

Fatalism, Adherence, and Treatment Self-Efficacy in Latinos Living with HIV/AIDS on the U.S.-Mexico Border

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HIV and Latinos



- Latinos have the second-highest incidence in the country.
- In 2009, Latinos accounted for 20% of new HIV infections in the U.S. (Centers for Disease Control and Prevention [CDC], 2009).
- Latest data indicate that Latinos constitute 16% of the nation's population (U.S. Census Bureau, 2009).



Medication adherence

- Early studies suggest a 95% medication adherence threshold for maintaining low viral levels in the blood (Bangsberg et al., 2001; Paterson et al., 2000).
- Newer medications require an optimal mean adherence of at least 54% (Bangsberg, 2006).
- Norton et al. (2010) show that there are several barriers to adherence to treatment.
- Regimen complexity and symptom experience associated to adherence (Catz et al., 2000; Okonsky, 2011).

Fatalism



- A stable individual difference.
- The idea that everything that happens in a person's life is caused by an external agent (Davidson et al., 1992; Straughan & Seow, 1998).
- Religious beliefs and the tendency to believe in predestination, fate, and luck (Hess & McKinney, 2007).

Fatalism



- o Anecdotal reports have suggested that fatalism and its impact on health may be greater among minorities (Ramirez et al., 2002).
- o It has been frequently suggested that Latinos are more likely to hold fatalistic attitudes as a result of their culture, but data remain equivocal on the topic (Keeley et al., 2009; Neff & Hope, 1993).

Self-efficacy



- o In the current setting, **treatment self-efficacy** is an HIV+ person's confidence of being able to adhere to a treatment plan.
- o The more confident people are that they are capable of taking their medications as prescribed, the more successful they will be at it (Johnson et al., 2007).

Hypotheses



- H1: There is an association between acculturation and adherence, and fatalism may account for that association.
- H2: Treatment self-efficacy will mediate the association between fatalism and HIV medication adherence.

Method



- o Participants recruited through a local HIV clinic.
- o N=244 Latinos
 - 80% male/ 19% female/ 1% transgendered(M to F)
 - 59% Spanish-speaking; 41% English-speaking
 - Mean age 47 (SD=10.1)
 - Median household income \$10,512 (SIQR=\$5,847)

Method - Measures



- o Visual Analogue Scale (VAS).
 - Participants mark with an “X” a point between 0% and 100% to indicate the frequency with which they took medications for the last month.
 - 0% - none of the time, 100% - all the time

(Amico et al., 2006)

Method



o Multidimensional Fatalism Scale (MFS).

- A 30-item scale with 5 point Likert-type response ($\alpha=.89$).
- 1 (strongly disagree) to 5 (strongly agree), for the fatalism subscales of divine control, luck, helplessness, internality and inelectable destiny.
 - (e.g., “I have learned that what is going to happen will happen;”
 - “Everything that happens to a person was planned by God.”)

(Esparza, 2008)

Method



o HIV Treatment Adherence Self-Efficacy Scale (HTASES).

- A 12-item scale with 10 Likert-type response for the integration and perseverance subscales ($\alpha=.91$).
- 1 (cannot do it all at) to 10 (certainly can do it)
 - (e.g., “How confident have you been that you can stick to your treatment schedule even when your daily routine is disrupted?”)
 - “How confident have you been that you can continue with your treatment if you are feeling discouraged about your health?”)

(Johnson et al., 2007)

Method



- o Abbreviated Multidimensional Acculturation Scale-US (AMAS).
 - 21 items with a 4 point Likert-type response ($\alpha > .90$).
 - 1 (*strongly disagree*) to 4 (*strongly agree*) for the cultural identity subscales.
 - 1 (not at all) to 4 (extremely) for language and cultural competence subscales.

(Zea et al., 2003)

Results: Descriptive Statistics



- o Adherence- $M = 89.2\%$, ($SD = 17.8\%$)
(Range 0-100%)
- o Fatalism- $M = 77.28$, ($SD = 16.82$)
(Range 30-150)
- o Tx Self-efficacy- $M = 102.75$, ($SD = 22.06$)
(Range 12-120)
- o Acculturation- $M = 61.24$, ($SD = 16.32$)
(Range 21-84)



Results: Correlations

	Fatalism	Treatment Self-efficacy	Adherence
Treatment Self-efficacy	-.32**		
Adherence	-.21**	.47**	
Acculturation	.07	-.10	-.09

NOTE: ** $p < .01$

Results



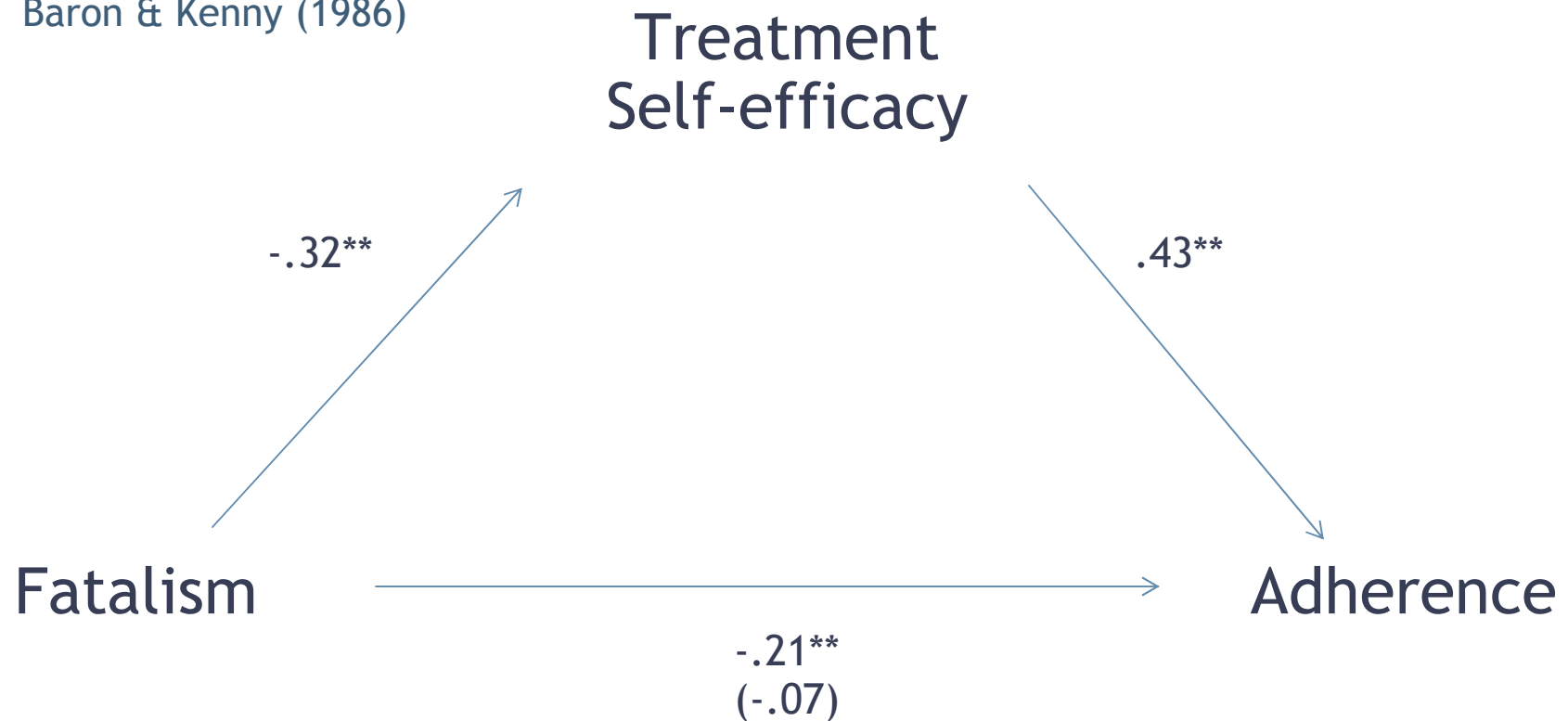
	Spanish-speakers (n=193)	English-Speakers (n=93)
Fatalism*	M= 75.40 (SD= 17.05)	M=80.08 (SD=16.15)
Fatalism and Adherence	$r = -.11, p = ns$	$r = -.27, p < .05$

NOTE: * $t = -2.09, p < .05$

Mediation Model



Baron & Kenny (1986)



NOTE: $^{**}p < .01$. Sobel test statistic = $-.44$, $p < .01$

Summary



- Fatalism is not greater among less acculturated Latinos than among more acculturated Latinos.
- Treatment self-efficacy fully mediates the relationship between fatalism and medication adherence.
- Non-adherence may be accounted for largely by lower self-efficacy.

Limitations



- This is a cross-sectional study; therefore we cannot imply causality.
- We had a very specific sample; therefore treatment self-efficacy may not mediate the relationship between the other two variables in other Latino populations.
- VAS is a self-report scale. Patients often over-report adherence.

Discussion



- Our Latino patients are not particularly fatalistic, and they do not report more fatalism with greater acculturation.
- However, fatalism in this group might be targeted in interventions to improve treatment self-efficacy to adhere to medications.
- Alternatively, we might directly target self-efficacy as it is a proximal factor related to medication adherence.

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Nuevo Día



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