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Relationships between Social Support, Social Status Perception, Social Identity, Work Stress, and Safety Behavior of Construction Site Management Personnel

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Abstract: The occupational injury death rate and mortality ratio owing to cerebrovascular and cardiovascular diseases in the construction industry are the highest among all industries in Taiwan. Reducing work stress and improving safety behavior is a must for reducing occupational disasters and diseases. Construction site management personnel's safety behavior is an important paradigm for construction workers. This study explored the relationships among work stress, safety behavior, professional identity, social status perception, and social support for construction site management personnel by using structural equation modeling (SEM). The results indicated that low work stress can lead to favorable safety behavior. Greater company support, family support, and professional identity reduce work stress. Social status perception negatively influences work stress indirectly through the mediation of professional identity. The results revealed that construction site management personnel working within an exempt employee system (i.e., no overtime pay and compensatory leave) exhibited a significantly higher effort/reward ratio than those without this system. Gender, headquarter location, and site location also significantly influenced the on-site management personnel's effort/reward ratio.

Keywords: work stress; safety behavior; professional identity; social status perception; social support; effort–reward imbalance; construction industry

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1. Introduction

According to the latest statistics compiled by Taiwan's Ministry of Labor, the occupational injury death rate per thousand (excluding traffic accidents) and occupational fatal injury rate per thousand in the construction industry are both the highest among all industries in Taiwan [1]. The rate of occupational disasters in the construction industry is four to five times higher than that of manufacturing industry [1]. The statistics from the Bureau of Labor Insurance, Ministry of Labor, Taiwan, show that from 2010 to 2019 the number of deaths due to cerebrovascular and cardiovascular diseases in the construction industry was ranked in the top five among all industries, accounting for 9.2% of deaths due to occupational diseases [2]. Compared with other industries, the construction industry sees more serious occupational disasters and occupational diseases in employees. Construction employees account for 10% of the total employees in Taiwan but account for 45% to 55% of all fatal occupational disasters [3]. One of the causes of serious occupational disasters in the construction industry is its working environment characteristics. On-site environments in the construction industry are complex and dangerous and involve higher operating risks than those in other industries. Further, related work patterns, including irregular working hours, long-term overtime work, and noisy working environment, result in employees working under pressure and being overloaded, leading to the development of cardiovascular disease.

Garavan and O'Brien [4] noted that inappropriate safety behaviors are likely to cause occupational disasters. If individuals improve their safety behaviors, the risk of occupational disasters can also be reduced. Meanwhile, many occupational disasters are often related to work stress. Work stress can negatively affect employee behavior and safety performance at the organizational level [5]. Work stress may arise from work-related pressure, organizational characteristics, and career development, and it may affect individual thoughts and behaviors. Work stress is also affected by social support [6], job importance [7], job expectation [8], job autonomy [9], and workload [10]. Taiwan's society has long perceived the construction industry in a negative manner, considering it to be dirty and dangerous; this has seriously affected the morale and motivation of construction industry workers. This may lead to negative effects such as loss of confidence and dignity and a negative mentality toward one's own work. As a result, construction employees may feel increasing stress, eventually leading to occupational burnout, resignation, or disasters. The physical and mental health of employees is related to industrial productivity. Therefore, it is important for management to perform early intervention when employees are under too much pressure.

The safety concerns of on-site management personnel are vital for establishing workers' safety knowledge [11]. Management personnel must take practical actions to demonstrate their commitment to safety [12]. Further, their safety behavior is an important paradigm for on-site workers to pay attention to safety. Thus, this study focused on the management personnel on construction sites and explored the relationship between their work stress and safety behavior. This study also examined construction site management personnel's recognition of their occupations, social perception of their own careers, and support from family and society to explore the impact of these factors on their work stress. At present, the research on professional identity mainly focuses on teachers, medical staff, and other groups, with little research on construction employees' professional identity. Therefore, this study also aims to understand this field by providing empirical evidence of relations among construction site management personnel's professional identity, social status perception, social support, and work stress. This study's results can be used as a reference to formulate appropriate strategies for improving the quality of the working environment in this industry, reducing the occurrence of occupational disasters, diseases, and injuries, and maintaining stable human resources. This study has the following two objectives:

1. To investigate the impact of construction site management personnel's work stress on safety behavior in order to improve safety behavior and thereby reduce the likelihood of occupational disasters;
2. To explore the impact of professional identity, social status perception, and social support on the work stress of construction site management personnel in order to identify factors that help reduce work stress.

2. Literature Review

2.1. Work Stress

Work stress is produced by the direct effect of work environment factors on individuals [13]. Further, it is produced by the interaction between workers and work-related factors. If an individual perceives a certain situation in the work that threatens their psychological balance, it triggers psychological, cognitive, and physiological reactions and can even cause physical and mental burnout [14]. Work stress may arise from the uncertainty of individuals facing competition or organizational change [15,16]; situations in which the individual's ability and work requirements are not suitable [17]; psychological problems arising from job requirements that exceed personal abilities [18]; or feelings of inconsistency between work opportunities, limitations, requirements, and self-expectations [19]. Taiwan's Ministry of Health and Welfare [20] defined work stress as employees' unhealthy emotions and reactions when work requirements do not match their capabilities, resources, or needs. Work stress affects employees' emotional and physical health [21,22] and behav-

ior at work [23]. A highly stressful work environment is a major risk factor to work stress and occupational diseases [24].

Many theoretical models have been proposed for measuring work stress. One of the most widely used theoretical models in epidemiological research is the Effort–Reward Imbalance (ERI) model proposed by Siegrist [25]. The ERI model is mainly based on the theory of social exchange, which posits that work reward should be appropriate to work effort. This model has been operationalized as a standardized self-report measure consisting of three psychometric scales: effort, reward, and overcommitment [26]. Effort refers to demanding aspects of the work environment. Rewards refers to material feedback, self-esteem, and social status control. Overcommitment is related to personal motivation, a sense of mission, degree of engagement, and stress adjustment. It defines a critical style of coping with demands reflecting frustrated, but continued, efforts and associated negative feelings [25]. If a person is unable to achieve a balance between effort and reward, they may experience work stress, negative emotions, and uncomfortable stress reactions and illnesses. Imbalances such as high effort and low reward or overcommitment (or both) will result in high-stress risk groups.

Many studies have confirmed that the ERI model can be used to explain or predict health problems. Siegrist [25] found that the imbalance between effort and reward was associated with an increased risk of coronary heart disease as well as an increase in blood fat concentration. Studies have also revealed that the ERI model can predict health-related quality of life, gastrointestinal discomfort, musculoskeletal symptoms, sleep disorders, depression [27–29], and burnout [30]. De Jonge et al. [31] showed that the ERI model is more predictive of health problems than other models. Thus, this study implemented the ERI model proposed by Siegrist [25] to measure the work stress of construction site management personnel.

2.2. Safety Behavior

Unsafe behavior of employees is often one of the main causes of occupational disasters. If personal safety behavior were to be improved, the occurrence of work accidents would be reduced [4]. Neal and Griffin [32] classified safety behaviors into two types: safety compliance and safety participation. Safety compliance describes the core activities that individuals must perform to maintain workplace safety, including compliance with standard operating procedures and wearing personal protective equipment. Safety participation describes the behaviors to assist the development of an environment that support safety, including participating in voluntary safety activities, assisting colleagues with safety-related issues, and participating in safety meetings.

Work stress increases risks and reduces safe behaviors and related job performance [23,33]. Lingard and Yesilyurt [34] reported that work stress is a key factor affecting personal safety behavior. The effect of work stress on employees can be approximately divided into three aspects: it (1) increases psychological burden, (2) affects health, and (3) causes behavioral changes [35]. Changes in personal behavior due to poor physical and mental health may even affect work performance, and the production and safety aspects of the organization, thus depleting organizational resources. Individuals with high psychological stress often have a higher accident rate [36] and exhibit unsafe behaviors [23,33,37].

Leung et al. [38] explored the effect of stress on safety behaviors among construction workers in Hong Kong. They found that construction workers' occupational injuries have a significant relationship with their emotional and physical stress. Liang et al. [39] found that both emotional and physical stress could positively predict construction workers' safety incompliance. Man et al. [40] previously reported that work stress is one factor that influences Hong Kong's construction workers' risk-taking behaviors; however, in their 2021 study, they found this finding was not supported [41]. Seo et al. [42] studied construction workers in Korea and found that work stress negatively related to safety behavior. Wu et al. [43] studied Beijing's construction workers and reported a negative correlation between work stress and safety behavior.

2.3. Professional Identity

Professional identity is a personal conceptualization of one's motivation for professional work [44]. The process of forming an identity may help an individual understand their profession [45]. A professional identity is a close relationship established by individuals in combination with their occupations. Individuals commit themselves to their profession through a high degree of recognition of their occupation [46]. Professional identity is an important variable of organizational behavior [47], such as positive skill development [48] and job performance [49,50] and negative resignation tendencies [51,52]. The extent of professional identity affects career development, and a lack of identity leads to role confusion, occupational uncertainty, and occupational confusion.

Weak professional identity can lead to negative emotions [53]. Employees with low professional identity only reluctantly conform to rules and strive to regulate emotions, thus causing inconsistencies between internal feelings and external expressions. In the long term, such an inconsistency causes employees to lose their motivation and enthusiasm for work, leading to emotional exhaustion. By contrast, employees with strong professional identity will have less difference between their emotional feelings and behaviors at work and will be willing to devote more effort to their work [54]. Researchers have studied the correlation between professional identity and job satisfaction [52,55], career commitment [55–57], team creativity [58], and other variables. Studies have revealed that professional identity is likely to mediate the negative effects of high-stress workplaces, such as those related to nursing [59,60], teaching [61], and occupational therapists [62], but there are few studies on this relationship in the construction industry.

2.4. Social Support

Social support refers to different forms of assistance and support an individual receives from family members, neighbors, friends, and others when facing pressure and difficulties [63]. Such support enables individuals to feel loved, respected, and cared for, and for their existence to be valued [64]. It can buffer or cushion the pressure felt by individuals [65], effectively reduce depression, help prevent physical and psychological problems, and improve quality of life and life satisfaction [66].

Social support can be classified into work-related and non-work-related social support [67]. Work-related social support refers to workplace support received from other organizational members such as co-workers, supervisors, and the organization itself. Non-work-related social support refers to the concern and willingness to help expressed by one's spouse, family, friends, or close associates in non-work-related matters. Social support can satisfy individual needs for security, social contact, affirmation, and a sense of belonging. It can have a directly positive effect on physical and mental health and balance life pressure [68]. Social support may also have a moderating effect on mental and physical health or life stress. Individuals in stressful situations can mitigate the impact of stress on their physical and mental health through social support, which may indirectly have a positive impact on physical and mental health and life adaptation [69–71].

Guo et al. [72] considered social support as one of the safety climate factors and found that social support was significantly related to construction workers' safety compliance, although it was not significantly related to safety participation. Leung et al. [37] found that co-worker support can predict physical stress, while supervisor support can predict Hong Kong's construction workers' psychological stress. However, in Liang et al.'s study [39], although 41% of construction workers in the interview reported that they sought emotional support from family, co-workers, friends, seeking these emotional support behaviors was not found not to affect construction workers' stress and safety.

2.5. Social Status Perception

Social status perception refers to an individual's perception of self-prestige, income, reputation, and other related evaluations of society from a sociological viewpoint. Social status refers to an individual's social appraisal of many factors such as prestige, contribution

to society, power, wealth, income, salary, education, politics, race, occupation, honor, and interpersonal relationships, and it determines the individual's position, ranking, and status in society [73]. Individuals infer and perceive their own status and generate a status perception based on their subjective feelings and understanding of the overall perception of the outside world. Therefore, social status perception is not only determined by objective characteristics but also by the individual's general life satisfaction, the way they perceive their position in comparison with relevant others, and what they assume their position will be in the future [74]. One of the purposes of this study is to understand whether construction management personnel's feelings about the social appraisal of their own occupations influence their work stress; therefore, in this study, social status perception is defined as the individual's perception of their prestige, professional impression, honor, and appraisal by others in society.

Lower social status is associated with increased risk of smoking in youth [75], and negative health outcomes such as increased resting heart rate and blood pressure, decreased immune function, and an increased risk of cardiovascular diseases [76]. Huynh and Chiang [77] reported that perceived stress mediated the association between social status perception and somatic symptoms.

3. Research Framework

3.1. Research Hypotheses

This study explored relationships among construction site management personnel's work stress, safety behavior, professional identity, social support, and social status perception. Work stress is measured using the ERI model proposed by Siegrist [25], which is formed using the constructs of effort, reward, and overcommitment. The subconstructs of reward include esteem, promotion, and security. Safety behavior is considered based on two subconstructs: safety compliance and safety participation, as suggested by Neal and Griffin [32]. Social support is divided into three subconstructs: company, family, and friends' support.

Work stress and safety behavior are the causes of occupational disasters. Studies of work stress and safety behavior have indicated an influential relationship between these two factors. Therefore, this study proposed and discussed the hypothesis of the impact of construction site management personnel's work stress on safety behavior. The construction industry's complex working environment, irregular working hours, and long-term overtime working patterns as well as society's perception of the industry might cause construction management personnel to experience more work stress and require more social support to help relieve this stress. On the basis of the previous discussion, this study proposed the following four hypotheses for construction site management personnel. Figure 1 illustrates the hypotheses of this study.

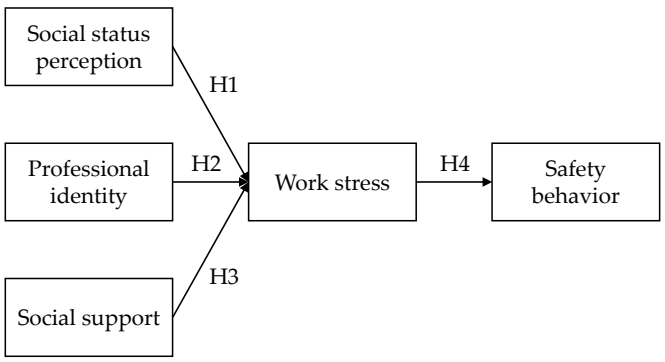

Figure 1. Initial conceptual model.

Hypothesis 1 (H1). *Social status perception has a significant effect on work stress.*

Hypothesis 2 (H2). *Professional identity has a significant effect on work stress.*

Hypothesis 3 (H3). *Social support has a significant effect on work stress.*

Hypothesis 4 (H4). *Work stress has a significant effect on safety behavior.*

3.2. Methodology

This study conducted structural equation modeling (SEM) to explore the relationships among professional identity, social status perception, social support, work stress, and safety behavior of on-site management personnel. SEM is a comprehensive statistical method to testing hypotheses about relations among observed and latent variables [78] and enables the researchers to examine a series of dependence relationships simultaneously [79]. This study also implemented an independent t test and analysis of variance (ANOVA) to investigate the differences in ERI among different management groups at construction sites.

A pretest of 50 samples [80] was performed to examine the reliability and goodness of fit of the questionnaire items and to finalize the formal questionnaire. In the pretest process, the correlation, discrimination, reliability, and validity of the items as well as the internal consistency of the constructs were examined.

SEM combines the concept of path analysis with latent variables and factor analysis. An SEM model consists of the measurement model and the structural model. The measurement model integrates latent variables and observed variables. The structural model uses a path analysis model to study the causal relationship between latent variables.

The goodness-of-fit coefficient of the theoretical model should be examined when establishing the SEM. The higher the goodness of fit of a model, the more satisfactory is the model and the more meaningful are the estimation parameters. This study used chi-square/degree of freedom (χ^2/df), goodness-of-fit index (GFI), adjusted GFI (AGFI), root mean square residual (RMR), root mean square error of approximation (RMSEA), non-normed fit index (NNFI; also called the Tucker–Lewis Index [TLI]), and comparative fit index (CFI) as the measurement indicators. Further, the composite reliability (CR) and average variance extracted (AVE) were used as evaluation indexes. According to Chin and Todd [81] and Hair et al. [79], the value of χ^2/df should not exceed 3 in rigorous research; thus, the judging criterion of χ^2/df should be between 1 and 3. Doll et al. [82] indicated that GFI and AGFI range from 0.80 to 0.89. These values indicate that the model has reasonable goodness of fit; therefore, the judgment criteria of GFI and AGFI had to exceed 0.8. The other criteria for the goodness of fit are as follows: RMR < 0.05, RMSEA < 0.08, TLI > 0.90, and CFI > 0.9 [79,81–85].

4. Questionnaire Development and Distribution

This study referenced relevant literature, and discussions were held with industry experts to develop various construct items, including professional identity, social support (family support, friend support, and company support), social status perception, and safety behavior (safety compliance and safety participation). Work stress was measured using the long version of the ERI questionnaire proposed by Siegrist et al. [26]. The initial questionnaire featured 56 items including six items on professional identity, nine items on social support, five items in social status perception, 14 items in safety behavior and 22 items in work stress. To fit with the 4-point Likert scale of the ERI model of Siegrist et al. [26], a 4-point Likert scale was used to measure participants' level of agreement on each item (4 = strongly agree, 3 = agree, 2 = disagree, and 1 = strongly disagree).

The analysis results of the pretest were processed in the following four stages. First, one of the two items with high correlation (correlation coefficient exceeded 0.9) must be eliminated. In this stage, the correlation coefficients between the items were all smaller than 0.9, indicating that no similar items need to be removed. Second, the difference between the top 27% (high-score group) and bottom 27% (low-score group) was examined as the basis for item discrimination, and nondiscriminatory items were removed [86]. One item with a p value greater than 0.1 was removed from the discriminant analysis at a significance level of 10%. The removed item was "My occupation is often regarded by the society as doing dirty, dangerous, and difficult work." The average score difference between the high- and low-score groups of this question was not statistically significant, indicating that construction site management personnel usually think that society has a negative perception of their occupation. Third, factor analysis was used to remove items with factor loadings less than 0.5 [80] to ensure the reliability and validity of the items. As a result, three items were eliminated. Finally, the internal consistency of each construct was tested using Cronbach's α value, where higher coefficient values indicate higher reliability. Cronbach's α of all constructs was greater than 0.7, as shown in Table 1, indicating that each construct had satisfactory reliability. The formal questionnaire was finalized to have a total of 52 items.

Table 1. Cronbach's α values of each construct.

Construct	Cronbach's α
Social status perception	0.834
Professional identity	0.930
Social support	0.849
Effort	0.809
Reward	0.906
Overcommitment	0.733
Safety behavior	0.902

The study's participants were on-site management personnel in the construction industry in Taiwan. The questionnaire was distributed in paper and electronic forms. A total of 300 paper-form questionnaires were distributed in the construction sites selected randomly and the site managers agreed that their employees could participate in the research, and 191 copies were returned. Returned copies with omissions or with the same answers for all items were identified as invalid. As a result, 174 returned copies were valid, for a valid response rate of 58%. Further, 113 valid electronic-form questionnaire copies were returned. Overall, 287 valid questionnaire copies were collected. Table 2 presents basic information about the samples. Most respondents were aged below 25 years (29.6%), followed by 26–35 years (28.6%). Most had an undergraduate degree as their highest educational attainment (69.0%). Most had worked in the industry for fewer than 5 years (49.8%), followed by 6–10 years (15.7%) and 21 years and above (13.9%). Most were engineers (36.6%), followed by construction supervisors (13.6%) and site directors (11.9%). Most worked for a Level A construction company (47.7%). Finally, the companies of most respondents had an exempt employee working system, implying they received no overtime pay or compensatory leave for working overtime (42.5%).

Table 2. Sample distribution and effort/reward ratio difference analysis.

Variable	Category	N	ER Ratio Average	t/F Value	Note
Gender	(1) Male	226	1.103	2.673 **	(1) > (2)
	(2) Female	61	0.986		
Age	(1) Below 25 years old	85	1.078	1.543	
	(2) 26 to 35 years old	82	1.045		
	(3) 36 to 45 years old	73	1.140		
	(4) 46 years old and above	47	1.042		
Education level	(1) High school and lower	21	1.034	0.732	
	(2) College	198	1.071		
	(3) Graduate school and above	68	1.114		
Marital status	(1) Single	155	1.070	−0.488	
	(2) Married	132	1.088		
Work experience	(1) Below 5 years	143	1.083	0.831	
	(2) 6 to 10 years	45	1.022		
	(3) 11 to 15 years	28	1.047		
	(4) 16 to 20 years	31	1.143		
	(5) 21 years and above	40	1.088		
On-site position [a]	(1) Engineer	105	1.108	0.187	
	(2) Site director	34	1.138		
	(3) Project personnel	30	1.101		
	(4) Construction supervisor	39	1.141		
Firm type [a]	(1) General construction business, grade A	137	1.096	1.544	
	(2) General construction business, grades B and C	43	1.173		
	(3) Consultant company	40	1.063		
Working system	(1) Exempt employee	122	1.156	5.215 **	(1) > (4)
	(2) Overtime pay for working overtime	59	1.031		
	(3) Compensatory leave for working overtime	50	1.053		
	(4) Partial overtime pay and partial compensatory leave for working overtime	56	0.983		
Headquarters location [a]	(1) North	106	1.089	7.812 ***	(1) > (3) (2) > (3)
	(2) Central	96	1.154		
	(3) South	84	0.978		
Current site location [a]	(1) North	37	1.138	7.864 ***	(1) > (3) (2) > (3)
	(2) Central	129	1.139		
	(3) South	115	0.994		

[a] Some groups with a small sample sizes are excluded from the ANOVA analysis and are not listed in the table; *** $p < 0.001$; ** $p < 0.01$.

5. Results and Analysis

5.1. Effort/Reward Ratio Analysis

According to Siegrist et al. [26], the effort/reward (ER) ratio is used to evaluate the balance between the person's effort and reward at work. For an ER of 1, the person reports one effort for one reward; for an ER of <1, less effort needs to be made for each reward; and for an ER of >1, more effort must be made for each reward. Table 3 shows the statistical results of the ER ratio of construction site management personnel. More than half (56.8%) of the respondents reported an ER of >1, indicating that they belong to a high-working-stress risk group.

Table 3. ER ratio results.

Range	Counts (N = 287)	Percentage
0 < ER < 1	115	40.1%
ER = 1	9	3.1%
ER > 1	163	56.8%

An independent *t* test and one-way ANOVA are performed on the ER ratio to understand whether a difference exists in ERI among different groups, which also implies differences in working stress among different groups. Considering that some groups have smaller sample sizes, some are excluded from the analysis. Table 2 shows the results of differences in the ER ratio for each group. Construction site management personnel with different genders, working systems, headquarter locations, and site locations exhibited significant differences in ER ratio. The average ER ratio of male management personnel was significantly higher than that of female management personnel on construction sites. Management personnel under the exempt employee system had a significantly higher ER ratio than those under partial overtime pay and partial compensatory leave overtime systems. The ER ratio of personnel with headquarters or construction sites in northern or central Taiwan was higher than that of personnel with headquarters or construction sites in southern Taiwan. However, on average, different groups of age, education level, marital status, work experience, on-site position, and firm type have no impact on management personnel's ER value; on average, these groups all have an ER ratio greater than 1, indicating high working-stress.

5.2. SEM Results

5.2.1. Measurement Model

This study used SEM to verify the causal relationships among variables. The correlations among professional identity, social status perception, social support, work stress, and safety behavior were explored. The subconstructs of social support included company, family, and friend support. The subconstructs of work stress included effort, reward (with subconstructs of esteem, promotion, and security), and overcommitment. The two subconstructs of safety behavior are safety compliance and safety participation.

This study first analyzed the measurement model of each construct and ensured that the goodness of fit of each measurement model is acceptable. The evaluation indicators of χ^2/df, GFI, AGFI, RMR, RMSEA, TLI, and CFI were used as the basis for examining whether the model had a good fit. After 10 items were eliminated from the constructs, the whole measurement model met all fit indicators (Table 4).

Table 4. Goodness of fit of the whole measurement model and structural model.

Index	Whole Measurement Model	Structural Model	Recommended Standards
χ^2/df	1.622	1.834	<3
Goodness of fit index (GFI)	0.835	0.873	>0.8
Adjusted goodness of fit index (AGFI)	0.802	0.845	>0.8
Root mean square residual (RMR)	0.025	0.036	<0.05
Root mean square error of approximation (RMSEA)	0.047	0.054	<0.08
Tucker-Lewis Index (TLI)	0.905	0.900	>0.9
Comparative Fit Index (CFI)	0.917	0.911	>0.9

CR is used to measure the internal consistency of indicator items of latent variables. Fornell and Larcker [87] suggested that the CR value should be greater than 0.6; the higher the CR value, the higher is the consistency of the indicator items. AVE is the average

explanatory power of the latent variables for each observation number. Bagozzi and Yi [83] proposed that the internal quality of a model is more favorable for an AVE of >0.5. For an AVE of <0.5 but CR of >0.6, the convergent validity of the construct is still adequate [87]. As shown in Table 5, each construct had a CR of >0.6, indicating adequate reliability and convergent validity.

Table 5. Confidence ratio (CR) and average variance extracted (AVE) for each construct of the whole measurement model.

Construct	CR	AVE
Social status perception	0.81	0.52
Professional identity	0.85	0.60
Social support: Company support	0.84	0.64
Social support: Family support	0.84	0.64
Social support: Friend support	0.84	0.64
Effort	0.85	0.53
Reward: Esteem	0.75	0.51
Reward: Promotion	0.70	0.54
Reward: Security	0.63	0.47
Overcommitment	0.73	0.42
Safety behavior: Safety compliance	0.83	0.50
Safety behavior: Safety participation	0.86	0.61

5.2.2. Structural Model

This study established a relationship path diagram for professional identity, social status perception, social support, work stress, and safe performance. Figure 2 illustrates the final structural model of this study. The overall fit statistics indicated that the model had excellent fit (see Table 4). Hypothesis testing was conducted according to the results of the final structural model, as shown in Table 6.

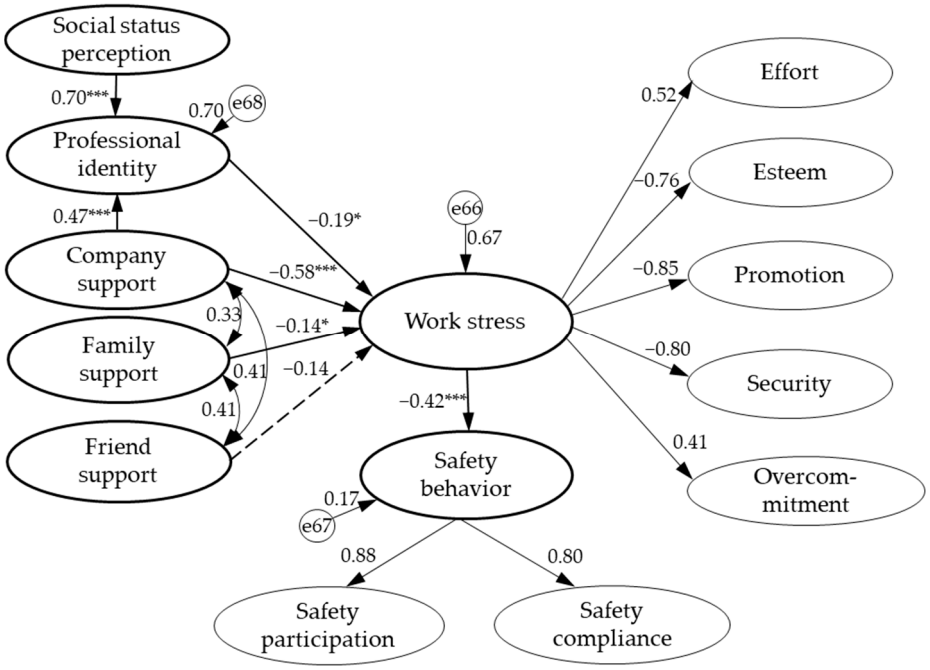

Figure 2. Overall structural model (*** $p < 0.001$; * $p < 0.05$).

Table 6. Results of a t test of path coefficients.

Path	Path Coefficient	t Value
Social status perception → Professional identity	0.70	5.25 ***
Professional identity → Work stress	−0.19	−2.55 *
Company support → Work stress	−0.58	−4.74 ***
Family support → Work stress	−0.14	−2.07 *
Friend support → Work stress	−0.14	−1.93
Company support → Professional identity	0.47	6.43 ***
Work stress → Safety behavior	−0.42	−3.83 ***

*** $p < 0.001$; * $p < 0.05$.

H1 posited that social status perception has a significant effect on work stress. As shown in Figure 1, social status perception did not directly affect work stress. However, it indirectly affected work stress through professional identity. When society has a good perception of a person's occupation, the more one can identify with one's occupation, and this reduces one's work stress. Thus, H1 was supported.

H2 posited that professional identity has a significant impact on work stress. The path coefficient of professional identity to work stress was −0.19 ($p < 0.05$); thus, H2 was accepted. This indicates that the more the management personnel can derive value and fulfillment from their occupations, the more they can reduce their work stress.

H3 posited that social support has a significant effect on work stress. As shown in Table 6, company support has a significantly negative relationship with work stress, indicating that the more support company supervisors or colleagues give to construction site management personnel, the lower their work stress. Family support also has a significantly negative relationship with work stress, indicating that the more support the family gives, the lower the work stress of personnel. However, friend support did not have a significant relationship with work stress. Thus, H3 was partially supported.

H4 posited that work stress has a significant effect on safety behavior. The path coefficient of work stress to safety behavior was −0.42 ($p < 0.001$); thus, H4 was supported. This indicates that work stress has a significant and negative impact on safety behavior. The greater the work stress of construction site management personnel, the more they neglect performing site safety behaviors and the less time they have for participating in safety-related activities.

In addition, company support and social status perception were found to have a significantly positive relationship with professional identity. The more positive support the company gives and the more positive society's perceptions are of one's own profession, the more positively employees value their own occupation. A confidence level of 95% shows that work stress has a negative impact on safety behavior; company support, family support and professional identity have an impact on reducing work stress; company support and social status perception have an impact on enhancing professional identity.

Table 7 shows the direct and indirect effects of the latent independent variables of the overall model on the latent dependent variables. Among the total effects on safety behavior, work stress and company support had the greatest negative and positive effects on safety behavior, respectively. Among the total effects on work stress, company support had the greatest effect on reducing employees' stress. In addition, family support, professional identity, and social status perception had an either directly or indirectly positive effect on reducing employees' work stress.

Table 7. Effects of the overall model.

Latent Independent Variable	Latent Dependent Variable	Direct Effect	Indirect Effect	Total Effect
Social status perception	Professional identity	0.70	-	0.70
	Work stress	-	−0.13	−0.13
	Safety behavior	-	0.06	0.06
Professional identity	Work stress	−0.19	-	−0.19
	Safety behavior	-	0.08	0.08
Company support	Work stress	−0.58	−0.09	−0.67
	Professional identity	0.47	-	0.47
	Safety behavior	-	0.28	0.28
Family support	Work stress	−0.14	-	−0.14
	Safety behavior	-	0.06	0.06
Work stress	Safety behavior	−0.42	-	−0.42

6. Discussion

In this study, all variables satisfied general goodness of fit indexes. Construction site management personnel's safety behavior can thus be explained via direct and indirect effects of work stress, company support, family support, professional identity, and social status perception. First, construction site management personnel's work stresses directly negatively affected safety behavior. The respondents reported that the greater the work stress, the more they neglect performing safety activities for maintaining site safety, the less time they participate in safety-related activities, and the less they encourage each other to perform safety activities. This study's result is consistent with most research found on construction workers [37–40,42,43]. Therefore, efforts to reduce work stress are necessary to induce safety behavior in terms of safety participation and safety compliance in construction site management personnel.

The work stress constructs included effort, reward (esteem, promotion, and security), and overcommitment. The effort had the highest positive factor loading (0.52), which was the most vital factor contributing to work stress, followed by overcommitment (0.41). Construction site management personnel reported that they have to put in more effort to get the job done because they are subject to many interruptions and disturbances while working, and their work is physically demanding on construction sites. Most construction site management personnel work with the exempt employee working system, making it difficult for them to relax and "switch off" from work and this keeps work on their mind even when they get home or go to bed. The study results indicated that construction site management personnel within the exempt system have relatively greater work stress than others. Giving employees relative compensation or letting employees choose their own time off will help alleviate stress. The most important reward for reducing work stress is promotion (−0.85), followed by security (−0.80) and esteem (−0.76) for construction site management personnel. Construction site management personnel expect good promotion prospects and adequate salary/income to balance their work. Also, no adverse change in work situation, adequate employment security, respect from superiors, and adequate support during difficult times all reflect a sense of security and esteem. This is consistent with Leung et al.'s finding that job certainty predicts work stress in the construction industry [37].

Second, construction site management personnel's company support, family support, and professional identity directly negatively affected work stress and indirectly negatively affected safety behavior. Company support is essential among different social support types (−0.58) to reducing work stress, followed by family support (−0.14). Company support affected work stress not only directly but also indirectly with professional identity as a mediating variable. This is consistent with Leung et al.'s finding that coworker support

or supervisor support can predict stress [37] and Guo et al.'s finding that coworker or supervisor support can predict safety behavior in safety compliance [72]. Construction site management personnel also reported that company members' appreciation for their hard work and trust in their performance play essential roles in company support. This study also found that family support directly affected construction site management personnel's work stress; however, friend support did not affect their work stress. A reasonable explanation is that construction site management personnel's exempt employee system and lengthy overtime work may limit the time they share with their friends. As family support reduces work stress, it is suggested that construction companies invite family members to participate in some activities conducted for all employees to connect companies and employees' families better. This might help family members understand more of the employee's work content and induce them to provide more support.

Construction site management personnel's professional identity directly affected work stress, consistent with research targeting other fields [59,60,62]. Enhancing professional identity helps in reducing work stress. Making construction site management personnel feel that their job can make full use of their professional ability and feel that their occupation has meaning can enhance their professional identity and lower their work stress. Besides, enhancing company support and social status perception directly and positively affected professional identity. These factors all indirectly affected work stress and thus indirectly help improve safety behavior.

Finally, social status perception indirectly affected work stress and safety behavior. This result is similar to Huynh and Chiang's [77] finding that lower social status may lead to greater stress levels and thus increase somatic symptoms (e.g., headaches, stomachaches). Although the relationship between somatic symptoms and safety behaviors is not yet clear, they all pointed out that lower social status perception may increase stress. The results also found that social status perception enhances professional identity. Society's perception that their occupation is a professional one improves their social status perception and reduces their work stress. The questionnaire survey results showed that Taiwan's construction site management personnel believe that society still perceives the construction industry negatively. This may reduce the social status perception of constriction personnel and increase their work stress. All construction organizations should work together to create a positive industry image so that construction industry workers can enjoy society's praise and gain positive energy. A positive image would also help attract more personnel to the construction industry. In practice, some construction companies have begun to take measures to establish the right corporate image and corporate social responsibility, such as encouraging architecture or construction magazines to publish positive construction-related articles; providing excellent after-sales services; and participating in social activities such as disaster relief, donations, sponsorships, and public welfare activities.

7. Conclusions

On-site management personnel's safety behavior is an essential paradigm for on-site workers, and their safety concerns are vital for establishing workers' safety knowledge. This study enhances understanding of the relationship between construction site management personnel's professional identity, social status perception, social support (company support, family support, friend support), work stress, and safety behavior. The final model suggests that on-site management personnel's safety behavior is influenced by work stress, and work stress is influence by social status perception, professional identity, and social support (company support and family support). The model demonstrates that social status perception and company support influence work stress through the mediation of professional identity. Direct effects of professional identity, company support, and family support on work stress are also identified. The effect of friend support on work stress is not identified.

The model forms a theoretical basis for safety management and strategies. When construction management personnel feel that society has a positive image of their occupation

and the company provides a good working environment, they have more positive opinions about their occupation and feel a sense of belonging, both of which reduce work stress. Appropriate assistance, support, encouragement, and positive support from family, colleagues, and supervisors help reduce excessive stress and keep work manageable, thereby enabling construction management personnel to reach an effort-reward balance at work and improve their safety performance.

Meanwhile, ER ratio of male management personnel was significantly higher than that of female management personnel. Further, the ER ratio of management personnel working with an exempt employee system was significantly higher than that of personnel working within a partial overtime pay and partial compensatory leave overtime system. Management personnel with headquarters or working sites located in northern or central Taiwan reported a significantly higher ER ratio than those with headquarters or working sites located in southern Taiwan. Construction companies' Employee Assistance Programs should focus on the groups mentioned above to create a supportive environment to help them reach a satisfactory work-life balance.

Despite the important findings of this study, they should be interpreted based on the following limitations. First, due to time and financial constraints, the data were collected only using a cross-sectional survey and not considering the time sequence. However, construction site management personnel's work stress might change over time; therefore, future research might be conducted to understand the dynamic nature of constriction site management personnel's work stress and safety behavior. Second, the study focuses on construction site management personnel in Taiwan; thus, the results may not be generalized to other countries due to cultural differences. Future research can examine the model to test the generality of the findings in other countries. Third, this study established a structural model to establish a relationship between construction site management personnel's work stress and safety behavior. Future researchers might consider establishing separate models to explore the differences among management personnel from different company types and management positions, such as site directors of construction companies, engineers, supervisors of architecture firms, or supervisors of government construction agencies. Work stress was found to have a significant impact on safety behavior. Future research can further investigate the relationship between work stress and the work tasks performed by construction site management personnel. Such research might help identify and improve work procedures that cause work stress and reduce occupational disasters and diseases in the construction industry.

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References

1. Occupational Safety and Health Administration. *2019 Labor Inspection Annual Report*; Occupational Safety and Health Administration, Ministry of Labor: Taipei, Taiwan, 2020. (In Chinese)
2. Bureau of Labor Insurance. *Annual Reports 2019*; Bureau of Labor Insurance, Ministry of Labor: Taipei, Taiwan, 2020. (In Chinese)

3. Li, Y.; Ning, Y.; Chen, W.T. Critical Success Factors for Safety Management of High-Rise Building Construction Projects in China. *Adv. Civ. Eng.* **2018**, *2018*, 1516354. [CrossRef]
4. Garavan, T.N.; O'brien, F. An investigation into the relationship between safety climate and safety behaviors in Irish organizations. *Ir. J. Manag.* **2001**, *22*, 141–170.
5. Lu, L. The process of work stress: A dialogue between theory and research. *Chin. J. Ment. Health* **1997**, *10*, 19–51. (In Chinese)
6. Viswesvaran, C.; Sanchez, J.I.; Fisher, J. The role of social support in the process of work stress: A meta-analysis. *J. Vocat. Behav.* **1999**, *54*, 314–334. [CrossRef]
7. Pines, A.M.; Keinan, G. Stress and burnout: The significant difference. *Pers. Indiv. Differ.* **2005**, *39*, 625–635. [CrossRef]
8. Pines, A.M. Teacher burnout: A psychodynamic existential perspective. *Teach. Teach. Theory Pract.* **2002**, *8*, 121–140. [CrossRef]
9. Tummers, G.E.R.; Landeweerd, J.A.; van Merode, G.G. Work organization, work characteristics, and their psychological effects on nurses in the Netherlands. *Int. J. Stress Manag.* **2002**, *9*, 183–206. [CrossRef]
10. Spurgeon, A.; Gompertz, D.; Harrington, J.M. Non-specific symptoms in response to hazard exposure in the workplace. *J. Psychosom. Res.* **1997**, *43*, 43–49. [CrossRef]
11. Huang, Y.H.; Yang, T.R. Exploring on-site safety knowledge transfer in the construction industry. *Sustainability* **2019**, *11*, 6426. [CrossRef]
12. Chen, W.T.; Merrett, H.C.; Huang, Y.H.; Lu, S.T.; Sun, W.C.; Li, Y. Exploring the multilevel perception of safety climate on Taiwanese construction sites. *Sustainability* **2019**, *1117*, 4596. [CrossRef]
13. Cooper, C.L.; Marshall, J. *Sources of Managerial and White Collar Stress*; John Wiley and Sons: New York, NY, USA, 1978.
14. MacNeil, D.H. *The Relationship of Occupational Stress to Burnout*; London House Management Press: Chicago, IL, USA, 1981.
15. Marie, M.; Shirley, B. Managing the stress of change in the public sector. *Int. J. Public Sector Manag.* **1994**, *7*, 29–41.
16. Robbins, S.P. *Organizational Behavior: Concepts, Controversies, Applications*, 9th ed.; Prentice-Hall: Englewood Cliffs, NJ, USA, 2001.
17. Jamal, M. Personal and organizational outcomes related to job stress and type-A behavior: A study of Canadian and Chinese employees. *Stress Health* **2005**, *21*, 129–137. [CrossRef]
18. Figen, E.; Tatjana, A. Occupational stress of teachers: A comparative study between Turkey and Macedonia. *Int. J. Humanit. Soc. Sci.* **2011**, *1*, 59–65.
19. Parker, D.F.; DeCotiis, T.A. Organizational determinants of job stress. *Organ. Behav. Hum. Perform.* **1983**, *32*, 160–177. [CrossRef]
20. Ministry of Health and Welfare. *Workplace Mental Health Education Manual*; Ministry of Health and Welfare: Taipei, Taiwan, 2008. (In Chinese)
21. Netemeyer, R.G.; Maxham, J.G.; Pulling, C. Conflicts in the work-family interface. Links to job stress, customer service employee performance, and customer purchase intent. *J. Mark.* **2005**, *69*, 130–143. [CrossRef]
22. Greiner, B.A.; Ragland, D.; Krause, N.; Fisher, J.M. Occupational stressors and hypertension: A multi-method study using observer-based job analysis and self-reports in urban transit operators. *Soc. Sci. Med.* **2004**, *59*, 1081–1094. [CrossRef]
23. Hoggan, B.L.; Dollard, M.F. Effort-reward imbalance at work and driving anger in an Australian community sample: Is there a link between work stress and road rage? *Accid. Anal. Prev.* **2007**, *39*, 1286–1295. [CrossRef]
24. Chen, M.J.; Cunradi, C. Job stress, burnout and substance use among urban transit operators: The potential mediating role of coping behavior. *Work Stress* **2008**, *22*, 327–340. [CrossRef]
25. Siegrist, J. Adverse health effects of high-effort/low-reward conditions. *J. Occup. Health Psych.* **1996**, *1*, 27–41. [CrossRef]
26. Siegrist, J.; Li, J.; Montano, D. *Psychometric Properties of the Effort-Reward Imbalance Questionnaire*; Duesseldorf University: Düsseldorf, Germany, 2014.
27. Marmot, M.; Wilkinson, R.G. *Social Determinants of Health*; Oxford University Press: New York, NY, USA, 1999.
28. Van Vegchel, N.; De Jonge, J.; Bosma, H.; Schaufeli, W. Reviewing the effort-reward imbalance model: Drawing up the balance of 45 empirical studies. *Soc. Sci. Med.* **2005**, *60*, 1117–1131. [CrossRef]
29. Leineweber, C.; Wege, N.; Westerlund, H.; Theorell, T.; Wahrendorf, M.; Siegrist, J. How valid is a short measure of effort-reward imbalance at work? A replication study from Sweden. *Occup. Environ. Med.* **2010**, *67*, 526–531. [CrossRef]
30. Hämmig, O. Explaining burnout and the intention to leave the profession among health professionals–a cross-sectional study in a hospital setting in Switzerland. *BMC Health Serv. Res.* **2018**, *18*, 1–11. [CrossRef]
31. De Jonge, J.; Bosma, H.; Peter, R.; Siegrist, J. Job strain, effort-reward imbalance and employee well-being: A large-scale cross-sectional study. *Soc. Sci. Med.* **2000**, *50*, 1317–1327. [CrossRef]
32. Neal, A.; Griffin, M.A. Safety climate and safety behavior. *Aust. J. Manag.* **2002**, *27*, 67–77. [CrossRef]
33. McLinton, S.S.; Dollard, M.F. Work stress and driving anger in Japan. *Accid. Anal. Prev.* **2010**, *42*, 174–181. [CrossRef]
34. Lingard, H.; Yesilyurt, Z. The effect of attitudes on the occupational safety actions of Australian construction workers: The results of a field study. *J. Constr. Res.* **2003**, *4*, 59–69. [CrossRef]
35. Farell, D.; Stamm, C.L. Meta-Analysis of the Correlaters of Employee Absence. *Hum. Relat.* **1988**, *41*, 211–227. [CrossRef]
36. Siu, O.; Phillips, D.R.; Leung, T. Safety climate and safety performance among construction workers in Hong Kong. The role of psychological strains as mediators. *Accid. Anal. Prev.* **2004**, *36*, 359–366. [CrossRef]
37. Leung, M.Y.; Liang, Q.; Olomolaiye, P. Impact of job stressors and stress on the safety behavior and accidents of construction workers. *J. Manag. Eng.* **2016**, *32*, 1943–5479. [CrossRef]
38. Leung, M.Y.; Chan, I.Y.S.; Yu, J. Preventing construction worker injury incidents through the management of personal stress and organisational stressors. *Accid. Anal. Prev.* **2012**, *48*, 156–166. [CrossRef] [PubMed]

39. Liang, Q.; Leung, M.Y.; Ahmed, K. How adoption of coping behaviors determines construction workers' safety: A quantitative and qualitative investigation. *Saf. Sci.* **2021**, *133*, 105035. [CrossRef]
40. Man, S.S.; Chan, A.H.S.; Wong, H.M. Risk-taking behaviors of Hong Kong construction workers–A thematic study. *Saf. Sci.* **2017**, *98*, 25–36. [CrossRef]
41. Man, S.S.; Chan, A.H.S.; Alabdulkarim, S.; Zhang, T. The effect of personal and organizational factors on the risk-taking behavior of Hong Kong construction workers. *Saf. Sci.* **2021**, *136*, 105155. [CrossRef]
42. Seo, H.C.; Lee, T.S.; Kim, J.J.; Jee, N.Y. Analyzing safety behaviors of temporary construction workers using structural equation modeling. *Saf. Sci.* **2015**, *77*, 160–168. [CrossRef]
43. Wu, X.; Li, Y.; Yao, Y.; Luo, X.; He, X.; Yin, W. Development of construction workers job stress scale to study and the relationship between job stress and safety behavior: An empirical study in Beijing. *Int. J. Environ. Res. Public Health* **2018**, *15*, 2409. [CrossRef]
44. Hall, D.T. A theoretical model of career sub-identity development in organizational settings. *Organ. Behav. Hum. Perf.* **1971**, *6*, 50–76. [CrossRef]
45. Holland, J.J.; Gottfredson, D.C.; Power, P.G. Some diagnostic scales for research in decision making and personality: Identity, information, and barriers. *J. Pers. Soc. Psychol.* **1980**, *39*, 1191–1200. [CrossRef]
46. Lobel, S.A. Allocation of investment in work and family roles: Alternative theories and implications for research. *Acad. Manag. Rev.* **1991**, *16*, 507–521. [CrossRef]
47. Mobley, W.H.; Griffeth, R.W.; Hand, H.W.; Meglino, B.M. Review and conceptual analysis of the employee turnover process. *Psychol. Bull.* **1979**, *86*, 493–522. [CrossRef]
48. Aryee, S.G.; Tan, K. Antecedents and outcomes of career commitment. *J. Vocat. Behav.* **1992**, *40*, 288–305. [CrossRef]
49. Darden, W.R.; Hampton, R.; Howell, R.D. Career versus organizational commitment: Antecedents and consequences of retail salespeoples' commitment. *J. Retail.* **1989**, *65*, 80–106.
50. Levin, L.; Roziner, I.; Savaya, R. Professional identity, perceived job performance and sense of personal accomplishment among social workers in Israel: The overriding significance of the working alliance. *Health Soc. Care Community* **2020**. [CrossRef]
51. Bedeian, A.G.; Kemery, E.R.; Pizzolatto, A.B. Career commitment and expected utility of present job as predictors of turnover intentions and turnover behavior. *J. Vocat. Behav.* **1991**, *39*, 331–343. [CrossRef]
52. Zhang, W.; Meng, H.; Yang, S.; Liu, D. The influence of professional identity, job satisfaction, and work engagement on turnover intention among township health inspectors in China. *Int. J. Environ. Res. Public Health* **2018**, *15*, 988. [CrossRef]
53. Ashforh, B.E.; Tomiuk, M.A. *Emotional Labor and Authenticity: Views from Service Agents*; Sage Publications: Thousand Oaks, CA, USA, 2000; pp. 184–203.
54. Wilk, S.L.; Moynihan, L.M. Display rule "regulation": The relationship between supervisors and worker emotional exhaustion. *J. Appl. Psychol.* **2005**, *90*, 917–927. [CrossRef] [PubMed]
55. Yoo, S.; Kim, M.S.; Park, H.S. Mediating effect of organizational commitment in the relationship between professional identity and job satisfaction. *J. Health Inform. Stat.* **2019**, *44*, 33. [CrossRef]
56. Gu, J.Y.; Lim, S.R.; Lee, S.Y. Effects of organizational culture of dental office and professional identity of dental hygienists on organizational commitment. *J. Dent. Hyg. Sci.* **2017**, *17*, 516–522. [CrossRef]
57. Feryok, A.; Askaribigdeli, R. A novice TESOL teacher's professional identity and evolving commitment. *TESOL J.* **2019**, *10*, e497. [CrossRef]
58. Ali, A.; Wang, H.; Soomro, M.A.; Islam, T. Shared leadership and team creativity: Construction industry perspective. *J. Constr. Eng. Manag.* **2020**, *146*, 04020122. [CrossRef]
59. Hensel, D.; Laux, M. Longitudinal study of stress, self-care, and professional identity among nursing students. *Nurs. Educ.* **2014**, *39*, 227–231. [CrossRef]
60. Ehsani Farid, E.; Peikari, H.R.; Golshiri, P. Correlation of professional identity dimensions with role stress in nurses. *J. Health Promot. Manag.* **2019**, *8*, 1–8.
61. Van Der Want, A.C.; Den Brok, P.; Beijaard, D.; Brekelmans, M.; Claessens, L.C.; Pennings, H.J. The relation between teachers' interpersonal role identity and their self-efficacy, burnout and work engagement. *Prof. Dev. Educ.* **2019**, *45*, 488–504. [CrossRef]
62. Edwards, H.; Dirette, D. The relationship between professional identity and burnout among occupational therapists. *Occup. Ther. Health Care* **2010**, *24*, 119–129. [CrossRef]
63. Caplan, G. *Support Systems and Community Mental Health, Lectures on Concept Development*; Behavioral Publications: New York, NY, USA, 1974.
64. Cobb, S. Social support as a moderator of life stress. *Psychosom. Med.* **1976**, *38*, 300–314. [CrossRef] [PubMed]
65. Cassel, J. The contribution of the social environment to Host Resistance. *Am. J. Epidemiol.* **1976**, *104*, 107–123. [CrossRef] [PubMed]
66. Muramatsu, N.; Yin, H.; Hedeker, D. Functional declines, social support, and mental health in the elderly: Does living in a state supportive of home and community-based services make a difference? *Soc. Sci. Med.* **2010**, *70*, 1050–1058. [CrossRef]
67. Carlson, D.; Perrewe, P. The role of social support in the stressor-strain relationship: An examination of work-family conflict. *J. Manag.* **1999**, *25*, 513–540. [CrossRef]
68. Cohen, S.W.; Wills, T.A. Stress, social support, and the buffering hypothesis. *Psychol. Bull.* **1985**, *98*, 310–357. [CrossRef]
69. Tetrick, L.B.; Slack, K.J.; Da Silva, N.; Sinclair, R.P. A comparison of the stress-strain process for business owners and non-owners: Differences in job demands, emotional exhaustion, satisfaction, and social support. *J. Occup. Health Psych.* **2000**, *5*, 464–476. [CrossRef]

70. Yang, F.C.; Kao, R.H.; Cho, C.C. A multilevel study on the causal relationship in association network of work stress. *Polic. An Int. J.* **2019**, *42*, 624–639. [CrossRef]
71. Park, J.C.; Kim, S.; Lee, H. Effect of work-related smartphone use after work on job burnout: Moderating effect of social support and organizational politics. *Comput. Hum. Behav.* **2020**, *105*, 106194. [CrossRef]
72. Guo, B.H.; Yiu, T.W.; González, V.A. Predicting safety behavior in the construction industry: Development and test of an integrative model. *Saf. Sci.* **2016**, *84*, 1–11. [CrossRef]
73. Hoyle, E. Teaching, social status. In *International Encyclopedia of the Sociology of Education*; Saha, L.J., Ed.; Pergamon: Oxford, UK; New York, NY, USA, 1997; pp. 717–721.
74. Cundiff, J.M.; Smith, T.W.; Uchino, B.N.; Berg, C.A. Subjective social status: Construct validity and associations with psychosocial vulnerability and self-rated health. *Int. J. Behav. Med.* **2013**, *20*, 148–158. [CrossRef] [PubMed]
75. Finkelstein, D.M.; Kubzansky, L.D.; Goodman, E. Social status, stress, and adolescent smoking. *J. Adolesc. Health* **2006**, *39*, 678–685. [CrossRef]
76. Euteneuer, F. Subjective social status and health. *Curr. Opin. Psychiatry* **2014**, *27*, 337–343. [CrossRef] [PubMed]
77. Huynh, V.W.; Chiang, J.J. Subjective social status and adolescent health: The role of stress and sleep. *Youth Soc.* **2018**, *50*, 926–946. [CrossRef]
78. Hoyle, R.H. The structural equation modeling approach. In *Structural Equation Modeling: Concepts, Issues, and Applications*; Hoyle, R.H., Ed.; SAGE Publications: London, UK, 1995.
79. Hair, J.F.; Black, B.; Brain, B.; Anderson, R.E.; Tatham, R.L. *Multivariate Data Analysis*, 6th ed.; Prentice Hall: Upper Saddle River, NJ, USA, 2006.
80. Fowler, F.J., Jr. *Survey Research Methods*; Sage: Riverside, CA, USA, 1993.
81. Chin, W.W.; Todd, P.A. On the use, usefulness, and ease of use of structural equation modeling in MIS research: A note of caution. *MIS Quart.* **1995**, *19*, 237–246. [CrossRef]
82. Doll, W.J.; Xia, W.; Torkzadeh, G. A confirmatory factor analysis of the end-user computing satisfaction instrument. *MIS Quart.* **1994**, *18*, 453–461. [CrossRef]
83. Bagozzi, R.P.; Yi, Y. On the evaluation for structural equation models. *J. Acad. Mark. Sci.* **1998**, *16*, 74–94. [CrossRef]
84. Bentler, P.M. Comparative fit indexes in structural models. *Psychol. Bull.* **1990**, *107*, 238–246. [CrossRef]
85. Bentler, P.M. On the fit of models to covariances and methodology to the Bulletin. *Psychol. Bull.* **1992**, *112*, 400–404. [CrossRef] [PubMed]
86. Cureton, E.E. The upper and lower twenty-seven percent rule. *Psychometrika* **1957**, *22*, 293–296. [CrossRef]
87. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [CrossRef]