Emotion-focused positive rumination and relationship satisfaction as the underlying mechanisms between resilience and psychiatric symptoms

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ABSTRACT

More empirical investigation is needed to understand the mechanisms through which psychological resilience impacts psychiatric symptoms. This study aimed to examine the mediating role of emotion-focused positive rumination and relationship satisfaction in the inverse associations between trait resilience and anxiety and depressive symptoms. A sample of 284 Chinese college students were recruited and asked to self-administer questionnaires measuring trait resilience, emotion-focused positive rumination, relationship satisfaction, and anxiety and depressive symptoms. Structural equation modeling revealed that emotion-focused positive rumination and relationship satisfaction independently and jointly mediated the inverse association between trait resilience and anxiety symptoms (data-model fit: CFI = 1.000; TLI = 1.022; IFI = 1.004; RMSEA = .000; SRMR = .014). Relationship satisfaction, alone, mediated the inverse association between trait resilience and depressive symptoms (data-model fit: CFI = 1.000; TLI = 1.021; IFI = 1.003; RMSEA = .000; SRMR = .014). The results suggested possible underlying mechanisms of the psychological benefit of trait resilience. Feasible directions for fostering resilience among college populations were discussed.

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1. Introduction

A growing body of evidence attests to a mental health crisis in university campuses around the world. College stress could have deleterious impact on students' mental health, and symptoms of anxiety and depression could be common among 20–50% of students (Bayram & Bilgel, 2008; Verger et al., 2009). These younger adults would face higher levels of stress when they experience wider responsibility in job/family and declining physical and psychological well-being in middle adulthood (Blanchflower & Oswald, 2008). Young college adults at risk of poorer adjustment should be identified and consolidated with higher psychological resilience for meeting challenges later in their life.

Psychological resilience encompasses (1) flexible adaptation to external/environmental and internal/mental demands (Block & Kremen, 1996; Carver, 1998; Luthar, Cicchetti, & Becker, 2000), (2) propensity to bounce back and demonstrate positive functioning in adversity (Block & Block, 1980; Block & Kremen, 1996; Klohnen, 1996; Zautra, Arewasikporn, & Davis, 2010), and (3) effec-tive interpersonal interactions and quality relationships that buffer individuals of psychosocial distress (Block & Kremen, 1996; Klohnen, 1996; Skodol, 2010). Psychological resilience could describe a dynamic, developmental process of changes in cognitive, emotional, and social processes that contributes to successful adaptation (Bonanno, 2004; Rutter, 2007; Zautra et al., 2010). Another line of research argues that resilience represents a relatively stable personality trait or stress-resistant attitude that impacts self-regulatory processes (Block & Kremen, 1996; Masten, 2007). Recent twin studies suggested that trait resilience is moderately heritable, with genetic factors explaining 60–70% of the variations in self-reported scores on it (Waaktaar & Torgersen, 2012).

1.1. Underlying mechanisms of trait resilience

Trait resilience as an overarching personality was inversely associated with anxiety and depressive symptoms among bereaved individuals (Bonanno, Moskowitz, Papa, & Folkman, 2005) and nonclinical community adults (Petros, Opacka-Juffry, & Huber, 2013). Studies have found that state positive and negative affect mediated the associations between attributes of resilience (Connor & Davidson, 2003) and psychological well-being and

psychiatric symptoms among college young adults (Burns, Anstey, & Windsor, 2011; Liu, Wang, Zhou, & Li, 2014). Personality traits including self-esteem and optimism, and positive views on the future, social support, and the world also mediated the associations between ego-resiliency (Block & Kremen, 1996) and distress and well-being among these people (Fredrickson, Tugade, Waugh, & Larkin, 2003; Mak, Ng, & Wong, 2011). However, little is known about how trait resilience facilitates more frequent positive affective experience and, in turn, contributes to psychological well-being. In addition, generic coping resources like self-esteem, optimism, and positive views on social support/the world might be reported with little reference to realistic circumstances. Therefore, application of the previous findings to resilience interventions or counseling could be limited. Here we discuss two psychosocial processes that are closely related to positive affective experience and social relationship processes and could translate the benefit of psychological resilience, namely emotion-focused positive rumination and relationship satisfaction.

1.2. Emotion-focused positive rumination

One simple way to increase positive affect is to ruminate on positive self-qualities, positive affective experiences, and favorable life circumstances, which have been associated with lower anxiety and depressive symptoms (Feldman, Joormann, & Johnson, 2008; Raes, Smets, Nelis, & Schoofs, 2012). Laboratory studies further found that sustained attention to positive information was positively associated with trait resilience and inversely associated with self-reported rumination over distress and negative implications among college samples (Genet, Malooly, & Siemer, 2013; Genet & Siemer, 2011). Rumination over positive affect and related experiences, hereafter referred to as emotion-focused positive rumination, could be one of the cognitive-affective mechanisms of the positive impact of trait resilience.

1.3. Relationship satisfaction

Quality interpersonal interactions and relationships have been suggested to warrant positive functioning in adversity (Block & Kremen, 1996; Klohnen, 1996; Skodol, 2010). Relationship satisfaction, denoting the extent to which actual relationship experiences are congruent with expectations on relationships (Hendrick, 1988; Rusbult, 1980), could provide a realistic picture of quality relationships. Relationship satisfaction buffered individuals of psychological distress in demanding situations like unemployment (Song, Foo, Uy, & Sun, 2011), autism caregiving (Weitlauf, Vehorn, Taylor, & Warren, 2014), and cancer treatment (Manne & Badr, 2008). Trait resilience has been found to predict subsequent higher marital satisfaction and psychological well-being among two samples of middle-age women (Klohnen, Vandewater, & Young, 1996). The interrelationships among trait resilience, relationship satisfaction, and psychological functioning have yet to be investigated.

1.4. The present study

This study aimed to test a dual-process model of trait resilience among a sample of Chinese college students. Previous studies have identified moderate to severe levels of anxiety and depressive symptoms among one-third of representative samples of Chinese college students in their homeland (N = 5245 and 7915) (Chen et al., 2013; Wong, Cheung, Chan, Ma, & Tang, 2006). Depressive symptoms have been associated with higher neuroticism, drug use, and some psychosocial resources, but more understanding is needed of psychological resilience among this population (Jin et al., 2009; Liu et al., 2014; Mak et al., 2011). In our hypothesized model, intrapersonal and interpersonal processes modulate the

inverse association between trait resilience and psychiatric symptoms (Fig. 1). Specifically, it was hypothesized that (1) trait resilience is associated with higher emotion-focused positive rumination and relationship satisfaction, (2) emotion-focused positive rumination and relationship satisfaction are associated with lower anxiety and depressive symptoms, and (3) emotion-focused positive rumination and relationship satisfaction, alone and together, positively mediate the inverse associations between trait resilience and anxiety and depressive symptoms.

2. Method

2.1. Participants and procedure

Upon obtaining Ethics Committee's approval from The Hong Kong Institute of Education, a recruitment notice was posted on the institution's intranet. After being fully apprised of the study, a total of 284 students gave their written informed consent and self-administered a questionnaire packet. All participants received a HK$50 supermarket coupon (US$1 ≈ HK$7.80) upon completion of the questionnaires. The 284 participants ranged in age between 18 and 37 years (M = 21.75, SD = 2.43, median = 21.76); 234 (82.4%) were female and three were married. Fifty-nine participants (22.6%) reported an average monthly household income less than HK$10,000, 106 (37.3%) reported $10,001–$20,000, 64 (22.5%) reported $20,001–$30,000, 27 (9.5%) reported $30,001–$40,000, and 23 (8.1%) reported an income over $40,001. Sixty-two participants (21.8%) reported a part-time employment.

2.2. Measures

A standardized pro-forma was used to obtain demographic information. Instruments without available Chinese versions were translated into Chinese by a trained bilingual translator, then back-translated by a native second translator. The authors then examined and achieved semantic and conceptual equivalence of the original and back-translated versions.

2.2.1. Trait resilience

The 9-item Resiliency Scale (RS; Siu et al., 2009) assessed trait resilience on a 6-point scale (1 = *very inaccurate*, 6 = *very accurate*). Similar to widely used scales such as Ego-Resiliency Scale (Block & Kremen, 1996; Klohnen, 1996), the Chinese-validated RS assesses core dimensions of trait resilience, sample items: "*In really difficult situations, I feel able to respond in positive ways.*" (generic stress-resistant attitude/flexible adaptation); "*When I need to stand up for myself, I can do it easily.*" (propensity to bounce back and demonstrate positive functioning). A total score was calculated by summing across the nine items (range = 9–54). The scale demonstrated a Cronbach's alpha >.88 and concurrent validity in a previous study among Chinese (Siu et al., 2009). Alpha for the scale was .87 in this study.
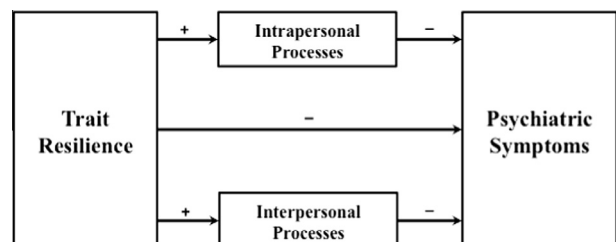

Fig. 1. The hypothesized dual-process model of the inverse association between trait resilience and psychiatric symptoms.