



Patient-Healthcare Provider Engagement: The Basic Building Block

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Engagement with the provider

- Essential for the patient receiving health care
Definition: Patient-provider engagement
“patient –provider-relationships that promote the use of health care services and are characterized by active listening and supportive decision-making - - - associated with antiretroviral therapy (ART) maintenance and suppression” (Mitchell et al., 2017, p.1768).

Purpose

- Does patient-healthcare provider engagement of people living with HIV (PLWH) vary by the sociodemographic and psychosocial factors of the patient?
- Understanding what is key to this complex relationship may help us improve patient-provider relationships whatever the disease/illness challenge.

Background

- Patient-provider relationships promote use of health care services and are characterized by:

active listening

supportive decision-making

Patient-provider relationships are key to:

- 90-90-90+ goal=

90% of infected persons know their diagnosis

90% of diagnosed persons on therapy

90% of those on therapy with undetectable viral load
(UNAIDS, 2014)

+ those with undetectable viral load remain adherent

(Corless, I.B., Hoyt, A., Tyler-Viola, L., Holzemer, W., Voss, J., Nokes, K., Sefcik, E., - - -Nicholas, P., 2017).

Methods: Sample

- Secondary data analysis
- Cross-sectional study of 1,811 PLWH attending HIV clinics in Canada, China, Namibia, Thailand, and the United States.

Methods: Dependent Variable

- Healthcare Provider Engagement measured by
H C Provider Engagement Scale
 - 13 items, 4 point Likert scale
 - Lower scores = Higher Engagement

Methods: Independent Variables

Demographic variables

- Age
- Gender
 - Male
 - Female
 - Gender-Non-conforming.
- Race/ethnicity
 - White
 - Black
 - Hispanic
 - Other (Asian, Hawaiian Islander, Alaska Native)
- Education
 - High School or less;
 - College or more
- Inability to pay for needed health care
 - Yes
 - No

Psychosocial indices

- Self Esteem Scale (Rosenberg)
- Perceived Stigma Scale (Berger)
- Marginalization and Social Capital Scale
- Sense of Coherence Scale
- Adherence Self Efficacy Scale
- Chronic Disease Self Efficacy Scale
- Stressful Life Events Index
- Self Compassion Scale
- Center for Epidemiologic Studies Depression Scale
- Anxiety Instruments of the Symptom Checklist
- Health Status (VA-SF12)
- Sign and Symptom Checklist, Intensity



Methods: Analysis Plan

- Univariate
 - Measures of central tendency
 - Cronbach's alpha
- Bivariate
 - T-tests
 - Correlation
- Multivariate
 - Stepwise Regression



Results: Sample Demographics

	Number	Percentage
TOTAL	1811	100%
Gender		
Male	1235	68.9%
Female	519	28.9%
Gender non conforming	39	2.2%
Missing	18	
Race		
White	422	23.6%
Black	711	39.7%
Hispanic	357	19.9%
Other	301	16.8%
Missing	20	
Education		
HS grad or less	1154	64.2%
Some college or more	643	35.8%
Missing	14	
Ever needed health care but couldn't pay		
No	1014	60.4%
Yes	664	39.6%
Missing	133	
Age (Mean and Standard Deviation)	45.61	9.27

Results: Psychosocial Indices, Means, Cronbach's Alpha, Correlations



	Mean (SD)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Health Care Provider Engagement Scale	(1) 17.5 (7.0)	0.95												
Self Esteem Scale (Rosenberg)	(2) 19.4 (6.1)	-0.15	0.86											
Perceived Stigma Scale (Berger)	(3) 93.8 (24.1)	0.15	-0.33	0.96										
Marginalization and Social Capital Scale	(4) 83.5 (16.6)	-0.19	0.37	-0.28	0.89									
Sense of Coherence Scale	(5) 47.4 (11.9)	0.22	-0.54	0.41	-0.42	0.72								
Adherence Self Efficacy Scale	(6) 96.8 (22.9)	-0.27	0.28	-0.14	0.28	-0.33	0.95							
Chronic Disease Self Efficacy Scale	(7) 74.5 (20.4)	-0.24	0.35	-0.23	0.37	-0.43	0.54	0.93						
Stressful Life Events Index	(8) 5.7 (4.8)	0.13	-0.22	0.18	-0.11	0.33	-0.20	-0.21	0.88					
Self Compassion Scale	(9) 39.0 (7.4)	-0.17	0.61	-0.30	0.39	-0.62	0.32	0.41	-0.22	0.74				
Center for Epidemiologic Studies Depression Scale	(10) 29.9 (9.2)	0.22	-0.55	0.37	-0.35	0.64	-0.32	-0.42	0.32	-0.58	0.87			
Anxiety Instruments of the Symptom Checklist	(11) 32.1 (28.0)	0.19	-0.38	0.35	-0.29	0.48	-0.21	-0.33	0.31	-0.41	0.61	0.97		
Health Status (VA-SF12)	(12) 21.3 (11.4)	0.21	-0.42	0.37	-0.31	0.60	-0.30	-0.48	0.30	-0.47	0.64	0.51	0.89	
Sign and Symptom Checklist, Intensity	(13) 17.8 (9.0)	0.22	-0.26	0.29	-0.20	0.39	-0.27	-0.34	0.29	-0.28	0.51	0.58	0.55	0.95

Cronbach's alpha for the scale/index is shown on the diagonal

Strong
negative

Moderate
Negative

Weak
Negative

Neutral

Weak
Positive

Moderate
Positive

Strong
Positive



Results: Healthcare Provider Engagement by demographics

	Mean	Standard Deviation
TOTAL	17.5	7.00
Gender		
Male	17.75^a	6.78
Female	16.72^a	7.01
Gender non conforming	18.79	8.61
Race		
White	17.42^b	6.54
Black	17.17	6.58
Hispanic	16.87	6.73
Other	19.04^b	8.08
Education		
HS grad or less	17.49	7.15
Some college or more	17.47	6.49
Ever needed health care but couldn't pay		
No	17.09^c	6.70
Yes	18.38^c	7.65
Age (Correlation and significance)	-0.05	0.03

Results: Regression of Healthcare Provider Engagement with demographics only

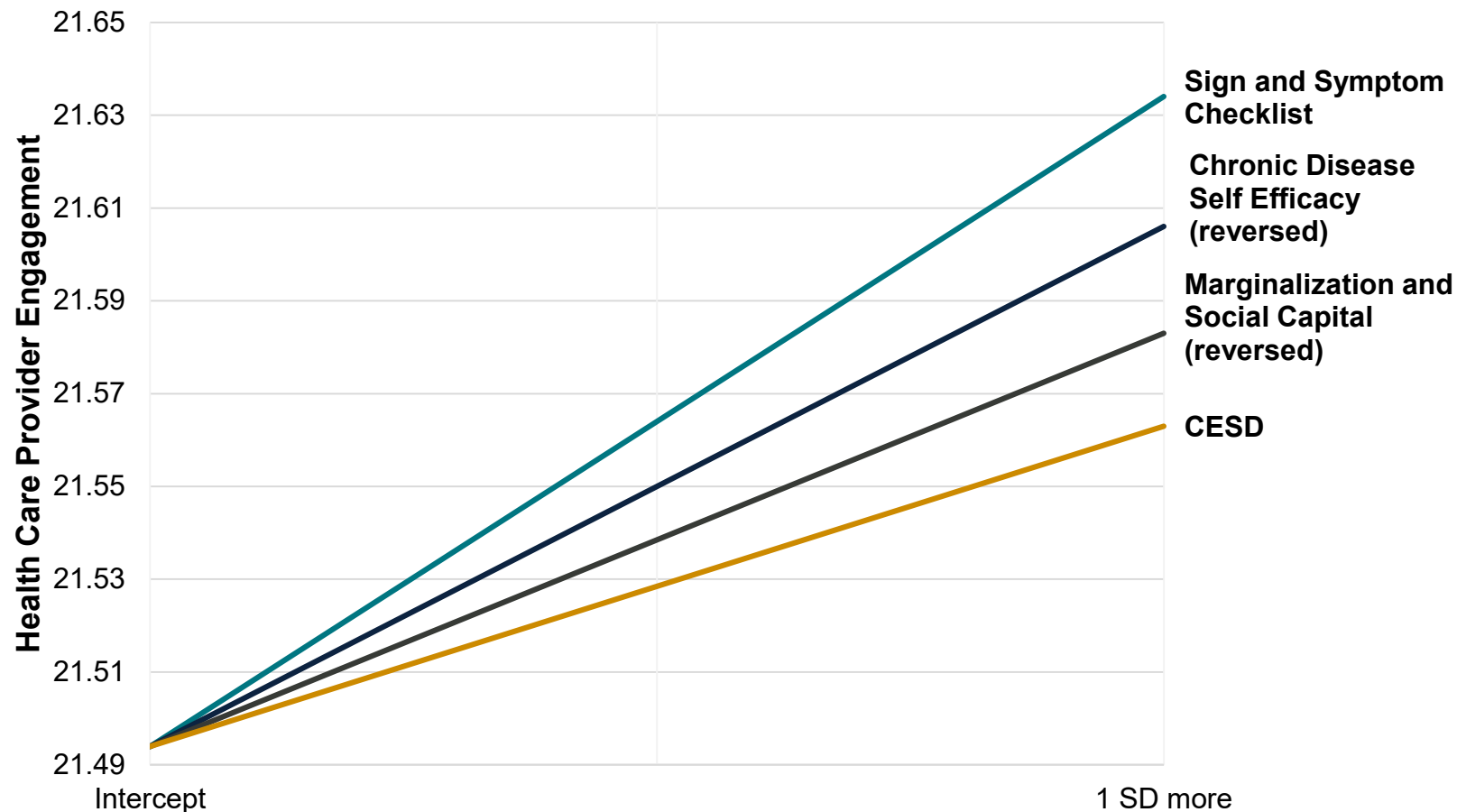
	Coefficient	Significance
Gender		
Male	Reference	Reference
Female	-1.00	0.01
Gender non conforming	1.03	0.38
Race		
White	Reference	Reference
Black	-0.13	0.76
Hispanic	-0.61	0.23
Other	2.72	<0.01
Education		
HS grad or less	0.02	0.95
Some college or more	Reference	Reference
Ever needed health care but couldn't pay		
No	Reference	Reference
Yes	1.08	<0.01
Age in years	-0.04	0.04



Results: Stepwise Regression of Healthcare Provider Engagement with demographics and psychosocial indices

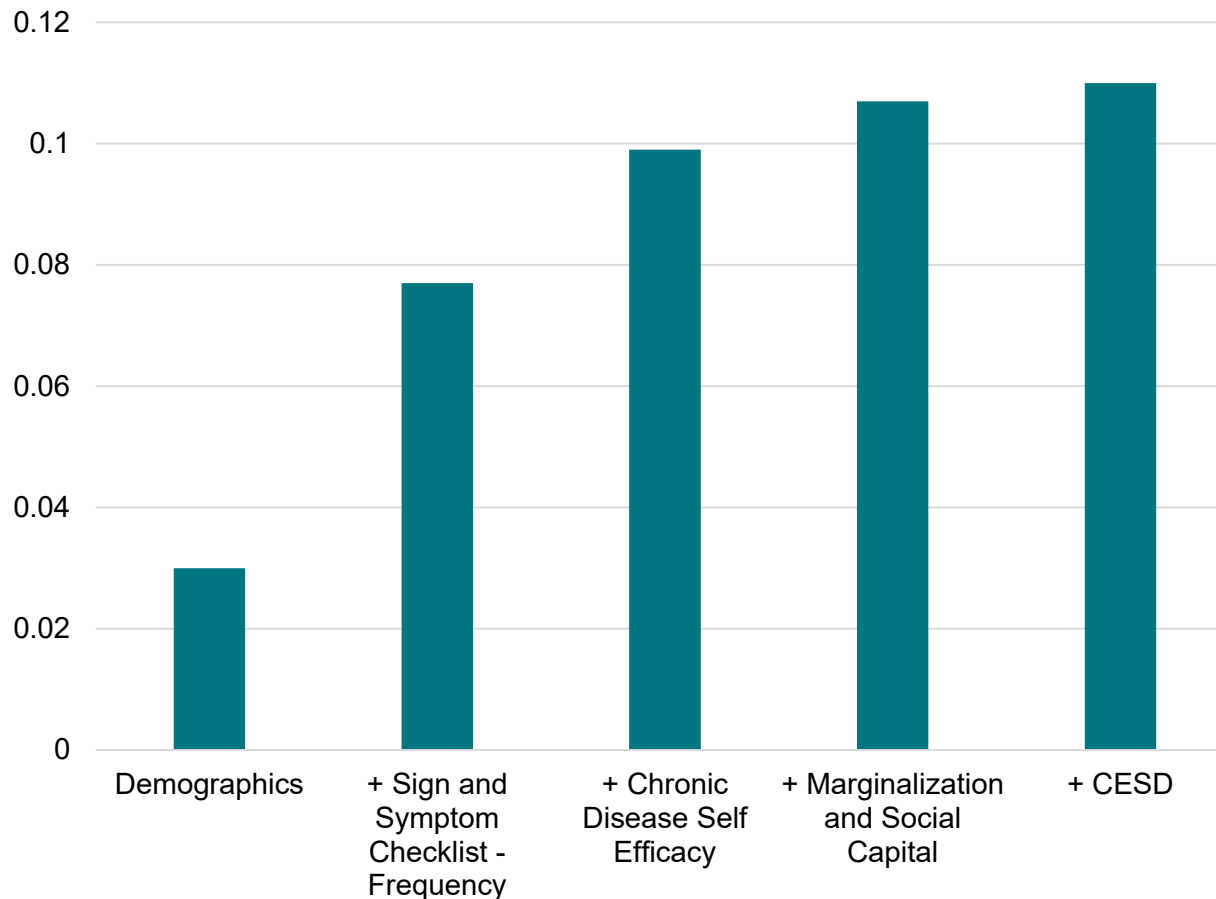
	Coefficient	Significance
Gender		
Male	Reference	Reference
Female	-1.05	0.01
Gender non conforming	0.24	0.83
Race		
White	Reference	Reference
Black	0.58	0.18
Hispanic	-0.23	0.64
Other	2.81	<0.01
Education		
HS grad or less	0.51	0.15
Some college or more	Reference	Reference
Ever needed health care but couldn't pay		
No	Reference	Reference
Yes	0.42	0.23
Age in years	-0.29	0.18
Sign and Symptom Checklist – Frequency	0.07	<0.01
Chronic Disease Self Efficacy	-0.04	<0.01
Marginalization and Social Capital	-0.04	0.01
CESD	0.04	0.02

Impact of a Standard Deviation change on Health Care Provider Engagement



Adjusted for age, gender, race/ethnicity, education, and ability to pay for care.

Results: Adjusted r^2 by model



Excluded from Stepwise Regression:

- Self Esteem (Rosenberg)
- Perceived Stigma (Berger)
- Sense of Coherence
- Stressful Life Events
- Self Compassion Scale
- SF12
- Sign and Symptom Checklist – Intensity
- Anxiety Instruments of the Symptom Checklist

Discussion

- Although the explanation of 11% of the relationship of the independent variables with the dependent variable (patient-health care provider engagement) is statistically significant, it indicates that there are other factors that need to be considered.
- Other explanatory factors for the weak relationship may be practice-related: i.e. a surly receptionist; payment factors (confusing insurance system), or provider-related: i.e. communication and trust (Wood, et al., 2018).

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