

Self-management in HIV-positive women in China: A pilot randomized controlled trial

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Objective

- To conduct an intervention to assist self-management in HIV-positive women in China.

Current HIV Situation in China

- China is experiencing a rapid increase in the number of HIV infections.
- It is estimated that approximately 780,000 people are infected with HIV in China
- 80% of whom are unaware that they are infected.

Women's Status

- In China, women have lower social and economic status, while also assuming primary care of the family.
- Chinese women are perceived to have a gender obligation that includes continuing the family line (by bearing children) and providing care to the extended family.
- Although HIV infection does not change their identities as women, it does threaten their ability to continue functioning in their traditional gender-based roles.

Methods

- This was a pilot randomized controlled trial (RCT) with blinded assessment.
- Participants were randomized to intervention or treat-as-usual (TAU) arms.
- Outcomes- Quality of Life in physical and depression symptomology.

Study Sites

- The study occurred at two outpatient clinics in Shanghai and Beijing, China.
- Participants were 41 HIV-positive women who receiving care in either clinics in Beijing or Shanghai with twenty-one in the intervention arm and twenty in the TAU arm.
- The nurse-delivered intervention involved three, hour-long, face-to-face sessions over 4 weeks.
- Survey were filled at baseline (month 1), week 5 (month 2) and week 17 (month 4)

Shanghai Site



Beijing Site



Intervention

- Intervention content included relaxation, family support, coping skills, anxiety, stress, and depression management, cognitive-behavioral management and psycho-educational classes.

Results

	Participant					Caregiver			
	Total	Interve ntion	Control	p	Total	Interve ntion	Control	p	
N	41	20	21		41	20	21		
Age, Mean (SD)	41.88 (10.61)	40.55 (11.18)	43.14 (10.15)	0.4 4	40.68 (14.22)	40.05 (14.22)	41.29 (14.58)	0.78	
Sex, %				--				0.77	
Female	100	100	100		21.95	20	23.81		
Male	0	0	0		78.05	80	76.19		
Ethnicity, %				0.9 5				0.52	
Han	85.37	85	85.71		92.68	90	95.24		
Others	14.63	15	14.29		7.32	10	4.76		
Marital Status, %				0.6 6				0.41	
Married	68.29	65	71.43		75.61	70	80.95		
Others	31.71	35	28.57		24.39	30	19.05		

		Participant			Caregiver			
	Total	Intervention	Control	p	Total	Intervention	Control	P
Relationships, %				--				0.44
Partner	--	--	--		51.22	45	57.14	
Non-Partner	--	--	--		48.78	55	42.86	
Education, %				0.65				0.05
HS or lower	78.05	75	80.95		78.05	65	90.48	
More than HS	21.95	25	19.05		21.95	35	9.52	
Work, %				0.88				0.09
No	51.22	50	52.38		53.66	40	66.67	
Any	48.78	50	47.62		46.34	60	33.33	

Clinical Factors

	Participant				Caregiver			
	Total	Intervention	Control	p	Total	Intervention	Control	p
HIV Positive	100	100	100		53.66	50	57.14	
Negative	0	0	0		46.34	50	42.86	
HIV Year, Mean (SD)	6 (4.66)	5.16 (4.62)	6.76 (4.68)	0.28	6.45 (4.74) ^a	6.3 (6.24) ^a	6.58 (3.32) ^a	0.89
AIDS Diagnosis, %				0.13				0.08**
No	75.61	85	66.67		92.68 ^a	100 ^a	85.71 ^a	
Yes	21.95	10	33.33		7.3 ^a	0 ^a	14.29 ^a	
Don't know	2.44	5	0		0 ^a	0 ^a	0 ^a	

a. Estimations were calculated among HIV+ caregivers.

	Participant				Caregiver			
	Total	Intervention	Control	p	Total	Intervention	Control	p
Currently On ART	85	84.21	85.71		81.82 ^a	70 ^a	91.67 ^a	
Not Currently On ART	15	15.79	14.29		18.18 ^a	30 ^a	8.33 ^a	
CD4, Mean (SD)	449.74 (209.77)	432.72 (239.79)	464.33 (185.05)	0.65	450 (256.05)	527.1 (303.36)	385.75 (199.89)	0.20
Viral Load, %				0.65				0.13
Undetectable	55	47.37	61.9		53.85 ^a	35.71 ^a	75 ^a	
Detectable	17.5	21.05	14.29		11.54 ^a	14.29 ^a	8.33 ^a	
Don't know	27.5	31.58	23.81		34.62 ^a	50 ^a	16.67 ^a	

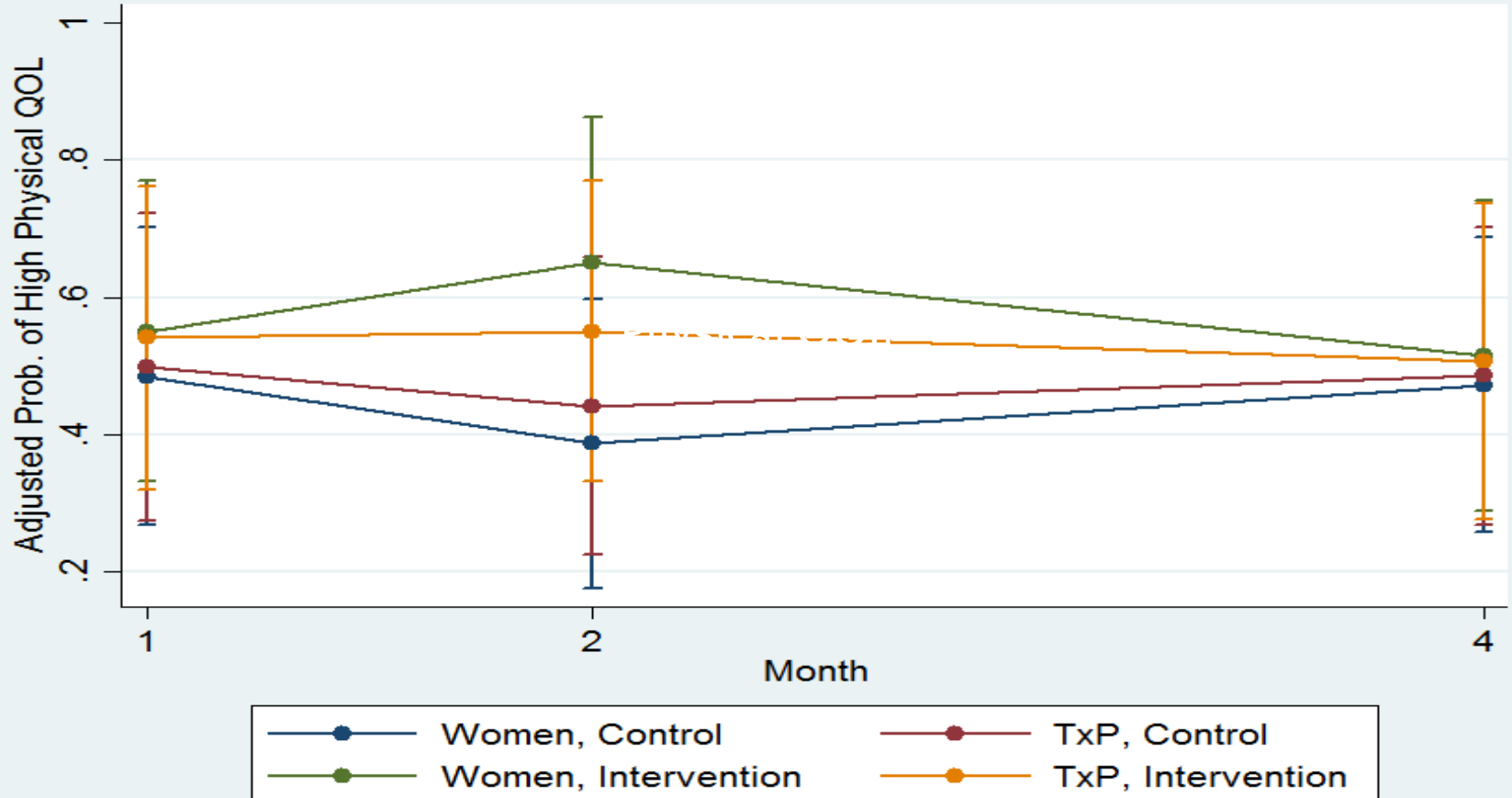
a. Estimations were calculated among HIV+ caregivers.

Physical QOL

	Women				Treatment Partner			
	Control Arm		Intervention Arm		Control Arm		Intervention Arm	
	%	SE	%	SE	%	SE	%	SE
Baseline	48.5	11.1	55.1	11.2	49.9	11.4	54.1	11.3
Month 2	38.7	10.7	65.2†	10.7	44.1	11.1	55.1	11.2
Month 4	47.3	11.0	51.5	11.5	48.5	11.1	50.7	11.8

For women, the difference between control and intervention arm on month 2 was marginally significant, $P < 0.1$.

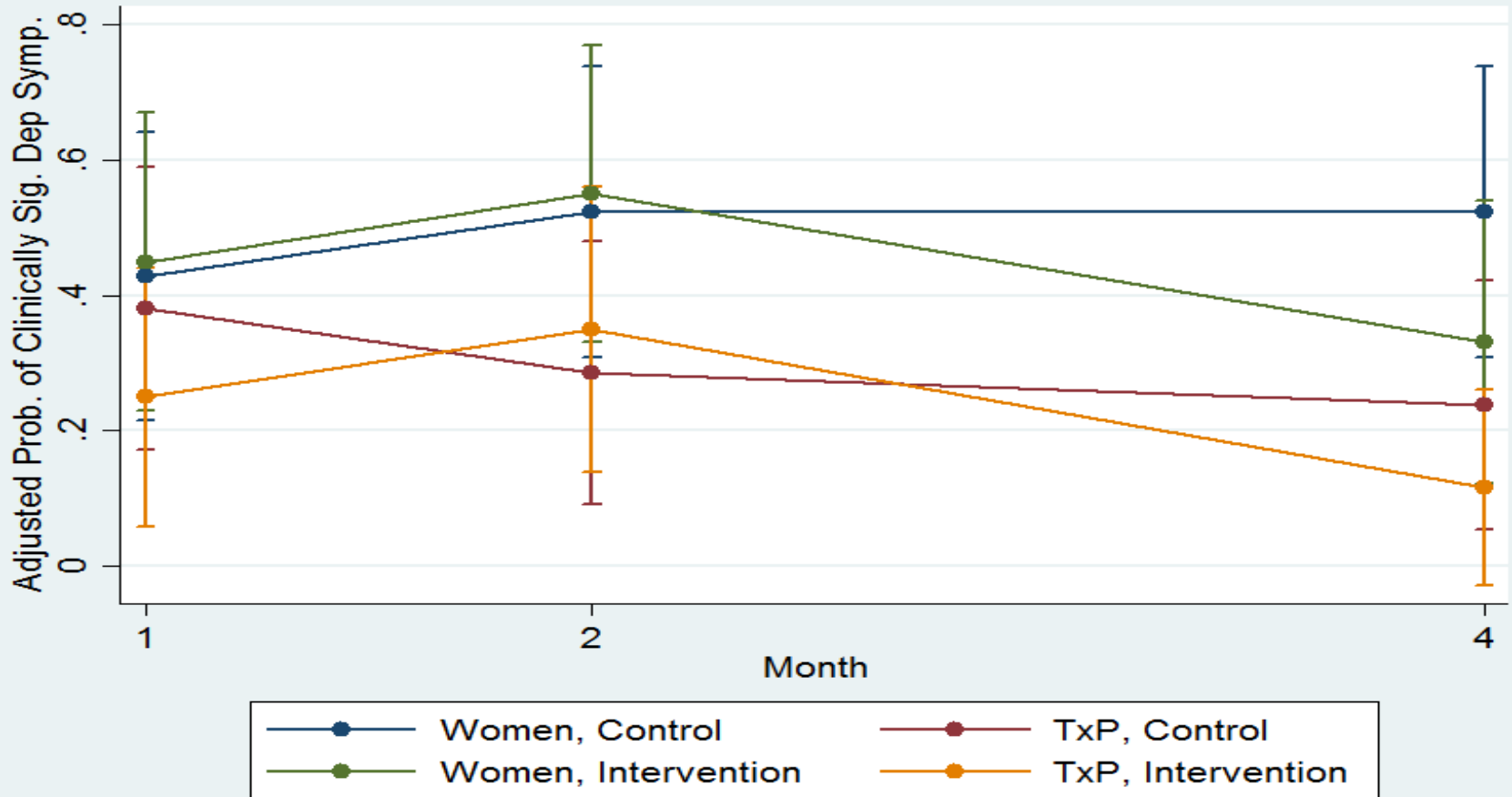
Physical QOL



Depression Symptomology

Table 3: Model Adjusted Probabilities, Outcome: Clinically Significant Depressive Symptomatology

	Women				Treatment Partner			
	Control Arm		Intervention Arm		Control Arm		Intervention Arm	
	%	SE	%	SE	%	SE	%	SE
Baseline	42.9	10.9	45.0	11.2	38.1	10.7	25.0	9.7
Month 2	52.4	11.0	55.0	11.2	28.6	9.9	35.0	10.7
Month 4	52.4	11.0	33.1	10.6	23.8	9.4	11.6	7.4



The slopes between women in two groups from month 2 to month 4 were marginally significantly different.

Results

- In all cross-sectional and longitudinal analyses, at both post-intervention (month 2) and follow-up (month 4) effects were in the hypothesized directions.
- Despite the small sample size, most of these between-arm comparisons were marginal statistically significant.

Discussion

- Self-management intervention can enhance the self-management in HIV-positive Chinese women
- Self-management assist these HIV+ women to utilize more family support to ease the disease burden specifically from their spouses/partners.

Discussion

- Nurse interventionist can deliver a counselling intervention in a clinic setting.
- The self-management intervention can potential to decrease the physical discomfort, depression and increase the coping skills of the HIV-positive women.
- Findings warrant future trials powered for efficacy.

Acknowledgement

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- Q & A.