

**A study on the relationship between role conflict, work stress, and quality of life:  
Moderating effect of personal leisure participation: The case of immigration officers**

**Jui-Sheng Lee<sup>1</sup> Rui-Hsin Kao<sup>2\*</sup>**

1. Assistant professor, Department of Ocean and Border Governance, National Quemoy  
University

1 University Rd Jinning Township, Kinmen 892 Taiwan (R.O.C)

2. Associate professor, Department of Ocean and Border Governance, National Quemoy  
University

1 University Rd Jinning Township, Kinmen 892 Taiwan (R.O.C) (**Correspondence  
Authors**) Tel: +886-82-355990 Email: [toptop074@yahoo.com.tw](mailto:toptop074@yahoo.com.tw)

**Abstract**

This study was undertaken to investigate the relationship between role conflict, work stress, and quality of life with immigration officers (IOs) as the research sample. The moderating effect of personal leisure participation was also explored. A total of 252 questionnaires were collected, of which 231 are valid. Of the 231 valid questionnaires, 179 came from males and 52 came from females. It was found that there is positive significant relationship for role conflict and work stress as well as work stress and quality of life. It was also found that personal leisure participation has moderating effect on the relationship between work stress and quality of life. Besides, it was also discovered that if IOs participate in leisure activities, especially the cultural activities and sports, then the negative effect of work stress would be reduced. In general, this study supplements the insufficient study about the work stress of immigration officers caused by role conflict, which may also cause a decrease in quality of life. Therefore, this article can be the practical reference for the strategy of relieving the role conflict of immigration officers, and the

leisure of the immigration officers is important in order to reduce the negative effect caused by work stress.

**Key words:** role conflict, work stress, quality of life, personal leisure participation, immigration officers.

## **Introduction**

The National Immigration Agency is responsible for border management, activities of foreigners in Taiwan, and related affairs of immigration. Immigration officers (IOs) are similar to judiciary police when they investigate the illegal entering and leaving Taiwan and immigration crimes. The duties are not only challenging and enticing, but are also dangerous. In addition, they are in shifts or 24 hours standby, which affects their regular routine and sleep schedule (Hung and Kao, 2016). Thus, the frontline IOs suffer from huge work stress.

Bowen and Schneider (1985) proposed that frontline attendants are the connection of an organization maintaining the customer relationship. They also believed that the attendants are the “image maker” of the organization (Bowen and Schneider, 1985). Besides, according to the interaction theory, service quality is the sharing and making experience between the customers and attendants involved in the service (Gronroos, 1984). According to this theory, the IOs who are in contact with citizens frequently are the pivots maintaining the service quality of Taiwan National Immigration Agency. The way to build up a good service attitude of IOs is one of the major factors for the organization to complete the objective of service. However, the working environment of Taiwan National Immigration Agency, as stated earlier, becomes the major factor to hinder IOs from showing good service quality. Work stress causes members of staff to be absent from work, resign, and lower their performance. It also increases the medical and legal expense so that the human resource cost of the organization is increased (Rosch, 2011). The

people who are required to work in shifts in Taiwan, including IOs, always work for long time and work stress is enormous. Prolonged stress may cause physical and mental problems for the staffs, harm the family function, increase the cost of the organization, and become secret worries of public security and social welfare. This phenomenon shows the necessity to study the work stress for IOs of Taiwan.

In conclusion, the IOs of Taiwan suffer huge work stress. However, what are the origins of stress? The IOs include the role of both law executors and service providers. Role conflict is regarded as the major origin of stress. Role conflict refers to a person who plays two or more roles, for which the expectation of each role conflicts with others (Gehrke, 1982). Role conflict is usually applied to test work stress. In general, it is believed that it is the major origin of work stress. When the perception of an individual concerning role conflict is more obvious, the person suffers higher work stress and this will affect the quality of life (Iwasaki, 2007). For example, IOs have to check whether the visitors for entry and departure have legal documents. At the same time, IOs have to serve the customers with customer focus concept. With such double roles, IOs have to enforce the law strictly. At the same time, IOs have to be cordial, amiable, and smile with empathy. This phenomenon is the intersender role conflict of the persons involved, and it is the biggest role conflict faced by frontline IOs (Brief et al., 1981). The role conflict of IOs is the major “cause” of work stress in causal correlation.

The research by Kao and Cheng (2014, p. 79) shows that the concept of work stress can be explained in three aspects, which include stimulation, interaction process, and response. It is believed that work stress is the response when the individual faces threat from certain job characteristics in the working environment (Jamal, 1990). The origins of stress from the working environment will cause physical and mental harm, as well as negative effect to the workers. The effectiveness depends on the subjective and objective conditions of the organization and causes

different negative response to the individual (Ivancevich and Matteson, 1980). Since workers on shifts do not have regular working time, routine or sleep schedule, it may easily result in scatterbrain and unable sentiment. This will further lead to dissonant social relationship and affect the individual's physical and mental regulation, family, and society (Knutsson, 2003). Therefore, it is important to study the quality of life of IOs.

The World Health Organization defined quality of life as “individuals’ perception of their position in life in the context of culture and value system and in relation to their goals, expectations, standards and concerns (Iwasaki, 2007, p. 234). Iwasaki (2007) believed that the quality of life is related to the individual's feeling of satisfaction concerning the living situation. The inconvenience caused by the jobs in shifts will affect the personal feeling of satisfaction of the life of these workers. This may even further affect the physical and mental health of all the workers; this will in turn affect the quality and safety of the job. Furthermore, scholars opined that workers on shifts for prolonged time will suffer from adjustment difficulty of their biological clock and become mentally fatigued. In the long-term, it will affect the overall quality of life of the individual (Rouch et al., 2005). Although work stress triggers negative health index, such as quality of life, well-being, physical and mental health, tired and occupational accident, the rotation system for the frontline IOs shall trigger role conflict and work stress, and affect the quality of life significantly. Therefore, it is believed that it is important to study the influence of role conflict and work stress on the quality of life of IOs in Taiwan.

In a meta-analysis study on the work stress model, Kao and Cheng (2014) reviewed the work stress study in the past and pointed out that most of the researchers regarded work stress as a negative concept. It is believed that jobs, groups, organizations, and personal factors will affect the work stress of staffs. These refer to the negative stress feeling experienced by the staffs. These factors do not only affect the negative stress feeling of the staffs directly, but also affect

the occupational health of the individual, such as quality of life. Therefore, the negative feeling of work stress occupies the core position of the causal correlation of the work stress study concept. Besides, after reviewing the current study, it was found that groups, organizations, and individual factors can be the buffer factors and interaction effect is also involved.

The negative effect of work stress has significant impact on health. Therefore, in addition to the core position of the causal correlation of the work stress study concept to study the antecedent and consequence of work stress, the intensity of work stress and individual cognition are also involved. In order to address the negative effect of work stress, some individual factors that can relieve the negative effect of work stress are also included in this study; these individual factors, which can reduce the negative effect of work stress, can be found and the relevant individual adaptive strategy can be planned.

Besides, according to the relevant study of work stress, from the organizational behavior point of view, each person plays different roles in the organization, in order to satisfy the expectation of other persons in the organization. When the individual plays too many occupational roles, the problems of roles will occur naturally (Cooper et al., 1988; Kao and Cheng, 2014). These problems will affect the physical and mental health in the future. Therefore, topics related to role conflict and quality of life of the staffs should be included in the core position of the causal correlation of work stress, in order to understand the antecedent and consequence of work stress for IOs. It will also verify the function of each occupational role, in order to promote the balance between the job and family life of the staffs in order to relieve the work stress feeling of IOs and increase their health index. Furthermore, individuals can also attend leisure activities to reduce the negative effect of work stress. Also, individuals may increase their leisure activities and choose the activities they want without suffering from external stress in order to get inner freedom, be fully satisfied and have unfettered state of mind.

In addition, the personality and feeling of the individuals can be expressed (Bammel and Burrus-Bammel, 1992).

The factors that can relieve the negative effect of work stress specified above involve different individual and group factors. According to the current situation of frontline IOs and the assistance that can be provided by the organization, this study believes that organizational factors, including organizational culture and system, cannot be changed in a short period of time or by the organization itself. Besides, individual factors with relieving effect, such as difference in demographical and personal character, are also hard to change in an organization within a short period of time. However, the organization may build up the factors by encouraging or other practice of human resource management, such as encouraging staffs to join leisure activities in leisure time, holding staff tours and encouraging staffs to assemble with colleagues. This helps the staffs to increase the self-management ability of work stress, in order to lower the negative feeling of work stress. Since the feeling of work stress comes from individual cognition and the points specified earlier, this study will apply individual joining leisure activities as the adaptive mechanism for the individual facing work stress.

In conclusion, although many scholars have explored topics about work stress and have recorded many achievements, based on the view of the objects of study, role conflict is the major source of work stress among immigration officers. It should be noted that this topic has not been thoroughly studied. Therefore, it is believed that it is important to study the causal correlation and moderating effect of the work stress of immigration officers. In conclusion, the theoretical model to be tested in this study is to regard the work stress of IOs as the core position of the causal correlation of quality of life. Through the statistical analysis, the moderating effect of personal leisure participation will be discussed. In general, this study supplements the insufficient study about the work stress of immigration officers caused by role conflict, which

may also cause a decrease in quality of life. Therefore, this article can be the practical reference for the strategy of relieving the role conflict of immigration officers, and the leisure of the immigration officers is important in order to reduce the negative effect caused by work stress.

## **Literature review and hypotheses development**

### **Work stress**

Work stress is a dynamic process. When there is a difference between the job requirement of individual assessment and cognition and resources that must be arranged properly, work stress will be triggered (Tyagi and Dhar, 2014). The incentive involves certain factors in working environment, for which it causes coercive or negative phenomenon to the staffs (Caplan and Jones, 1975). In the study about the work stress of police, Brown and Campbell (1990) found that hierarchical characteristics are the major origin of stress for the basic level police, for which it is higher than daily operation duties. The study from Richmond et al. (1998) found that 12% policemen and 15% policewomen suffer from serious stress disorder. In a study involving 415 police, it was found out that organizational context is very important to basic level police to feel work stress or not. The study concluded that the regulations conflict is the first important origin of stress (Stevens, 1999). Besides, Brooks and Piquero (1998, p. 600) found that “police agency size did not affect police stress; rather the environment in which the officers worked” (Wheaton and Montazer, 2010). A study by Morash et al. (2006) also found that the lack of support is a strong indicator of stress for police. Furthermore, the study from Silverii (2015) points out that danger, authority, violence, suspicion and isolation have been proven as the major origin of work stress for police. In conclusion, the stress, including daily operation duties, role conflict, organizational context, hierarchical confrontation, and lack of support from organization will affect the individual police, their families, and the service objects (Ivie and Garland, 2011).

The National Immigration Agency of Taiwan was established in 2007. There are a few

studies about work stress of IOs, such as the study from Lin and Tsai (2011) about the work stress of IOs in Taiwan. They observed that insufficient labor, heavy duties, always working overtime, and frequent performance assessment are the major origins of work stress for IOs. A study by Huang (2012) also pointed out that the major origin of work stress of IOs includes (1) individual factors, such as individual mentality, physical condition, working ability, and interaction with families and colleagues. (2) Internal factors, such as organizational culture, service system, requirement from senior official, rule multifariousness. (3) External factors, such as authorities, elected representatives, and interaction with citizens. In addition, there was a study of work stress for aviation police who have similar working properties with IOs (Wang, 2006). It was found that the stress of security checking staffs in airport includes: working environment, work overload, relationship with supervisor and colleagues, job nature, management of organization and relationship with visitors (strictly execute relevant checking without giving offence to visitors), cooperation of visitors, and communication with visitors. In a study by Wang (2006), it was also found that the stress of aviation police in daily operational duties includes five items; namely, interaction with people, equipment and regulations, decision-making power on job, workload, and organizational climate.

In conclusion, regardless of the job of immigration or police, most of the work stress for staffs comes from job characteristics, job contents, internal factors of organization, and external factors of organization. These factors include structure of organization, role conflict, conflict between jobs and families, individual factors, social support and society support network.

### **Relationship between the variables**

#### *Relationship between role conflict and work stress*

Role conflict is usually applied to test work stress and is generally believed as a major

origin of work stress. When the cognition of the role conflict is more significant, the individual suffers from higher work stress (Jackson and Schuler, 1985). Role can be regarded as the role-played by individual in the society. When the expectation of different roles cannot be met, it may cause indecisive behavior, psychological disorder, nervousness, stress, and exhaustion (Rahim, 1992). When there is difference between job requirement of individual assessment and cognition and resources that must be arranged properly, work stress will be triggered (Marie, 2004). Dewe raised a work stress model in 1986. It is believed that the workload in the working environment, role conflict, job, and the working environment belongs to the origins of stress and stimulation. Through individual characteristics, such as individual ability, requirement and motivation - the requirement to the individual will become cognition to stress, for which the response of physiology, behavior, and cognition will be triggered. It is obvious that role conflict is one of the important predisposing factors affecting the individual cognition of strength of work stress. In a study on role conflict, role ambiguity, as well as job and family roles conflict, it was found that when the expectations of individual roles are inconsistent, role conflict will be triggered (Cooper et al., 1988). Besides, the role conflict between job and family refers to the conflict between occupational role and family role (Greenhaus & Beutell, 1985). These roles are origins/sources of work stress, which may lower job satisfaction and increase anxiety.

In addition, the study by Mohr and Puck (2007) on the relationship between role conflict of the general manager and work stress, for which the object of study is international joint ventures general manager. It was found that role conflict had a positive effect on work stress. The study by Soltani et al. (2013) also found that the effect of role conflict on work stress is significant. Furthermore, relevant studies (Belias et al., 2015) also showed that role conflict and work stress have significant correlation. In conclusion, due to the high expectation of visitors, and intersender role conflict for law execution and service, IOs will feel higher work stress.

Therefore, this study raised the following hypotheses:

H1: Role conflict has significant influence on work stress

*Relationship between work stress and quality of life*

As specified above, work stress is the interaction of factors of working environment and the individual character and ability and the available resources, causing mental and physical menace to workers, for which the psychological sense responded. The study by Kao and Cheng (2014) pointed out that most of the studies regarded work stress as a negative concept. They believed that jobs, groups, organizations, and individual factors will affect the work stress of workers. It does not only directly affect the negative feeling of the workers, but it also affected the occupational health of the individuals, such as dropping of quality of life.

French and Kahn (1962) proposed the social environment model. This model applies interactionism from Lewin (1951). It is believed that if the individual's response to the objective environment requirement cannot be handled properly, the behavior and health of the individual will be affected. Moreover, Caplan et al. (1975) raised a person-environment fit theory and believed that origins of stress include multiple factors, such as job characteristics, working environment, role, and interpersonal relationship. When the origin of stress of the job increases, if the individual requirement or ability does not fit the supply or requirement of these factors, it may cause mental strain. This may cause psychological reactions of the staffs, such as anxiety, depression, or exhaustion. As a result, it will cause low quality of life of staffs (Kristof, 1996). Furthermore, Ivancevich and Matteson (1980) proposed the integration model of job work stress. That model emphasizes that the origins of work stress from the inside and outside of organizations could cause job, occupational and living work stress, which may affect physiological and behavioral performance, and may finally result in adaptive disease. Besides, based on social exchange theory, Siegrist (1996) proposed the effort-reward imbalance model.

This model includes the concepts of efforts at work and rewards at work. It emphasizes fair and reasonable social exchange process for effort and reward. The imbalance for great effort and low reward will cause stress reaction. According to this model, great effort and low reward, or over engaging in work may cause nervous reaction and diseases. This lowers the quality of life (Kao and Cheng, 2014). Thus, work stress may affect the health of the staffs. Ferrans (1990) believed that the inconvenience caused by working in shifts may affect the physical and mental health of the staffs. This will further affect their quality of life. Scholars (Rouch et al., 2005) opined that staffs working in shifts for a long-term may have difficulty in adjusting their biological clock and may result to mental fatigue. In the long-term, this will affect the overall quality of life. In conclusion, the following hypotheses about correlation are raised by this study:

H 2: Work stress has significant influence on quality of life.

*Moderating effect of personal leisure participation on the relationship between work stress and quality of life*

The study showed that the origins of work stress from the working environment will cause physical and mental harm which negatively affect staffs. The effectiveness depends on the subjective and objective conditions of the organization, and induces different negative responses from the individuals (Ivancevich & Matteson, 1980). Many studies have regarded work stress as a negative concept. However, it was found that staffs may be relieved from the negative factors of work stress by individual factors (Kao & Cheng, 2014). Besides, the ability to effectively adapt to individual factors, will be of benefit to the physical and mental health of individuals (Schaufeli & Buunk, 2003). For example, the study of Bammel and Burrus-Bammel (1992) revealed that individuals are able to reduce the negative effect by engaging in volunteer activities. In the “discretionary time”, individuals may increase the leisure activities and choose the activities they want without suffering from external work stress in order to get inner freedom, be

fully satisfied and have unfettered state of mind. In addition, the personality and feeling of the individuals can be expressed. It is obvious that engaging in leisure activities can be regarded as relieving factors of work stress affecting the individual's quality of life.

Furthermore, the study showed that the ability to cope with work stress is affected by the internal and external resources of the individuals, as well as the environment. In general, there are two major ways by which individuals cope with work stress. One is the problem-focused coping method. This strategy is focused on changing the environment, individual behavior or solving the problem directly, in order to change the relationship between the individual and origins of work stress. The other strategy is the emotion-focused coping method. This is based on adjusting the emotional reaction of work stress and reducing the negative effect caused by work stress and it does not change the origins of work stress (Iwasaki et al., 2002). For example, people may engage in certain activities to experience happiness, in order to adjust themselves and obtain relief from psychological depression (Lazarus & Folkman, 1984). Therefore, individuals engaging in leisure activities could reduce the negative effect caused by work stress.

Many scholars found that leisure activities could maintain and improve physical and mental health, as well as assist individuals in adapting to life work stress and improving the quality of life (Iso-Ahola & Park, 1996; Iwasaki & Mannell, 2000; Iwasaki et al., 2002). Therefore, engaging in leisure activities can be regarded as a method of coping with work stress to reduce its negative effect. This means that leisure is applied to avoid work stress as well as maintain physical and mental health. For example, Mannell and Kleiber (1997) specified that leisure could help to maintain stability in an individual's physical and mental health. By participating in leisure activities, such as listening to music, singing after duty, or vacationing, the attention of the individual on the issue of work stress is temporarily indirectly transferred. Through this temporary transfer, people can get the motivation again to face different work stress in life

(Iwasaki, 2003a). Furthermore, increasing the positive emotion by engaging in leisure activities is also an important way of coping with work stress. For example, Hull and Michael (1995) believed that leisure activities could help individuals under work stress to increase their positive emotion and reduce the negative effects of work stress. In addition, the study of Lazarus (1991) proved that there is a correlation between coping with work stress and emotion.

In conclusion, although stress will cause direct and negative effect to physical and mental health, joining the leisure can bring positive effect to health and increase the individual quality of life (Wijndaele et al., 2007). Besides, the relevant studies showed that when people are under high stress and do not join leisure activity usually (low leisure coping), they will be unable to cope with the stress; this will lead to bad physical and mental status. However, under the same situation, people who usually join leisure (high leisure coping) can maintain good physical and mental health (Iwasaki, 2003b). Furthermore, through the social leisure activities, friendship with colleagues can be increased so that the individual can experience the feeling of being concerned by other. When people face the stress and need assistance, colleagues may also provide proper support (including emotion, message, instrumental, and solid support). Through interaction with colleagues, the stress faced by the individual can be significantly reduced and the quality of life will be improved (Coleman and Iso-Ahola, 1993). According to this concept, Iwasaki and Mannell (2000) raised the theory of performance and self-determination derived from leisure. They pointed out that the leisure coping behavior and cognition dealing with the daily stress is able to moderate negative stress and cause positive moderating result. This includes improving the quality of life of the staffs, in order to maintain their physical and mental health.

According to the information above, this study proposes the following hypotheses of moderating effect:

H3: Personal leisure participation has a moderating effect on the relationship between work

stress and quality of life.

## **Method**

### **Research framework**

The framework of this study is shown in Figure 1, which depicts the relationships between role conflict, work stress, and quality of life. The moderation of personal leisure participation will also be examined in this model.

### **Sampling**

The subjects of this paper are frontline IOs of Taiwan's National Immigration Agency, with its entire staff on duty at the country's airports and harbors. The inspections of travelers' documents upon entry or exit at checkpoints and interviews with foreign spouses on their first entry are the main aspects of study. To ensure the credibility and quality of information used, the following measures were applied during the selection of research targets: (1) during sampling, in order to expand the number of teams so as to normalize differences in a real and work characteristics, a total of 18 teams currently deployed at all airports and ports were included for the purpose of increasing heterogeneity of the respondents and reducing the risk of common method variance; (2) each analyzed team has at least 10 members, all of whom are frontline immigration officers; (3) frontline IOs who have joined the unit of service for at least 3 months and have clear knowledge of their job scopes and contents. All who fulfill the aforementioned conditions fall within this research's sampling.

Based on the above, this research adopted two tactics to avoid common method variance (CMV). The first tactic is two-stage data collection. The first stage involves data collection at the individual level and the second stage, which is launched two weeks after the first questionnaire survey. Several reverse questions were also designed in the questionnaires to check whether the respondents have paid attention to the questions and answers. The second tactic is using Herman's

single-factor post hoc analysis developed by Podsakoff and Organ (1986), to test whether issues of CMV exist in the questionnaire. Herman's single-factor post hoc analysis assumes that CMV issues exist when a single factor is extracted from the factor analysis or when a compound factor explaining the main variance of the dependent and independent variables exceeds 50% (Mattila and Enz, 2002). The results of factor analysis showed that maximum variance explained by a single factor is only 20.44%. This result shows that CMV in this research is not significant

### **Measures of research variables**

The variables studied by this paper can be separated into research variables and control variables. The different variables are explained below:

#### ***Role conflict***

This study measures the role conflict of IOs. It refers to the questionnaires developed by Rizzo et al. (1970), and adjusted according to the characteristics of the immigration jobs in order to be applied to the object of study. The questionnaire has four dimensions, including intersender role conflict, person-role conflict, inter-sender role conflict, and role overload. There are 10 questions.

#### ***Work stress***

This study measures the work stress of IOs. It refers to the 'Effort-Reward Imbalance model' proposed by Siegrist and Peter (2000) and adjusted according to the characteristics of the immigration jobs for application to the object of study. After adjustment, the questionnaire had two major parts, including 'efforts at work' and 'rewards at work', as well as 17 questions. The 'rewards at work' had three factors, including money, self-esteem, and status. The 'efforts at work' includes extrinsic effort and intrinsic effort.

#### ***Quality of life***

WHOQOL-BREF and Short-Form 36 (SD-36) are two commonly applied questionnaires

for quality of life. This type of questionnaires is applicable when comparing the object across the different ethnic groups, including across the countries, across the cultures, and across different diseases. SF-36 and WHOQOL-BREF are two types of scale for quality of life with high reliability and validity. It has been widely applied on studies about quality of life. However, there are big difference on contents and scaling. Since there are relatively more variables in this study, there should not be too many questions on scale for each variable. Due to the region of object of study, this study applied WHOQOL-BREF. There are 28 questions in 4 different aspects: physical, psychological, social, and environment. There are 5 options for each question and they are transferrable to 0-100 scores. The higher scores represent better quality of life.

### ***Personal leisure participation***

This study measured the IOs joining leisure. It refers to the classification of leisure activities from Ragheb and Griffith (1982). The job characteristics were modified according to IOs, in order to be applicable to the object of study. After modification, the questionnaire was classified as social media, outdoor activity, cultural activity, sport, social activity, and hobby activity.

### ***Control variables***

Prior research has shown that the time an individual joined the group would influence his interpersonal interaction, leading to an effect on employee behavior (Hsieh et al., 2012). Thus, this paper also listed employees' years of work as a control variable. Besides this, members' ages and education levels may also affect the data analysis (Kao, 2015), and these are also control variables. The control variables used in this paper, have been widely used by many researchers (Hsieh et al., 2012; Kao, 2015).

After following Brislin's (1986) recommendations with regard to ensuring the accuracy and conceptual equivalence of both the Chinese and English versions, all question items in this study were translated and back-translated by bilingual native speakers of both languages. Participants

rated items on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) (Chen and Kao, 2012).

### **Data collection and informed consent**

The participants were asked to fill in the questionnaires on site. The questionnaires were immediately collected after its completion to enhance the response rate. In order to obtain the informed consent from the participants, the objectives and procedure of this research was well explained by the research associates. Questions from the volunteer participants were taken and answered accordingly. The participants were assured of the confidentiality and anonymity of their response

## **Results**

### **Basic analysis**

This paper collected a total of 252 questionnaires, of which 231 are valid. Of these 231, 179 came from males and 52 from females; this is close to the gender ratio structure of the Taiwan National Immigration Agency. The majority of those interviewed were university graduates, taking up 46%, 39.2% graduated from Taiwan Police College. The average years of service of IOs was 8.24 years, the average years of service in the current unit was 6.47, and the average headcount of each unit was 19.11. As the Taiwan National Immigration Agency was formed only in 2007, it can be concluded from the years of service of the IOs and their units surveyed, a majority of those surveyed were transferred from police units. These were police officials who dealt with work of an immigration nature and worked in the same unit for a longer time after joining the National Immigration Agency (such as in the same team). Thus, the values obtained from the measurement of the variables in this questionnaire can more specifically reflect the current status of the National Immigration Agency's checkpoint work.

Table 1 shows the mean, standard deviation (SD), Cronbach  $\alpha$ , and correlation coefficient

among variables of research variables. As shown in Table 1, the control variables had no significant impact on the research's variables and all these variables obtained an acceptable reliability coefficient (0.7 and above), showing a positive relationship between these variables. To determine whether role conflict, work stress, quality of life, and personal leisure participation are different underlying constructs, this paper conducted CFA using LISREL as the maximum likelihood to compare these four different underlying constructs. As shown by the CFA results in Table 2, it can be seen that the four concepts in this paper are different underlying constructs. In addition, this paper made use of SPSS for Windows 25 software to conduct hierarchical regression analysis.

### **Hypothesis testing and discuss**

#### *The relationship between role conflict, work stress, and quality of life*

This paper tests assumption models and control variables' influence on the research variables with HRA. As the results in Table 3 shows, we can learn that model 2's role conflict has reached a significant level ( $\beta = 0.323$ ,  $p < 0.001$ ), with a post-adjustment  $R^2$  of 0.171 and a F value of  $p < 0.001$ , demonstrating that role conflict had a strong explanatory power on work stress; hence, H1 is supported. The result showed that when an individual faces role conflict, there will be increased anxiety, which finally results in coercion or a negative situation involving staffs. When the individual's perception of role conflict becomes more obvious, greater work stress will be experienced. The intersender role conflict between the law executor and service provider is common among staffs. Therefore, the organization should improve the professional skills of staffs by training, so as to determine rapidly and correctly, if the entry and departure of visitors is illegal or if they are engaged in illegal activities. Staffs should understand when to play the role of a service provider. In model 4, the effect of work stress on quality of life is significant ( $\beta = -0.452$ ,  $p < 0.001$ ). After adjustment,  $R^2 = 0.295$  and the F-value ( $p < 0.001$ ) is

significant, suggesting that work stress had very strong explanatory power on quality of life. Therefore, H2 is supported. The result showed that when there is an increase in the origins of work stress in the job, it may cause psychological reactions of staffs such as anxiety, depression, and exhaustion. This may cause low efficiency of staffs on jobs, affect their physiological and behavioral performance, and finally affect their quality of life. Therefore, the supervisors of the organization should build up a welfare package to cater for the needs of staffs. Supervisors should care for the health status of the staffs to provide job and living support. Furthermore, supervisors should listen attentively to the staffs concerning any problem, guide staffs on the best way to balance the role conflict of different jobs and help staffs cope with work stress.

#### *Moderating effect of personal leisure participation*

The result of hierarchical regression analysis is listed in Table 3. From Table 3 and mode 5, it was observed that personal leisure participation had moderating effect on the relationship between work stress and quality of life ( $\beta = -0.168, p < 0.05$ ). Therefore, H3 is supported.

This study analyzed the slope of interaction to evaluate the form of interaction so that the effect of interaction can further be explained. In Figure 2, the X-axis shows the change of work stress while the Y-axis shows the change of quality of life. The interaction observed is as shown in Figure 2. This shows the interaction effect of personal leisure participation and work stress on the quality of life of IOs. It is obvious that joining leisure had a strong moderating effect. The interaction diagram also showed all the work stress levels. It also pointed out that IOs who have higher level of personal leisure participation have better quality of life than those with lower level. The result showed that engaging in leisure activities can relieve the negative impact of work stress on the individual's quality of life. Therefore, people may engage in certain activities to become happy in order to adjust themselves and gain relief from psychological depression, so

as to change the relationship between themselves and the sources of work stress. Besides, supervisors of organizations should encourage subordinates to engage in leisure activities more frequently. Organizations should organize events that staffs are interested in, such as cooking, aerobics, watching films, and participating in social services, in order to improve the interpersonal relationship of staffs and reduce work stress.

## **Conclusion and suggestion**

### **Conclusion**

The objective of this study was to explore the nature of work stress, test role conflict and the relationship between work stress and quality of life. To test the validity of the model of this study, CFA was applied. The major discoveries include the following: firstly, from the hierarchical regression analysis, this study found that there is positive significant relationship for role conflict and work stress as well as work stress and quality of life. The discoveries have consistent results with previous studies (Belias et al., 2015; Soltani et al., 2013; Rouch et al., 2005). Furthermore, from the hierarchical regression analysis, it was observed that personal leisure participation had moderating effect on the relationship between work stress and quality of life. The former results showed that when the expectation of role for law executors and service providers cannot be met by the IOs in job, role conflict will occur easily. In addition, the indecisive external behavior, internal mental confusion, and nervousness induce stress feeling. This feeling affects physical and mental health as well as the quality of life. However, this study also found that if IOs can join the leisure, especially the cultural activities (going to libraries, domestic and foreign travelling, social service activities, attending different information exhibitions,...etc.) and sports (ball games, going to gym, jogging, etc.), the negative effect of work stress could be reduced.

### **Theoretical and practical implications**

The result of this study includes the following theoretical and practical implications.

First, this study started from the job contents of IOs and work stress correlation is applied as the theory model. It is believed that when IOs play the roles of law executors and service providers, if the expectation of roles cannot be met, role conflict may occur. Thus, this study regards role conflict as the major origin of stress for IOs and is regarded as a stimulating factor of work stress. Besides, from the working environment, the rotation system and the task of IOs are challenging, enticing, and dangerous. This forms the subjective and objective environment of work stress feeling. Therefore, the multiple factors of interactive process form the work stress feeling of IOs, which lowers their quality of life. Based on the information specified earlier, this study has established the current correlation (role conflict – work stress – quality of life) of work stress for IOs of Taiwan. This is the primary contribution to the theory of this study. Secondly, this study has proven that personal leisure participation has modulating effect on the relationship of work stress and quality of life. This result shows that joining leisure does not only relieve the work stress feeling of staffs but also reduces the negative effect of work stress. It increases the moderating model of work stress correlation for IOs in Taiwan, so that the theories of work stress model of IOs can become intact.

In addition to the discussion above, the result of this study also includes certain practical implications. First, this study found that role conflict affects the work stress feeling of IOs, and work stress will also have a negative effect on their quality of life. This discovery shows that role conflict is one of the important predisposing factors of stress. It is very important for the organization to establish a positive work environment. Thus, this study suggests actively researching how to implement human-based adjustment on a rotation system, or taking other possible measures to further

reduce the negative impact of a rotation system. Therefore, the National Immigration Agency of Taiwan should manage role conflict among frontline IOs. They should devise a way of achieving balance between law execution and service. This entails harmonizing both roles in order to avoid the role conflict between law execution and service. Thus, the professional knowledge on law execution and working attitude of IOs are very important, especially the duty attitude and service skill. If the organization can establish human resources management practices, such as selecting the proper characteristics of people for service, build up reasonable salary and welfare system for IOs, and providing professional training, role conflict can be avoided. Besides, the National Immigration Agency of Taiwan should establish official mentoring programs in organizations to encourage communication between the upper and lower levels. The supervisors should listen attentively to the staffs concerning any problem, guide the staffs in the best and easiest way to balance the role conflict of different jobs and provide strategies for coping with stress. Secondly, from the relevant literatures and this study, it was found that job overloaded, managing method of the organizations, IOs working on shifts and 24 hours standby, and working environment are the major factors causing work stress feeling of IOs. Although, these factors are difficult to change in a short time, the National Immigration Agency can still improve the situations through managing practice, such as intact annual leave system for staffs, adjusting the operation of the service and canceling unnecessary “standby duty”. Besides, supervisors should provide guidance to IOs relieving stress any time and be attentive to their feeling of stress to avoid over response to negative stress. Thus, formative education and on-the-job training should teach them how they can distinguish between different roles, clarify the values of different roles, and adjust the corresponding concepts to avoid role conflicts. Thirdly, personal leisure participation is important to staffs relieving stress. Encouraging staffs to join more leisure activities can relieve the feeling of work stress and reduce the negative effect of work stress when faced with job

related problems. Therefore, the National Immigration Agency should encourage IOs joining different leisure activities to extend the leisure area, relax, and bring up individual leisure interest in order to be relieved from work stress. In addition, by joining leisure activities, interpersonal social relationship is built and the spirit is refreshed. At the same time, do the best for self-emotion management to improve the quality of life.

The overall contributions of this study include the following: this study has established the current correlation between role conflict and quality of life, of immigration officers in Taiwan. It has increased the modulating model of work stress correlation for immigration officers in Taiwan, so that work stress theories can become intact. Besides, this study has provided many practical suggestions to organizations on establishing a human resources department to manage the staffs and avoid role conflict, such as selecting the proper characteristics of people for service, establishing a reasonable salary and welfare system, and providing professional training. In addition, suggestions about changing the task design can be provided to organizations in order to relieve the work stress of staffs, such as providing an intact annual leave system to staffs, adjusting the operation of service, and enhancing the role of supervisors to assist staffs in relieving work stress. Moreover, this study also encourages staffs to join leisure activities, relax more often, and bring up leisure interests in order to obtain relief from work stress, and improve the quality of life.

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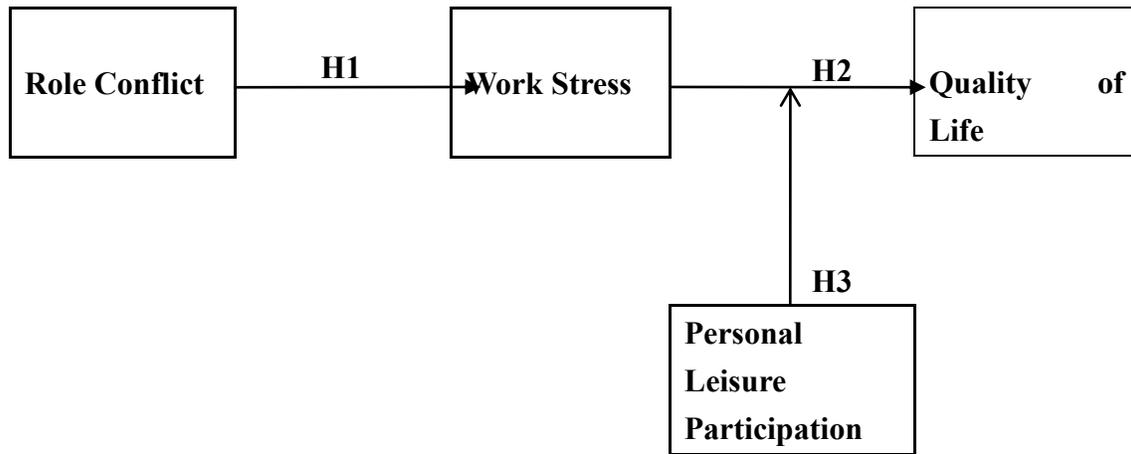


Figure 1. Research Models

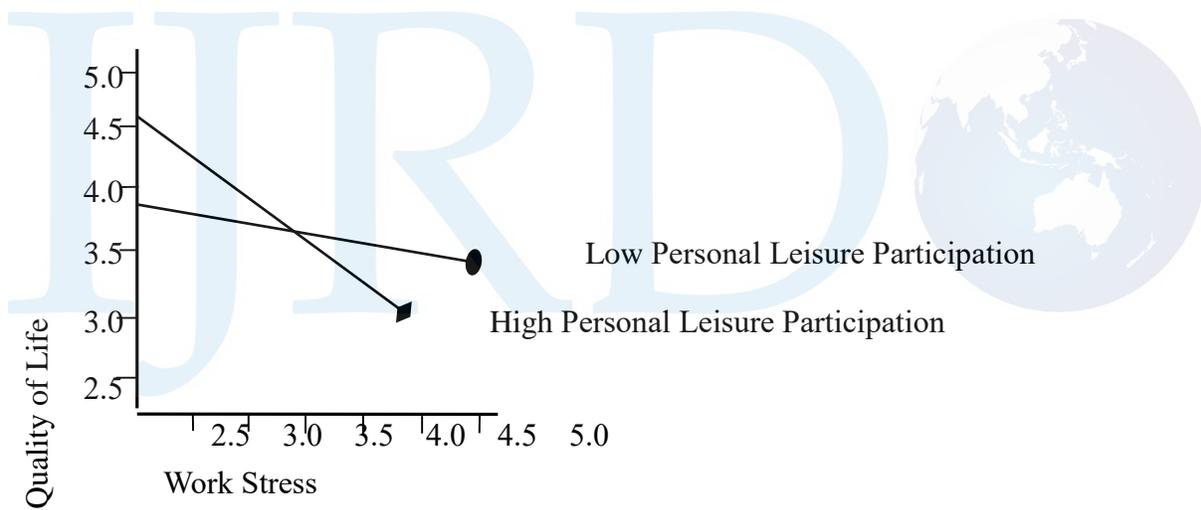


Figure 2. The Moderating Effect of Personal Leisure Participation

**Table 1. Descriptive Statistics, Correlation Coefficient, and Alpha Coefficient**

	<i>M</i>	<i>SD</i>	$\alpha$ coefficient	Research Variables			
				(1)	(2)	(3)	(4)
(1) Role conflict	3.275	.427	.701	1			
(2) Work stress	2.928	.444	.824	.308** *	1		
(3) Quality of life	3.336	.488	.915	-.326** *	-.447** *	1	
(4) Personal leisure participation	19.387	20.047	.848	-.093	-.015	.181*	1

*Note.* (1)–(3) = individual-level research variables; (4) = group-level research variables. \* $p < 0.05$ ; \*\* $p < 0.001$ .

**Table 2. Goodness of Fit Indicators for Individual-Level Variables**

Research Variable	$\chi^2/df$		GFI		NNFI		PGFI		RMSEA	
	Observed value	Ideal value	Observed value	Ideal value	Observed value	Ideal value	Observed value	Ideal value	Observed value	Ideal value
Role conflict	2.55		0.93		0.94		0.72		0.058	
Work stress	2.97		0.92		0.93		0.69		0.066	
Quality of life	2.31	1.00	0.94	>	0.94	>	0.76	$\geq 0.5$	0.049	$\leq$
Personal leisure participation	4.51	5.00	0.89	0.8	0.90	0.9	0.52		0.078	0.08
References	Schumacker and Lomax (1996)		Jöreskog and Sörbom (1988)		and Bagozzi and Yi (1988)				Baumgartner and Homburg (1996)	

**Table 3. Hierarchical Regression Analysis**

Control variables	Model number				
	1	2	3	4	5
Age	-0.034	-0.093	0.173	0.192	0.108
Education level	0.037	0.082	0.063	0.043	0.046
Years of service	-0.026	-0.079	-0.077	-0.063	-0.064
Model independent variables					
Role conflict		<b>.323***</b>			
Work stress				<b>-.452***</b>	<b>-.429***</b>
Work stress × Personal leisure participation					-0.168*
<i>F</i>	1.094	5.657***	.936	10.452***	9.743***
Adj. <i>R</i> <sup>2</sup>	0.003	0.171***	-0.002	0.295***	0.317*

*Note.* Dependent variable: Model 1, 2 for work stress; Model 3, 4, 5 for quality of life.