

Contents lists available at ScienceDirect

# Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid



## **Short Communication**

# Self-esteem mediates the relationship between dispositional gratitude and well-being



Chih-Che Lin\*

Teacher Education Center, National Taipei University of Technology, No. 1, Sec. 3, Zhongxiao E. Rd., Taipei 106, Taiwan, ROC

#### ARTICLE INFO

Article history: Received 22 February 2015 Received in revised form 21 April 2015 Accepted 27 April 2015 Available online 15 May 2015

Keywords: Gratitude Self-esteem Well-being

#### ABSTRACT

Gratitude is a positive disposition that is connected to well-being. The aim of this study is to examine the effect of self-esteem in the association between gratitude and well-being among undergraduate students. Two hundred and thirty-five participants completed measures of dispositional gratitude, self-esteem, and several indices of well-being. The results indicated that higher levels of dispositional gratitude were associated with greater self-esteem and indices of well-being. Moreover, higher levels of self-esteem were also associated with indices of well-being. Path analyses showed that self-esteem acted as a partial mediator of the association between gratitude and well-being. These results provide information regarding a possible process through which dispositional gratitude has beneficial effects.

© 2015 Elsevier Ltd. All rights reserved.

## 1. Introduction

With the advent of the positive psychology movement, gratitude has drawn much attention among psychologists from personality, social, clinical, developmental perspectives (Emmons & McCullough, 2003). Gratitude is a disposition of perceiving benefits bestowed by another or some impersonal source (McCullough, Emmons, & Tsang, 2002). After reviewing the literature on gratitude and well-being, Wood, Froh, and Geraghty (2010) conclude that gratitude is robustly related to well-being. The purposes of the current study were to replicate the relation between gratitude and well-being and to expand previous literature by investigating the self-esteem in this relationship in Chinese populations.

## 1.1. Gratitude, self-esteem, and well-being

According to Joseph and Wood (2010), well-being can be defined through four perspectives: (a) psychopathology, (b) emotional functioning, (c) existential functioning, and (d) humanistic conceptions. It is worth being considered that optimal human functioning is more than the absence of psychological symptoms (e.g., depression, suicidal ideation) but also includes psychological wellness (e.g., life satisfaction, flourish). However, in the past decades, a very large body of research has focused primarily on gratitude and positive development (e.g., life satisfaction), but few studies have focused on other perspectives of well-being,

especially for negative development. It is valuable to evaluate simultaneously the presence or absence of psychological symptoms and psychological wellness to obtain a more accurate and rounded assessment of individual functioning. As past research (e.g., Seligman, 2012) has found connections between well-being markers in the form of less maladjustment as well as positive characteristics, this study is to explore the relationship between gratitude and integrated well-being including positive and negative outcomes (e.g., flourish, depression, and suicide) from relative holistic views (Joseph & Wood, 2010).

Previous studies have shown that gratitude is a predictor of well-being (see Wood et al., 2010 for a review). Self-esteem, one's general sense of his or her value or worth (Rosenberg, 1979), may be hypothesized to act as a mediator of the relationship (Emmons & Mishra, 2011). According to moral affect theory (McCullough, Kilpatrick, Emmons, & Larson, 2001), gratitude might be important because focusing on receiving benefits from benefactors might enhance self-esteem and self-respect. Some theorists have claimed that grateful people are more likely to have higher self-evaluations and thus to experience greater well-being (e.g., McCullough et al., 2002). Numerous empirical studies have shown that grateful people have a propensity to have higher levels of self-esteem (Li, Zhang, Li, Li, & Ye, 2012; Kashdan, Uswatte, & Julian, 2006; Strelan, 2007). Moreover, self-esteem theoretically (Hermans, 1992) and empirically (Diener & Diener, 1995; Kong, Zhao, & You, 2013; Orth, Robins, & Widaman, 2012) contributes to well-being. Thus, gratitude is likely to be associated with higher levels of well-being by greater sense of self-esteem.

<sup>\*</sup> Tel.: +886 2 27712171x4900. E-mail address: chihche1024@gmail.com

#### 1.2. The present study

In sum, the present study set out first to replicate previous findings regarding the connections between dispositional gratitude and well-being and connections between self-esteem and well-being in Chinese populations. Second, this study set out to examine whether self-esteem is a mediating path from dispositional gratitude to well-being.

#### 2. Method

## 2.1. Participants and procedure

Two hundred and thirty-five university students consisted of freshman to senior from different departments took part in the study. Of the total, 30.2% of participants were from public universities, and 69.8% were from private ones. Participants comprised 145 females and 90 males with a mean age of 20.04 years (SD = .98).

To recruit the university students for this study, we contacted the university teachers and asked their consents. Students were invited to fill out a few questionnaires voluntarily during regular class sessions. Participants took approximately 15 min and while finishing, they handed them out for a research assistant on the class.

#### 2.2. Measures

In addition to the demographic variable questions (e.g., age, gender), participants completed the following measures.

## 2.2.1. Gratitude Questionnaire (GQ)

The GQ was employed to measure the dispositional gratitude (McCullough et al., 2002). Chen, Chen, Kee, and Tsai (2009) translated and validated the GQ in Chinese and reported that a five-item model was a better fit than the original six-item model. Scale responses range from 1 (strongly disagree) to 6 (strongly agree). A sample item is "I have so much in life to be thankful for". Previous research indicated good internal consistency with  $\alpha$  of .80 (Chen et al., 2009). The present study show good internal consistency with Cronbach's  $\alpha$  = .85.

## 2.2.2. Rosenberg Self-Esteem Scale (RSES)

The RSES was a 10-item scale measuring levels of global self-esteem (Rosenberg, 1965). Scale responses from 1 (strongly disagree) to 6 (strongly agree). A sample item is "I feel that I have a number of good qualities". Previous research indicated acceptable consistency with  $\alpha$  of .76 (Leung & Wong, 2009). The present study show good internal consistency with Cronbach's  $\alpha$  = .87.

## 2.2.3. Well-being indices

2.2.3.1. Flourishing Scale (FS). The FS was 8-item scale assessing different facets of psychological and social well-being such as one's purpose in life, positive relationships with others, optimism, mastery and autonomy (Diener et al., 2010). Scale responses from 1 (strongly disagree) to 6 (strongly agree). A sample item is "I lead a purposeful and meaningful life". Previous research indicated good consistency with  $\alpha$  of .87 (Diener et al., 2010). The present study also show good internal consistency with Cronbach's  $\alpha$  = .93.

2.2.3.2. Center for Epidemiologic Studies Depression scale 10-item Boston form (CESD-10). The CESD-10 was 10-item scale measuring depressive symptoms relating to depressed affect, positive affect, somatic symptoms and interpersonal problems (Kohout, Berkman, Evans, & Cornoni-Huntley, 1993). Scale responses from

1 (rarely or none of the time) to 4 (most or all of the time). Previous research indicated good consistency with  $\alpha$  of .82 (Carpenter et al., 1998). The present study also show good internal consistency with Cronbach's  $\alpha$  = .85.

2.2.3.3. Positive and Negative Suicide Ideation (PANSI). The PANSI was 14-item assessing frequencies of suicidal ideation, including two factors: positive ideation (PANSI-PI) and negative suicide ideation (PANSI-NSI) (Osman, Gutierrez, Kopper, Barrios, & Chiros, 1998). Scale responses from 1 (rarely or none of the time) to 4 (most or all of the time). Previous research indicated good consistency with  $\alpha$  of .84 for PANSI-PI and .96 for PANSI-NSI (Chang, Lin, Chou, Ma, & Yang, 2009). The present study also found similar internal consistency with Cronbach's  $\alpha$  = .84 and .96, respectively. In this study, a composite scale, by adding the two factors (PANSI-PI was recoded), was used to assess overall suicide ideation.

## 3. Results

#### 3.1. Descriptive information and correlations

Table 1 shows mean scores and standard deviations of the key study variables. Higher dispositional gratitude was significantly associated with more flourishing, less depression, and less suicidal ideation. Higher dispositional gratitude was also associated with stronger self-esteem. Stronger self-esteem was associated with more flourishing, less depression, and less suicidal ideation (see Table 1).

## 3.2. Mediation analyses

To determine whether the relationship between dispositional gratitude and the three well-being indices was mediated by self-esteem (see Fig. 1), three mediation analyses were conducted using an SPSS Macro developed by Preacher and Haves (2008). This macro conducts analyses recommended by Baron and Kenny (1986) for assessing mediation, but also includes bootstrapped confidence intervals (CIs) for assessing the significance of the indirect paths. These bootstrapped confidence intervals have been shown to be less biased than Sobel's test (Preacher & Hayes, 2008). In Fig. 1, Path c (total effect) is the total relationship between dispositional gratitude and well-being outcomes, path c' (direct effect) is the relationship between dispositional gratitude and well-being indices after controlling for self-esteem. Path a is the relationship between dispositional gratitude and self-esteem, path b is the relationship between self-esteem and well-being indices, adjusted for dispositional gratitude, and path a\*b is the indirect relationship between dispositional gratitude and well-being indices through self-esteem. Table 2 provides a summary of the mediation analyses results.

**Table 1** Intercorrelations using Pearson's r, means, and standard deviations (SD) of key study variables (N = 235).

Variables	1	2	3	4	5
1. Gratitude	-				
<ol><li>Self-esteem</li></ol>	.30	-			
<ol><li>Flourishing</li></ol>	.65	.60	-		
4. Depression	<b>−.31</b>	55	50	-	
5. Suicide ideation	54	57	70	.54	-
Mean SD	24.82 3.82	39.58 7.03	36.83 6.52	17.36 4.91	27.79 8.63

*Note:* All correlation coefficients were significant at p < .001.

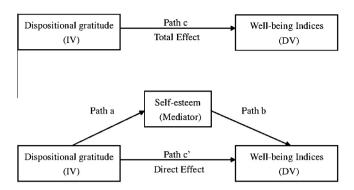


Fig. 1. Illustration of the mediation analysis pathways between dispositional gratitude, self-esteem, and well-being indices (e.g., flourishing, depression, and suicidal ideation).

Results indicated that self-esteem partially mediated the relationship between dispositional gratitude and flourishing, F (2, 232) = 176.36, p < .001,  $R^2 = .60$  (adj  $R^2 = .60$ ), depression, F (2, 230) = 56.07, p < .001,  $R^2 = .33$  (adj  $R^2 = .32$ ), and suicidal ideation, F(2, 230) = 106.66, p < .001,  $R^2 = .48$  (adj  $R^2 = .48$ ). Table 2 shows details of these analyses. Thus, self-esteem accounted for significant variance in the relationship between dispositional gratitude and each of the three well-being indices.

#### 4. Discussion

The present study found that higher levels of dispositional gratitude were associated with higher levels of flourishing, lower levels of depression, and less suicidal ideation. These results are consistent with previous research on the relationship between gratitude and well-being (Emmons & McCullough, 2003; Wood et al., 2010). Higher levels of self-esteem were associated with higher levels of flourishing, lower levels of depression, and less suicidal ideation. These results are also consistent with previous research on the association between self-esteem and well-being (Diener & Diener, 1995; Kong et al., 2013; Orth et al., 2012). Higher levels of dispositional gratitude were associated with self-esteem, a finding supports the moral affect theory (McCullough et al., 2001).

Self-esteem partially mediated the relationship between dispositional gratitude and various indices of well-being. This suggests that self-esteem, which involves one's general sense of his or her value or worth based on others' feedbacks, may be a process linking dispositional gratitude with greater well-being. Accordingly, dispositional gratitude which viewing oneself as the beneficiary of others' generosity may lead one to feel esteemed and valued, in turn to strengthens self-esteem and self-worth, which further

Table 2 Summary of Mediation Analyses examining the relationship between gratitude (IV), self-esteem (mediator), and well-being indices (DVs) (N = 235).

Mediation analysis paths	Flourishing		Depression		Suicide ideation		
	β	SE	β	SE	β	SE	
Path c (IV-DV)	.65***	.09	31***	.08	54***	.12	
Path a (IV-Med)	.30***	.12	.30***	.12	.30***	.12	
Path b (Med-DV)	.45***	.04	$50^{***}$	.04	$45^{***}$	.06	
Path c' (Direct IV-DV)	.51***	.07	16**	.07	$40^{***}$	.11	
Indirect effect	Path ab 95% CI						
	Lower .076	Upper .201	Lower –.231	Upper –.079	Lower 207	Upper 075	

*Note:*  $\beta$  = standardized beta coefficients; SE = standard errors; 95% CI = bias corrected confidence intervals based on 5000 bootstrapped samples.

contribute to their well-being. Of note, the mediation was only partial, indicating that additional processes may link dispositional gratitude with well-being. Such additional processes which might be explored in future research can focus on other characteristics (e.g., spirituality) or conditions (e.g., positive memories) likely to build on gratitude (Emmons & Mishra, 2011).

Associations between dispositional gratitude with flourishing markers and between self-esteem and flourishing markers were stronger than the associations between dispositional gratitude and self-esteem with lower levels of maladjustment. This might be due to markers of well-being in the form of positive characteristics being different in nature from lack of maladjustment, as suggested by the positive psychology approach (Seligman, 2012). Further, there may be sequential relationships in the development of overall well-being (Howard, Lueger, Maling, & Martinovich, 1993), with psychological well-being qualities such as flourishing creating a foundation for reduction in maladiustment symptoms. If this is the case, dispositional gratitude and self-esteem may be more proximal to flourishing markers of well-being than to lower levels of maladjustment.

Limitations of the research include possible biases stemming from the concurrent method approach of the design and that these samples were drawn from university population, which limits the extent to which these findings can be generalized to other groups (e.g., adolescents). Future research might not only address these limitations through use of expanded designs (e.g., longitudinal designs) and use of multiple sources of data (e.g., peer observer reports, self-reports), but also recruit participants from different ages. On the other hand, future research might also further explore the causal relationships between gratitude, self-esteem, and well-being. For example, some experimental works have suggested that the interventions (e.g., gratitude journals, gratitude exercises) could elevate level of individuals' gratitude (see Wood et al., 2010 for a review). Similarly, an intervention aimed at increasing participants' gratitude might find that such an intervention increases self-esteem and well-being, with increases in self-esteem accounting for variance in increases in well-being.

## Acknowledgments

This work was supported by the Ministry of Science and Technology of the Republic of China in Taiwan (Contract MOST 103-2410-H-130-031).

#### References

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Carpenter, J. S., Andrykowski, M. A., Wilson, J., Hall, L., Rayens, M. K., Sachs, B., et al. 1998). Psychometrics for two short forms of the Center for Epidemiologic Studies-Depression Scale. Issues in Mental Health Nursing, 19, 481-494.

Chang, H.-J., Lin, C.-C., Chou, K.-R., Ma, W.-F., & Yang, C.-Y. (2009). Chinese version of the positive and negative suicide ideation; Instrument development, Journal of Advanced Nursing, 65(7), 1485-1496.

Chen, L. H., Chen, M.-Y., Kee, Y. H., & Tsai, Y.-M. (2009). Validation of the gratitude questionnaire (GQ) in Taiwanese undergraduate students. Journal of Happiness Study, 10, 655-664.

Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and selfesteem. Journal of Personality and Social Psychology, 68, 653-663.

Diener, A., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., et al. (2010). New well-being measures: short scales to assess flourishing and positive and negative feelings. Social Indicators Research, 97(2), 143-156.

Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. Journal of Personality and Social Psychology, 84, 377–389.

Emmons, R. A., & Mishra, A. (2011). Why gratitude enhances well-being. In K. M. Sheldon, T. B. Kashdan, & M. F. Steger (Eds.), Designing positive psychology: Taking stock and moving forward (pp. 458-485). New York: Oxford University

Hermans, H. J. M. (1992). Unhappy self-esteem: A meaningful exception to the rule. Journal of Psychology, 126, 555-570.

<sup>\*\*</sup> p < .01.

p < .001.

- Howard, K. I., Lueger, R. J., Maling, M. S., & Martinovich, Z. (1993). A phase model of psycho-therapy outcome: Causal mediation of change. *Journal of Consulting and Clinical Psychology*, 61, 678–685.
- Joseph, S., & Wood, A. M. (2010). Assessment of positive functioning in clinical psychology: Theoretical and practical issues. *Clinical Psychology Review*, 30, 830–838.
- Kashdan, T. B., Uswatte, G., & Julian, T. (2006). Gratitude and hedonic and eudaemonic well-being in Vietnam war veterans. Behaviour Research and Therapy, 44, 177–199.
- Kohout, F. J., Berkman, L. F., Evans, D. A., & Cornoni-Huntley, J. (1993). Two shorter forms of the CES-D depression symptoms index. *Journal of Aging Health*, 5, 179–193.
- Kong, F., Zhao, J., & You, X. (2013). Self-Esteem as mediator and moderator of the relationship between social support and subjective well-being among Chinese university students. *Social Indicators Research*, *112*, 151–161.
- Leung, S. O., & Wong, P. M. (2009). Validity and reliability of Chinese Rosenberg Self-Esteem Scale. *New Horizons in Education*, 56(1), 62–69.
- Li, D., Zhang, W., Li, X., Li, N., & Ye, B. (2012). Gratitude and suicidal ideation and suicide attempts among Chinese Adolescents: Direct, mediated, and moderated effects. *Journal of adolescence*, 35, 55–66.
- McCullough, M. E., Emmons, R. A., & Tsang, J. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82, 112–127.

- McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin*, 127(2), 249–266.
- Orth, U., Robins, R. W., & Widaman, K. F. (2012). Life-span development of self-esteem and its effects on important life outcomes. *Journal of Personality and Social Psychology*, 102, 1271–1288.
- Osman, A., Gutierrez, P. M., Kopper, B. A., Barrios, F. X., & Chiros, C. E. (1998). The Positive and Negative Suicide Ideation (PANSI) Inventory: development and validation. *Psychological Reports*, 82, 783–793.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behaviour Research Methods, 40, 879–891.
- Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.
- Rosenberg, M. (1979). Conceiving the self. New York: Basic Books.
- Seligman, M. E. P. (2012). Flourish: A visionary new understanding of happiness and well-being. New York, NY: Simon and Schuster.
- Strelan, P. (2007). The prosocial, adaptive qualities of just world beliefs: Implications for the relationship between justice and forgiveness. *Personality and Individual Differences*, 43, 881–890.
- Wood, A. M., Froh, J. J., & Geraghty, A. W. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review*, 30, 890–905.