

Optimism and attributional style impact on the relationship between general insecurity and mental health☆



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Näswall, 2002), but also bring about impairment to task performance (De Cuyper et al., 2014), psychological strain and poor mental health (and even a non-significant effect on physical health, see Hellgren & Sverke, 2003; Roskies & Louis-Guerin, 1990). As a classic work stressor (Ashford et al., 1989; Mauno, Leskinen, & Kinnunen, 2001), job insecurity is inherently bonded with uncertainty, and uncertainty will further generate the experience of strain, which will consume the resource needed to maintain mental health.

Additionally, food insecurity has been found to be associated with mental health. The concern of food insecurity emerges when future food availability is uncertain and threatened (Compton, 2014), which is related to anxiety, depression, and even mental disorder and suicidal ideation (Davison, Marshall-Fabien, & Tecson, 2015). Weaver and Hadley (2009) proposed three reasons to comprehend this relationship: micronutrients, future uncertainty, and difference sensitivity. Among the three reasons, uncertainty is a stress generator and may lead to anxiety and depression.

Economic insecurity is another source which may have damaging effects on mental health. Economic insecurity refers to a state of uncertainty and unpredictability regarding one's financial well-being, which can be caused by concrete factors as unemployment or abstract factors as future possible layoffs. Except for financial effects, research has investigated the relationship between economic insecurity and psychological distress and even physical pain (Chou, Parmar, & Galinsky, 2016).

Another source of insecurity influencing mental health comes from public incidents, disaster, and war (e.g., Raphael & Maguire, 2009). Disasters can be tremendous stressors, as lives are threatened (Neria, Nandi, & Galea, 2008) and societies are disrupted (Norris et al., 2002). It has been documented that disasters triggered lots of mental disorders such as posttraumatic stress disorder (Galea, Nandi, & Vlahov, 2005) and substance use disorder (van der Velden & Kleber, 2009). These traumatic events have impact on mental health as they also trigger uncertainty, which is concealed in these stressors.

In sum, sufficient evidence suggests the strong link between insecurity and uncertainty and unpredictability across domains. In line with the stress theories, especially with the Conservation of Resources (COR) theory (Hobfoll, 1989), uncertainty is a common stressor (Greco & Roger, 2003; Monat, Averill, & Lazarus, 1972) that can cause damage to mental health. Insecurity makes it hard to maintain mental health as resources is constantly being consumed, and it is harder for people with limited resources to cope with insecure situations, as it is claimed that investment of resources is required to perform the protection against resource loss or the threat of resource loss (Hobfoll, 1989). This makes the people who have limited resources are more vulnerable to insecurity. Besides, stress has been found to result in releasing of nor-epinephrine and corticotrophin, which are associated with anxiety disorders (Brunello et al., 2003). Therefore, we infer that insecurity, across different domains and indicating a general experience of the current life situation and the society, can harm mental health.

H1. Insecurity is negatively related to general mental health.

2.2. Optimism and insecurity-mental health relationship

Optimism is a tendency that people attribute specific negative incidents to temporary and external factors, while attribute positive incidents to permanent and internal factors (Seligman, Abramson, Semmel, & Von Baeyer, 1979). It is a comprehensive tool to explain life events, which is good for mental health (Ammirati, Lamis, Campos, & Farber, 2015).

Optimism has been studied as a moderator to buffer the relationships between stressors and behavioural and emotion consequences (Hirsch, Wolford, LaLonde, Brunk, & Parker-Morris, 2009; Jackson, Sellers, & Peterson, 2002; Segerstrom, 2005). According to the theory of explanatory style, optimistic people are used to appraising a stressful

situation in a more positive way and believing the arriving of positive events and consequences in the future, while pessimistic people hold the opposite beliefs. Thus, by providing positive feelings and expectations, optimism can offer its help as a protective factor against the deleterious influence that stress may have on mental health (Jackson et al., 2002).

The current research focuses on the mediating role of optimism in the relationship between insecurity and mental health. Align with Psychological Capital perspectives, optimism was defined as a state-like psychological resource capacity, which may have a dispositional baseline, and positive expectancies can be its source (Luthans & Youssef, 2007). Optimism not only involves different cognitive tendencies toward past and future events, but also entails different emotional consequences. Optimistic subjects tended to report less anxiety and more happiness (Helton, Dember, Warm, & Matthews, 1999). In addition, when facing challenges, optimism, as a self-regulation mechanism, can promote self-efficacy and resilience, which are essential components of mental health (Carver, Scheier, & Segerstrom, 2010). Therefore, we argue that optimism influences mental health, since optimists' expectations of good outcomes yield more positive feelings. From the perspective of the COR theory, optimism is important for better adaptation to diverse stressors (Ben-Zur, 2012). Optimism makes it easier to allocate resources effectively to adapt with stressful circumstances, as resources brought by positive consequences can be attributed inward, while the resource loss that might be caused by negative consequences would be attributed outward. Moreover, optimistic people have the desire to attain resources to deal with these circumstances, as they are more ready to invest effort (Carver et al., 2010; Feldman, Davidson, & Margalit, 2015). Besides, they have more trust on health promoting activities and are more intended to engage in these activities to ensure positive outcomes (Carver et al., 2010).

On the other hand, optimism can be shaped by the surroundings. Carver et al. (2010) have explored several ways to promote optimism, indicating that optimism can be used and fostered intentionally. Shifren and Hooker (1995) found anger would impair optimism. Wong and Fielding (2007) found that optimism mediated the relationship between quality of life and pain. To sum, if one is living in an environment where hope or security is absent, optimism can be harmed by the negative feelings caused by the environment.

In line with the COR theory, the perspective of social resources may shed light on the mediating role of optimism. A study across ten years (Segerstrom, 2007) discovered that social network growth could predict increase in optimism since the access of social resources envisions a positive future. When concerning insecurity, the perception of insecurity was more severe for people who are short in social resources (Donder, Witte, Buffel, Dury, & Verte, 2012). On the other hand, insecurity itself can harm social resources as people may have to deal with insecurity, which leads to consumption of a lot of resources at the first time, leaving no resource to involve in social activities, as the latter is in the higher level of needs than security (Maslow, 1943). Thus, insecurity may lead to decrease of optimism.

Taken together, we proposed that:

H2. Optimism plays the mediating role in the relationship between insecurity and mental health.

2.3. Attribution style and insecurity-mental health relationship

External attribution, defined as the attributing where 'the cause of negative situations comes from someone or something else' (Sanjuán & Magallares, 2014, p. 444), is one option of coping strategies to insecurity, as one can attribute the negative events and consequences of insecurity to the environment instead of blaming oneself (Kuebler et al., 2014), thus the negative impact of insecurity on optimism may be buffered.

Besides, external attribution is a powerful strategy to maintain current psychological resources, as negative incidents are resource-consuming (Hobfoll, 1989). External attribution performs as a moderator to help us face with the aversive relationships between insecurity and impaired optimism, and between impaired optimism and mental health. To summarize, knowing how to use external attribution properly can help us maintain optimism and mental health. Thus, we formed Hypothesis 3.

H3. External attribution moderates the mediation path of insecurity, optimism and mental health, such that for individuals who have stronger tendency in external attribution, the negative impact of insecurity on optimism and mental health would be reduced.

Fig. 1 shows the proposed theoretical model.

3. Methods

3.1. Procedure and participants

We used a snowball sampling strategy to recruit participants as the participants helped us with recruiting more participants via personal contacts, and they were told that only adult employees were needed. All participants received an instruction through emails. We collected data at two time points, 4–6 weeks apart. The data of general insecurity, attribution style, and demographic information were collected at Time 1, while optimism and general mental health at Time 2. Of the 219 participants, 52.0% were male, and the average age was 29.04 ($SD = 5.92$) years. They came from a variety of industries and occupations.

3.2. Measures

All variables were measured on a seven-point Likert scale, ranging from 1 (*totally disagree*) to 7 (*totally agree*) unless otherwise specified.

3.2.1. General insecurity

Based on the definition and our main concern that focusing on insecurity in a more general way, we developed the measurement of general insecurity which only indicated the general feeling of individuals and did not differentiate the sources of insecurity. The scale includes four items, and the items are described as 'It hardly can be described as safe concerning all aspects of my life', 'I think the current social conditions make feel insecure', 'I felt insecure when walking on the street sometimes', and 'I intended to escape from the society because of my security being threatened'. Preliminary evidence of scale validity was investigated by a sample of 299 participants (40.7% male; $M_{age} = 31.55$, $SD = 5.75$). Only one factor was extracted in exploratory factor analysis using oblique rotation, explaining 66.59% of the total variance. The criterion-related validity examination showed that general insecurity was negatively correlated to emotional stability and openness ($r = -0.288/-0.214$, respectively, $p < 0.01$ for both).

3.2.2. Attribution style

We adopted 8 items from the Multidimensional-Multiattributional Causality Scale (Lefcourt, Von Baeyer, Ware, & Cox, 1979) to measure

external attribution which means attributing achievement and affiliation to contextual characteristics and fortuitous events. The two domains, achievement and affiliation, were chosen as they are more salient issues in daily lives (Lefcourt et al., 1979). A sample item is: 'Often chance events can play a large part in causing rifts between friends.'

3.2.3. Optimism

As we focused optimism as a psychological resource, Psychological Capital theory provided valuable perspectives and measurement instruments. Optimism was measured with a published Chinese version of the 6-item subscale of the glycal

Table 3

Results of hierarchical regression analysis on moderated mediation model.

	Optimism		General mental health	
	Stage 1	Stage 2	Stage 1	Stage 2
Gender	−0.11	−0.10	−0.11*	−0.10
Age	0.06	0.04	0.05	0.04
Education level	−0.08	−0.07	0.10	0.10
General insecurity	−0.27**	−0.27**	−0.17**	−0.18**
External attribution	−0.09	−0.06	0.00	0.02
Optimism			0.55**	0.53**
GI × EA		0.17**		0.12*
Rbl(0k6.37642.519773133.56imi6213219(bl(1040Td(0.10)Tj-34.70Td(0.10)Tj7.12440Td(0.10)Tj-34.41Tf1.02669-1.643Td(Optimism)T0031Tf1.0350Td[7110)Tj7.1Tf4.7818004.2552.214162				

optimism, the model in Stage 3 explained a significant amount of incremental variance in general mental health ($\Delta R^2 = 0.26$).

We tested our **Hypothesis 3** by testing the moderating role of external attribution in a hierarchical regression analysis. Results (see **Table 3**) showed that the addition of the General Insecurity × External Attribution interaction explained a significant amount of incremental variance in Stage 1 of general insecurity on optimism ($\beta = 0.17$, $p < 0.01$, $\Delta R^2 = 0.03$), while a slightly significant variance in Stage 2 of general insecurity on general mental health when concerning optimism ($\beta = 0.12$, $p < 0.05$, $\Delta R^2 = 0.01$).

We conducted a bootstrap analysis to examine the indirect effect of general insecurity on general mental health with the moderation of external attribution style (see **Table 4**). The Mode-7 in PROCESS macro (v2.11) was introduced to test the moderated mediation effect (Hayes, 2013; Preacher, Rucker, & Hayes, 2007). Results indicated that, the index of moderated mediation is significant (95% CI [0.013, 0.108]). As the level of external attribution increases, the indirect effect of general insecurity on general mental health through optimism decreased from significant level, −0.19 (External Attribution of −1 SD at the low level; 95% CI [−0.295, −0.110]), to insignificant level, −0.06 (External Attribution of +1 SD at the high level; 95% CI [−0.135, 0.005]). Therefore, **Hypothesis 3** was supported. To provide a better understanding of the moderation effect, a plot is shown in **Fig. 2**.

5. Discussion

The current research examined the relationship between general insecurity and general mental health, in which optimism acted as a mediator and attribution style acted as a moderator. The results supported our claim that general insecurity can be harmful to general mental health through damaging optimism. However, using external attribution strategy when facing insecure situations can help reduce the consuming effect of insecurity and thus maintains optimism and psychological health.

The present findings contribute to our understanding of the impact of insecurity situations, especially with the developing of a new concept, *general insecurity*. Focusing on insecurity in a general way helps us understand why insecurity on its own is influential to relevant psychological and behavioural factors. The construction of general insecurity provides us a chance to investigate the particular impact of insecurity without the influences brought by other factors in a specific domain. More specifically, general insecurity reflects a status in which individual is concerned about s his/her safety, and that may exhaust psychological energy and resources for coping with potential threats. As a result, mental health is impaired.

More importantly, our research addressed the function of optimism and external attribution style in the insecurity-mental health relationship. Firstly, our findings support the mediating function of optimism. Researchers have been arguing whether optimism is dispositional or state-like (Carver et al., 2010). Our attempt of establishing optimism

as a mediator reveals the fact that optimism can be an alterable state, which can be harmed when an individual is constantly facing negative situations. Previous study has investigated optimism as a mediator in the relationship between pain and quality of life (Wong & Fielding, 2007). We borrow their perspective and propose that optimism can also play a mediating role to explain the mechanism of the relationship between general insecurity and mental health. This can be explained from the perspective of social resources (Carver et al., 2010; Donder et al., 2012; Segerstrom, 2007). Social resources would be consumed under insecure circumstances, and people would be less able to develop and maintain social networks, which is harmful for optimism, especially for resource-poor people.

Secondly, it is crucial to investigate how to protect individuals from being harmed by insecurity. We tested external attribution as an effective moderator which could even eliminate the impact of general insecurity on mental health through optimism. External attribution indicates a tendency that people attribute 'the cause of negative situations comes from someone or something else' (Sanjuán & Magallares, 2014, p. 444). Based on the COR theory, psychological resources would be consumed under negative situations (Hobfoll, 1989). In this case, external attribution as a cognitive strategy can be used to attribute the negative consequences to external factors, and psychological resources can be preserved. As a result, external attribution helps reducing harming effect of insecurity on optimism, and on mental health consequently.

5.1. Limitations

Our study has some limitations. Firstly, our data were self-reported. This may lead to the common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Although we used two-wave design to reduce common method bias, it is better to measure optimism and external attribution in an objective way.

Secondly, our data were based on corporation employees. In order to assure the external validity, future research should recruit subjects from more diverse groups.

Thirdly, the alpha coefficient of optimism scale is low, mainly because it contains two reversed-scored items. Further research should examine if the current finding can be replicated by using other measures of optimism.

5.2. Implications

The findings of the current study have practical implications. Most importantly, in purpose of enhancing individuals' optimism, which in turn will influence the quality of mental health, a generally secure society should be ensured. Reducing insecurity is not only beneficial for protecting optimism, but also beneficial for mental health as being optimistic leads to better psychological health. The term general insecurity incorporates not only physical security, but also different types of security in all other related domains, such as job security, food security, and economic security.

External attribution is a useful cognitive strategy to buffer the negative impact of general insecurity. When facing insecure circumstances, using external attribution strategy helps us avoid psychological resources loss and further contributes to maintaining optimism and mental health. However, if the perceived insecurity is in low level, the external attribution strategy might not be a good choice as beneficial impacts would be reduced either. Our conclusion indicated that the external attribution strategy is useful when being used properly.

However, no matter what domain insecurity exists, our attitude and cognition toward insecurity, which reflects how we deal with insecurity in our surroundings, is important. The negative impact of insecurity might be reduced if we modulate our perception of insecurity, as our proactive behaviours toward insecurity are important too. So there is something we ourselves can do. For example, being prepared, doing

something in advance, believing in others, or adopting cognitive reconstruction might be helpful.

References

- Adams, R. E., & Serpe, R. T. (2000). Social integration, fear of crime, and life satisfaction. *Sociological Perspectives*, 43, 605–629.
- Ammirati, R. J., Lamis, D. A., Campos, P. E., & Farber, E. W. (2015). Optimism, well-being and perceived stigma in individuals living with HIV. *AIDS Care*, 27(7), 926–933.
- Ashford, S. J., Lee, C., & Bobko, P. (1989). Content, cause, and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, 32(4), 803–829.
- Ben-Zur, H. (2012). Loneliness, optimism, and well-being among married, divorced, and widowed individuals. *Journal of Psychology*, 146(1–2), 23–36.
- Berking, M., & Wupperman, P. (2012). Emotion regulation and mental health: Recent findings, current challenges, and future directions. *Current Opinion in Psychiatry*, 25(2), 128–134.
- Brunello, N., Blier Pludd, L. L., Mendlewicz, J., Nelson, C. J., Souery, D., Zohar, J., et al. (2003). Noradrenergic in mood and anxiety disorders: Basic and clinical studies. *International Clinical Psychopharmacology*, 18(4), 191–202.
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review*, 30(7), 879–889.
- Chou, E. Y., Parmar, B. L., & Galinsky, A. D. (2016). Economic insecurity increases physical pain. *Psychological Science*, 27, 443–454.
- Compton, M. T. (2014). Food insecurity as a social determinant of mental health. *Psychiatric Annals*, 44(1), 46–51.
- Davison, K. M., Marshall-Fabien, G. L., & Tecson, A. (2015). Association of moderate and severe food insecurity with suicidal ideation in adults: National survey data from three Canadian provinces. *Social Psychiatry and Psychiatric Epidemiology*, 50(6), 963–972.
- De Cuyper, N., Sulea, C., Philippaers, K., Fischmann, G., Iliescu, D., & De Witte, H. (2014). Perceived employability and performance: Moderation by felt job insecurity. *Personnel Review*, 43(4), 536–552.
- Donder, L. D., Witte, N. D., Buffel, T., Dury, S., & Verte, D. (2012). Social capital and feelings of unsafety in later life: A study on the influence of social networks, place attachment, and civic participation on perceived safety in Belgium. *Research on Aging*, 34(4), 425–448.
- Feldman, D. B., Davidson, O. B., & Margalit, M. (2015). Personal resources, hope, and achievement among college students: The conservation of resources perspective. *Journal of Happiness Studies*, 16(3), 543–560.
- Friedman, H. S., Kern, M. L., & Reynolds, C. A. (2010). Personality and health, subjective well-being, and longevity. *Journal of Personality*, 78(1), 179–216.
- Galea, S., Nandi, A., & Vlahov, D. (2005). The epidemiology of post-traumatic stress disorder after disasters. *Epidemiologic Reviews*, 27(1), 78–91.
- Goldberg, D., & Williams, P. (1988). *A user's guide to the GHQ*. Windsor: NFER-Nelson.
- Greco, V., & Roger, D. (2003). Uncertainty, stress, and health. *Personality and Individual Differences*, 34(6), 1057–1068.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. New York: The Guilford Press.
- Hellgren, J., & Sverke, M. (2003). Does job insecurity lead to impaired well-being or vice versa? Estimation of cross-lagged effects using latent variable modelling. *Journal of Organizational Behavior*, 24(2), 215–236.
- Helton, W. S., Dember, W. N., Warm, J. S., & Matthews, G. (1999). Optimism, pessimism, and false failure feedback: Effects on vigilance performance. *Current Psychology*, 18(4), 311–325.
- Hirsch, J. K., Wolford, K., LaLonde, S. M., Brunk, L., & Parker-Morris, A. (2009). Optimistic explanatory style as a moderator of the association between negative life events and suicide ideation. *Crisis*, 30(1), 48–53.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524.
- Jackson, B., Sellers, R. M., & Peterson, C. (2002). Pessimistic explanatory style moderates the effect of stress on physical illness. *Personality and Individual Differences*, 32(3), 567–573.
- Kuebler, U., Trachsel, M., von Känel, R., Abbruzzese, E., Ehlert, U., & Wirtz, P. H. (2014). Attributional styles and stress-related atherogenic plasma lipid reactivity in essential hypertension. *Journal of Psychosomatic Research*, 77(1), 51–56.
- Lefcourt, H. M., Von Baeyer, C. L., Ware, E. E., & Cox, D. J. (1979). The multidimensional-multitrait attribution causality scale: The development of a goal specific locus of control scale. *Canadian Journal of Behavioural Science*, 11(4), 286–304.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321–349.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford: Oxford University Press.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(1), 370–396.
- Mauno, S., Leskinen, E., & Kinnunen, U. (2001). Multi-wave, multi-variable models of job insecurity: Applying different scales in studying the stability of job insecurity. *Journal of Organizational Behavior*, 22(8), 919–937.
- Monat, A., Averill, J. R., & Lazarus, R. S. (1972). Anticipatory stress and coping reactions under various conditions of uncertainty. *Journal of Personality and Social Psychology*, 24(2), 237–253.
- Neria, Y., Nandi, A., & Galea, S. (2008). Post-traumatic stress disorder following disasters: A systematic review. *Psychological Medicine*, 38(04), 467–480.
- Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 disaster victims speak: Part I. An empirical review of the empirical literature, 1981–2001. *Psychiatry*, 65(3), 207–239.

