EMOTION, PSYCHOLOGICAL RESILIENCE AND WORK STRESS: A STUDY AMONG PRESCHOOL TEACHERS

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ABSTRACT

The main purpose of this study is to explore association among preschool teachers' positive emotions, negative emotions, psychological resilience, and work stress. In this study, a sample of 312 preschool teachers completed self-report of measures of positive emotions, negative emotions, psychological resilience, and work stress. The obtained data were analyzed by structural equation modeling. Statistical analysis yielded the following results. Positive emotions raise preschool teachers' psychological resilience, negative emotions lower preschool teachers' psychological resilience, positive emotions lower preschool teachers' work stress, negative emotions increase preschool teachers' work stress, and positive emotions lowers preschool teachers' work stress. According to the research findings, it is suggested that preschool teachers engage in more activities to raise positive emotions to raise psychological resilience and lower work stress, while undo negative effect through positive emotions.

Keywords: Emotion, Psychological Resilience, Work Stress, Preschool Teachers.

INTRODUCTION

In Taiwan, due to low fertility, parents bear few children, they particularly protect their children. In regard of program design, teaching method, educating approach, and etc., parents have a lot of opinions, making the preschool teachers encounter extremely high pressure. Work stress can be viewed as any negative, stressful or difficult situation of hardship that is encountered in the occupational setting (Jackson, Firtko, & Edenborough, 2007). It has been suggested that resilience buffers against the negative impacts of work stress (Howard, 2008; Masten & Obradović, 2006). Psychological resilience is the ability to cope effectively and adapt in the face of loss, hardship, or adversity (Block & Kremen, 1996). Resilient individuals are curious and open to new experiences, and are characterized by high positive emotionality (Block & Kremen, 1996; Klohnen, 1996). Psychological resilience of the positive emotion element can alleviate various kinds of stress, including work stress.

In accordance with Fredrickson's (2003) broaden-and-build theory of positive emotions, positive emotions broaden one's thought–action repertoire, expand the range of cognitions and behaviors that come to mind. These broadened mindsets in turn build an individual's personal resources (physical, psychological, intellectual, and social resources) (Fredrickson, 1998, 2001). As a result, positive emotions can help the individual to build psychological resilience for his/her flexible and agile thought–action repertoire in the psychological resources as well as healing the psychological harm caused by work stress. In contrast, negative emotions that narrow attention, cognition, and physiology worsen the immediate threat or problem, restrict growth of psychological resilience, and make harm caused by work stress even more serious. In this regard, we intended to explore positive and negative

emotions' influence on preschool teachers' psychological resilience and work stress, and psychological resilience's impact on preschool teachers' work stress.

LITERATURE REVIEW
Positive and Negative emotions

Emotions are intense feelings that are directed at someone or something (Frijda, 1993). There are dozens of emotions, include ING anger, contempt, enthusiasm, envy, fear, frustration, disappointment, embarrassment, disgust, happiness, hate, hope, jealousy, joy, love, pride, surprise, and sadness. Those emotions can be divided into positive and negative emotions based on valence, meaning that positive emotions are reaction oriented to positive valence with pleasant personal feelings. In contrast, negative emotions are reaction oriented to negative valence with unpleasant feelings. Positive emotions have recently been the subject of considerable attention within positive psychology, with Fredrickson (1998) arguing that positive emotions have a functional utility beyond merely feeling pleasant such as facilitating and building social connections and relationships. That is, within Fredrickson's broaden-and-build theory, negative emotions are seen to narrow an individual's range of responses in terms of thoughts and actions.

Psychological Resilience

Resilience can be discussed from ability or process approached. Psychological resilience has been characterized with the ability to bounce back from negative emotional experiences and flexible adaptation to the changing demands of stressful experiences (Block & Kremen, 1996; Lazarus, 1993). Such psychological resilience is what Block and Kremen(1996) emphasized on ego resilience exerted by the individual to help himself/herself not overcome by frustration, stress, threats, risk, and reverse environment through positive adaptive functions. It focuses on that although the individual is situated in the environment with great stress, frustrating situation, trend with threat, and risks, he or she can get adapted to it successfully (Block & Kremen, 1996; Tugade & Fredrickson, 2004). In the mean time, psychological resilience is a state-like positive psychological ability with possibility to develop rather than relatively steady and personal trait hard to change (Luthans, Youssef, & Avolio, 2007). In reality, the individual with psychological resilience tends to overcoming the odds, sustain competence under stress, recover from trauma, and the like (Fraser, 1997; Tugade & Fredrickson, 2004). Anyhow, psychological resilience plays the important role of a protective factor, protecting the individual's psychological being and increasing positive changes when coping with stressful situations (Dolbier, Jaggars, & Steinhardt, 2010; Kinman & Grant, 2011).

Work Stress

Work stress, which definition is derived from pressure, is a kind of pressure in work. In the psychological view, stress is generally used to describe a response to demands greater than an individual's ability to cope with, which disrupts the individual's physical or mental equilibrium and poses a threat to the individual's general well-being (Lazarus & Folkman, 1984; Papworth, 2003; Steer, 1994). At this sense, work stress can be defined as the negative effects on the worker's physical and emotional health as a result of the mismatch between the worker's capabilities, resources or needs, and the requirements of the work (National Institute of Occupational Safety and Health, 1999).

Why would early childhood teachers be sicker than their peers? Working in early childhood education is stressful, and certain types of stress can negatively affect physical and mental health. Preschool teachers face high demands, such as managing disruptive classroom behaviors, completing required paperwork, and ensuring that children are socially and academically ready for preschool. In addition, the job of early childhood educators tends to be undervalued by society. Wages are lower than other professionals with comparable education levels. Recent data from the National Survey of Early Care and Education (NSECE) estimate the median annual salary for center-based, early childhood educators to be $22,000. Compare this to $50,000, the median annual salary for preschool and elementary school teachers. For early childhood educators whose job may be particularly stressful because they are working with children living in poverty—children whose difficult circumstances may affect their classroom behavior and needs—their wages indicate that the teachers themselves may be living at or near the poverty line.

Emotion, Psychological Resilience and Work Stress

A useful framework with which to understand why positive and negative emotions may influence on psychological resilience and work stress as the broaden-and-build theory of positive emotions (Fredrickson, 1998, 2001). According to the broaden-and-build theory, positive and negative emotions have distinct and complementary adaptive functions and cognitive and physiological effects(Fredrickson & Cohn, 2008). This theory posits that positive emotions broaden one's thought–action repertoire, expanding the range of cognitions and behaviors that come to mind. These broadened mindsets, in turn, build an individual's lasting resources. Those who experience positive emotions in the midst of stress are able to benefit from their broadened mindsets and successfully regulate their negative emotional experiences. Therefore, positive emotions can help the individual to build psychological resilience through flexible and agile thought–action repertoire in psychological resources that enable survival and flourishing as well as reducing work stress (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009; Fredrickson & Joiner, 2002). In contrast, negative emotions narrow attention, cognition, and physiology toward coping with an immediate threat or problem, which is therefore unfavorable to growth of psychological resilience and unlikely to reduce work stress.

In addition, psychological resilience itself is a kind of ability to "bounce back" from negative events, so it should be able to regulate stress and prevent negative mental outcomes, and reduce work stress (Dolbier et al., 2010; Polk, 1997). Based on the abovementioned literature, we proposed the theoretical model and 5 hypothesis in the structural equation models as below:
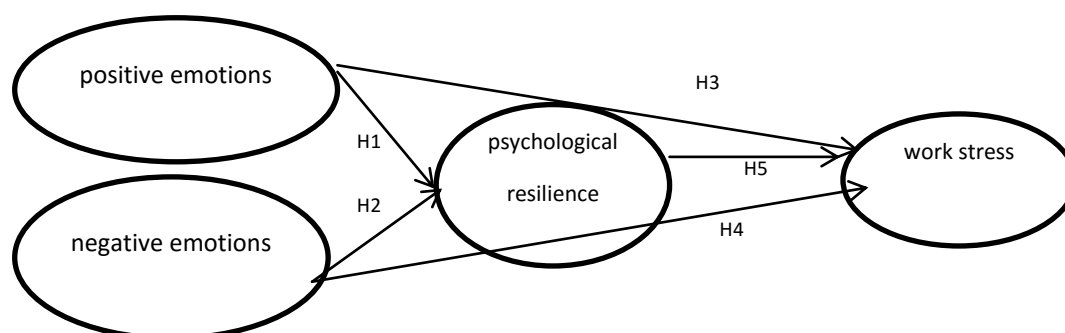

Fig. 1 Model of Hypothesis
H1: Positive emotions raise psychological resilience.
H2: Negative emotions lower psychological resilience.

H3: Positive emotions reduce work stress.
H4: Negative emotions raise work stress.
H5: Psychological resilience reduces work stress.

METHODOLOGY

We recruited 312 preschool teachers Southern Taiwan taking part in this research voluntarily. The participants were all female with average age 35.55 years old.

Measures
Positive and negative emotions

We referred to Watson, Clark, and Tellegen's (1988) Positive and Negative Affectivity Schedule to develop the Chinese version of Positive and Negative Emotion Scale aiming at measuring the preschool teachers' positive and negative emotions. As far as the design of the scale is concerned, declarative sentences were used to replace the emotional adjectives like active, alert, attentive, determined, and etc. Participants responded on a 4-point Likert scale to 12 items, including "I feel happy" and "I feel sad". 6 items belonged to positive emotion scale that measured positive emotions, and the other 6 items were negative emotion scale that measured negative emotions. Principal-components factor analysis was applied to factor analysis results. Two dominant factors emerged, accounting for 77.76% of the common variance. As to positive emotion scale, alpha reliability was .93, while alpha reliability in the negative emotion scale was .89.

Psychological resilience

We consulted Block and Kremen's (1996) scale and Wagnild and Young's (1993) Resiliency Scale, and home-made the Chinese-version of Psychological Resilience Scale to assess preschool teachers' psychological resilience. The participants responded on a 4-point Likert scale to 6 items, including" I quickly get over and recover from being startled," and "I enjoy dealing with new and unusual situations". With use of principal-components factor analysis, one factor accounted for 73.64% of the common variance, and the alpha reliability was .92.

Work stress

Referring to Karasek's (1985) Job Content Questionnaire and Spector and Jex's (1998) Quantitative Workload Inventory, we developed the Chinese-version Work Stress Scale in order to measure preschool teachers' work stress. Participants responded on a 4-point Likert scale to 6 items, including "Your job requires that you do things over and over," and "Your job requires that you learn new things". Using principal-components factor analysis, the results showed that one factor accounted for 73.56% of the common variance, while the alpha reliability was .92.

Procedure

We called on the participants. After receiving verbal agreement of the participants, at the location that the participant felt comfortable, we conducted the Chinese-version Positive and Negative Emotion scale, Psychological Resilience Scale, and Work Stress Scale solely with the participant. Then, the measuring data was collected to precede structural equation analysis. 6 models were proposed to test the research hypothesis. Five constrained models,

including Route H1, Route H2, Route H3, Route H4, and Route H5 as well as the completed theoretical model were deleted.

RESULTS

Using LISREL, the measured item's scores in the original scales as the observed variables, under the premises that the absolute value of the coefficient of skewness of the measured items' score was not larger than 3, and the absolute value of the Coefficient of kurtosis not larger than 10, the original data was converted to the covariance matrix through PRELIS software for analysis with Method of Maximum Likelihood. The fit indices of the six models were shown in Table 1:

Table 1: fit indices

model	χ^2	p	df	χ^2/df	RMSEA	GFI	NNFI	CFI
Model 1 Delete H1 Route	388.68	.00	247	1.57	.04	.90	.96	.96
Model 2 DeeteH2 Route	354.21	.00	247	1.42	.04	.91	.96	.97
Model 3Deete H3 Route	347.41	.00	247	1.41	.04	.91	.97	.97
Model 4 Delete H4 Route	342.94	.00	247	1.39	.04	.91	.97	.97
Model 5 Delete H5 Route	349.30	.00	247	1.41	.04	.91	.96	.97
Model 6 Complete theoretical model	331.48	.00	246	1.34	.03	.92	.97	.97
criteria	The smaller the better	Insignificant		<3	<.05	>.90	>.90	>.90

Note. RMSEA= Root Mean Square Error of Approximation GFI= Goodness of Fit Index NNFI= Non-Normed Fit Index CFI = comparative fit index

According to Table 1 and Bagozzi & Yi(1988) and Browne & Cudeck's (1993) structural equation model fit indices criteria, all models fit data well. For models' comparison, $\triangle\chi^2$ of Model 1, Model 2, Model 3, Model 4, Model 5, and Model 6 are 57.2, 2.73, 15.93, 11.46, and 17.82, all p are smaller than .05. To Delete H1 route, H2 route, H3 route, H4 route, and H5 route for worsening quality, Model 6 was retained as the model of best fit. Therefore, we selected the complete theoretical model as the final solutions, and the path diagram is shown in Fig. 2.
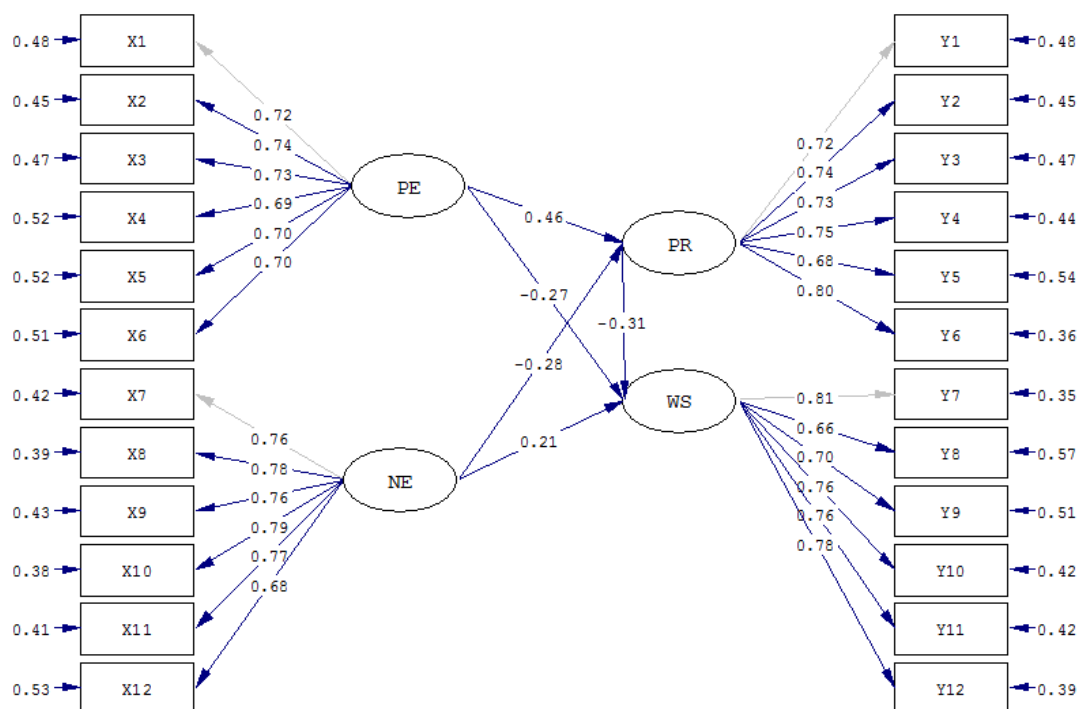
Figure 2 The complete model

Note: X1 to X6 represent the measuring questions of positive emotions, X7 to X12 represent the measuring questions of negative emotions, Y1 to Y6 are the measuring questions of psychological resilience, Y7 to Y12 are the measuring questions of work stress. PE: positive emotion. PR: psychological resilience. NE: negative emotion. WS: work stress.

According to Fig. 2, the path coefficient for PE to PR is 0.46 (t=6.72, p <.05), indicating that positive emotions significantly raise preschool teachers' psychological resilience, so H1 is supported. The path coefficient for NE to PR is -0.28 (t=4.52, p <.05), indicating that negative emotions significantly lower preschool teachers' psychological resilience, so H2 is supported. The path coefficient for PE to WS is -0.27 (t=3.93, p <.05), indicating that positive emotions significantly lower preschool teachers' work stress, so H3 is supported. The path coefficient for NE (negative emotion) to WS (work stress) is 0.21 (t=3.45, p <.05), esilience, so H2 is supported. The path coefficient for PE to WS is -0.27 (t=3.93, p <.05), indicating that negative emotions significantly raise preschool teachers' work stress, so H4 is supported. The path coefficient for PR to WS is -0.31 (t=4.14, p <.001), indicating that psychological resilience significantly lowers preschool teachers' work stress, so H5 is supported. Among them, the direct effect of positive emotions on work stress is -0.27, the indirect effect is 0.46×-0.31=-0.14, and the total effect achieves -0.41. On the other side, positive emotions' direct effect on work stress is 0.21, the indirect effect is -028×-0.31=-0.09, and the total effect achieves-0.30.

DISCUSSION

To date, no studies to our knowledge have completely examined the relationship among preschool teachers' positive emotions, negative emotions, psychological resilience, and work stress. In accordance with broaden-and-build theory and the relative empirical studies, we proposed theoretical model. After testing structural equation modeling, the results show that preschool teachers' positive emotions can raise psychological resilience and lower work

stress, while negative emotions lower preschool teachers' psychological resilience and raise work stress. Thus, we can try to raise preschool teachers' positive emotions to lower their work stress. On the basis of Hatfield, Cacioppo and Rapson's (1993) emotional contagion, preschool teachers can contact the sources that generate positive emotions, such as humorous and funny people. According to Lyubomirsky, Sheldon and Schkade's (2005) model of happiness, preschool teachers can also engage in intentional activities that raise positive emotions, such as exercising regularly or trying to be kind to others, reframing situations in a more positive light or pausing to count one's blessings, the practice of visualizing and writing about one's best possible selves. Based on broaden-and-build theory's Undoing Hypothesis, positive emotions broaden people's mindsets, positive emotions undo the lingering effects of negative emotions. Consequently, as long as the preschool teachers' positive emotions are enhanced, their resilience will be raised, work stress lowered, and they will be able to overcome the negative effect brought by negative emotions.

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