**Predictors of Nursing Staff Turnover Intentions - Evidence from Primary Care Organizations in Taiwan**

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**Abstract**

The direct contact between nursing staff and patients during the COVID-19 epidemic increased their turnover tendency due to severe cases, mortality, disease uncertainty, and increased care giving stress during the outbreak, which had a significant impact not only on nursing staff but also on patients and hospitals. It is important for hospital administrators to examine the factors related to nursing staff and turnover tendency. In this study, we investigated the effects of personality traits, job satisfaction, organizational commitment, and turnover tendency by examining the correlation theory among frontline health care workers. The main findings showed that (1) personality traits had a significant positive relationship with organizational commitment; (2) job satisfaction had a significant positive relationship with organizational commitment; and (3) organizational commitment had a significant positive relationship with turnover tendency. The results of the study contribute to relevant literature and have guiding implications for the management of human resources in healthcare service organizations.

**Keywords:** Personality Traits, Organizational Commitment, Turnover Intention, Job Satisfaction

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**1. INTRODUCTION**

The nursing workforce in Taiwan hospitals accounts for 50%-60% (Chiu, 2012) and is the largest group of health care workers. They often need to meet with different cultural groups and face the diverse needs of families and patients, which is a very stressful job. The need to adjust to various temporary situations during the shift, as well as the need to take care of family or personal health, has led to the loss of nursing staff in the health care system in Taiwan and around the world. The nursing workforce shortage is a global issue and nurse turnover has been defined as a global health care system problem (Gebregziabher et al., 2020). Ferguson (1986) categorized the type of separation as voluntary and involuntary, and Vévoda et al. (2016) suggested that it is referred to as voluntary and early termination of a nurse's employment. Gebregziabher et al. ( 2020) the intention to leave a job as a nurse has been widely defined as "the perceived likelihood that the individual will leave the employment unit permanently in the near future".

There are several reasons that affect nursing staff's willingness to work, including (1) personal factors, such as health problems and lack of interest in nursing; (2) work factors, such as having to work three shifts, high work pressure, and lack of respect for the profession; and (3) workplace factors, such as heavy workload due to lack of manpower, low pay, poor benefit system, and poor promotion pipeline. Nikkhah and Piotrowski (2016) found that the predictors of leaving the workplace included job satisfaction, job commitment, stress, and job satisfaction. Said and Shafei (2020) further point out that it can also be affected by major crises such as miscarriage of disease.

The nursing workforce shortage is not only a unique phenomenon in Taiwan, but also a common problem worldwide, especially in Europe, the United States, and developed countries. The turnover and attrition of clinical nursing staff in hospitals is common to many countries. Albougami et al. (2020) examined the relationship between marital status, nationality, clinical area, salary, emotional exhaustion, and personal development. Oliveiraet et al. (2017) found associations with gender, age, lack of leadership, demanding work, passive work, effort-reward imbalance, poor self-rated health, over-commitment to work, and poor supervisory support. Falatah and Conway (2017) suggest that it is related to nationality, emotional commitment, job satisfaction, and relationship coordination.

Human capital is an important component of every company's core competitiveness and cannot be ignored. In recent years, the shortage of doctors, nursing staff and pharmacists has caused management difficulties for medical institutions. The hospital's efforts to find the right staff are often based on the accumulation of work and service experience, and the hospital's efforts to attract and retain staff through education and training, and to understand the personality traits and behaviors of its staff, can make them feel proud to be part of the hospital. The level of organizational commitment of employees in business operations is a critical factor in the success or failure of a business, and the hospital places great emphasis on the medical-patient interaction between health care workers and patients. This study was motivated by the fact that only when the internal needs of the organization's staff are met is there an opportunity to provide customer satisfaction services.

The final motivation for this study was to investigate whether there is a high correlation between nursing staff personality traits, job satisfaction and organizational commitment, and staff turnover in the face of rising social awareness of patients and the increasingly fluid and complex doctor-patient relationship. The study proposes recommendations for adjusting management strategies to improve the quality of nursing staff services and enhance job satisfaction so that staff can adapt to the organization and enjoy their work and improve the competitiveness of the hospital.

**2. LITERATURE REVIEW**

***2.1. Personality Traits***

Personality is defined as a person's true self, which includes one's internal motivations, emotions, habits, and thoughts. Pervin and John (1997) suggest that personality traits are certain ways or patterns of expression in interpersonal relationships and personal behavior, and that personality determines an individual's "adaptation to external circumstances" and "thoughts and behaviors". Robbins (2001) argues that the way traits are expressed is sometimes a product of the context in which the individual chooses to act, rather than just a response to the context.

The study of personality traits can be traced back to Allport and Odbert (1936). Norman (1963) analyzed five personality factors by factor analysis, and then Costa and McCreae (1986) compiled these personality traits into a five-factor theory of personality (OCEAN). Allport (1937) defined personality traits as "the dynamic organization of an individual's psychological and physiological systems in order to make appropriate adaptations to the environment. Later, Rotter (1966) considered internal and external control as a stable personality trait. Friedman and Rosenman (1974) defined Type A/B personality traits, Type A behavior pattern is a complex of behavior and emotion, people with this personality pattern have a very persistent struggle attempt, will hope to achieve the maximum results in the shortest time, and will never stop until the goal is achieved, The pace of life and work is more relaxed and less angry, and the sense of gain and loss is less because they do not pay attention to competition.

Mitchell et al. (1975) found that internal controllers were significantly more satisfied with their internal and external satisfaction and overall satisfaction with their work environment than external controllers. Rasch and Harrell (1989) studied the relationship between job satisfaction and voluntary turnover among management consulting service workers and found that both were influenced by individual psychological differences, and that Type A personality traits had a lower propensity to leave.

***2.2. Organizational Commitment***

Porter et al. (1974) defined the view of organizational commitment as an individual's strong belief in the organization, willingness to accept the organization's goals, values, and operating philosophy, and willingness to work for the benefit of the organization and to demonstrate a desire to continue to be a part of the organization. Individual characteristics (background) were selected to be included in the research framework to observe their influence on organizational commitment. Different theoretical models of organizational commitment have been developed depending on the purpose of the study and the measurement method. There are studies that consider organizational commitment as an independent or dependent variable, and there are also studies that consider it as a mediating variable, but there is no model that can fully describe the various factors that influence organizational commitment.

Wiener (1982), referring to Fishbein (1953), argued that individual behavior is generated by intentional performance and that there are two intentional factors that determine behavior: (1) an individual's attitude toward performing a behavior is called "instrumental cognitive beliefs"; and (2) an individual's intrinsic normative pressure on a behavior is called "social normative beliefs". These two intentional factors lead to motivations for organizational commitment and interest, which in turn determine individuals' intentions and behaviors related to the organization.

Etzioni (1961) classified them as moral commitment, calculated commitment, and detached commitment; Kanter (1968) classified them as continuance commitment, cohesion commitment, and control commitment; Porter et al. (1974), Kanter (1968) classified them as continuance commitment, cohesion commitment, and control commitment; Porter et al. (1974) classified them as value commitment, effort commitment, and retention commitment; Steers (1977) classified as attitudinal commitment (organizational behavior path), behavioral commitment (social psychology path); Stevens et al. (1978) categorized as normative commitment, exchange commitment; Morris and Sherman (1981) categorized as detached commitment, exchange perspective; Reyes (1990) social commitment, psychological commitment, exchange commitment; Meyer and Allen (1991) categorized as affective commitment, continuance commitment, and normative commitment.

Steers (1977) found that organizational commitment is valued because (1) employees with high organizational commitment have better job performance, (2) organizational commitment can predict employee turnover, and (3) organizational commitment can be used as a predictor of organizational effectiveness. Katz and Kahn (1978) pointed out that a high level of organizational commitment is not sufficient to accomplish organizational goals because organizations expect employees to have a high or moderate level of commitment. Romzek (1990) also argues that low organizational commitment is not sufficient to accomplish organizational goals because organizations expect employees to have a high or moderate organizational commitment. Therefore, we can conclude that organizational commitment can often be seen as an antecedent strategy to improve performance.

***2.3. Turnover Intention***

Separation means that the employee leaves and terminates the employment contract with the employer. In 1955, psychologists Brayfield and Crockett first coined the term "separation" as a symbol of the termination of the relationship between an employee and an organization. Mobley (1982) argued that separation refers to the voluntary termination of a person's status with an organization who receives a monetary salary from the organization. Voluntary separation refers to the employee's own initiative to move within the organization, which is a personal choice; involuntary separation refers to Involuntary separation means that the employee leaves the organization for reasons beyond his or her control, such as dismissal. In general, organizations attach importance to voluntary separation (Price, 1977), and the separation studied in this study also belongs to voluntary separation. The term "voluntary separation" is also used in this study.

Dalton and Todor (1979) argue for an organizational perspective on the act of leaving, arguing that voluntary departures include, first, non-functional departures, where the individual wants to leave, but the organization tends to accommodate him or her. This is because the employee's departure may harm the organization's performance. The second is functional, when the individual wants to leave but the organization does not care because the employee's performance is poor and staying with the organization does not have a positive impact on organizational effectiveness. Porter and Steers (1974) argue that the tendency to leave is when an employee experiences internal dissatisfaction at work and outwardly exhibits withdrawal behavior. The intensity of the employee's intention to leave his or her current job and seek other job opportunities. Therefore, Carsten and Spector (1987) suggested that when employees tend to leave the organization, the intention they have will directly lead to their exit behavior. Individual age and years of experience are related to job satisfaction, and job satisfaction is negatively associated with turnover tendencies and behaviors.

The results of previous literature show that there are indeed many factors that affect the tendency to leave a job, and they are influenced by individuals or the environment, and among them, there are obvious correlations with organizational factors and job satisfaction. Mobley (1977) proposed the exit decision process model; Price (1977) proposed the job satisfaction exit model; Szilagyi (1979) proposed the exit process model; Arnold and Feldman (1982) proposed the personal perception exit model; Abelson (1982) proposed the personal perception exit model. Abelson (1986) proposed an integrated exit process model; Lucas et al. (1993) proposed a five-stage expectancy theory model, in which each stage of the process should be predicted in advance through relevant signs. This study examines the relationship between personality traits, job characteristics, leadership style, job satisfaction, and propensity to leave based on Price's (1977) and Szilagyi's (1979) exit models.

When nursing staff are not satisfied with their work in the hospital, it may affect their willingness to work and performance, resulting in negative effects such as burnout and lack of service effectiveness, which may lead to thoughts of leaving. When the desire to leave is present, coupled with the subjective perception of increased external job opportunities, the tendency to leave will increase, leading to the departure of nursing staff. Insufficient resources, inadequate manpower, salary performance, long working hours, and threats to personal safety are all factors that contribute to the high turnover rate of nursing staff.

***2.4. Job Satisfaction***

Hoppock (1935) proposed the concept of job satisfaction, which refers to employees' psychological and physiological satisfaction with environmental factors and subjective reactions to work situations, and different levels of employees have different levels of satisfaction. Vroom (1964) considered job satisfaction as a feeling of the role that employees play in the organization, and Smith et al. (1969) considered job satisfaction as a feeling or emotional response of employees to their jobs and an expectation gap, which is the actual feeling in a particular environment, and the smaller the gap between the actual reward and the desired reward. Davis (1980) pointed out that job satisfaction is the degree of preference for the job, and job satisfaction occurs when the job characteristics suit the employee's desires.

Campbell (1970) divided job satisfaction theories into two categories, namely content theories and process theories; content theories mainly explore what different factors affect job satisfaction, such as hierarchy of needs theory, two-factor theory, ERG theory (Existence, Relatedness, Growth Needs Theory) and need satisfaction theory; process theories mainly explore how each factor affects or causes job satisfaction or dissatisfaction, such as equity theory, expectancy theory and gap theory.

Relationship between personality traits and job satisfaction:

From a human resources perspective, the study of personality traits is extremely important in human resources decisions. In order to achieve the goal of maximizing talent, it is important to understand the individual differences of employees before coordinating and guiding them to choose the right job according to their aptitudes and abilities so that they can realize their potential in the workplace. Scholars of organizational behavior also believe that employees with high levels of job satisfaction will have high productivity.

Effects of Personality Traits on Organizational Commitment:

Regarding the effect of personality traits on organizational commitment, most of the findings indicate that personality traits have a significant relationship on organizational commitment. Based on the previous studies and discussions in the literature, the following hypotheses are proposed in this study;

***H1: Personality traits positively affect their organizational commitment.***

Impact of job satisfaction on organizational commitment:

According to a study, when employees are satisfied with their jobs, their commitment to the organization increases and they develop a sense of identity and loyalty to the organization, and therefore, they are more willing to do their jobs and thus increase their productivity and organizational performance (Deshpande & Satish, 1996), it can be seen that employee job satisfaction has a significant impact on the company. Job satisfaction is the psychological feeling of workers towards their work environment or work-related issues. From theories related to job satisfaction, it is found that people desire to have good interpersonal relationships with others, and they want to be valued, have status, and be recognized and cared for. Nursing staff also have the same interpersonal needs in the work process and want to be respected, valued, and have status in their work, and they also want to get a sense of achievement and self-development from their work.

Based on these studies and discussions in the literature, the following hypotheses are proposed in this study;

***H2: Job satisfaction will positively affect their organizational commitment.***

Relationship between organizational commitment and propensity to leave:

Porter et al. (1974) argued that the explicit commitment component of staying in an organization is strongly and negatively related to leaving the organization, and that organizational commitment is the core attitudinal component, which refers to the degree to which individuals "identify" with and "commit" to the organization. Steers (1977) studied the career behaviors of employees and found that: (1) employees' commitment to the organization is more important than job satisfaction. Ko et al. (1997) concluded that organizational commitment is a major factor affecting turnover and absenteeism.

Based on the above relationship, we can infer that personality traits may increase commitment to the organization, which in turn decreases the employee's propensity to quit, i.e., there is an indirect relationship between personality traits and propensity to quit through organizational commitment. Similarly, a caring leadership style may increase employees' organizational commitment, which in turn decreases employees' propensity to leave, i.e., there is an indirect relationship between leadership style and propensity to leave through organizational commitment. Based on these studies and discussions in the literature, this study proposes the following hypotheses;

***H3: Organizational commitment negatively affects the propensity to leave.***

The relationship between personality traits, organizational commitment, and job satisfaction on the propensity to leave:

The effect of personality traits on the propensity to leave is found in the literature through job satisfaction, and in addition to job satisfaction, personality traits may also directly affect the propensity to leave. Rasch and Harrell (1989) studied the relationship between job satisfaction and voluntary turnover in management consulting services and found that both were influenced by individual psychological differences.

Employees may have different levels of positive or negative emotions toward their jobs based on factors such as how they get along with their colleagues at work, the amount of organizational benefits, and the availability of promotion opportunities...etc. This level is known as job satisfaction. This level of job satisfaction is the degree of job satisfaction. Job satisfaction represents the employee's preference for the job. If the degree of job satisfaction is greater, the employee is bound to do his or her best and put a lot of effort into it. When the employee is dissatisfied with his work, he may not be interested in his work, he may be perfunctory in his work, or even have absenteeism, late arrival, early departure, etc. If there is a better opportunity outside, he may have If there is a better opportunity outside, they may have the idea of leaving the job, and further produce the behavior of leaving the job. Therefore, the high turnover rate of employees will bring serious harm to the company in terms of personnel.

Knoop (1995) examined the relationship between job engagement, job satisfaction, and organizational commitment among nurses and found that a sample of 171 nurses showed that job satisfaction significantly influenced organizational commitment and organizational citizenship behavior.

Based on these studies and discussions in the literature, the following hypotheses were proposed in this study;

***H4: Organizational commitment has a mediating effect between personality traits and propensity to leave.***

***H5: Organizational commitment has a mediating effect between job satisfaction and propensity to leave.***

**3. RESEARCH METHODOLOGY**

***3.1. Measurement Instrument***

The scales examined in the study were developed through the use of academically recognized sources, they were used in relevant prior studies, and consisted of survey questions with recognized validity and reliability. In this study, empirical research was conducted using questionnaires to analyze data collection. The research instrument used consisted of five main parts: Part I was a personality trait scale, Part II was a job satisfaction scale, Part III was an organizational commitment scale, Part IV was a job inclination scale, and Part V was personal basic information. The above scales were based on the respondents' personal perceptions and were self-administered by the nursing staff of the hospitals surveyed.

This research scale, the Personality Trait Inventory (PTI), was developed by Friedman and Roseman (1974), Chesney and Roseman (1980) from data related to the types of behaviors associated with personality traits. The scale was developed into 20 questions that fit the scope of this study. The Cronbach's α of 0.88 was obtained by Chien (2006) for all the nursing staff who were engaged in clinical care at the Infectious Diseases Control Hospital in Kao- Kao -Ping district, indicating that the personality traits scale has an acceptable internal consistency.

The Job Satisfaction Scale was developed by Weiss et al. (1967) as a short version of the MSQ with 20 questions. The scale has been widely used in many studies on job satisfaction because of its many advantages. It is convenient for comparing various job orientations within the same organization, or comparing different organizations on a uniform scale, and has been widely used by many researchers to measure job satisfaction. The MSQ has been widely used by many researchers to measure job satisfaction and has proven to be widely recognized and trusted for its validity and reliability, and has become a major scale for measuring job satisfaction in various industries. Since the development of the 20-item scale, its Cronbach's α has ranged from .85 to .91 for the intrinsic satisfaction subscale and from .82 to .86 for the extrinsic satisfaction subscale, while the α for the 20-item MSQ has an intertemporal retest reliability of r = .58 for the overall satisfaction measure, indicating that the scale has its intrinsic The consistency of the scale was demonstrated. The scale has been widely used in domestic and international studies, and has good validity and reliability testing.

The Organizational Commitment Questionnaire (OCQ), developed by Mowday et al. (1979), was used as a reference for the development of this study. All questions were 10-item, single-component scale to test the level of organizational commitment of employees to the current case hospital.

The Leaving Tendency Scale is based on a questionnaire designed by Mobley et al. (1978) and consists of five questions.

Each question was given a score of 1 to 5 on a five-point Likert scale ranging from "very unlikely" to "very likely". The questionnaire was administered in November 2022 to 20 nursing staff and their immediate nursing supervisors for a pre-test in the hospital where the study was conducted. The reliability coefficient of the questionnaire, Cronbach's α, was also examined as a reference for the pre-test correction, and the results of the completed questionnaire were analyzed without any special modifications. The results of the pre-test questionnaire analysis yielded a Cronbach's α of 0.88 for personality traits, 0.95 for job satisfaction, 0.95 for organizational commitment, and 0.90 for turnover tendency. Cronbach's α was 0.90; the above pretest reliability test results showed that Cronbach's α values ranged from 0.75 to 0.96.

***3.2. Sampling***

This descriptive analysis study was conducted in December 2022, when the global peak of the COVID-19 outbreak subsided, in 2 small hospitals in Taiwan and their attached home care and nursing units of caregivers. They are the first-line providers of patient care. This study used a cross-sectional intentional sampling method for data collection. The questionnaires were collected through the assistance of the unit nursing officers by distributing completed questionnaires to their unit colleagues and collecting paper questionnaires. A total of 80 questionnaires were distributed, and 78 valid questionnaires were collected, resulting in a 97.50% return rate.

After data collection, the data were summarized and described using SPSS statistics. According to the descriptive analysis, overall, the average age of primary care staff in this study hospital ranged from 31 to 40 years old (50.0%); 92.3% had a specialist degree or above, showing a higher education level; the employment pattern was more regular staff; the number of years of nursing experience in the hospital ranged from 2 to 5 years (52.6%), and they were mostly working in general wards. The majority of the nursing staff were in general wards. This sampling would have a positive impact on the accuracy of our study. Some descriptive results are given in Table 1 below.

Table 1: Descriptive statistics of the sample

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | |  | N=78 | |
| category | | variable structure | number of people | percentage | |
| Age | |  |  |  | |
|  | | Under 25 years old | 8 | 10.3％ | |
|  | | 26-30 years old | 13 | 16.7％ | |
|  | | 31-35 years old | 20 | 25.6％ | |
|  | | 36-40 years old | 19 | 24.4％ | |
|  | | 41-45 years old | 14 | 17.9％ | |
|  | | Over 46 years old | 4 | 5.1％ | |
| Education level | |  |  |  | |
|  | | Nursing School | 6 | 7.7％ | |
|  | | Specialized | 40 | 51.3％ | |
|  | | University (including) or above | 32 | 41.0％ | |
| Marital Status | |  |  |  | |
|  | | Married | 38 | 48.7％ | |
|  | | Unmarried | 37 | 47.4％ | |
|  | | Other | 3 | 3.8％ | |
| Job Title | |  |  |  | |
|  | | Chief Nursing Officer | 8 | 10.3％ | |
|  | | Primary Care Staff | 70 | 89.7％ | |
| Job Employment Category | |  |  |  | |
|  | | Regular | 69 | 88.5％ | |
|  | | Contract Employment | 7 | 9.0％ | |
|  | | Temporary staff | 2 | 2.6％ | |
| Years of experience |  | |  | |  |
|  | Less than 1 year | | 13 | | 16.7％ |
|  | 2-5 years | | 41 | | 52.6％ |
|  | 6-10 years | | 12 | | 15.4％ |
|  | 10 years or more | | 12 | | 15.4％ |
| Service Unit |  | |  | |  |
|  | Outpatient Clinic | | 12 | | 15.4％ |
|  | Renal Dialysis Room | | 11 | | 14.1％ |
|  | Ward | | 39 | | 50.0％ |
|  | Other Units | | 16 | | 20.5％ |
| Class Type |  | |  | |  |
|  | Regular shift | | 22 | | 28.2％ |
|  | Day shift and night shift | | 22 | | 28.2％ |
|  | Three shifts | | 33 | | 42.3％ |
|  | Others | | 1 | | 1.3％ |
|  | | | | | |

***3.3. Scale Validity and Reliability***

In this study, the Cronbach's α of all the variables in the formal questionnaire is above 0.7, the Cronbach's α of personality traits is 0.895, the Cronbach's α of organizational commitment is 0.767, the Cronbach's α of job satisfaction is 0.954, and the Cronbach's α of turnover tendency is 0.862. All of them show good validity reliability, that is, the questionnaire has good internal consistency and stable status, which indicates that the results of this questionnaire have a high degree of reliability.

Content validity refers to the representativeness of the content of the measurement scale, i.e., the extent to which the theoretical construction process covers the research topic. Therefore, this research questionnaire is based on the literature in the relevant field and modified by the scholarly development measurement questions, so the questionnaire will have a certain degree of content validity. Factor analysis was conducted for the variables: personality traits, job satisfaction, organizational commitment, and propensity to leave, using the KMO sampling appropriateness test and Bartlett's spherical test data and the suitability of the data for factor analysis.

Personality trait perception had a total of 20 questions with a KMO value of 0.77 and a significant Bartlett's sphere test (*p*= .000) and a cumulative explained variance of 68.44 %, indicating an acceptable range of validity. Job satisfaction had 20 questions with a KMO value of 0.82 and Bartlett's spherical test was significant (*p*= .000) with a cumulative explained variance of 73.21 %. Organizational commitment had 10 questions with a KMO value of 0.89, while Bartlett's spherical test reached a significant level (*p*= .000), with a cumulative explained variance of 71.24%. The KMO value for the 5 questions on the propensity to leave was 0.84, while the Bartlett's sphere test was significant (*p*= .000), with a cumulative explained variance of 64.87%. The validity of these scales was within the acceptable range, and the number of factors indicating the variables was appropriately selected for the factor analysis.

**4. FINDING AND DISCUSSION**

***4.1. Related Analysis***

The relationship between personality traits, job satisfaction, organizational commitment, and propensity to leave was investigated using correlation analysis, and the results are shown in Table 2:

Table 2 Correlation Analysis

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Sample statistic | | | Pearson Correlation | | | |
| N | Mean | Std Dev | 1 | 2 | 3 | 4 |
| personality traits | 78 | 2.836 | .592 |  |  |  | 2.836 |
| job satisfaction | 78 | 2.686 | .588 | .176 |  |  | 2.686 |
| organizational commitment | 78 | 3.454 | .751 | .339\*\*\* | .639\*\*\* |  | 3.454 |
| turnover Intention | 78 | 3.453 | .486 | .284\* | -.293\*\* | -.331\*\* | 3.453 |

\* *p* < .05，\*\* *p* < .01，\*\*\* *p* < .001

The results of the correlation analysis of the study variables showed significant positive correlations among the variables, and all of them reached significant levels. First, the correlation coefficient between personality traits and organizational commitment was 0.339 (*p*<.001), which showed a significant positive correlation, meaning that the higher the personality traits of nursing staff, the higher their commitment to the organization; conversely, the lower the personality traits, the lower their commitment to the organization.

Second, the correlation between personal and turnover tendencies and organizational commitment was -0.331 (*p*<.001) and the correlation between job satisfaction was -0.293 (*p*<.001), indicating that these two variables had significant negative correlations with personal and turnover tendencies, which means that the higher the nursing staff's organizational commitment and job satisfaction, the lower their turnover tendency.

Third, the correlation between job satisfaction and organizational commitment was 0.639 (*p*<.001), which indicates a significant positive correlation between these two variables, i.e., the higher the nursing staff's job satisfaction, the higher their organizational commitment.

***4.2. Regression Analysis***

The important checks of the regression analysis include: significance and explanatory power R2 to check whether the effect of the independent variables on the dependent variables is significant, and if it is significant (*p* < 0.05), it means that the independent variables have influence on the dependent variables, and the hypothesis is valid. If it is not significant (*p* > 0.05), it means that the independent variable has no influence on the dependent variable in the regression model, and then the hypothesis is not valid. The results of the analysis are shown in Table 3 and Table 4:

Table 3 Regression analysis of personality traits, organizational commitment, and propensity to leave

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Variables | | | |
|  | organizational commitment  (Mode 1) | turnover intention  (Mode 2) | turnover intention  (Mode 3) | turnover intention  (Mode 4) |
| Self-variable |  |  |  |  |
| personality traits | .339\*\* | .284\* |  | .448\*\*\* |
| organizational commitment |  |  | -.331\*\* | -.483\*\*\* |
| *R*2 | .115 | .081 | .109 | .287 |
| *F* | 9.89\*\* | 6.689\* | 9.321\*\* | 15.094\*\*\* |

\* *p* < .05，\*\* *p* < .01，\*\*\* *p* < .001

The results of the analysis showed a significant effect of personality traits on organizational commitment (F=9.89, β=.339, *p*<.01), indicating that the higher the personality traits, the higher the organizational commitment, which is supported by the results of the data analysis. In Model 2, personality traits have an effect on the propensity to leave (F=6.689, β=-.284, *p*<.05), indicating that personality traits have a positive effect on the propensity to leave; in Model 3, organizational commitment has a significant effect on the propensity to leave (F=9.321, β=-.331, *p*<.01), indicating that the higher the organizational commitment, the lower the propensity to leave. In Model 4, personality traits and organizational commitment have a significant effect on the propensity to leave (F=15.094, β=.448, β=-.483), but compared with the effect of personality traits in Model 2, the effect of personality traits is not decreased but increased. Therefore, the hypothesis was not supported by the results of the data analysis.

Therefore, hypotheses H1 and H3 were supported by the data analysis results.

Table 4 Regression analysis of job satisfaction and organizational commitment, and propensity to leave

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Variables | | | |
|  | organizational commitment  (Mode 1) | turnover intention  (Mode 2) | turnover intention  (Mode 3) | turnover intention  (Mode 4) |
| Self-variable |  |  |  |  |
| job satisfaction | .639\*\*\* | -.293\*\* |  | -.131 |
| organizational commitment |  |  | -.331\*\* | -.242\* |
| *R*2 | .408 | .086 | .109 | .121 |
| *F* | 52.401\*\*\* | 7.149\*\* | 9.321\*\* | 5.144\*\* |

\* *p* < .05，\*\* *p* < .01，\*\*\* *p* < .001

The results of the analysis showed that in Model 1, job satisfaction has a significant effect on organizational commitment (F=52.401, β=.639, *p*<.001), which means that the higher the job satisfaction, the higher the organizational commitment, and this is supported by the results of the data analysis. In Model 2, job satisfaction has an effect on the propensity to quit (F=7.149, β=-.293, *p*<.01), which means that the higher the job satisfaction of employees, the lower their propensity to quit. This is supported by the results of the data analysis. In Model 4, job satisfaction and organizational commitment have a significant effect on the propensity to leave (F=5.144), but only the effect of organizational commitment on the propensity to leave is significant (β=-.242, *p*<.05). The effect of organizational commitment in mediating job satisfaction and propensity to leave was found to be fully mediated (β=-.242, *p*<.05), and the effect of job satisfaction was found to be lower (from -.293, *p*<.01 to -.131, *p*=.09) compared to the effect of job satisfaction in Model 2. Therefore, Study H5. was supported by the results of the data analysis.

Therefore, the hypotheses of this study H1, H2, H3, and H5 are supported by the results of the data analysis.

**5. CONCLUSION AND FURTHER RESEARCH**

The results of this study were analyzed by empirically validating five hypotheses: (1). A significant positive relationship between personality traits of nursing staff and organizational commitment was supported. (2). Job satisfaction was supported as having a significant positive relationship with organizational commitment. (3). Organizational commitment was supported as having a significant negative relationship with the propensity to leave. (4). Organizational commitment had a significant mediating effect between personality traits and propensity to leave; it was verified that personality traits and organizational commitment had a significant effect on propensity to leave (F=15.094, β=.448, β=-.483) in the regression analysis of personality traits, organizational commitment, and propensity to leave, but compared with the effect of personality traits in Model 2, the effect did not decrease but increased. Therefore, the hypothesis of mediating the effect of organizational commitment between personality traits and propensity to leave was not supported by the results of the data analysis. (5). The hypothesis that organizational commitment mediates between job satisfaction and turnover was supported.

The relationship between personality traits and propensity to leave was not supported because the nursing staff's job is basically to provide good medical care to the patients, and it is a common requirement and goal in any hospital for nursing staff to provide good medical care, so the nursing staff is required to make an organizational commitment to the hospital they are currently working in to not leave. Basically, nurses are not 100% willing to take the initiative to make a commitment that will benefit the organization. Therefore, it is better to stimulate the staff's sense of need and value for their work, so that they can feel satisfied, receive real rewards, and be satisfied with their promotion opportunities, in order to enhance the job satisfaction of nursing staff.

This study synthesizes the results of the study and makes several recommendations as follows:

1. Strengthen nursing staff's desire to stay and increase job satisfaction: It is recommended that hospital managers actively improve nursing staff's working conditions and develop job management skills so that nursing staff have job stability, the right fit, reasonable workload, harmonious working relationships among unit teams, support and care from nursing supervisors, professional respect, recognition of professional performance, a sense of accomplishment and a smooth communication grievance channel, career development opportunities, promotion pipeline and opportunities, and a platform for education and learning development. The team is respected for their professionalism, their professional performance is recognized, and they have a sense of accomplishment and a smooth communication and grievance channel. To develop a sense of trust and fulfillment in the hospital and in their work, creating high job satisfaction, professional commitment, high workplace attractiveness, and high length of service to continue their nursing practice.

2. Establish a human resource strategy to solve the crisis of nursing staff succession: It is recommended that the hospital increase the opportunities for junior nursing staff to participate in training, enhance their job proficiency, accumulate and strengthen their clinical skills, expand interpersonal communication, meet staff needs, and increase opportunities for performance challenges, so that junior nursing staff can feel valued by the hospital and be willing to put in more efforts for the organization and avoid missing opportunities to nurture outstanding talents. The new generation can also drive the innovation of the organization.

3. Make good use of communication channels to create a win-win situation: It is recommended to strengthen two-way communication channels, arrange more nursing staff to participate in hospital-related seminars, communicate effectively with staff, fully understand and agree with the hospital's policies, and listen to and accept nursing staff's suggestions in various aspects to avoid authoritative management to solve problems. In terms of management, we appropriately authorize the primary nursing management staff to fully assist their colleagues in completing their work, and senior supervisors can take the initiative to care for and assist the interpersonal relationship among nursing staff. To create a harmonious working environment that is caring and reassuring, to guide the potential development of junior nursing staff, to expect staff to give and commit to the hospital and to contribute, to protect the overall interests of the hospital and to create a harmonious environment, and to create a win-win situation of caring and reassurance.

4. Enhancement of staff welfare system: We propose to enhance the staff welfare system in multiple directions, suggest reasonable work distribution, improve the problem of uneven workload distribution due to work structure, and apply other manpower to assist nursing staff in non-nursing business. Provide incentives for retention, performance bonuses, proposal mechanisms, reduction of shift frequency as needed, and additional special bonuses to fill manpower gaps. Managers communicate with employees to help them develop their career plans and identify their strengths and weaknesses, and allow them to talk about their ideas for developing their own abilities, and to learn to enrich themselves through serious study, proactive marketing, and the importance of creating their own, in order to meet organizational goals and opportunities within the organization.

This study was conducted to examine the issues from the perspectives of personality traits, job satisfaction, organizational commitment, and turnover tendency. Organizational commitment in turn affects job satisfaction. Appropriate empowerment can enhance nursing staff's organizational commitment, which in turn affects their job satisfaction. Empowering nursing staff in their tasks and encouraging participation in decisions related to their work in a timely manner allows them to share in the decision-making power of hospital management. When nursing staff participate in decision making, it can enhance their sense of identification with the decision and increase their awareness of the meaning and importance of their work. It can also promote nursing staff's understanding of the overall operation of the hospital, increase their sense of value, stimulate their satisfaction with the organization and their willingness to stay in their jobs, and improve overall operational performance.

The following are the limitations of this study:

1. After considering the motivation of this study, only the relationship between personal personality traits, job satisfaction, organizational commitment, and turnover of nursing staff in two small hospitals was studied, and the extrapolation of the study results may be slightly underrepresented and may not be perfect. The results of this study may not be representative enough for extrapolation and may not be perfect. Subsequent researchers may extend the study to nursing staff in hospitals above the regional level for more in-depth study in order to obtain more objective and accurate data to verify the study results and to reflect the overall picture of the work of clinical nursing staff in hospitals.

2. Suggested directions for further research (1). Consider adding other research variables to the study for a more objective and realistic study to make the results more comprehensive. (2). The research method was quantitative, and the questionnaire was not open-ended, so it was not possible to collect the personal opinions of the respondents, and it was not possible to further understand the real thoughts and opinions of the case hospitals on the various research components. (3). In the follow-up study, it would be better to add qualitative research and in-depth interviews to obtain more complete and objective information. (4). Differences arising from different hospital levels and sizes may lead to different conclusions.

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