

2018

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[10.1080/19368623.2018.1471434](https://doi.org/10.1080/19368623.2018.1471434)

This is an Author's Accepted Manuscript of:

Huang, S., van der Veen, R., & Song, Z. (2018). The impact of coping strategies on occupational stress and turnover intentions among hotel employees. *Journal of Hospitality Marketing & Management*, 27(8), 926-945.

<https://doi.org/10.1080/19368623.2018.1471434>

This Journal Article is posted at Research Online.

<https://ro.ecu.edu.au/ecuworkspost2013/4674>

Please cite this work as: Huang, Songshan (Sam), van der Veen, Robert, & Song, Zhenchun (2018). The impact of coping strategies on occupational stress and turnover intentions among hotel employees. *Journal of Hospitality Marketing & Management*. DOI: 10.1080/19368623.2018.1471434

## **The impact of coping strategies on occupational stress and turnover intentions among hotel employees**

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**Acknowledgement:**

The authors would like to thank the Shandong Tourist Hotels Association and the seven participating hotels for their assistance in the data collection of this study.

## **Abstract**

This study examined the impact of problem solving, social support and avoidance as coping strategies on occupational stress and turnover intentions among hotel employees. Using a sample of 455 employees from seven hotels in Shandong Province, China, the study found that problem solving as a coping strategy predicts lower levels of occupational stress. Both social support and avoidance strategies were found to increase occupational stress instead. Occupational stress was positively correlated with hotel employees' intentions to leave and the study furthermore clarified the role of occupational stress as an important mediator in the relationship between coping strategies and turnover intentions. Implications for hotel human resource management practices are discussed.

Key words: China, coping strategies, hotel management, occupational stress, turnover intentions

## **Introduction**

Hotel service jobs are characterised by long and irregular work hours, poor working conditions and low wages (Lo and Lamm, 2005). These characteristics tend to lead to high levels of occupational stress among hotel employees (Faulkner and Patiar, 1997) and occupational stress can reach alarming levels if not managed well (Johanson, Youn, and Woods, 2011). The two most common workplace stressors in the hotel industry are interpersonal tensions and work overload, and were found to be associated with lower job satisfaction, negative physical health and higher turnover intentions (O'Neill and Davis, 2011). Despite the reported high levels of stress experienced by employees in the hotel industry, the literature has provided inconsistent evidence for the effectiveness of strategies adopted by hotel employees to cope with stress. A better understanding of the effectiveness of coping strategies is needed and this will also help put forward

more successful management practices to alleviate occupational stress and turnover intentions. Mitigation of these issues is vital because employee turnover is one of the most significant human resource management challenges faced by the hotel industry (Benson and Worland, 1992). This issue is unlikely to go away any time soon as research suggests that the blurring of work and personal life in the hospitality industry exacerbates occupational stress levels which in turn may result in higher levels of employee turnover (Chiang, Birtch, and Kwan, 2010; Lo and Lamm, 2005; Mulvaney, O'Neill, Cleveland, and Crouter, 2007).

Studies on employee turnover intentions have identified several predictors and various moderators of antecedent-turnover correlations (e.g., Felps, Mitchell, Hekman, Lee, Holtom, and Harman, 2009; Griffeth, Hom, and Gaertner, 2000; Hom, Mitchell, Lee, and Griffeth, 2012). However, research on turnover intentions in the hotel industry have typically focused on the moderating effects of human resource management practices such as training or organisational support (Bonn and Forbringer, 1992; Buick and Muthu, 1997; Cheng and Brown, 1998; Pizam and Thornburg, 2000) on turnover or its consequences (Deery and Shaw, 1999; Iverson and Deery, 1997). Other areas that have attracted scholarly interest related to turnover intentions are job stress or control, emotional intelligence and wellbeing (Chiang et al., 2010; Lee and Ok, 2012; Tromp and Blomme, 2012; Tsaur and Tang, 2012). These studies provide valuable insights to understanding turnover intentions in the hotel sector and serve as a solid reference point for our investigation. However, the impact and role of occupational stress on turnover intentions is less clear. For example, some scholars indicate that occupational stress correlates to turnover intentions in the hospitality industry (e.g., Hwang, Lee, Park, Chang, and Kim, 2014; O'Neill and Davis, 2011), while others report that the effect of role stress on turnover intentions is not significant (Jung, Yoon, and Kim, 2012). The contradictory evidence warrants further investigation and this study provides additional insights to understanding the impact of coping strategies and the role of stress in relation to turnover intentions in the hotel industry.

The study focuses on staff in the hotel sector which provides a valuable setting as the nature of these jobs is intensive, time and service driven, and thus work-related stress may be more prevalent

among them (Lo and Lamm, 2005). For example, Faulkner and Patiar (1997) found that Australian hotel industry front office staff suffered from more stress than housekeeping staff, due to work overload, office politics, misuse of time by other people, ambiguous situations, being undervalued, blurring promotion prospects, inadequate supervisor guidance, and staff shortage. Some of these issues tend to transcend to all levels; for instance, Johanson et al (2011) found very high levels of stress among hotel general managers in the US lodging industry in their comparative study. In the context of Chinese hotels, research has also shown that hotel employees' occupational stress is a prevailing industry issue that warrants more attention. For instance, Hon, Chan and Lu (2012) found in their study sample of hotel and service employees in Beijing, two types of stress, challenge-related stress and hindrance-related stress, scored an average of 4.84 (standard deviation: .98) and 3.34 (standard deviation: 1.11) respectively in a 7-point Likert scale. Obviously, the work demand derived stress level in Chinese hotels appears to be high. Qu and Zhao (2012), in their study of Chinese hotel employees' work-family conflicts, indicated that the mean score of "work interference with family" among the respondents was as high as 4.29 in a 7-point scale measurement. Qiu, Ye, Hung, and York (2015) applied focus group interviews to explore the antecedents of employee turnover intention in China's hotel industry. Three of the six identified determinants of turnover intention, namely work-life balance, community fit, and work-group cohesion, suggest issues in relation to job stress.

A better understanding of the way hotel staff cope with occupational stress will extend the knowledge of occupational stress associated with hospitality jobs and offer insights for improving industry practices to ensure workplace safety and employee wellbeing in the industry. To achieve this goal, we set the following research objectives: 1) to investigate the effects of problem solving, social support and avoidance as coping strategies on occupational stress; 2) to clarify the mediating role of occupational stress between coping strategies and turnover intentions among hotel employees.

## **Literature review and hypotheses development**

### *Coping strategies*

Coping can be defined as an individual's constantly changing cognitive and behavioural efforts in managing his/her external and/or internal stimuli that are perceived to be above his/her own resources (Folkman et al., 1986; Lazarus and Folkman, 1984). In this regard, coping is process oriented, contextual and is not bound to any desirable or undesirable outcome on stress itself (Folkman et al., 1986). Coping has been studied in parallel with occupational stress from early studies in this line of literature (e.g., Lazarus, 1966) and a coping strategy is defined as a system that individuals or groups have worked out to deal with a social and/or emotional situation that would otherwise be intolerable (Last, 2007). Coping strategies are examined closely in association with stress (e.g., Carver, Scheier, and Weintraub, 1989; Compas, 1987; Roth and Cohen, 1986; Scheier, Weintraub, and Carver, 1986). However, not all coping strategies are equally effective in reducing stress or relate to it in a similar fashion (e.g., Amirkhan, 1990). One explanation for this is that an individual may apply an internal psychological buffering mechanism to deal with the stressors (Folkman et al., 1986). Due to this internal mechanism, oftentimes referred by researchers as the cognitive appraisal process (e.g., Folkman et al., 1986; Folkman and Moskowitz, 2004; Lazarus, 1966, 1991), the effect of the same stressor on different individuals may be different.

A significant body of literature is focussed on conceptualising and measuring coping strategies (e.g., Amirkhan, 1990; Carver et al., 1989; Roth and Cohen, 1986; Scheier et al., 1986). There exists a diverse range of coping strategies including active coping, planning, suppressing competing activities, seeking instrumental support, seeking social support, positive framing, acceptance, denial, seeking religious soothing, emotional ventilation, behavioural or mental disengagement (Amirkhan, 1990; Carver et al., 1989; Scheier et al., 1986). Amirkhan (1990) critiqued both the deductive and inductive taxonomies of operationalising coping strategies, and in an effort to amalgamate the various coping strategies he developed a more widely applicable coping strategy measurement tool. Amirkhan (1990) identified three coping strategies (*Problem Solving*, *Seeking Social Support* and *Avoidance*) which are believed to have ubiquitous applicability.

These three coping strategies are also well underpinned theoretically. For example, the concepts of *Approach* and *Avoidance* by Roth and Cohen (1986) are comparable metaphors for cognitive and emotional activity that is oriented either towards ("fight") or away ("flight") from the stressor, closely resembling the concepts of *Problem Solving* and the similarly termed *Avoidance*. These binary conceptualisations are largely based on the problem- versus emotion-focused dichotomy (Folkman and Lazarus, 1980) in theorising coping strategies. In effect, the Problem-focused coping strategies involve actively minimising or eliminating the cause(s) of stress, whereas the Emotion-focused coping mechanism includes efforts to minimise or eliminate the symptoms of stress (Murphy and Sauter, 2003). Likewise, Amirkhan (1990) views *Problem Solving* as an active strategy with tendencies of a direct "fight", involving manipulation rather than simple awareness of the stressor, while the *Avoidance* strategy is understood as a set of escape responses, resembling "flight" inclinations. Seeking *Social Support* as an independent strategy suggests that human contact is valued in times of duress for reasons beyond whatever material aid, advice, or distraction that contact might provide.

In the hotel context, problem-solving coping refers to an employee's personal strategy and tendency to exert actions to seek solutions with the demanding task. A hotel employee adopting this coping strategy may seek to constantly improve his or her skills in performing routine job responsibilities through self-learning and on-the-job training. Avoidance as a coping strategy refers to personal tendency or strategy to selectively disregard the unpleasant aspects of events and attend to only pleasant features so that the real issue causing a stressful situation fades away from awareness (Hu and Cheng, 2010). Seeking social support means that an employee in dealing with a stressful situation confide the personal problems with friends and family in the social circle as a personal strategy.

#### *Impact of coping strategies on turnover intentions through occupation stress*

The literature generally supports the idea that applying coping strategies can alleviate job stress and burnout (Fogarty, Machin, Albion, Sutherland, Lalor, and Revitt, 1999; Pienaar and Willemse, 2008; Roth and Cohen, 1986; Scheier and Carver, 1985). Problem solving as an active coping

strategy and has been found to be effective in reducing stress (Carver et al., 1989; Compas, 1987; Levine and Scotch, 2013). A direct action to seek solutions for the problem faced may allow a hotel staff to see the situations as opportunities and this may in turn contribute to reducing job stress (Hu and Cheng, 2010). Studying flight attendants, Ayres and Molouff (2007) found that problem solving training can effectively increase the respondents' positive affect, suggesting a positive relationship between problem-solving and stress reduction. On the other hand, problem-solving may increase the sense of job control, which is often found to reduce job stress (e.g., Chiang, Birtch, & Kwan, 2010). Therefore, we propose our first hypothesis as follows:

*H<sub>1</sub>: Problem solving as a coping strategy will alleviate occupational stress*

Our second assumption is less straightforward, because seeking social support was found to be related to greater pathology (Amirkhan, 1990); however, much of the literature seems to support the fact that seeking social support reduces personal stress (e.g., Beehr, King, and King, 1990; Cohen and Wills, 1985; Fenlason and Beehr, 1994; Viswesvaran, Sanchez, and Fisher, 1999). In the broad literature dealing with social support and stress in general, both the direct overall beneficial model and the process-oriented buffering hypothesis model were proposed and tested (Cohen & McKay, 1984; Cohen & Wills, 1985; Glozah & Pevalin, 2014; LaRocco, House, & French, 1980; Reid & Taylor, 2015). Early work by Cohen and Wills (1985) found evidence to support both models, and that the effects of social support on stress may be dependent on how social support was actually conceptualised and measured. In their dedicated review and examination of the relevant literature, LaRocco, House, and French (1980) focussed on the buffering hypothesis that social support ameliorates the impact of occupational stress on job strain. Their review showed a clear evidence of the main effects of social support on perceived occupation stress. However, the buffering effects were only reported in a small number of studies. While the review findings supported the buffering hypothesis in relation to personal mental and physical health conditions, little evidence was shown regarding the existence of the buffering effect on job-related stress. More recent studies on the relationship between social support and stress generally support that social support alleviates stress (cf. Glozah & Pevalin, 2014; Mossakowski & Zhang,



2014; Reid & Taylor, 2015). Nevertheless, in the hospitality management context, very little research can be found to show the relationship between hotel employees' social support coping strategy and occupational stress. Limited empirical test evidence can be found to support a positive relationship between social support and occupational stress among hotel workers. For example, Karatepe (2010) found that social support buffers the relationship between work-family conflict and exhaustion and strengthens the negative relationship between work-family facilitation and exhaustion. We, therefore, propose our second hypothesis as follows:

*H<sub>2</sub>: Seeking social support as a coping strategy will alleviate occupational stress*

The avoidance strategy was generally found to induce more psychological distress (Bar-Tal and Spitzer, 1994; Tyler and Cushway, 1995). As such, avoidance appears to play a counterproductive role in reducing stress levels compared to the active problem solving and support seeking strategies. For example, Tsaur and Tang (2012) found that an intentional temporary distraction from a stressful event amplified the negative effect of job stress on wellbeing among female hospitality employees. Hu and Cheng (2010) found that the avoidance coping strategy was positively correlated to emotional exhaustion, depersonalization and lack of personal accomplishment as job burnout dimensions. It thus suggests that the avoidance strategy may not be effective in reducing occupational stress in hotels. Indeed, in the broad literature, Blalock and Joiner (2000) found that cognitive avoidance as a coping strategy exacerbated the contribution of negative life events on stress symptoms among women. Adopting a longitudinal research design, Holaha, Moos, Holahan, Brennan, and Schutte (2005) studied the role of avoidance coping in generating both chronic and acute life stressors at three time points over a 10-year long period among 500 women and 711 men. The results show that baseline avoidance coping strategy was significantly associated with more chronic and acute life stressors 4 years later, and baseline avoidance coping was also related to depressive symptoms 10 years later. In the hospitality literature, a very limited number of studies provided support that avoidance may exacerbate occupational stress. Yet this needs to be further attested. Based on the literature review, we propose our third hypothesis on the relationship between avoidance and occupation stress as follows:

*H<sub>3</sub>: Avoidance as a coping strategy will exacerbate occupational stress*

Occupational stress has been identified as one of the important antecedents of turnover intentions (Chen, Lin, and Lien, 2011; Duraisingam, Pidd, and Roche, 2009; Griffeth et al., 2000). For example, Hwang et al. (2014) report that five out of the six occupational stress factors have significant effects on turnover intentions among employees in luxury hotels. Similarly, O'Neill and Davis (2011) identified interpersonal tensions as a work stress factor in the hotel industry and found that this stress factor clearly predicted turnover intentions. As such, we develop the following hypothesis.

*H<sub>4</sub>: Occupational stress will increase turnover intentions.*

Unlike the relationships between the three coping strategies and occupational stress, the relationship between coping strategies, the role of occupational stress and its resulting impact on turnover intentions is less clear. For example, problem solving as a coping strategy may form employees' workplace aptitude and ability, which can be related to turnover intentions (Cotton and Tuttle, 1986). On the other hand, problem-solving as a coping strategy can be regarded to be associated with workplace self-efficacy, which was found to be able to curtail turnover intentions (Ellett, 2009; Lai and Chen, 2012). The reported effect for avoidance as a stress coping strategy is more straightforward, as this strategy was found in several studies to contribute to the intentions to leave an organisation (e.g., Beecroft, Dorey and Wenten, 2008; Hom and Kinicki, 2001). However, in terms of seeking social support, some studies found that social support was negatively associated with turnover intentions (e.g., Brough and Frame, 2004; Kim and Stoner, 2008; Kim, Yim, Jeong, and Jo, 2009; Pomaki, DeLongis, Frey, and Short, 2010), while others found that social support related positively to turnover intentions (Beecroft et al., 2008) and to greater pathology such as locus of control, repression and depression (Amirkhan, 1990). We believe these contrasting results are in part due to the ambiguous role of occupational stress in the relationship

between coping strategies and turnover intentions. We therefore specify occupational stress as a significant mediator in the relationship between the coping strategies and turnover intentions.

H<sub>5</sub>: *Occupational stress mediates the relationship between coping strategies and turnover intentions.*

Based on the hypothesized relationships, a conceptual framework is presented in Figure 1.

(Insert Figure 1 here)

## **Methodology**

### *Instrument*

A questionnaire was used to collect data for the current study. The constructs in Figure 1 were measured with established multi-item scales in the literature. Specifically, the three coping strategies scales were adapted from Amirkhan (1990): *Problem Solving* was measured with 5 items, *Social Support* measured with 5 items, and *Avoidance* was measured with 6 items. *Occupational Stress* was operationalized using eleven items adapted from Parker and Decotiis (1983). *Turnover Intentions* was operationalized using three items adapted from Babakus, Yavas, and Karatepe (2008). All the items were measured using a 7-point scale ranging from 1 ("Strongly Disagree") to 7 ("Strongly Agree"). The questionnaire was developed in English and then translated into Chinese. We used the forward- and back-translation procedure which is a well-established method to translate the survey and no significant issues were encountered.

### *Procedure*

We collected our survey data from the hotel industry in Shandong province, a typical North China province with a developed hotel industry. In 2015, the number of star-rated hotels in Shandong reached 910, including 28 5-star, 149 4-star, and 488 3-star hotels, making the province the 3<sup>rd</sup> largest province in China in terms of star-rated hotel number (Makepolo news, 2015). With the support from Shandong Tourist Hotels Association, we distributed questionnaires to employees in seven hotels in different cities in Shandong from 25 August to 27 September 2015. The hotels participating in our data collection include two 5-star hotels in Dongying city, one 5-star and one 4-star hotel in Liaocheng city, one 4-star hotel in the capital city of Jinan, one 5-star hotel in Weihai, and one 3-star hotel in Qingdao. Five of the hotels are state-owned and two are private hotels. The Human Resource Departments of the participating hotels were briefed with the purpose of the study and aided in data collection. In each hotel, the Human Resource Department staff distributed the questionnaires and put a collection box for employees to return the questionnaires once completed. Altogether, 700 copies of questionnaires were distributed and 521 questionnaires were returned, enabling an overall response rate of 74%; however, 16 respondents reported more than 10% missing values and were removed. For those cases with cells less than 10% missing values, the Expectation Maximization algorithm was applied to compute and replace the missing values (Hair et al., 2010). The respondents were also screened for extreme outliers. In terms of univariate outliers, 22 respondents were identified with a standard deviation greater than 3.29 and 28 respondents were identified as multivariate outliers with a Mahalanobis Distance significance value below .001. The outliers were removed and the final sample size of 455 was deemed appropriate for analysis. We used SPSS and the AMOS software package to analyse the data.

### *Participants*

Table 1 provides the profile of respondents in this study. There were more female respondents (60.9%) than male respondents (39.1%), showing a typical characteristic of the industry regarding hotel employee gender division. About half (46.6%) of the staff members were in the age bracket of 26-35 years old. The majority of employees had an education level of senior high school/vocational school (49.7%) or 2-3 year college diploma (31%) and over two-thirds (67.5%)

of them were married. Nearly 45% of the respondents had been working in the same hotel for more than 5 years and roughly 40% had worked in the hotel for 1-5 years. 62.2% of the respondents were junior hotel employees and over one-third of the respondents held a senior position.

(Insert Table 1 here)

## Results

### *Measurement model*

In this section we describe the procedure of establishing and verifying the measurement model. The sample ( $n = 455$ ) was randomly split into two halves, one as a calibration sample ( $n = 228$ ) for exploring the factor structure and another one as a validation sample ( $n = 227$ ) to confirm the measurement model. This type of cross-validation approach has been commonly practiced by tourism scholars to establish a reliable measurement model (e.g. Chen, Bao and Huang, 2014; Kaplanidou and Vogt, 2006; Kim, Ritchie, and McCormick, 2012). Principal component analyses with Varimax rotation were conducted to establish a valid measurement model using IBM SPSS version 24. A component was retained if at least two items indicated a loading which was larger than 0.45 without significant cross-loadings (Field, 2009; Stevens, 2002). The first three items of *Avoidance* ("Avoid being with people in general", "Daydream about better times", "Wish that people would just leave me alone") were removed as they did not substantially add to the proportion of variance explained for the proposed *Avoidance* construct. Similarly, two items for *Occupational Stress* ("Working in the hotel makes it hard to spend enough time with my family" and "I feel guilty when I take time off from work") were removed from the measurement model due to poor factor loadings.

The final exploratory factor analysis extracted four components with an Eigenvalue greater than 1 and the cumulative extracted variance was 67.93%. *Turnover Intentions* did not stand out as a unique factor and the three items cross loaded on various other components. A separate principal components analysis was then conducted with just the items measuring *Turnover Intentions* and

confirmed it to be a single component. The results for the factor structure are shown in Table 2. Most of the measurement items had a factor loading exceeding the recommended threshold of .70; however, one item measuring *Social Support* (“Go to a friend for advice on how to change the situation”) obtained a loading of .59. Nevertheless, this item for *Social Support* was retained because it was deemed important in its semantic meaning for explaining the underlying construct.

Eventually, five extracted components were identified. They were labeled accordingly as follows: *Occupational Stress* (11 items), *Problem Solving* (5 items), *Social Support* (5 items) and *Avoidance* (3 items), and *Turnover intentions* (3 items). This result also indicates the absence of common method variance bias since no single factor explains more than 50% of the variance (Lowry and Gaskin, 2014). The results for the validation sample are provided in Table 2 and they are closely in line with the calibration sample. The validation sample results further show that the composite reliability (CR) scores were all above the threshold of 0.70 (Hair et al., 2010) and the average variance extracted (AVE) values were over 0.50 (Fornell and Larcker, 1981).

In terms of *Problem Solving*, the respondents were in high agreement that they would try their best to sort out any issues themselves reporting the highest average mean score of 5.56 with an average standard deviation value below 1. The respondents also agreed to the statements reflecting seeking support and advice from others to discuss their problems with an average mean score close to five for *Social Support* ( $M = 4.88$ ,  $SD = 1.37$ ). The three remaining constructs show average mean values below four (*Avoidance*,  $M = 3.51$ ,  $SD = 1.56$ ; *Occupational Stress*,  $M = 3.71$ ,  $SD = 1.64$ ; *Turnover Intentions*,  $M = 3.48$ ,  $SD = 1.50$ ) indicating that the respondents disagree with the avoidance items, experience relatively low levels of occupational stress and generally do not have intentions to leave their job. We would like to note here that approximately 45 percent of the respondents had been working in the same hotel for more than five years and that five out of the seven participating hotels are state-owned. The life-long employment tradition in China's state-owned enterprises may have contributed to the generally low levels of occupational stress and turnover intention among the respondents.

(Insert Table 2 here)

### *Structural model and hypotheses testing*

Prior to analysing the structural model, the data were screened to identify any potential violations of the assumptions for multivariate techniques (Hair et al., 2010). In terms of data normality, Kline (2015) suggests as a rule of thumb that extreme skewness is defined by skewness values greater than an absolute value of 3.0 and extreme kurtosis is defined by absolute kurtosis values ranging from 8.0 to over 20. In our data, the univariate skewness ranged from -1.04 (*PSI*) to .638 (*JSI2*) and the univariate kurtosis ranged from -1.24 (*JSI1*) to 1.40 (*PSI*). These results indicate that there was no extreme violation of the normal distribution and the data were deemed appropriate for structural equation modelling.

Previous studies relied on conventional statistical analytical methods like multiple regression (e.g. Aldwin & Revenson, 1987; Amirkhan, 1990; Beecroft et al., 2008) that assume perfect measures. However, the problem with these analytical methods is their inability to handle or present information related to the impact of measurement error (Chin et al., 2003). Therefore, this study uses covariance-based structural equation modelling with the maximum-likelihood estimation procedure. Structural equation modelling provides explicit estimates for measurement errors that traditional multivariate procedures are incapable of assessing and takes a confirmatory rather than an exploratory approach to data analysis (Bagozzi and Yi, 2012; Byrne, 2010; Kline, 2015). All the latent variables in the model will use at least three or more indicators to capture a greater complexity of the variables and lower the possibility of measurement error (Chan et al., 2003; Yoon and Uysal, 2005). The proposed factor structure was subjected to a confirmatory factor analysis using the entire sample with maximum likelihood estimation procedure using the covariance matrix with IBM AMOS version 24.

Hair et al. (2010) recommend reporting the chi-square value, degrees of freedom, the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA) as these values should provide sufficient information to evaluate model fit. They further recommend that the RMSEA values should be lower than .07 with CFI values of .90 or higher for model situations

where the sample size is larger than 250 and when there are more than 30 observed variables (Hair, et al., 2010: p 647). According to these criteria, the measurement model displayed acceptable fit ( $\chi^2 = 1452.17$ ,  $df = 573$ ,  $p < 0.01$ ,  $CFI = 0.92$ ,  $RMSEA = 0.06$ ).

Table 3 displays the correlation matrix for the factors as well as the square root of the Average Variance Extracted (AVE) scores, reported in the diagonal and marked bold to verify discriminant validity (Fornell and Larcker, 1981). The majority of inter-construct correlations were below the square root of the AVE scores, indicating that each construct shares more variance with its measures than it shares with other constructs. As such, the measurements showed sufficient discriminant validity. Although there is a high correlation (.793) between *Turnover Intentions* and *Occupational Stress*, there were no multicollinearity issues between the three exogenous variables (i.e., *Problem Solving*, *Social Support*, and *Avoidance*).

(Insert Table 3 here)

The hypothesized relationships were tested using structural equation modelling and the structural modelling results are presented in Figure 2. Overall, the structural model achieved acceptable fit ( $\chi^2 = 848.85$ ,  $df = 317$ ,  $p < 0.01$ ,  $CFI = 0.93$ ,  $RMSEA = 0.06$ ) as recommended by Hair et al. (2010). *Occupational Stress* had a strong positive effect on *Turnover Intentions* ( $\beta = .69$ ;  $t$ -value = 11.33). The results for the coping strategies indicate that *Problem Solving* had a significant negative effect ( $\gamma = -0.36$ ;  $t$ -value = -6.94) on *Occupational Stress*. Unexpectedly, *Social Support* had a significant positive (rather than negative) effect ( $\gamma = 0.18$ ;  $t$ -value = 3.73) on *Occupational Stress*. As anticipated, *Avoidance* had a significant positive effect ( $\gamma = 0.24$ ;  $t$ -value = 4.64) on *Occupational Stress*. Therefore, while  $H_1$ ,  $H_3$  and  $H_4$  were supported,  $H_2$  was not.

Judging by the squared multiple correlations, the combined explanatory effect of the three predictors (*Problem Solving*, *Social Support* and *Avoidance*) on *Occupational Stress* was 26 percent ( $R^2 = .26$ ); and overall, the model explained 69 percent of the variance in *Turnover Intentions* ( $R^2 = .69$ ). The model thus has a good predictive power (Cohen, 1988) and the three



coping strategies can effectively explain a decent proportion of variance in *Occupational Stress*. The three coping factors seem to effectively predict hotel employees' *Turnover Intentions* through *Occupational Stress*. The next section will test if the indirect effects are significant.

(Insert Figure 2 here)

To test for mediation effects, we used IBM AMOS version 24 and followed the bootstrap approach which is often regarded as a more accurate test for mediation than the conventional Baron and Kenny method (Preacher and Hayes, 2008). Mediation is established when the indirect effects are statistically significant and there should not be a zero value included in the confidence interval (Zhao, Lynch and Chen, 2010). Table 4 shows the standardized indirect bias-corrected bootstrap estimates with a 95% confidence interval using 5000 bootstrap samples. The mediation results indicate that all three indirect effects are statistically significant and there is no zero value within the lower to upper confidence interval boundaries, thereby rejecting the null hypothesis. The negative indirect effect of *Problem Solving* (Estimate = -.243,  $p < .000$ ; CI = -.313 to -.174) on *Turnover Intentions* was significant and *Problem Solving* had the strongest predictive power in explaining variance in *Turnover Intentions* through *Occupational Stress*. Both *Social Support* and *Avoidance* have a positive indirect effect on *Turnover Intentions* when mediated by *Occupational Stress*. The indirect effect of *Social Support* (Estimate = .124,  $p < .001$ ; CI = .055 to .168) and *Avoidance* (Estimate = .169,  $p < .000$ ; CI = .086 to .252) on *Turnover Intentions* is significant when mediated by *Occupational Stress*. The overall mediation results indicate that hypothesis five is supported.

(Insert Table 4 here)

## Conclusions and Discussion

### *Theoretical and practical implications*

This study examines the effects of three different coping strategies on occupational stress and turnover intentions among hotel staff. With data collected from seven star-rated hotels in Shandong Province, China, the study results show that while problem solving as a coping strategy helps alleviate hotel employees' occupational stress, seeking social support and applying the avoidance coping strategy were instead associated with higher levels of occupational stress.

The findings of our study are generally in line with the literature. However, some hotel context specific findings warrant more discussion and further research attention. Previous studies report that problem solving reduces stress (Carver et al., 1989; Levine and Scotch, 2013) while avoidance increases stress level (Amirkhan, 1990; Bar-Tal and Spitzer, 1994; Tyler and Crushway, 1995). The relationship between problem solving and turnover intentions found in this study confirms our theoretical reasoning that problem solving as a coping strategy would in the long term increase a hotel employee's workplace self-efficacy, which in turn reduce the intentions to leave (Lai and Chen, 2012).

However, the finding for the relationship between social support and occupational stress is less straightforward. Our study results indicate that seeking social support is positively associated with the level of occupational stress experienced by employees in the Chinese hotels. This provides contradicting evidence to our second hypothesis. We based our assumption on the fact that several studies report that seeking social support can effectively reduce occupational stress (e.g., Beehr et al., 1990; Cohen and Wills, 1985; Fenlason and Beehr, 1994; Viswesvaran et al., 1999). Yet, our results indicate that seeking social support would make hotel employees feel more stressed.

In this regard, our findings are more aligned with the results of Amirkhan (1990). Amirkhan notes that seeking social support does not seem to be consistently helpful as previous studies suggest. For example, he refers to earlier scholars who found that seeking social support relate to depression and other psychiatric symptomatology (Aldwin & Revenson, 1987; Vitaliano, Russo, Carr, Maiuro and Becker, 1985). Amirkhan also indicates that the direction of causality is perhaps ambiguous and that it might be that those who are depressed are more likely to seek out support from others,

feeling helpless to cope on their own or that those who seek support are not necessarily pleased with the quality of help received as reported by Jung (1984). In this regard, the relationship between social support and occupational stress appears to be more complicated than expected and that it may be possibly moderated by the study context. For instance, it takes time, energy and effort to seek support which may not change the job demand or increase a person's workplace efficacy. As such, seeking social support may stretch the employees' limits in an already intense and stressful environment. On the other hand, considering face is still a dominant cultural phenomenon in China and most Chinese people are subjected to the influence of face (Gao, Huang, Brown, 2017; Kwek & Lee, 2015), it is also likely that those hotel employees who confide their workplace problems to and seek support from other people may bear the social pressure of "losing face" in their social circle. This may instead exacerbate their stress in the workplace.

Our study found that occupational stress had a strong positive effect ( $\beta = 0.69$ ;  $p < .001$ ) on Chinese hotel employees' turnover intentions. This further cements the critical role of stress in the workplace and it clearly points to one of the leading causes of turnover intentions. However, it does not provide a complete picture and there are several other factors that play a vital role in understanding turnover intentions. For example, the qualitative work of Qiu, Ye, Hung, and York (2015) identified promotional/advancement opportunity, work-life balance, community fit, work-group cohesion, leader-related factors, and pay as determinants of turnover intention among supervisory employees in Chinese hotels.

Our study offers some practical implications for the hotel industry. First, coping strategies should not be overlooked in its close association and distinctive effects on occupational stress in the hotel industry. Closely monitoring and identifying root causes of occupational stress among hotel employees is a good way to put an early stop to or to start mitigating stress levels among hotel employees from escalating further. However, some causes of stress are so deeply entrenched in job and work environment, it is challenging to eliminate all the stressors from a management perspective. Therefore, as an alternative proactive measure to deal with the issue, organisations can study how employees apply coping strategies as an internal psychological buffer and how it

functions in hotel employees' handling of stressful situations. Our study indicates that problem solving functions effectively in reducing occupational stress. Hotel managers should consider allocating additional resources and provide tailor-made training sessions to help employees to develop various problem-solving strategies of their own.

Problem solving as a coping strategy can be promoted in the formal hotel education system as a graduate quality. The ability of problem solving can not only help hotel employees to effectively complete job requirements and tasks, it can also function as an individual's internal resource to reduce stress and thus contribute to workplace and general wellbeing. Hotel managers should consider focusing on management measures and policies to reduce occupational stress if they want to see a productive and stable staff force. As our study results show, occupational stress is strongly correlated to turnover. Therefore, effectively alleviating occupation stress could reduce a hotel's turnover rate. Hotel managers are encouraged to invest in ways to reduce their employees' occupational stress level. Considering its effect on turnover intentions, such investments would be worthwhile. Hotels may introduce some effective stress-relieving exercises like yoga or team sports in the workplace.

As social support is found to be counterproductive as a coping strategy to reduce hotel employees' occupation stress, hotel managers should be realistic to understand the role of this strategy in occupational stress. We recommend that in the Chinese society, hotel workers' stress issue should be taken as a workplace issue, as social support outside the workplace does not seem to help much. Support should be provided in the hotel organisation itself, rather than from employees' social circle. And organisational support should be oriented toward increasing hotel employee's capability and workplace skills. It seems the importance of hotel staff training can be further justified by its expected effects of reducing workplace stress and turnover rates.

#### *Limitations and future research*

This study used a sample of employees in several Chinese hotels. The results may not be easily generalised to hotels in other countries due to China's hotel management traditions and

institutional environment. Secondly, the study employed a cross-sectional research design in examining the relationships among the research constructs. Future studies could consider a longitudinal approach to study the effects of management efforts to strengthen employees' problem-solving skills. Third, although the causes of stress, or stressors *per se*, are the legitimate causes of occupational stress, this study did not include them in the model. Collectively, the three coping strategies only explained 26% of the variance of occupational stress. Including identified stressors in the hotel context as another cluster of predictors to occupational stress would further increase the explanatory power of the model. Future research could consider applying a qualitative approach to identifying unique hotel workplace stressors and then fit these stressors to the model together with coping strategies to examine the relative effects on occupational stress. Considering technology may replace human labour in the hotel industry and thus may function as a possible stressor to hotel employees, it is also worthwhile to look into occupation stress possibly caused by technology in the hotel context.

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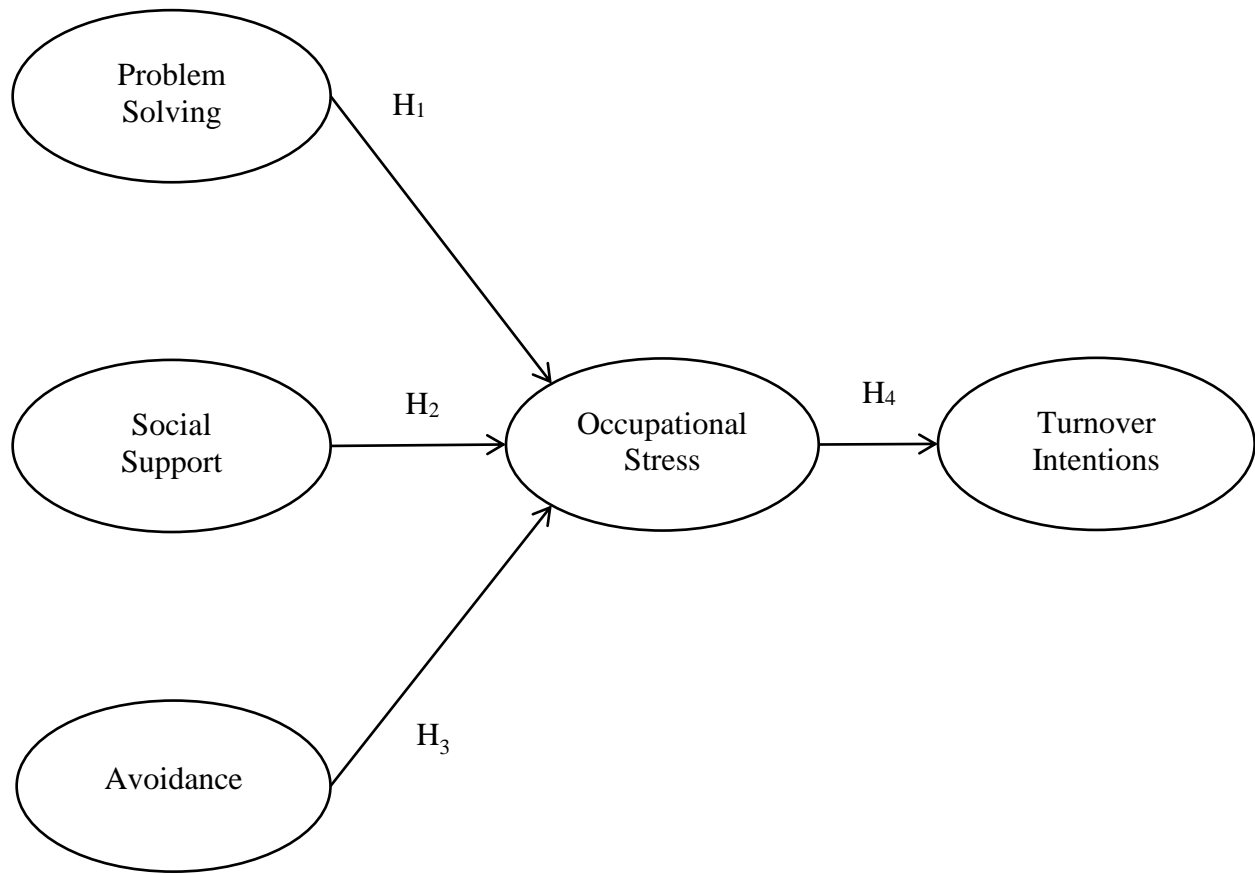
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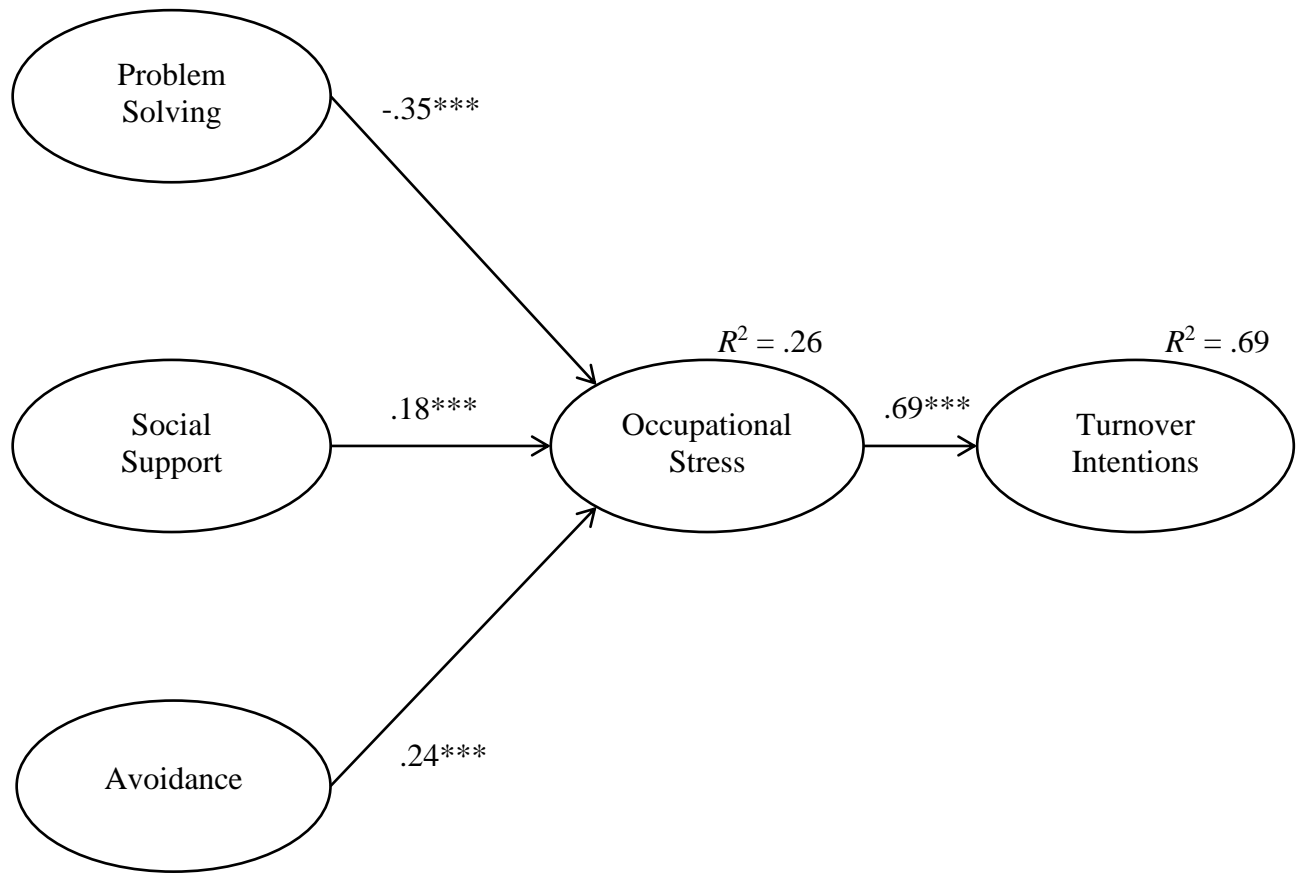
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**Figure 1 Conceptual framework**



**Figure 2 Structural Model Results**

**Table 1. Profile of Respondents (n=455)**

	Frequency	Percentage (%)
<b><i>Gender</i></b>		
Male	178	39.1
Female	277	60.9
<b><i>Age</i></b>		
25 years old or below	107	23.5
26-35 years old	212	46.6
36-45 years old	108	23.7
46-55 years old	26	5.7
56 years old or above	2	0.4
<b><i>Education</i></b>		
Junior high school or below	38	8.4
Senior high school or vocational school	226	49.7
2-3 years college diploma	141	31.0
Bachelor's degree (incl. double degree)	47	10.3
Postgraduate or above	3	0.7
<b><i>Marital status</i></b>		
Unmarried	104	22.9
Married	307	67.5
Single	44	9.7
<b><i>Time worked in the hotel</i></b>		
One year or less	73	16
1-5 years	179	39.3
5-10 years	103	22.6
Over 10 years	100	22
<b><i>Job position</i></b>		
Frontline staff	283	62.2
Team leader	69	15.2
Supervisor	63	13.8
Department manager or above	40	8.8



**Table 2. Measurement Model**

Construct/Item	M	SD	PCA* (n= 228)	CFA (n= 227)	t-value	CR	AVE
<b><i>Problem Solving</i></b>	<b>5.56</b>	<b>0.99</b>				<b>0.86</b>	<b>0.55</b>
PS1: Try to solve the problem	5.67	.97	.79	.66	10.09		
PS2: Try to carefully plan a course of action rather than acting on impulse	5.57	.97	.85	.76	11.88		
PS3: Think about all possible solutions before deciding what to do	5.51	1.01	.84	.81	ref		
PS4: Set some goals for myself to deal with the situation	5.52	.97	.77	.77	11.93		
PS5: Try different ways to solve the problem until I find one that worked	5.53	1.02	.77	.68	10.35		
<b><i>Social Support</i></b>	<b>4.88</b>	<b>1.37</b>				<b>0.87</b>	<b>0.57</b>
SS1: Confide my fears and worries to a friend or relative	4.76	1.38	.82	.72	11.46		
SS2: Seek reassurance from those who know me best	4.91	1.38	.82	.79	12.99		
SS3: Talk to people about the situation because talking about it makes me feel better	4.96	1.37	.86	.84	ref		
SS4: Accept sympathy and understanding from friends who have the same problem	4.76	1.43	.78	.76	12.32		
SS5: Go to a friend for advice on how to change the situation	5.03	1.31	.59	.66	10.42		
<b><i>Avoidance</i></b>	<b>3.51</b>	<b>1.56</b>				<b>0.82</b>	<b>0.62</b>
AV4: Identify with characters in novels or movies	3.50	1.56	.73	.69	10.357		
AV5: Watch television more than usual	3.36	1.50	.86	.95	ref		
AV6: Play games or have outdoor activities more than usual	3.66	1.61	.78	.68	10.194		
<b><i>Occupational Stress</i></b>	<b>3.71</b>	<b>1.64</b>				<b>0.94</b>	<b>0.59</b>
JS1: I have felt fidgety or nervous as a result of my job	3.90	1.54	.71	.70	9.38		
JS3: My job gets to me more than it should	4.30	1.56	.78	.65	ref		
JS4: I spend so much time at work, I can't see the forest for the trees	3.97	1.57	.84	.79	10.46		
JS5: There are lots of times when my job drives me right up the wall	3.59	1.67	.88	.86	11.12		
JS6: Working in the hotel leaves little time for other activities	3.99	1.65	.83	.78	10.34		
JS7: Sometimes when I think about my job I get a tight feeling in my chest	3.40	1.60	.81	.85	11.02		
JS8: I frequently get the feeling I am married to the hotel	3.59	1.76	.84	.83	10.84		
JS9: I have too much work and too little time to do it	3.75	1.61	.80	.79	10.35		
JS11: I sometimes dread my mobile ringing because the call might be job-related	3.68	1.76	.72	.66	8.95		

JS12: I feel like I never have a day off	3.05	1.67	.81	.73	9.76		
JS13: Too many people at my level in the hotel get burned out by job demands	3.58	1.62	.80	.80	10.54		
<b>Turnover Intentions</b>	<b>3.48</b>	<b>1.50</b>				<b>0.77</b>	<b>0.53</b>
TO1: I will probably be looking for another job soon	3.53	1.52	.91	.75	8.64		
TO2: It would not take much to make me leave this hotel	3.76	1.52	.81	.62	ref		
TO3: I often think about leaving this hotel	3.15	1.46	.86	.79	8.95		

*Note: 1= strongly disagree, 7= strongly agree; M=Mean; SD=Standard Deviation; PCA=Principal Component Analysis; CFA=Confirmatory Factor Analysis; CR=Composite Reliability; AVE=Average Variance Extracted; ref= reference indicator.*

*\*Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization; Bartlett's Test of Sphericity chi-square= 3708.57,  $p<.001$ ; Kaiser-Meyer-Olkin measure = .901.*

**Table 3. Inter-construct Correlations**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. Social Support	<b>0.755</b>				
2. Occupational Stress	0.162	<b>0.770</b>			
3. Turnover Intentions	0.225	0.793*	<b>0.724</b>		
4. Problem Solving	0.134	-0.360*	-0.434*	<b>0.739</b>	
5. Avoidance	0.191	0.416*	0.469*	-0.280*	<b>0.784</b>

*Note: \* =  $p < 0.01$  level; Square root of average variance extracted is shown on the diagonal of the matrix in boldface*

Table 4. Mediation Results

Relationship	Indirect	Lower Boundary	Upper Boundary	Significance
Problem Solving - Stress – Turnover Intentions	-.243	-.313	-.174	<.001
Social Support - Stress – Turnover Intentions	.124	.055	.198	.001
Avoidance - Stress – Turnover Intentions	.169	.086	.252	<.001