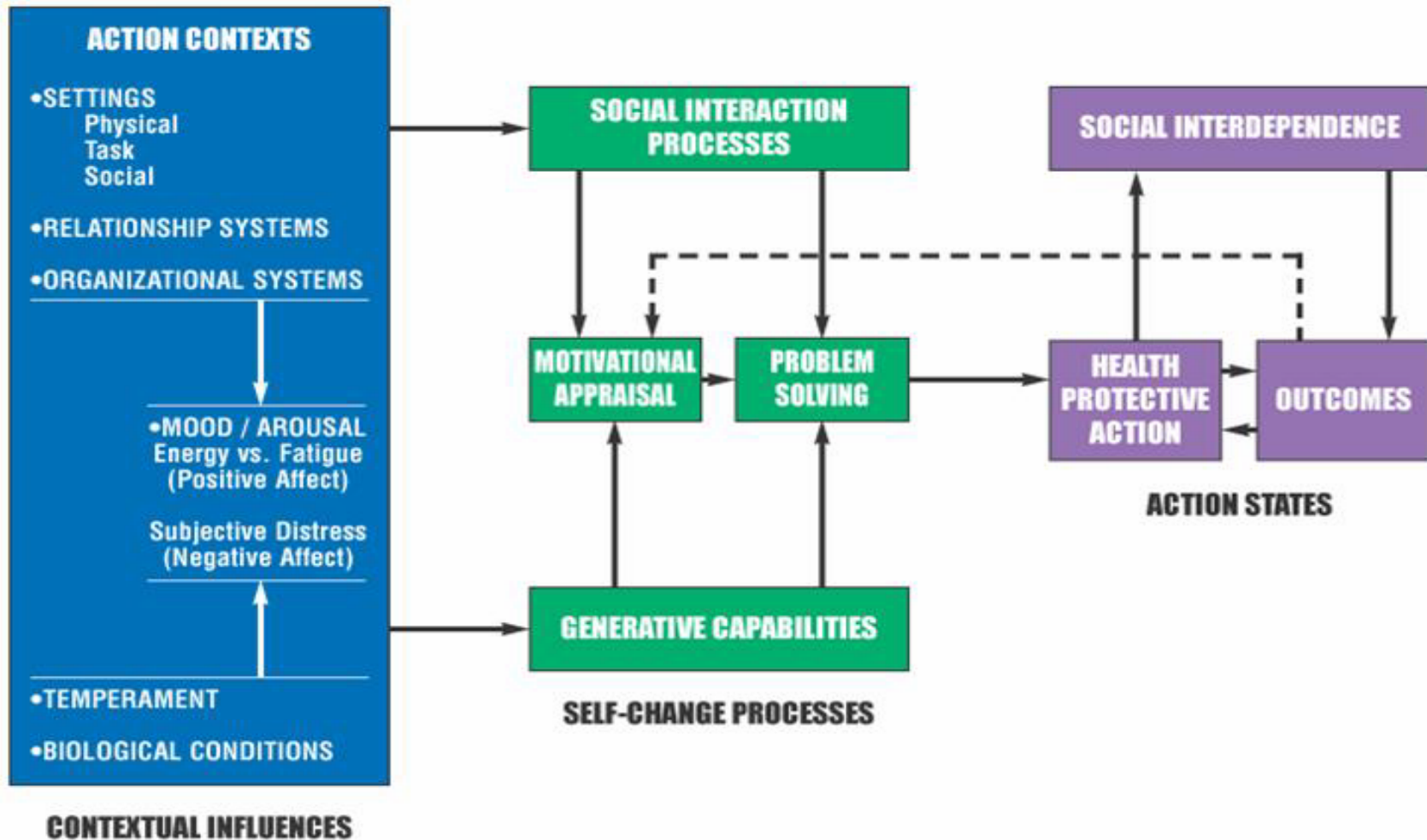
- Multi-level approach to address broader social and environmental change

(Chiao et al., 2006; Morisky, 2002; Parker 2000; Sweat & Denison, 1995)

# Structural Factor Influences

- Importance of workplace policies  
(Morisky, 1998; Yang, 2005)
- Positive influence of perceived gatekeeper  
(manager of CSWs) support on CSW preventive  
practices  
(Morisky, 2002; Yang et al., 2005)
- Preventive practices of CSWs increased in  
establishments with high levels of environmental-  
structural support  
(Kerrigan et al., 2003; Oladosu, 2005)

# Social Action Theory



# Study Goal

To examine the effects of a multilevel Social-Action Based Theory intervention to enhance HIV-associated preventive practices (HIV testing and consistent condom use) among CSWs in the Philippines

# Four Intervention Models

- 1) Peer Influence Only (PI) – emphasis of equivalence and reciprocity; learned by peer influence
- 2) Manager Influence Only (MI) – emphasis of structural influence; protected by superior towards subordinates
- 3) Combined PI & MI – emphasis of reciprocity and environment; embedded in supportive workplace
- 4) Usual Care



# Participation in the Study

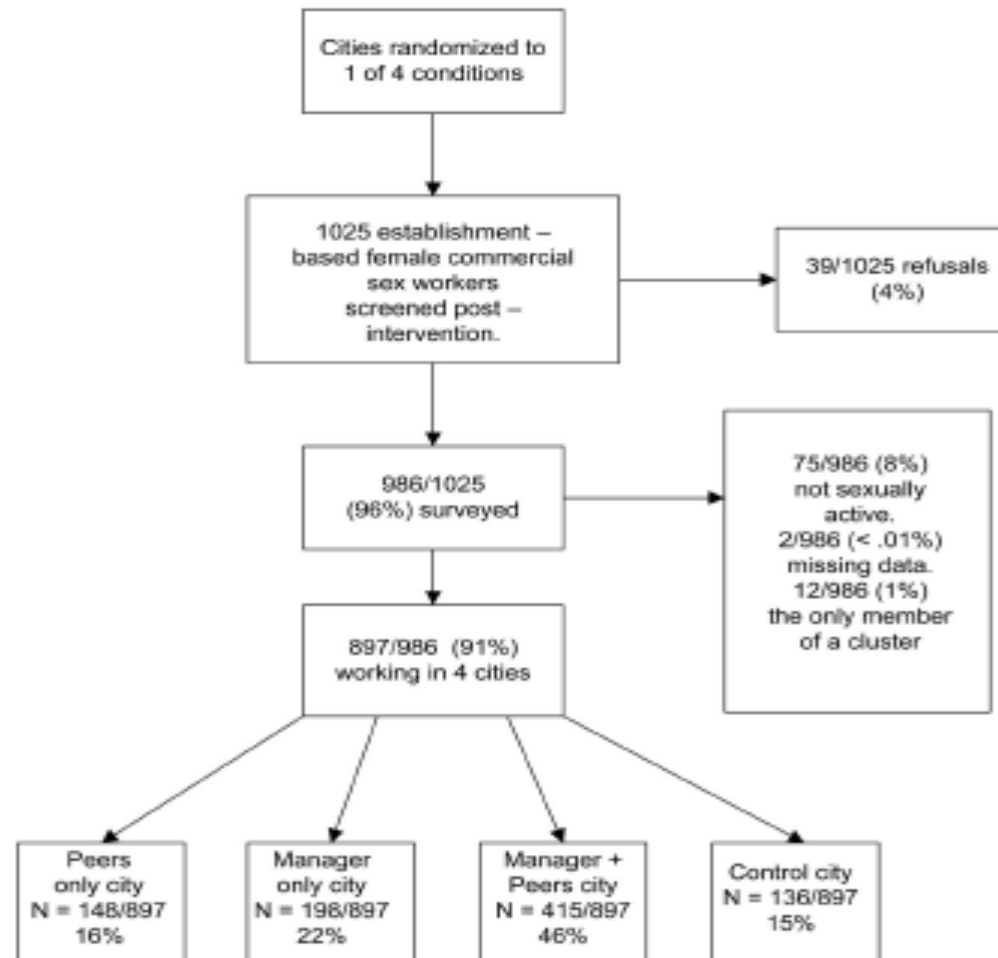


Figure 1. Flow diagram of participation in the study by female commercial sex workers in the randomized intervention cities.

# ORIGINAL STUDY

- Secondary data analysis from a large-scale quasi-experimental HIV prevention intervention with establishment-based FCSWs in 4 sites in the Philippines
- Focused on both individual determinants & socio-structural determinants of HIV/AIDS



# Data

- **Outcome variable**
  - HIV testing (yes/no)
  - Consistent condom use, scaled with Cronbach alpha = 0.80, range 1-5
- **Explanatory variables**
  - Intervention status
  - Individual cognitive attributes
  - Workplace associated variables
- **Control variable**
  - Individual backgrounds

# Methods

- Face-to-face interviews conducted between baseline and posttest surveys
- Logistic regression models to estimate intervention effects on the likelihoods of having HIV test
- Multiple regression models to predict intervention effects on consistent condom use

# Results: Intervention Effects on HIV Testing

	Model 1	Model2		Model 1	Model2
	AOR	AOR		AOR	AOR
<b>Intervention groups</b> ( Control = omitted )			<b>AIDS perceived severity</b>		
Peer education ( Legaspi )	1.87	0.16	Chance of getting AIDS		1.09
Manager training ( Cagayan de Oro )	0.48	0.02	Worry about getting AIDS		1.05
Combined ( Cebu )	0.12	0.03			
Survey year 1996	2.86	0.10	Survey year 1996 x Peer education		26.2
<b>HIV related knowledge</b>			Survey year 1996 x Peer education		467.84
AIDS knowledge		1.29	Survey year 1996 x Peer education		2.49
<b>AIDS perceived control</b> ( No= omitted )					
To avoid AIDS contraction		1.13			
To control AIDS contraction		1.18			
To lower chance of getting AIDS		2.00			

# Results: Intervention Effects on Consistent Condom Use

	Model 3	Model 4	Model 5		Model 3	Model 4	Model 5
	Coefficient				Coefficient		
<b>Intervention groups</b> ( Control = omitted )				<b>AIDS perceived severity</b>			
Peer education	-0.31	-0.21	-0.18	Chance of getting AIDS	0.06	0.06	
Manager training	0.46	0.75	<b>0.85</b>	Worry about getting AIDS	0.06	0.06	
Combined	0.83	0.49	<b>0.59</b>	<b>Survey year 1996 x</b>			
Survey year 1996	-0.44	-0.47	-0.43	Peer education	0.74	0.68	
<b>AIDS test ( No=omitted )</b>			<b>0.17</b>	Manager training	-0.07	-0.22	
				Combined	0.26	0.26	
<b>HIV related knowledge</b>				<b>Workplace variable</b> ( No = omitted )			
AIDS knowledge		-0.004	-0.01	Employer's supportive attitude	1.62	1.61	
<b>AIDS perceived control</b> ( No = omitted )				To talk to employer about using condoms	0.17	0.17	
To avoid AIDS contraction		-0.02	-0.02	Condom use policy	0.49	0.47	
To control AIDS contraction		0.04	0.04	Condoms available at workplace	0.48	0.47	
To lower chance of getting AIDS		0.38	0.37				

# Discussion/Limitations

- **Endogeneity**
  - Selection bias
  - Unmeasured characteristics
- **Self-reported measures**
  - Biased by memory/recall and social desirability
  - Not independently observed or verified by study personnel

# Discussion/Implications

- HIV prevention programs suggested to emphasize workplace context on behavior change
  - structural influence potentially to develop environmental norms that support and sustain individual-level HIV-prevention programs
- Future HIV prevention programs suggested to focus on clusters of preventive practices and networks between workers and managers to develop establishment-based health policy





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