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## Fate control and well-being in Chinese rural people living with HIV: mediation effect of resilience

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### ABSTRACT

Fate control has been often misconceptualized as a superstitious belief and overlooked in health psychology. It is not known how this cultural belief might impact the well-being of Chinese people living with HIV. This study examined the protective role of fate control for well-being and the potential mediation effect of resilience. Participants in this study were rural patients who contracted HIV via commercial blood donation. In this cross-sectional survey, 250 participants completed measures of fate control, well-being, and resilience. The results showed that fate control and resilience were positively associated with well-being. Resilience mediated the association between fate control and well-being. Our findings provide insight into the adaptive function of fate control as a cognitive defensive mechanism and highlight the need to incorporate this cultural belief in developing culturally sensitive intervention programs for resilience enhancement tailored for this understudied population infected with HIV living in rural China.

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### Introduction

Living with HIV is a stressful experience. It is particularly difficult for Chinese villagers who are extremely impoverished and become infected with HIV in the process of donating blood commercially in an effort to ease their financial strain (Wu, Liu, & Detels, 1995). Influenced by the Buddhist and Taoist philosophies, Chinese people tend to possess a belief in "fate" as an external force to determine life adversities (Leung, 1996). Fate control refers to the belief that a fatalistic force drives life events (Leung, 1996; Leung et al., 2002). This concept consists of two dimensions: fate determinism and fate alterability (Leung et al., 2012). Thus, on top of the predetermined nature of fate, fate is perceived to be alterable using certain means. This belief represents a cognitive defensive mechanism to attribute fate as the cause of misfortune rather than imputing it to one's own fault. This fate-related conceptualization may make people living with HIV (PLHIV) externalize the reason for disease contraction rather than self-blaming, reconstruct their coping strategies, and enhance their well-being. Understanding fate control as a cultural construct among Chinese PLHIV will have significant implications.

Chinese people, particularly those with low literacy living in undeveloped areas, tend to interpret unfortunate

life events in terms of fate. Such a fate-related framework helps people to account misfortune to fate, accept misery as predetermined, tolerate sufferings as a necessary part of life, and form positive reappraisal of adversity (Yang, 1996). For example, Chinese cancer patients often viewed fate as one of the causes of cancer and accepted fate as the force to control the disease outcomes (Gonzalez et al., 2015); their fate belief shaped a positive interpretation of the cancer experience (Ching, Martinson, & Wong, 2009), maintained their mental health (Hou, Lam, & Fielding, 2009), and facilitated cancer survival (Cheng, Sit, Twinn, Cheng, & Thorne, 2013). Similarly, fate control was found to be positively correlated with fighting spirit in Chinese cancer patients (Ho, Kam Fung, Chan, Watson, & Tsui, 2003).

Resilience is defined as the ability to adapt successfully to adversity (Tugade & Fredrickson, 2004). Its positive functions to prevent the risk for depressive symptoms (Dale et al., 2014) and to promote posttraumatic growth (Murphy & Hevey, 2013) have been receiving attention in the context of HIV. In Chinese PLHIV, resilience not only was associated with fewer mental health problems (Yu et al., 2009) but also mediated the association between stigma and health status (Zhang et al., 2015). The mediating role of resilience in health psychology

has been documented (Cohen, Baziliansky, & Beny, 2014; Li, Theng, & Foo, 2015). Resilience may transmit the positive impacts of protective factors for well-being despite adversities; for example, the presence of protective factors would build resilience, which in turn enhances well-being (Stewart & Yuen, 2011; Zautra, Hall, & Murray, & the Resilience Solutions, 2008). The conceptualization of resilience as ability, rather than process (Jacelon, 1997), informs the development of interventions to enhance resilience as previous studies have shown that resilience is amendable to change (Reivich, Seligman, & McBride, 2011; Sood, Prasad, Schroeder, & Varkey, 2011). We developed a psychological intervention tailored for Chinese rural PLHIV that effectively enhanced their resilience, psychosocial well-being, and quality of life (Yu et al., 2014). Although the resilience research has documented affective, cognitive, and behavioral concomitants (Mak, Ng, & Wong, 2011; Tugade & Fredrickson, 2004), little has been investigated about spiritual belief (Klasen et al., 2010; Leeson et al., 2014).

The present study attempts to fill the knowledge gaps by examining fate control and its mechanism of impacting well-being in Chinese rural PLHIV. We hypothesized that (1) fate control and resilience would be positively associated with well-being and (2) resilience would mediate the association between fate control and well-being.

## Methods

### Participants

In rural villages of central China, a substantial number of people were infected with HIV in the process of commercial blood donation (Wu et al., 1995). A total of 250 PLHIV who had a history of commercial blood donation joined this cross-sectional survey. We randomly selected 7 of 22 villages with HIV prevalence greater than 10% in Henan Province, China. The response rate was 83.3%. Trained interviewers who were medical staff conducted face-to-face interviews. Participants provided written informed consent before the study began. Ethics approval was obtained from the Ethical Review Board of the City University of Hong Kong. Participants received compensation for their time spent on this survey (CNY30, approximately equivalent to US\$5).

### Measures

*Fate control* was measured using the eight-item “fate control” subscale of the Social Axioms Scale (Leung et al., 2002; Safdar, Lewis, & Daneshpour, 2006). This construct consists of two dimensions: fate determinism (e.g., “Fate determines one’s success and failure”) and

**Table 1.** Demographic and HIV-related characteristics of participants.

	<i>n</i> (%)	Mean $\pm$ SD
Sex		
Male	115 (46.0)	
Female	135 (54.0)	
Marital status		
Married	217 (86.8)	
Single/divorced/widowed	33 (13.2)	
Age (years)		46.77 $\pm$ 8.10
Education (years)		6.00 $\pm$ 2.24
Annual family income (RMB)		2,036.14 $\pm$ 796.40
Duration since HIV diagnosis (years)		5.16 $\pm$ 1.26

Note: 1US\$ = 6.1RMB.

fate alterability (e.g., “There are certain ways for people to improve their destiny”). Fate control has been used as a single construct (Leung et al., 2002; Safdar et al., 2006) and confirmatory factor analysis in this study found that the single-factor model showed a better fit than the two-factor model. Cronbach’s  $\alpha$  was .84 in the present study.

*Well-being* was measured using the three-item Integrative Body-Mind-Spirit Well-being Measurement (e.g., “My moods are positive”), based on the concept of holistic well-being (Lee, Ng, Leung, & Chan, 2009). This measure is the brief version of the Holistic Well-being Scale (Chan et al., 2014). Participants rated their well-being in the past month. Exploratory factor analysis showed that these three items loaded on a single dimension, explaining 66.55% of the variance. Cronbach’s  $\alpha$  was .84 in the present study.

*Resilience* was measured using the 25-item Connor-Davidson Resilience Scale (2003). Participants rated their responses (e.g., “I am able to adapt to change”) based on the previous month. The Chinese version (Yu & Zhang, 2007) had previously been used in a study among Chinese rural PLHIV (Yu et al., 2009). Cronbach’s  $\alpha$  was .94 in the present study.

## Results

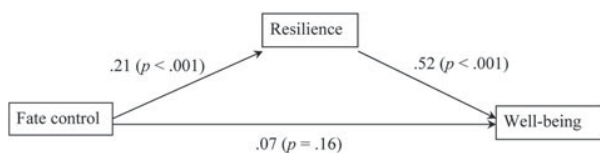
Table 1 shows demographic and HIV-related characteristics of the 250 participants. Most of them were middle-aged with low levels of education and family income.

Pearson correlations were computed to estimate the bivariate associations among the study variables. As shown in Table 2, fate control was associated with resilience ( $r = .29$ ,  $p < .01$ ) and well-being ( $r = .23$ ,  $p < .01$ ). Resilience was associated with well-being ( $r = .55$ ,  $p < .01$ ).

We applied path analysis using Mplus 7 to test the indirect effect of resilience in the association between fate control and well-being. We also performed a Sobel test using a bootstrap method with 5000 bootstrap

**Table 2.** Pearson correlations of study variables.

	Mean $\pm$ SD	Fate control	Resilience
Fate control	3.06 $\pm$ .87	–	–
Resilience	69.19 $\pm$ 17.63	.29**	–
Well-being	5.38 $\pm$ 2.23	.23**	.55**

\*\*  $p < .01$ .**Figure 1.** The mediation effect of resilience in the association between fate control and well-being.

resamples. The mediation model fit the data well:  $\chi^2(1) = 1.95$ ,  $p = .16$ ; RMSEA = .06; CFI = .99; TLI = .97; SRMR = .05 (Hu & Bentler, 1999). The total effect of this mediation model was significant ( $p < .001$ ). The indirect effect of fate control on well-being was significant ( $p < .01$ ), whereas the direct effect of fate control was not significant ( $p > .05$ ) when resilience was controlled, indicating the full mediation effect of resilience (Baron & Kenny, 1986). The bootstrap method generated identical results. The results are shown in Figure 1.

## Discussion

This study presents novel findings about the protective role of fate control for well-being among Chinese PLHIV and explains how resilience works as a mediation mechanism. Fate control used to be misconceptualized as superstitious beliefs, and its adaptive function in health psychology has been overlooked. However, in the context of searching for an explanation for HIV infection, fate control may serve as a cognitive defensive mechanism to reduce self-blaming of PLHIV by attributing to fate which is externally controlled. On the other hand, its alterable nature offers them hope that some actions might alter their fate. In the studied PLHIV whose internal control might not effectively change the disease outcomes, fate control may have helped them to interpret the rationale for HIV infection, make sense of their suffering, and relinquish control over prognosis outcomes to destiny. Hence, fate control serves as a cognitive defensive system to preserve psychological integrity and maintain the sense of coherence of these PLHIV. Our results indicate that it is promising to integrate fate control in developing culturally sensitive resilience enhancement intervention programs for this underserved population. Spiritual therapy targeting fate beliefs has been shown to be effective in improving the quality of life of cancer patients (Jafari et al., 2012).

Several limitations should be noted when interpreting the results. First, using a convenience sample may limit generalization of our results on fate control to those with a higher socioeconomic status. Second, the results should be interpreted with caution considering the weak-to-moderate correlations among the study variables. Third, the associations reported in this cross-sectional study are correlational in nature.

## Conclusions

By identifying resilience as a mechanism to account for protective effects of fate control, the current study provides insight into the adaptive function of this cultural belief in an understudied sample. The findings highlight the need to reexamine fate control in illness management and the potential to incorporate it as a cognitive belief framework in resilience interventions in HIV care.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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