The Relationship between Burnout and Turnover Intention among Nurses: The Effect of Psychological Demands, Decision Authority, and Social Support on Burnout and Turnover Intention

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ABSTRACT

Nursing is among the most stressful jobs in the modern healthcare system. The emotional pressure, the insufficiency of health units, the qualification of personnel, relations with co-workers and supervisors, autonomy, relatively longer, and more active working hours, and their potential responsibilities are some of the causes of burnout in certain times and environments during the career of a nurse. Unfortunately, there has been limited number of studies in Turkish Republic of North Cyprus (TRNC) indicating work related problems of nurses. It is apparent that the number of hospitals and the sufficiency of healthcare units are not satisfactory in TRNC in comparison to those in developed countries. Therefore, there is an absolute need for scientific investigations investigate for nursing problems particularly in relation to burnout and turnover intention.

The aim of this study was to investigate whether psychological demands, decision authority, and social support explain registered nurses' burnout level and examine the relationship between nurses' burnout levels and turnover intention.We have also targeted to answer several key points mainly the extension of both demographic factors and some potential sources (i.e., psychological demands, decision authority, and social support) of burnout on the explanation of nurses' burnout level and turnover intention. Furthermore, the presence of any relationship between nurses' burnout level and their turnover intention was also studied.

In order to find answers to these questions, four regional state hospitals were visited and a total of 183 out of 256 nurses have participated in this research. Accordingly,

our results indicated that psychological demands, decision authority, and social support have been found to be the most critical parameters for burnout, whereas social support have been shown to be significant for the turnover intention of nurses. From this point of view, our results have strong implications on the current status of nurses working for state hospitals.

Keywords: Burnout, Turnover intention, Demands, Decision authority, Social support

ÖZ

Modern sağlık hizmeti sistemleri içerisinde hemşirelik en stresli mesleklerden birtanesidir. Bir hemşirenin kariyer gelişimi esnasında, duygusal baskı, sağlık ünitelerinin yetersizliği, personel kalifikasyonu, yönetici ve diğer çalışanları ile ilişkiler, göreceli daha uzun ve daha aktif olan çalışma saatleri ve potansiyel sorumlulukları belirli çevre ve dönemlerde görülen tükenmişlik sebeplerinden bazılarıdır. Ne yazık ki, Kuzey Kıbrıs Türk Cumhuriyeti'nde (KKTC) hemşirelerin iş ile ilgili problemlerine yönelik kısıtlı sayıda çalışma vardır. Şu çok açıktır ki, KKTC'deki hastane sayısı ile sağlık ünitelerinin yeterliliği gelişmiş ülkelerdekine kıyasla memnuniyet verici seviyede değildir. Bu sebepten, hemşirelerin tükenmişlik ve işten ayrılma niyeti yönlerinden problemlerinin araştırılması için mutlak bilimsel incelemelere ihtiyaç vardır.

Bu çalışmanın amacı, iş yükü, karar serbestliği ve sosyal destek faktörlerinin hemşirelerin tükenmişlik seviyelerini açıklayıp açıklayamadığının araştırılması ve hemşirelerin tükenmişlik seviyeleri ile işten ayrılma niyetleri arasındaki ilişkinin incelenmesidir. Aynı zamanda, hem demografik faktörlerin hem de tükenmişliğe sebep olan potansiyel faktörlerin (iş yükü, karar serbestliği ve sosyal destek), tükenmişlik ve işten ayrılma niyeti üzerindeki etkisini incelemek hedeflenmiştir. Buna ek olarak, tükenmişlik ve işten ayrılma niyeti arasında mevcut bir ilişkinin var olup olmadığı sorgulanmıştır.

Bu soruları cevaplandırmak amacıyla, dört yerel devlet hastanesi ziyaret edilmiş ve çalışmaya 183 hemşire katılmıştır. Buna dayanarak, çalışmada uyguladığımız

istatistiksel analizlerden elde ettiğimiz sonuçlar, iş yükü, karar serbestliği, ve sosyal destek faktörlerinin tükenmişlik seviyesini açıklamada önemli parametreler olduğunu gösterirken, işten ayrılma niyetini açıklamada sosyal destek anlamlı bulunmuştur. Bu bakımdan, elde ettiğimiz sonuçlar devlet hastanelerinde çalışan hemşirelerin halihazırdaki durumları üzerinde önemli etkiye sahiptir.

Anahtar Kelimeler: Tükenmişlik, işten ayrılma niyeti, iş yükü, karar verme özgürlüğü, sosyal destek

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

TRNC ..... Turkish Republic of North Cyprus

PD .....Psychological Demands

DA .....Decision Authority

SS .....Social Support

OLBI .....Oldenburg Burnout Inventory

MBI ..... Maslach Burnout Inventory

JCQ .....Job Content Questionnaire

DCSQ ..... Demand Control Support Questionnaire

Chapter 1

INTRODUCTION

1.1 Relevance of Current Topic

Diseases and the related health services to cure them have existed as long as the existence of human beings. Human beings are in the center of this organization as both patients and curers. The development of techniques, in parallel to the understanding of diseases, has led to the sophistication and clarification of patient care which has been eventually followed by the organization of health related jobs that we are familiar with today (e.g., physicians, nurses, dentists, pharmacists, etc.). Among those, nurses are the ones that have to perform their job particularly employing their communication skills in routine patient care. This also means, on the other hand, that job related problems of nurses are quite different and unique.

In the nursing literature, there are numerous studies which accept nursing profession as one of the most stressful jobs. Studies have found that some factors influence the job stress of nurses (e.g. workload, social support, autonomy), and job stress results in a high burnout level (Oehler & Davidson, 1992), and in most cases burnout causes turnover intention (Schaufeli & Enzmann, 1998). The concept of burnout was explained as internal exhaustion as the result of being unsuccessful, exhausted, minimized energy and lack of power or desires (Freudenberger, 1974). Burnout was also explained as a psychological syndrome caused by job related stressors (Leiter & Maslach, 2009). It has been also mentioned that the outcomes of burnout of nurses

have negative effects on personnel, patients, and the organizations they work for (Maslach & Jackson, 1981). This may occur because of the communication with patients and patient relatives more than other professions do in the organizations.

Turnover intention of nurses, as a result of burnout, was explained as a process including leaving or transferring of nurses among hospitals (Jones, 1990). It has negative consequences in terms of the patients' needs and caring of them (Gray & Phillips, 1996; Hayes, O'Brien-Pallas, Duffield, Shamion, Buchan, Hughes & Stone, 2006; Shields & Ward, 2001; Tai, Bame & Robinson, 1998; Delobelle, Rawlinson, Ntuli, Malatsi, Decock & Depoorter, 2011). It also influences the mood and productivity of new nurses or other nurses who remain in the organizations (Cavanagh & Coffin, 1992; Hayes et al., 2006).

Consequently, it is important to investigate the factors related to burnout and turnover intention of nurses. This will not only contribute to finding solutions for job related problems of nurses but also aid in increase in the quality of patient care including well-being of patients, and organizations.

The aim of this study is to investigate whether some of job stress factors (i.e., demands, decision authority, support from co-workers and supervisors) have effects on registered nurses' burnout and turnover intention, and examine the relationship between nurses' burnout and turnover intention levels. This study will increase our knowledge about stressors (i.e., demands, decision authority, support from co-workers and supervisors), their effects on burnout level, and turnover intention, which will help to understand what policies should be applied for effective and efficient management in healthcare sector.

1.2 Nursing in Turkish Republic of North Cyprus

Turkish Republic of North Cyprus, as one of the two countries in Cyprus, was established in 1983. Although this date has to be appearing close to the current time, the historical perspective and the status of the island go well beyond back to historical times. Particularly administration of the island by Ottoman Empire up to the end of 19th century and the following English management through the mid of 20th century have aided in historical, cultural, social, and economic development of the island.

Currently, health related activities and needs are all provided within the TRNC. Although there is need for the development of health related facilities within the country, the improvements achieved so far might be evaluated satisfactory. There is no doubt that the development of a health system in a country is assessed through the criticism of the status of hospitals, the number of personnel working in these organizations, and the sufficiency of facilities provided for all needs of patients. Considering the situation that there are five state hospitals located in five different cities of TRNC appears to be satisfactory. However, not each hospital unit in these cities are equally developed and organized. This is partially related to the population of the cities. Furthermore, there are also private hospitals actively serving in TRNC. Similar to the organization of state hospitals, each city present in TRNC has at least more than one private hospital, changing in the organizational level depending on the population of the city.

Since, four regional state hospitals in TRNC has been aimed to be investigated in terms of measuring the relationship between burnout and turnover intention among

nurses, it is important to have some background information about these hospitals. Gazi Magusa Hospital is in the Eastern part of the island which has 135 nurses working in, Akcicek is in Girne which is in the North coast possessing around 60 nurses working in various departments of the hospital. Cengiz Topel serves the Western part and it has 33 nurses, whereas Baris Ruh Sinir is a Hospital in Nicosia with hiring 28 nurses. These are the four regional hospitals employed in the preparation of this research study.

1.3 The Aim of the Study

Nursing is among the most stressful jobs in the modern healthcare system. The emotional pressure, the insufficiency of health units, the qualification of personnel, relations with co-workers and supervisors, autonomy, relatively longer, and more active study hours, and their potential responsibilities are some of the causes of burnout in certain times and environments during the career of a nurse. Unfortunately, there has been limited number of studies in TRNC indicating work related problems of nurses. It is apparent that the number of hospitals and the sufficiency of healthcare units are not satisfactory in TRNC in comparison to those in developed countries. So, is there statistically significant burnout, and turnover intention in TRNC, if there is, what are the exact factors that affect burnout level and turnover intention in nursing profession in TRNC? Since these questions in TRNC have not been investigated so far, there is an absolute need for scientific investigations to seek for nursing problems particularly in relation to demands, decision authority, and social support within this country. Therefore, the aim of this study is to investigate nurses' burnout level in TRNC and also to analyze the relationship between the burnout and the turnover intention.

The research questions comprehends:

- To what extent do demographic factors explain nurses' burnout level and turnover intention?
- To what extent do demands, decision authority, and social support explain nurses' burnout level and turnover intention?
- Is there a relationship between nurses' burnout level and their turnover intention?

In order to find answers for these questions decision authority, demands, and social support questionnaires were employed to investigate the role of burnout on nurses' turnover intention in the profession.

1.4 The Outline of the Study

The outline of this study is as follows: Chapter 1 represents the introduction of the study that covers the relevance of the current topic, the aim of the study, and information about nursing in TRNC, respectively. Chapter 2 provides the information about previous studies about job demands (i.e., psychological demands), job resources (i.e., decision authority, and social support), burnout and turnover intention, as well as the review of the studies that examined the relationships between these variables. Chapter 3 explains the methodology which have been used in previous studies and within the current study. In Chapter 4, the conceptual model and the hypotheses of the present study are presented. Chapter 5 provides information about research analysis and empirical results (i.e., descriptive analysis, multiple regression analysis, and simple linear regression analysis) corresponding with the conceptual model and hypotheses presented in Chapter 3. In Chapter 6, discussion, recommendations, and limitations are presented.

Chapter 2

LITERATURE REVIEW

2.1 Burnout

Although the term burnout was initially used in the early 1970's, it has not received enough attraction until recently. The burnout was originally explained as a condition that occurs as a result of work overload and results in a situation which individuals cannot serve the purpose of the job (Freudenberger, 1974; Lingard, 2004). Since then, there have been various definitions of burnout.

Schaufeli and Enzmann (1998, p.36), reviewed the relevant literature and defined burnout as individuals' job related psychological state caused by exhaustion that combines with stress, ineffectiveness at work, low level of motivation, and feeling negative attitudes toward the job.

The most widely used definition of burnout is provided by Maslach and Jackson (Maslach & Jackson, 1981). It has been identified as a psychological syndrome caused by job related stressors. It has also been mentioned that burnout is a syndrome consisting of three stages (i.e., depersonalization, emotional exhaustion, and reduced personal accomplishment) (Maslach, Jackson & Leiter, 1996). Emotional exhaustion is the outcome of emotional demands of one's jobs. Depersonalization refers to the negative behaviors to individuals who need service or care. Low personal accomplishment is one's feeling of being ineffective in his/her job and in achieving

the responsibilities that the job requires (Maslach, 1982). The Maslach Burnout Inventory (MBI) is widely used to measure burnout, and assesses these three dimensions of burnout (Maslach & Jackson, 1996).

An alternative burnout inventory used for measuring burnout is the Oldenburg Burnout Inventory (OLBI) (Demerouti, 1999). It was developed to measure of burnout in different types of majors. Exhaustion and disengagement are the two sub-scales of OLBI. It has both negative and positive statements different than MBI. Exhaustion, the subdimension of burnout, refers to the result of continuum exposure to job related stress including physical, and psychological ones (Demerouti, Bakker, Neicheiner & Schaufeli, 2000). On the other hand, in the OLBI, disengagement, another subdimension of burnout, is the alienation of one from his job, and job related activities (Demerouti et al., 2000), whereas depersonalization in MBI is a type of disengagement. Therefore, the number of different expressions on burnout can be increased employing the approaches of other scientists in the field.

There are many occupations suffer from burnout, although burnout is a concept that attracted attention in recent years. The employees of the health sector, especially nurses, have the risk of high level of the burnout due to the some stressors (e.g., technological developments, time pressure, workload, and the relationships with the colleagues, supervisors, patients and their relatives, decision authority level on organizational or professional decisions). Employing this information quiet extensive research has been carried on worldwide to measure the presence and the degree of burnout among nurses (Maslach et al., 2001; Greenglass, Burke & Fiksenbaum, 2001; Leiter & Maslach, 1988).

2.1.1 Sources of Burnout in Nursing

Burnout, independent from various occupations, has been linked to major factors such as work overload, control over the job, benefits, equity, community, and morals (Maslach & Leiter, 1997). Since nursing is a major occupation in the risk of development of burnout, the sources resulting in burnout for nurses have also been an interest of research.

It is known that job stress has effects on health related professions, particularly on nursing profession (Cox, Griffiths, & Cox, 1996). Studies showed that nursing is a demanding, and one of the most stressful professions (Albrecht, 1982; Maloney, 1982). In general, working conditions, insomnia, fatigue, and role ambiguity are significant components of stress for nursing profession (Yavuz, Demir & Dramalı, 2000). Furthermore, early investigations has also pointed that high stress level of nurses can cause to experience individual outcomes such as feelings of ineffective, negative opinions of oneself, irritability, self doubt, depression, burnout, somatical bother, and insomnia (Durkis, 1982; Chiriboga & Bailey, 1986; Maslach, 1976; Denton & Wisenbaker, 1977; Glaser & Strauss, 1965). Some studies show that almost one out of four nurses is influenced by burnout which, in turn, means that burnout may cause staff shortage in nursing (Jourdain & Chenevert, 2010).

Burnout is deeply correlated to various parameters (e.g. organizational, individual, demographic factors) including but not limited to; age, gender, marital status, experience, nurse shortage, autonomy, negative relations with others, reward, autonomy, role ambiguity, role conflict, environmental factors, workload, high job demands, relations with patients or clients, personality (Winstanley & Whittington,

2002; Pines, Aronson & Kafry, 1981; Siegall & McDonald, 2004; Ryerson & Marks,1981; Zellars et al., 2004; Maslach & Jackson, 1985; Demerouti et al., 2001; Piko, 2006; Peeters & Le-Blanc, 2001; Bruce et al., 2005; Jeanneau & Armelius, 2000). Among these variables, work overload, role ambiguity, and age are the main reasons of burnout, and whilst social support has the mediating effect on burnout (Duquette, Kérowc, Sandhu & Beaudet, 1994). According to an early study, most influential factors which induce burnout are work overload, insufficient feedback and reward, low job satisfaction, relations with others, fatigue, and value conflicts (Altun, 2002). Moreover, some important correlations of burnout in health care sector were summarized in a study as shown in Table 1 (Schaufeli & Buunk, 1999).

2.1.1.1 Demographic Sources of Burnout in Nursing

2.1.1.1.1 Age

The research studies so far organized to correlate age and burnout have identified variable results. Some of these studies have found positive correlation, and others were not able to measure positive relationship between age and burnout. Numerous studies showed the positive relationship between younger age and high burnout (Schaufeli & Buunk, 1999; Demerouti et al, 2000; Koivula et al., 2000; Spooner-Lane & Patton, 2007; Garrosa et al., 2008). Parallel to these findings, it was found that younger workers (< 30) experience more burnout than those older employees (30-40 years) (Schaufeli & Buunk, 1999). In the same study, it was emphasized that this difference might be due to ‘reality shock’ of younger workers. Parallel to Schaufeli’s (1999) study, another study found that age was positively correlated with exhaustion, whilst it is negatively associated with life satisfaction (Demerouti et al., 2000). Furthermore, it was also shown that in the relationship between age and burnout, younger age (<34) is a risky component for burnout (Tunc & Kutanis, 2009).

Table 1 Correlates of Burnout in Health Care

Biographic characteristics	Young generation Little work experience
Personality	Less 'hardy' personality External locus of control Poor self-esteem Non-confronting coping style Neuroticism 'feeling type'
Work-related beliefs	High expectancy Job dissatisfaction low commitment to the organization Turnover Intention
General job stressors	High workload Time pressure low feedback Role conflict, role ambiguity low social support Low decision authority low autonomy
Specific job stressors	Much direct patient contact Severe patient problems
Individual health	Depression Psychosomatic complaints Frequency of illness
Organisational behavior	Absenteeism Job turnover Impaired performance

2.1.1.1.2 Gender

Gender differences are another predictor of burnout. Various researchers have argued that women have more tendency to burnout than men have (Ryerson & Marks, 1981; Aronson & Kafry, 1981, Maslach et al., 2001). Parallel to this finding, it was shown that women have higher emotional exhaustion level than men, whilst men tend to experience higher depersonalization level (Maslach et al., 2001). Accordingly, it was

mentioned that the differentiation between women and men may lead to discriminatory behavior towards women (Purvanova & Moros, 2010).

2.1.1.1.3 Marital Status

Among employees, marital status is an important factor for burnout in such a way that it either makes it disappears or decrease negative effects of burnout. It was claimed that married workers had lower burnout than non- married did (Maslach & Jackson, 1985).

2.1.1.1.4 Education

A study has found that education is related to burnout. In the same study, it has been reported that nurses graduated from lower level education had more burnout than those nurses who had higher education level. This may be attributed to the feeling of inexperienced and inadequate with respect to the lower education level of those nurses (Koivula & Paunonen, 2000).

2.1.1.2 Organizational Sources

2.1.1.2.1 High Job Demands

The concept of job demands consists of emotional instability, work overload, work-home interference, and disruptions while doing duties (Bakker et al., 2003). It is emphasized that workload is a common stress source in nursing profession (Chang, Daly & Hancock, 2006).

Previous studies showed that workload is a crucial source of stress in various job professions (McDonald & Korabik, 1991; Lee & Ashforth, 1996). Some research findings pointed that high workload experiences have negative mental outcomes for nurses (Lambert, Lambert & Itano, 2004), such as burnout (Greenglass et al., 1998; Leiter, 1991), low job satisfaction (Schaefer & Moos, 1993), stress (Kufman &

Beehr, 1986; Gray-Toft & Anderson, 1983), and mood disturbance (Healy & McKay, 2000). Similarly, a number of studies stated that job demands are sources of burnout and correlates with it positively (Hakanen, Shaufeli & Ahola, 2008).

2.1.1.2.2 Staff Shortage

Previous studies have pointed that inadequate hospital staff may not be satisfactory for patients who need care from nurses (Aiken, Sochalski & Anderson, 1996; Anderson & Kohn, 1996; Blegen & Vaughn, 1998). Therefore, it is related to the quality of care of patients (Bratt, 2000) and it results in negative patient outcomes (Behner et al, 1990; Flood & Diers, 1988). Additionally, higher staff shortage results with nurses' feeling of frustrated, and betrayed by the management (Lasthinger & Almost, 2003). Nursing shortage associates with burnout in the way that higher the staff shortage higher the burnout level (Spence, Laschinger & Finegan, 2008).

2.1.1.2.3 Autonomy

Autonomy is a crucial factor for occupational development in nursing (Hart & Rotem, 1995). Autonomy is accepted as the degree of freedom that employees have over their own job (Stamps & Piedmonte, 1986). Autonomous people make independent decisions, and follow those decisions (Leddy & Pepper, 1985). Therefore, those people who have autonomy do not act with others decisions (Ballou, 1998). Moreover, a study has shown that autonomy can be considered as a factor for reducing the level of burnout (Drory & Shamir, 1988).

2.1.1.2.4 Reward

Reward has been explained as "using reinforcements to make the desired behavior" (Leiter & Maslach, 2009). Rewards may be considered as a motivator to obtain desired job related behavior of a worker. Accordingly, lack of rewards can lead to

undesirable feelings that can result in burnout and turnover (Gaines & Jermier, 1983; Jackson, Schwab & Schuler, 1986).

2.1.1.2.5 Role Ambiguity and Conflicts

Role ambiguity appears when one has lack of knowledge to fulfill the job properly (Shaufeli & Buunk, 1999). Similarly, it has been said that it is derived from inadequate information about job demands and processes (Katz & Kahn, 1977). It has also been pointed that unpredicted demands about a job seem to promote role ambiguity (Matteson & Ivancevich, 1982; Chang & Hancock, 2003). After gaining work experience about job requirements, it has positive effects to reduce the negative effect of role ambiguity (Kahn et al., 1964). This, on the other hand, also means that the understanding of job requirements occurs at the time when one has sufficient work experience (Chang et al., 2006). Role conflict, another indicator of burnout, occurs when employees face conflicting demands at work (Shaufeli & Buunk, 1999; Katz & Kahn, 1977). When individuals experience role ambiguity or role conflict, it results in role stress (Cooper & Marshall, 1976; Cordes & Dougherty, 1993). Early studies have indicated that role stress is correlated with ‘nursing shortages’, ‘being a new graduate’, ‘age’, ‘violence in the workplace’ (Aiken et al., 2001; Jackson, Clarem & Mannix, 2002; Janiszewski Goodin, 2003; Chang & Hancock, 2003). Additionally, both role conflict and role ambiguity were found substantially correlated with burnout (Shaufeli & Buunk, 1999), and stress (Katz & Kahn, 1977). Overall, work related stress, low performance, organizational inefficiency, and feeling of inadequate in a job might be all triggered by the role ambiguity and conflicts (Spooner-Lane & Patton, 2007).

2.1.1.2.6 Job Insecurity

There has been significant academic work carried on the influences of job insecurity lately (Sverke, Hellgren & Naswall, 2002; Probst, 2002). It was described as a worker's expectations about continuation of the job status (Davy, Kinicki & Scheck, 1997). Another explanation defines job insecurity as "powerlessness to maintain desired continuity in a threatened job situation" (Greenhaigh & Rosenblatt, 1984). Similarly, it has been identified as an individual's concerns about the expectancy of the job status (van Vuuren & Klandermans, 1990).

As a source of stress, job insecurity may cause negative work-related outcomes (Greenhaigh & Rosenblatt, 1984). It has definitely negative effects on workers' health and it may even result in triggering of senses including burnout, and turnover intention (Sverke, Hellgren & Naswall, 2002). Health organizations are negatively affected with respect to the voluntary turnover of workers due to job insecurity reasons and eventually this becomes costly to them (Sparks et al., 2001). In order to reduce negative effects of job insecurity, social support, work commitment, and worker characteristics are important parameters to work on (Greenhalgh & Rosenblatt, 1984).

2.1.1.2.7 Factors associated with patients or clients

In their working time, healthcare workers mostly contact with patients, their families and their co-workers (Tunç & Kutanis, 2009). It may be a motivator for one to help people; on the other hand, it may be overwhelming to satisfy patients and their relatives. Nurses not only deal with their regular duties but also pay attention to emotional status of patients, even dying patients (McNeely, 2005). Therefore, it is

not unexpected situation that taking care of patients and their families is a reason for stress among nurses (Mcvicar, 2003).

Some studies showed that constant interaction with patients may cause feeling of exhaustion (Demerouti, Bakker, Nachreiner & Shaufeli, 2000), while some argues that it has less effect on burnout compared with high workload, insufficient time, and role conflicts (Schaufeli & Enzmann, 1998). Parallel to these findings, a study has indicated that staff burnout was mostly related with 'haste at work', rather than caring with appropriate patients or the treatment the patients need (Van Servallen & Leake, 1993).

2.1.1.2.8 Job Stress

Stressful situations have psychological, physical, and functional effects on employees health in a negative way (Shirey, Ebright & Mcdaniel, 2008). The common outcomes indicated in the literature are the "depression, alcohol abuse, psychological distress, unexplained physical symptoms, repetitive strain injury, and chronic fatige" (Shapiro, Astin, Bishop & Cordova, 2005; Hotoph & Wessely, 1997; Hillhouse & Adler, 1997). As a common experience of workers in organizations (Shirey, 2006), stress has been found to display different outcomes on workers. Among nurses, work stress correlates with job satisfaction (Blegen, 1993), absenteeism (Gauci-Borda & Norman, 1997), turnover intention (Bratt, 2000), and burnout (Oehler & Davidson, 1992). It has been indicated that nurses who experience burnout are tend to eat less, use cigarettes, alcohol or drugs (Burke, 2000). It was emphasized that turnover intention is higher among nurses who are under stress than those of who are not (Bratt, 2000).

2.1.1.2.9 Experience

Previous studies have shown that experience and burnout are negatively associated with each other (Schaufeli, 1999). This may be evidence for longer job experience is more advantagous, since both are negatively correlated. However, this is not a complete generalization, since in a study, it has been reported that number of working years in health care profession is positively correlated with psychological symptoms (Piko, 2006).

2.1.1.2.10 Social Support

Social support was explained as the quality of the current relationship with others (Leavy, 1983; Viswesvaran, Snachez & Fisher, 1999). It was claimed that support in a relationship leads to decrease stress (Ray & Miller, 1994), and correlates with burnout (Peterson, Halsey, Albrecht & McGough 1995). Many studies have pointed that less turnover and higher job satisfaction (Decker, 1985), low burnout level (Fielding & Weaver, 1994), better health (Singh, 1990) can be said as outcomes of higher social support level. Other researches also have emphasized that social support has buffering effect on stress performance relationship, and that is important for employees who are in stress (Abu Alrub, 2004).

A number of studies have argued that social support helps decreasing burnout level, since it has effect on job stress variables such as role stress and workload (Lee & Ashforth, 1993; Ray & Miller, 1991). Therefore, social support is a significant factor for nurses, since it may influence the quality of care that is provided to the patients.

In parallel to these studies, it has also been stated that social support is negatively related to burnout (Taormina & Law, 2000). As a form of social support, coworker support helps relieving distress, fear, and confusion (Taormina & Law, 2000) and

consequently it assists to reduce stress that leads to burnout (Lee & Ashforth, 1993). On the other hand, many studies claimed that co-worker support is not mainly effective on the burnout dimensions (El-Bassel et al., 1998; Spooner-Lane & Patton, 2007). Another form of social support which is supervisor support was emphasized that loss of supervisor support causes burnout (Schaufeli & Buunk, 1999).

2.1.2 Outcomes of Burnout

Contrary to common belief, burnout is not only a problem for individuals. Therefore, it is a problem for both the individuals and the organizations. It is widely known that professions focused on patient care and therefore, requires direct interaction with people are subjected to burnout and severe consequences of it (Vahey, Aiken, Sloane, Clarke & Vargas, 2004; Leiter, Laschinger & Leiter, 2006; Harvie & Frizzell, 1998).

From the individual perspective, burnouthas individual and social effects on workers outside their work. It has been shown that burnout correlates with "family and spouse problems, headache, problems with concentration, drug abuse, gastrointestinal disorders, alcohol addiction, lack of libido, and sleepiness problems" (Beemsterboer & Baum, 1984; Maslach & Jackson, 1981; Dignam et al., 1986; Freudenberger, 1974; Duxbury et al., 1984; Maslach, 1981).

In the organizational level, low job satisfaction, disengagement, absenteeism, leaving the job are typical consequences of burnout (Schaufeli & Enzmann, 1998). Additionally, job performance was also identified as a burnout outcome (Halbesleben & Buckley, 2004; Maslach et al., 2001). Employees with low job performance as a result of burnout are inefficient and unproductive in their job (Halbesleben &

Buckley, 2004; Maslach et al., 2001). Additionally, some other researchers who focused on burnout and its outcomes have also found a strong relationship between burnout and the quality of given care to the patients (Laschinger & Leiter 2006; Leiter et al., 1998; Maslach, 1976). Early studies also have argued about other consequences of burnout such as negative behaviors toward patients, their families and conflict with other staff (Ceslowitz, 1989). Parallel to this argument, another study also indicated that burnout can be potential risk in terms of the personnel, patients and the organizations which they collaborate (Maslach & Jackson, 1981). A worker's burnout also means that both patients and others are under risk because of the lack of appropriate treatment and concern taken by the patients (Koivula, Paunoen & Laippala, 2000).

In the economical perspective, high absenteeism and turnover caused by burnout lead to a damage in the economy (Lachman, 1983). Parallel to this finding, it has been mentioned that burnout may induce higher financial costs because of the high level of absenteeism rate and turnover (Maslach & Leiter, 1997).

2.2 Turnover Intention

A number of researches tried to analyze the turnover intention of nurses, because the turnover intention is an important parameter for nurses, patients, their families, and organizations. The continuous increase in the population, changes in young people's habits, and increase in the number of nurses needed in elderly care lead to elevated number of nurses in the health care system (Buerhaus, 1998). Because of these reasons the turnover and retention of nurses must be always carefully evaluated in their working areas.

There are different meanings of turnover intention that exists in the literature. A general definition of turnover intention is to think of leaving from the organization in the future (Vandenberg & Nelson, 1999). It was also explained as a process including psychological, logical, and behavioral components (Takase, 2010; Hayes et al, 2012). Turnover intention in nursing starts with disengagement process: first they leave their department they work, second the hospital they work, and lastly the job they have (Krausz, Koslowsky, Shalom & Elyakim, 1995; Flinkman, Kilpi & Salontera, 2010).

2.2.1 Sources of Turnover Intention

Numerous researchers (Bluedorn, 1982; Peters et al., 1981; Saks, Mudrock & Ashforth, 1996) have interested in investigating the predictors of turnover intention. Previous research studies demonstrated factors that having effect on turnover intention. Among these factors, age (Gray &Phillips, 1994), being married or single, education, experience (Wai Chi Tai, Bame & Robinson, 1998), organizational capacity and working conditions (Hemingway & Smith, 1999; Lane, Matthews & Presholdt, 1990), pay (Buchan & O'May, 1998) job overload and family support (Wai Chi Tai et al., 1998), working life and job satisfaction (Lum, Kervin, Clark, Reid & Sirola, 1998), promotions (Price & Meuller, 1981), relative responsibilities (Gray & Phillips, 1994) can be considered significant parameters as noted by McCarthy, Tyrell & Lehane (2007). Similarly, a study about turnover intention has discussed some variables that might be associated with turnover intention among nurses (Yin & Yang, 2002). These variables included pay, stress, appreciation, scheduling, personal development opportunities, interpersonal relationships, feeling accomplished, organizational characteristics, family responsibilities, region, work related opportunities, and the job itself. It was found that the most influential sources on turnover intention among nurses were stress, pay, interpersonal relationships, and

individual development opportunities (Yin & Yang, 2002). Another study which summarized the reasons of turnover intention on nursing profession has identified that age, experience, job satisfaction, organizational engagement, perception of work possibilities and supervisor's attitudes as the predictors of turnover intention (Tai et al., 1998). In more general, job related stress, job related stressors, and disengagement have been summarized as the most influential predictors of turnover intention (Mobley, Horner & Hollingsworth, 1982).

2.2.1.1 Individual Sources of Turnover Intention

2.2.1.1.1 Age

As an individual factor that influence turnover intention, age of workers was found that it mostly correlates with turnover intention. A study indicated that younger nurses have more tendency to leave nursing, since younger nurses may have more chances to find another job that is compatible with their needs than those for older ones (Camerino et al., 2006). Studies before that also found the similar results indicating the association of being younger and turnover intention (Kuokkanen, Leino-Kilpi & Katajisto, 2003, Barron & West 2005; Hasselhorn et al., 2005). In contrast with these studies, there are limited number of studies emphasizing that there is no significant correlation between age or any other demographic factors and turnover intention (Fang, 2001; Larrabee et al., 2003).

2.2.1.1.2 Marital Status

Although researchers could not find significant correlations between marital status and turnover intention, they have pointed out that it may affect turnover (Lane et al., 1990). It was suggested that married ones may show lower level of turnover intention, since they may be under pressure not to leave their job (Lane et al., 1990).

2.2.1.1.3 Family Responsibilities

Previous studies have shown that a significant relationship between family responsibilities and turnover intention exist. It has been proven that those who had family responsibilities had more tendencies for staying in job than those who did not have such responsibilities (McCarthy et al., 2007). Similarly, some other studies indicated that workers who had no family responsibilities such as children, or relevant had more tendency for turnover intention (Stewart et al., 2011; Estryn-Behar, van der Heijden, Oginska, Camerino, Le Nezet, Conway & Hasselhorn, 2007).

2.2.1.1.4 Education

In some previous studies, being qualified in terms of education was positively correlated with turnover intention (Hayes et al., 2012; Brewer et al., 2009; Hasselhorn et al., 2005; Barron & West 2005). On the other hand, some other research studies found different results in education and turnover intention relationships (Chan et al., 2009; Borkowski et al., 2007). They indicated that workers who work in nursing profession have the higher level of education tend to have more commitment to the organization, because of the professionalism they have.

2.2.1.1.5 Experience

Many research studies have shown that turnover intention and experience of nurses are negatively associated (Hayes et al., 2012; Chan et al., 2009). There is another study which agreed on a correlation between experience and turnover intention (Somers, 1996). It has been proposed that experience is associated with turnover intention negatively (Somers, 1996). On the other hand, it was suggested in a different study that organizational experience and turnover intention had a positive relationship (Kim & Stoner, 2008).

2.2.1.2 Organizational Sources of Turnover Intention

2.2.1.2.1 Job Satisfaction

Early studies indicated that one of the most important sources of turnover or turnover intention is the job satisfaction (Gray-Toft & Anderson, 1983; Mobley, 1977; Cavanagh, 1992; Gauci-Borda & Norman, 1997). It was explained as the degree of liking or disliking of one's job (Spector, 1997). Studies showed that number of variables such as 'salary', 'career expectations' which cause job satisfaction also result in turnover intention (Rosse and Miller, 1984). It was claimed that satisfied workers have lower tendency for turnover intention (Blegen, 1993; Irvine & Evans, 1995). Accordingly, job satisfaction was mentioned as a variable that have negative effect on turnover intention (Hellman, 1997).

2.2.1.2.2 Commitment

Commitment has been one of the most important research topics for many scientists. As a source, it has been reported that turnover intention and commitment correlates negatively (Jourdain & Chenevert, 2010). Furthermore, the strong negative relationship between turnover intention and professional engagement was also indicated (Chang et al., 2006; Lu et al., 2002).

2.2.1.2.3 Burnout

Burnout, another organizational source of turnover intention**,** has also been extensively studied. It has been clearly shown for most occupations that turnover intention is related to high level of burnout (Shimizu, Feng & Nagata, 2005; Huang, Chuang & Lin, 2003). To date, many outcomes of burnout, such as turnover intention, were indicated by several researchers (Collins et al., 2000; Hasselhorn et al., 2005).

2.2.1.2.4 Job Stress

As a common experience of workers in organizations, stress has been found to display different outcomes on workers (Shirey, 2006). Among nurses, work stress correlates with job satisfaction (Blegen, 1993), absenteeism (Gauci-Borda & Norman, 1997), turnover intention (Bratt, 2000), and burnout (Oehler & Davidson, 1992). Moreover, turnover intention was mentioned that it is higher among nurses who are under stress than those of who are not (Bratt, 2000).

Table 2 summarizes the sources of stress in nursing (Cox et al., 1996). As seen in Table 2, job design and workload, interpersonal relationships at work, relationships with patients and their families, work organization and management of work, technical aspects, and personal parameters are the basic subjects of stress for nursing. Job overload and stress have been widely investigated by researchers as the factors that related with turnover intention (Hayes et al., 2012). Accordingly, work overload and relationships with others were shown as the reasons for thinking of quitting jobs among the nurses (Takase, Oba & Yamashita, 2009).

2.2.1.2.5 Social Support

Many studies have pointed that satisfied workers and less turnover (Decker, 1985), less burnout symptoms (Fielding & Weaver, 1994), better health (Singh, 1990) can be said as outcomes of higher social support level. Salaries, promotions, the relationship with supervisors and co-workers have been found to be effective on turnover intention among nurses (Mobley, 1979). Moreover, it was shown that supervisors have more effects on turnover intention in comparison to co-worker influence (Delobelle et al., 2011).

2.2.1.2.6 Salary

It is apparent that salary is the most important motivator and very critical support for the prevention of leaving the job of workers (Lum et al., 1998; Bartol & Locke, 2000). Moreover, it can be said that salary correlates with commitment positively, whereas correlates with turnover intention negatively (Folger & Konovsky, 1989).

2.2.1.2.7 Career Opportunities

The presence of career opportunities is not only critical for the continuing of employees in a given organization but also for the steady development of organizations. It is a factor affecting both the attitudes of employees towards their jobs and job satisfaction which is a determinant of turnover intention of new employees and old ones (Eden et al., 2000).

2.2.1.2.8 Job Demands

The concept of job demands consists of "emotional inconsistency, organizational changes, amount of work, work- home interference, and task interruptions" (Bakker et al., 2003). From the perspective of nurses, it has already been shown that most of the nurses suffer from high workload affecting their decision to leave their job (Takase et al., 2009). Health system requires continuous quality care which gets lowered in the presence of high workloads affecting employees in both physical and mental ways (Flinkman et al., 2008). Workload itself was pointed as a direct parameter acting on turnover intention of nurses, whereas high demand requires other co-existing parameters such as low control level over the job, and low level of support from other to act on turnover intention of nurses (Chiu et al., 2009; Estryn-Behar et al., 2007).

Table 2 Sources of Stress in Nursing

Source of stress	Psycho- social or organizational hazard
1. Job design and workload	Ambiguity, Work overload, Lack of control, Dealing with death and dying
2. Interpersonal relationships at work	Conflict with other staff, Conflict with medical staff: Doctors' behavior, Conflict with other nurses
3. Relationships with patients and their families	Inadequate preparation for dealing with emotional needs ofpatients and their families
4. Work organization and management of work	Lack of staff support, Staff movement, Difficulties with management and supervisors, Lack of resources and staff shortages
5. Technical aspects of nursing	Concern about treatment and patient care
6. Personal	Concern about technical knowledge and skills

2.2.1.2.9 Autonomy

Autonomy is described as the level for a worker in terms of how he or she can organize job related works himself or herself (Liu, Spector & Jex, 2005). The absence of autonomy (Glass & Mcknight, 1996) in a given job promotes individual burnout as well as turnover intention (Spector, 1986). It was directly shown that lower the autonomy higher the risk for the employee to leave his job (Spector, 1986).

2.2.2 Turnover Intention Outcomes

The presence of turnover intention induces the lower quality in health care systems including the care of patients, meeting the needs of patients (Hayes et al, 2006; Gray & Phillips, 1996; Tai, Bame & Robinson, 1998; Shields & Ward, 2001); mood of nurses, and productivity (Hayes et al., 2006). Currently, the financial value of the result of turnover of nurses has not been precisely indicated, however, it is estimated that turnover of nurses in the health related professions results in low productivity, and inefficient work related activities (Jones, 2008).

Even turnover intention among nurses can affect young people to choose nursing as a join in their future career planning (Jourdain & Chenevert, 2010). This situation was even connected to the shortages appear in the number of nurses which was linked to discourage of younger people observing the current problems of nurses (Simoens, Villeneuve & Hurst, 2005).

On the other hand, turnover intention also has negative effects on the mental status of nurses to learn new things related to patient care (Bae, Mark & Fried, 2010). It is important to state that the satisfaction of patients go down if they are treated with nurses possessing turnover intention tendency (Gardner et al., 2007).

Chapter 3

DATA AND METHODOLOGY

3.1 Sample and Data Collection

In the current study, voluntary nurses participated from four regional state hospitals (i.e., Gazi Magusa Hospital, Dr. Akçiçek Hospital, Cengiz Topel Hospital, and Barış Ruh ve Sinir Hastalıkları Hospital) in TRNC to provide required data. The data has been collected in January and February of 2015. The nurses who participated to the study answered the questionnaires for each question. The survey included demographic and employment questionnaires, the Psychological Demands, the Decision authority, the Social Support questionnaires, the OLBI, and the turnover intention questionnaires. Out of the 256 participants, 183 participants responded to the questionnaires and gave them back.

In this current study, each of 183 questionnaire form collected is employed in the evaluation of the data. The number of questionnaires, about to 73.2% of the population, was evaluated as sufficient for the statistical analysis. The data has been analyzed utilizing Statistical Package for Social Sciences (SPSS). Age, gender, marital status, having children, education, experience, working status, working shift, and working in other units have been used as control variables. Psychological demands, decision authority, and social support have been taken as independent variables, whereas burnout and turnover intention have been selected as dependent variables.

Based on the questionnaires, nurses' responses were summed up in total scores of the psychological demands, decision authority, social support, exhaustion, disengagement, and turnover intention. The association of independent and dependent variables were analyzed employing the Pearson Correlation Analysis, Simple Linear Regression Analysis, and Multiple Regression Analysis.

3.2 Sample Population and Data Collection Procedure

The current study is related to the health sector in TRNC. The population of this research study is based on four regional state hospitals and the sample is based on the nurses working in those hospitals. Sample population was selected using convenience sampling and questionnaires were sent to four regional state hospitals in TRNC. The questionnaires were distributed to each nurse and collected directly after they filled out the questionnaires. Surveys were given to all nurses in January and February of 2015. Total questionnaires collected from each hospital are 108 questionnaires out of 135 from Gazi Magusa Hospital, 31 out of 60 from Dr Akçiçek Hospital, 20 out of 28 from Barış Ruh ve Sinir Hastalıkları Hospital, and 24 out of 33 from Cengiz Topel Hospital. Each questionnaire filled out by the participants was coded (e.g., GM1, CT6, and DA20).

3.3 Confidentiality and Ethical Issues

Each participant was presented information about the general research conducted, the evaluation of results, voluntary participation, and privacy. Particularly in order to provide privacy, collected data were hidden and there was no question on the identification of a participant. All the data obtained for the research remained confidential.

3.4 Questionnaire Measures

Depending on the parameter evaluated various questions presented to participants in the survey utilized. For the internal consistency of each scale, reliability analysis, and Cronbach's alpha were computed. Following examining the internal consistency, the measurement scales were found sufficient for hypothesis testing. The questionnaires that encompass demographic and employment questions, Demand-Decision authority-Social Support questionnaires, Oldenburg Burnout Inventory (OLBI), and Turnover intention Questionnaire are as follows;

3.4.1 Demographic and Employment Questionnaires

The demographic and employment questionnaires consist of questions about gender, age, marital status, having children, educational degree (1 for associate degree, 2 for undergraduate, 3 for master and PhD, 4 for Others), experience (number of years a participant works as a nurse), working status (i.e., regular or contracted), and working shift (e.g., 1=7 am-14pm, 2=14 pm-21 pm, 3= 21 pm-7 am).

3.4.2 Psychological Demands Questionnaire

In order to measure psychological demands, three items out of five from Demand-Control-Support Questionnaire (DCSQ) was used in this study (Johnson & Hall, 1988). DCSQ is an alternative shortened questionnaire of Job Content Questionnaire (JCQ) (Karasek et al., 1998). Sample items used for psychological demands are "Do you need to work very quickly?", and "Do you need to concentrate intensively while you work (Mase et al., 2012; Demiral et al., 2007). In psychological demands part, the participants selected a number from 1 to 4 alternatives, each number represented an expression (i.e., 1=never, 2=occasionally, 3=sometimes, 4= often, respectively). While high scores represent high psychological demands, low scores indicate low psychological demands. The Cronbach's Alpha value was found as 0.70 which is

sufficient level of internal consistency for three items of psychological demands in our study.

3.4.3 Decision Authority Questionnaire

In this current study, decision authority was assessed using the "demand-control-support questionnaire" (DCSQ) (Johnson & Hall, 1988; Demiral et al., 2007). Decision authority was measured with 2 items which were "Do you exert any influence over decisions about how your work should be carried out?", "Do you exert any influence over decisions about the nature of your work?" from DCSQ (Mase et al., 2012; Demiral et al., 2007). In the decision authority part, the participants selected a number from 1 to 4 alternatives, each number represented an expression (i.e., "1=never, 2=occasionally, 3=sometimes, 4= often", respectively). The Cronbach Alpha was found as 0.82 which is sufficient level of internal consistency for two items of Decision Authority. While high scores represent high decision authority, low scores indicate low decision authority.

3.4.4 Social Support Questionnaire

Social support was measured with 6 items from DCSQ (Johnson & Hall, 1988; Demiral et al., 2007), and sample items used for measuring social support are "There is a calm and comfortable atmosphere in my workplace", "Everyone in my workplace gets on well with each other", "The people around me show some understanding when I am not feeling at my best", and "I have a good time working with my colleagues"(Mase et al., 2012; Demiral et al., 2007). For social support part, the participants chose a number from 1 to 4 options (i.e., "1=strongly disagree, 2= partially disagree,3=partially agree, 4= strongly agree", respectively). Cronbach's Alpha value was found as 0.82 which is sufficient level of internal consistency for

six items of social support part in this current study. While high scores explain high social support, low scores express low social support.

3.4.5 Oldenburg Burnout Inventory (OLBI)

As an alternative instrument for measuring burnout, the Oldenburg Burnout Inventory (OLBI) (Demerouti, Vardakou & Kantaş, 2003) was used to assess. The instrument consists of positive statements different than MBI (Maslach & Jackson, 1996). It has two dimensions of burnout which are exhaustion and disengagement, respectively. The Turkish version was used to assess the burnout in this study (Karatepe, Babakus & Yavas, 2012). The Cronbach's Alpha was found as 0.74 for total burnout in our study. Sample items used for exhaustion were "There are days when I feel tired before I arrive at work", "After work, I tend to need more time than in the past in order to relax and feel better", "I can tolerate the pressure of my work very well" (Demerouti et al., 2003). Sample items used for measuring disengagement are "I always find new and interesting aspects in my work", "It happens more and more often that I talk about my work in a negative way", and "Lately, I tend to think less at work and do my job almost mechanically" (Demerouti et al., 2003). Results of these items were scored on four-point scales ranging from 1 to 4 (i.e., "1=strongly disagree, 2= disagree, 3=agree, 4= strongly agree"). Since some questions are positive, they were reversed and higher scores expressed higher exhaustion and disengagement levels.

3.4.6 Turnover Intention Questionnaire

In this study, a scale that was developed by Camman et al. (1983), and translated to Turkish by Mimaroglu (2008) was used to measure turnover intention. Turnover intention was assessed with 3 item questionnaire (Camman et al., 1983). The Cronbach's Alpha was found as 0.83 which is high level of internal consistency for

three items of turnover intention in our study. Sample items used for measuring turnover intention are “I often think about quitting”, and “It is quite likely that I will look for a new job within the next year”**.** Responses to these items were scored on 5 point scales ranging from 1 to 5 (i.e., “1=strongly disagree, 2= disagree, 3= not disagree or agree, 4= agree, 5= strongly agree”). High scores indicate high turnover intention level.

Chapter 4

CONCEPTUAL MODEL AND HYPOTHESES

4.1 Conceptual Model

Although the effects of psychological demands (Bakker, Demerouti & Euwema, 2005), decison authority (Maslach et al., 2001) , and social support (Chiu, Chung, Wu & Ho, 2009) on burnout (Demerouti et al., 2001), and association of burnout level and turnover intention level (Shimizu et al., 2005; Huang, Chuang & Lin, 2003; Zhang & Feng, 2011) have been investigated intensively, the results obtained so far have pointed out varieties depending on the country, occupation, social and economical conditions, etc. However, the number of studies on the investigation of the effects of psychological demands (PD), decision authority (DA), and social support (SS) on burnout level and turnover intention level, and the relationship between burnout level and turnover intention level for nurses in TRNC are quiete limited to make a full evaluation.

Job demand-resources model of burnout (Bakker, Demerouti, De Boer & Schaufeli, 2003) was used to analyze the influences of work-related factors on burnout level and turnover intention level in the current study. In this model, work related factors are classified as job related demands and job related resources. Job related demands consist of both psychological effort and physical effort which associates with emotional demands, work overload, lack of environmental arrangement, and job related pressure (Bakker, Demerouti & Verbeke, 2004). Job resources include the

institutional, social, psychological, and physical features of the work which help fulfilling work duties and decrease the costs of job related demands (Bakker, Demerouti & Verbeke, 2004). Based on this definition; salary, job security, support from others, decision authority, feedback, skill variety are considered as job resources (Bakker et al., 2003; Demerouti et al., 2000). Therefore, we have developed a model based on job demand-resources model (Bakker et al., 2003; Demerouti et al., 2000) and the model of this study (Figure 1) has been on the basis of a purpose to examine the relationship with psychological demands which is considered as job demands; decision authority, social support which are accepted as job resources; burnout (i.e., exhaustion, and disengagement), and turnover intention, and the relationship between burnout and turnover intention of nurses working in the state hospitals of TRNC. According to the model, first of all we have determined the effects of psychological demands, decision authority, and social support on burnout, and turnover intention, and following that, we have investigated the relationship between burnout and turnover intention for nurses of state hospitals of TRNC. Eventually, the subdimensions of burnout, which are exhaustion and disengagement, have also been analyzed in terms of their relation to psychological demands, decision authority, support, and turnover intention.

The generation of hypotheses of this study based on the model described are discussed in the upcoming 4.2 Hypothesis section.

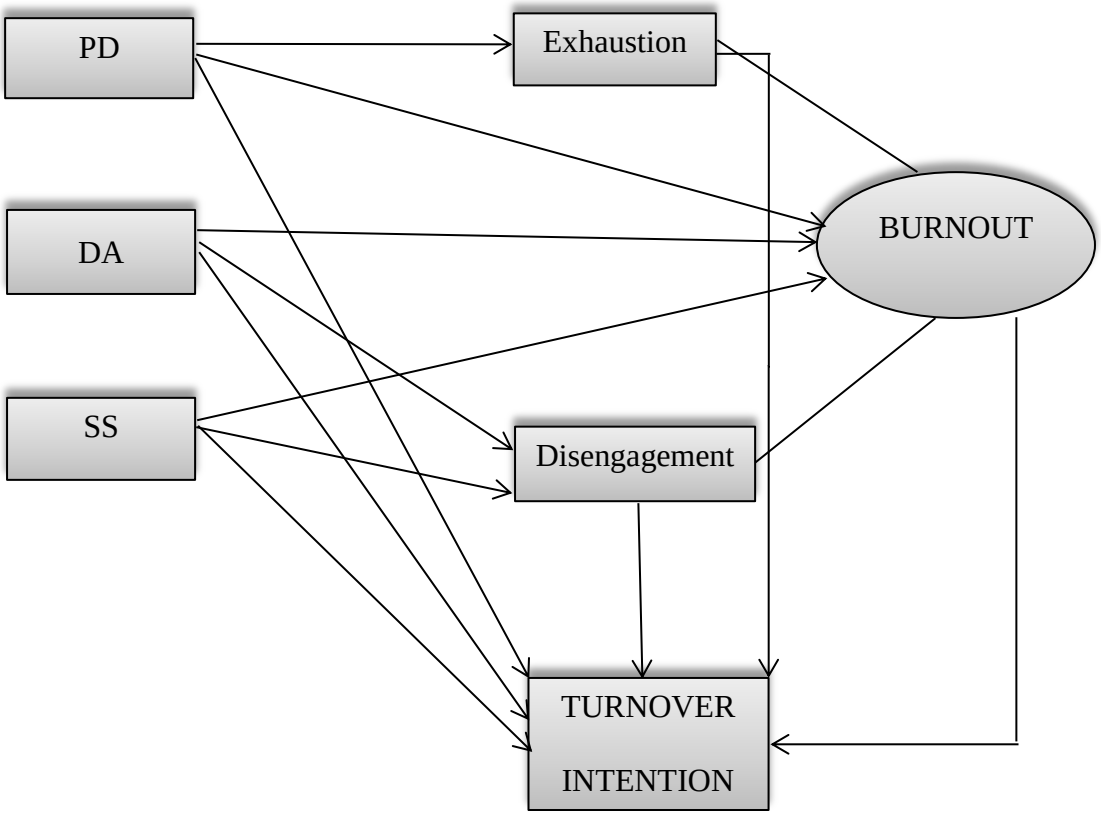

Figure 1. Conceptual model: the relationships between psychological demands (PD), decision authority (DA), social support (SS), burnout (i.e., exhaustion, and disengagement), and turnover intention.

4.2 Hypotheses

Based on the literature survey conducted at the beginning of this research various hypothesis are generated employing the conceptual model as depicted in Figure 1.

4.2.1 Demands, Burnout (i.e., exhaustion and disengagement), and Turnover Intention

As shown in one of the pioneer studies on this topic, workload and time pressure are the basic stressors which was shown in job demands-control model generated by Karasek (1979). In job demand-control model, job demands refer to the difficulty of job, required work speed, required time to do the job, work overload, and conflicting demands (Karasek, Brisson, Kawakami, Houtman, Bongers & Amick, 1998). Nursing as an occupation, is stressful since it requires high job demands, continuum

contacting with patients, their families, and their problems. It is noteworthy that nurses are encountered with exceptional job demands mainly related to the generation of technological developments embedded routinely to the health system and associated budget issues (Schaufeli et al., 1995). Besides it is known that job demands resulting elevated distress and therefore, they are positively related to burnout (Bakker & Demerouti, 2007). Moreover, specific to health system workers, the consistent timing problems and interaction with patients are the main sources of exhaustion (Demerouti et al., 2000). Consequently, as it is reported in the literature, nursing occupation is associated with exhaustion with respect to their routine patient contacts, time pressure, work overload, and working conditions including working shift (Demerouti et al., 2000). Parallel to this study, it has been also shown a positive correlation between burnout level and job demands level of employees (Yener & Coşkun, 2013).

Workload has been shown to be the most effective predictor on turnover intention for nurses (Yin & Yang, 2002). Another supporting finding mentioned that most of the nurses were diagnosed to have expressed workload as a reason for turnover intention, as well as social support (Takase et al., 2009). On the other hand, even though workload is a reason for turnover intention, it does not always lead to turnover intention due to the presence of other environmental factors such as control over the job, and social support from others (Estryn-Behar et al., 2007; Chiu et al., 2009). Therefore, our three hypotheses are:

H1: Psychological Demands associates with burnout positively.

H2: Psychological Demands associates with exhaustion positively.

H3: Psychological Demands associates with turnover intention positively.

4.2.2 Decision authority, Burnout(i.e., exhaustion and disengagement), and Turnover Intention.

Control in a job, is a measurable parameter on the allowance of workers to make decision among alternative options (Ganster & Fusilier, 1989). The concept of 'Control' consists of two dimensions which are skill discretion and decision authority (Karasek, 1979). Decision authority, also known as autonomy (Karasek, 1979), measures the degree of control workers have over making decision process (Karasek et al., 1998). Another explanation for decision authority has been described as the level of freedom given to the workers to conduct their job (Demerouti et al., 2001).

Regarding these definitions, it has been suggested that higher the decision latitude lower the stress and higher the performance (Maslach et al., 2001). Even, burnout was also found negatively associated with autonomy (Yener & Coşkun, 2013). Moreover, the absence or insufficiency of contrubution to decision making are critical parameters to measure the degree of disengagement (Demerouti et al., 2000). Generally, high demands and low decision authority seem to be critical indicator to predict burnout (Schaufeli & van Dierendonck, 1993). Moreover, low authority results in high turnover intention (Glass & Mcknight, 1996). Based on these information discussed above, our hypotheses on the correlation of disengagement with decision authority is as follows:

H4: Decision authority is negatively associated with burnout.

H5: Decision authority is negatively associated with disengagement.

H6: Decision authority is negatively associated with turnover intention.

4.2.3 Social Support, Burnout (i.e., exhaustion and disengagement), and Turnover Intention

Social support is the combination of resources for workers to help them in various ways including but not limited to support from co-workers and supervisors, the existence of support from supervisors, and general relationship of people in the job environment (Chiu et al., 2009). Scientific investigations on nurses have provided enough information ensuring negative relationships of stress for both with social support (De Jonge & Schaufeli, 1998; Cronin-Stubbs & Rooks, 1985), and decision authority (Lee & Ashforth, 1996). Furthermore, social support was shown to be one of the situations that diminish the impacts of work stress (Karasek & Theorell, 1990). In the literature, social support has been identified as one of the influential factors that reduces burnout (Houkes et al., 2003; Demerouti et al., 2000), as well as turnover intention (Nissly, Barak & Levin, 2005). Therefore, based on these precise ideas and scientific research results, we hypothesize:

H7: Social support correlates with burnout negatively.

H8: Social support correlates with disengagement negatively.

H9: Social support correlates with turnover intention negatively.

4.2.4 The Relationship between Burnout (i.e., exhaustion and disengagement) and Turnover Intention

Emotional disturbance activated by work overload results in performing the job's requirements properly (Freudenberger, 1974). The burnout concept, an effector on modern cultures, has been associated with exhaustion at work environment (Iacovides et al., 2003). In the organizational level, low job satisfaction, disengagement, absenteeism, leaving the job and turnover are typical consequences

of burnout (Schaufeli & Enzmann, 1998). Exhaustion, subdimension of burnout, refers to the result of continuum exposure to job related stress including physical and cognitive anxiety (Demerouti et al., 2000). The other definitions for exhaustion are almost the same with this approach (Shirom, 1989). On the other hand, disengagement, another dimension of burnout, is the alienation of one from his job, and job related activities (Demerouti et al., 2000).

There are various meanings of turnover intention supplied in the literature. In one of them, it is described as feeling to leave from the organization (Vandenberg & Nelson, 1999). Various parameters, including but not limited to, staff shortage, the relationships with supervisors and coworkers, job opportunities, and administrative policies are typical effectors of turnover intention (Yin & Yang, 2002).There is direct measurable proof that emotional exhaustion statistically correlates with turnover intentions (Golden, 2006; Maslach, Schaufeli & Leiter 2001).

Consequently, studies conducted so far in the literature shows that there is a positive correlation between turnover intention both with burnout (Blankertz & Robinson, 1997; Drake & Yadama, 1996), and exhaustion (Ducharme, Knudsen & Roman, 2007) as well as disengagement (Alarcon, Edwards & Menke, 2011; Scanlan & Still, 2013). From this point of view, our hypotheses are;

H10: Burnout correlates with turnover intention positively.

H10a: Exhaustion correlates with turnover intention positively.

H10b: Disengement correlates with turnover intention positively.

4.2.5 The Relationship between Demographic Variables, Burnout and Turnover Intention

The results obtained from scientific studies aimed to measure the association of demographic variables both with burnout (Demerouti et al., 2000; Ryerson & Marks, 1981; Pines, Aronson & Kafry, 1981; Maslach & Jackson, 1985) and turnover intention (Coomber & Barriball, 2007) have pointed out diversity. Demographic variables, as the predictor of burnout, were identified as age, gender, marriage status, and working experience (Schaufeli & Enzmann, 1998). On the other hand, age, experience, job dissatisfaction, commitment, job opportunities and leadership style were explained as the indicators of turnover intention in a literature review (Tai et al., 1998). Therefore, on the basis of this information, our hypothesis is:

H11: The relationship between nurses' demographic characteristics (i.e., age, gender, marital status, having children) and employment variables (education, experience, working status, working unit, working shift), burnout, and turnover intention show diversity.

Chapter 5

ANALYSIS AND EMPIRICAL RESULT

5.1 Descriptive Statistics

183 Nurses from four regional state hospitals (Gazi Magusa Hospital, Dr Akçiçek Hospital, Barış Ruh ve Sinir Hastalıkları Hospital, and Cengiz Topel) in TRNC completed the questionnaires. The age of nurses participated in the current study ranged from 26 to 59 with an average of 39 (Table 3). As in the Table 3, number of nurses "between 31-40 years" dominates over other age groups with its 53.6%; "between 41 and over" belongs to 37.7%; and 8.7% of respondents were "between 25-30 years". The majority of the respondents were female nurses (i.e., Table 3), since a total of 86.3 % of the participants were female and 13.7 % were male. Most of the participants were married with its 84.2% and single participants percentage was 15.8%. 89.6% of respondents in this present study had children, while 11.4% of them did not have any children.

Employment variables of nurses (i.e., working in other units, working status, working shift, experience as a nurse, and education) are shown in the Table 4. About 34.4% of nurses worked in different units. Almost all nurses (i.e., 90.7%) reported that they were employed in a regular position , while 5.5% of respondents selected the "other" choice, and finally 3.8% of them was contracted nurses. 37.2% of nurses indicated that they were working rotating shifts; "All" periods choice

constitutes the majority (i.e., 37.2%), followed by 07 am-02 pm period (i.e., 26.2%), 09 pm-07 am (i.e., 9.8%), 02 pm- 9pm/9

Table 3 Demographic Variables of Nurses

Demographic Variables	**N**	**Percentage**
Age		
25- 30 years	16	8.7
31-40 years	98	53.6
41 and over	69	37.7
Total	183	100
Gender		
Women	158	86.3
Men	25	13.7
Total	183	100
Marital Status		
Married	154	84.2
Single	29	15.8
Total	183	100
Having Children		
Yes	164	89.6
No	19	10.4
Total	183	100

pm- 07 am (i.e.,9.3%), 02 pm-09 pm (i.e., 9.3%), 07 am-02 pm / 2 pm- 09 pm (i.e.,7.7%) ,and finally 07 am-2pm/ 09 pm- 07 am (i.e., 0.5%). Furthermore, 16 years of experience was found as the average years of experience among the nurses, whereas the experience at the current hospital was measured as an average of 12 years. Educational level of participants is described in Table 4. Statistical data showed that the majority had undergraduate degree (i.e., 44.3%, 81 participants).

Other groups were found as; “associated degree” level (i.e., 25.1%, 46 participants), “other degree” (i.e., 18%, 33 participants), “master degree” (i.e., 12%, 22 participants), and “PhD degree” (i.e., 0.5%, 1 participant), respectively.

Table 4 Employment Variables of Nurses

Variables	**N**	**Percentage**
Working in other units		
Yes	63	34.4
No	120	65.6
Total	183	100
Working status		
Regular	166	90.7
Contracted	7	3.8
Other	10	5.5
Total	183	100
Working Shifts		
07 am-14pm	48	26.2
14pm-21pm	17	9.3
21pm-07am	18	9.8
07am-14pm/14pm-21pm	14	7.7
07am-14pm/21pm-07am	1	.5
14pm-21pm/21pm-07am	17	9.3
All	68	37.2
Total	183	100
Experience		
5 and less than 5 years	14	7.7
6-15 years	76	41.6
16-25 years	68	37.1
26-35 years	24	13.1
36-45 years	1	.5
Total	183	100
Education		
Associate Degree	46	25.1
Undergraduate	81	44.3
Master and PHD	23	12
Other	33	0.5
Total	**183**	**100**

5.2 Hypothesis Testing

In order to test the hypotheses described in section 4, three different statistical analyses were employed. These tests include Pearson correlation analysis, simple linear regression analysis and multiple regression analysis.

5.2.1 Correlation Analysis: Psychological Demands, Decision Authority, Social Support, Burnout (i.e., exhaustion and disengagement), and Turnnover Intention

In order to analyze correlations between independent and dependent variables, Pearson correlation coefficient analysis was applied. The results (i.e., means, standard deviations, Cronbach alpha, and correlations) obtained are shown in Table 5 below.

Based on the results, the level of psychological demands of nurses was found to be associated with decision authority, exhaustion, and burnout. Accordingly, psychological demands were shown to be positively correlated with both decision authority ($r = .179$, $p < .05$) and exhaustion ($r = .232$, $p < .01$), as well as burnout ($r=.210$, $p < .01$). On the other hand, psychological demands could not have been associated any of the other study variables which are social support, disengagement, and turnover intention. Consequently, the results obtained on the positive correlation of psychological demands both with burnout and exhaustion absolutely reflected our initial hypotheses, H1, and H2, respectively. On the other hand, the initial hypothesis, H3, was not supported with this finding.

Beside its correlation with psychological demands as described above, decision authority was found to be associated with four of the study variables (i.e., social

support, exhaustion, disengagement, and burnout). According to the results, decision authority is negatively correlated with exhaustion ($r = -.149$, $p<0.05$) and disengagement ($r = -.150$, $p<.05$), as well as burnout($r = -.171$, $p <0.05$). On the other hand, decision authority was shown to be positively correlated with social support ($r= 269$, $p< .01$). There was no statistical significant correlation found between decision authority and turnover intention. Based on these, our initial hypotheses, H4 (i.e., decision authority correlates with burnout negatively), and H5 (i.e., decision authority correlates with disengagement negatively) were found to be completely supported with related findings, whereas, H6 hypothesis was not supported with this finding.

The results of association of social support with study variables besides psychological demands, and decision authority has pointed out that social support is negatively correlated with disengagement ($r = -.323$, $p <0.01$), burnout ($r = -.255$, $p <0.01$), and turnover intention ($r = -.154$, $p <0.05$), whereas, there was found no statistically significant correlation of social support with exhaustion. As initially described with the hypotheses, H7, H8, H9, the results obtained are completely consistent.

The association of exhaustion with psychological demands, decision authority, and social support are described above. According to the correlation analysis for exhaustion, it has been indicated to be positively associated with disengagement ($r = .536$, $p <0.01$), burnout ($r = .877$, $p<0.01$), and turnover intention ($r = .302$, $p<0.01$). Accordingly, the positive association of exhaustion with turnover intention that is found with the results agrees with the initial hypothesis H10a.

The relationship of disengagement with burnout and turnover intention have been found to be positive ($r = .88$, $p < .01$) for burnout and ($r = .403$, $p < .01$) for turnover intention. The results also indicated that our initial hypothesis, H10b, describing the positive relationship of disengagement and turnover intention, is completely supported.

The association of burnout and turnover intention was found positive ($r = 402$, $p < .01$). The initial hypothesis, H10, stating their positive association has been absolutely supported with this finding.

5.2.2 Correlation Analysis: Demographic Variables, PD, DA, SS, Exhaustion, Disengagement, Burnout, and Turnover Intention

The association of each demographic variable (i.e., age, gender, marital status, and having children) with psychological demands, decision authority, social support, burnout (i.e., exhaustion and disengagement), and turnover intention was analyzed. The results are laid out in Table 6.

Age has been found to be related to having children ($r = -.247$, $p < .01$), disengagement ($r = .150$, $p<.05$), and turnover intention ($r = .158$, $p <.05$). Beside its negative correlation with having children, age has been shown to be positively associated with disengagement and turnover intention. It is noteworthy to state that age has not been found to be associated with the rest of the variables.

Gender has only been found to be associated with marital status among the variables analyzed. Accordingly their relation has been indicated to be positive ($r = .220$, $p < .01$). Similar to gender, marital status was also shown to be associated with having

children. The relationship was found to be positive (r= .490, p < .01). However, having children could not be found associated statistically significantly to any other of the variables analyzed.

With respect to the total evaluation of the results obtained from the analysis of the association of demographic variables with psychological demands, decision authority, social support, burnout (i.e., exhaustion and disengagement), and turnover intention, it is clear that our hypothesis, H11, indicating the diversity is completely reflected with the analysis compiled.

5.2.3 Correlation analysis: Employment variables, PD, DA, SS, Burnout (Exhaustion and Disengament), Turnover Intention

In our research study, the correlations between employment variables and psychological demands, decision authority, social support, burnout (i.e., exhaustion and disengagement), and turnover intention were also analyzed. The results are shown in Table 7. Accordingly, some of the associations were found to be statistically significant.

Education has only indicated to be associated with experience and working status. The correlation of education with experience was shown to be positive (r = .156, p < .05), whereas its association with working status was negative (r=-.169, p < .05).

Experience was shown to be correlated with three of the variables tested (i.e., working status, psychological demands, and disengagement). Accordingly, the relationship of experience with both working status (r=-.305, p < .01), and psychological demands was found negative (r=-.152, p < .05). Moreover, it was

found that there is a positive relationship between experience and turnover intention (r= .172, p< .05). However, its interaction with disengagement revealed out positive interaction (r= .151, p < .05). Working in other units has been shown to have no correlation with any of the variables measured (i.e., no statistically significant difference). Working status was found to be negatively correlated with decision authority (r=-.209, p < .01), and disengagement (r= -.166, p < .05). However there was no statistically significant relationship found between working status and any of the other variables tested. The final employment variable, working shift, was found to be only correlated with psychological demands. The relationship was found to be positive (r= .235, p < .01).

On the basis of the results obtained, it is critical to express that the results obtained are completely consistent with our initial hypothesis that defines the diversities between the employment variables and psychological demands, decision authority, social support, burnout (i.e., exhaustion and disengagement), and turnover intention.

5.2.4 The Effects of Psychological Demands, Decision Authority, and Social Support on Exhaustion: Multiple Regression Analysis

In addition to correlation analysis tested, a Multiple Linear Regression Analysis was employed to predict exhaustion based on Psychological Demands, Decision authority, and Social Support. The results obtained are shown in Table 8. A significant regression equation was found (F= 6.365, p= .000), with R^2 of .096. According to the results, it has been found a significant relationship between Psychological demands and exhaustion (β: .263, p= 0.00), which supports our H2 hypothesis. The results obtained are, therefore, completely consistent with our initial

Table 5 Correlations between study variables

Variables	Mean	SD	Alpha	1	2	3	4	5	6	7
1.Psychological Demands	3.52	.49	.70	-						
2.Decision Autonomy	2.93	.87	.82	**.179***	-					
3.Social Support	2.83	.68	.82	-.014	**.269****	-				
4.Exhaustion	2.78	.43	.62	**.232****	**-.149***	-.124	-			
5.Disengagement	2.64	.43	.59	.135	**-.150***	**-.323****	**.536****	-		
6.Burnout	2.71	.37	.74	**.210****	**-.171***	**-.255****	**.877****	**.876****	-	
7.Turnover Intention	2.28	1.00	.83	.131	-.022	**-.154***	**.302****	**.403****	**.402****	-

**Correlation is significant at 0.01 level (2-Tailed)

*Correlation is significant at 0.05 level (2-Tailed)

hypothesis H2, which states that psychological demands are associated with exhaustion positively. Moreover, we have found a negative and significant impact of decision authority on exhaustion (β: -.177, p= 0.02). However it is noteworthy to explain that we have declared no initial hypothesis for this point. Therefore, the result obtained is out of the scope of the hypothesis declared and evaluated. Furthermore, no statistically significant relationship was found between social support and exhaustion (β: -.072, p= 0.33). This result was also out of the scope of the initial hypothesis stated.

5.2.5 The Effects of Psychological Demands, Decision Authority, and Social Support on Disengagement: Multiple Regression Analysis

Multiple linear regression analysis was also employed to predict disengagement based on psychological demands, decision authority, and social support and the results are shown in Table 9. A significant regression equation was found (F= 8.911, p= .000), with R^2 of 0.13. According to the results, a statistically significant and positive relationship between psychological demands and disengagement (β: 148, p= 0.038) was shown. Furthermore, social support has been found to possess negative and significant impact on disengagement (β= -.295; p=.000). This shows that higher the social support, lower the disengagement of nurses. This finding completely supports our initial hypothesis, H8, which states social support is associated with disengagement negatively. On the other hand, no relationship between decision authority and disengagement was found (β= -.097; p=.189). According to the initial hypothesis, H5, we have stated that decision authority is associated with disengagement negatively. Therefore, the result obtained with multiple linear regression analysis does not support this hypothesis. However it

Table 6 Correlations between demographic variables, PD, DA, SS, burnout and turnover intention

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1.Age	38.82	6.37	-										
2.Gender	1.14	.34	.020	-									
3.Marital status	1.16	.37	-.010	**.220****	-								
4.Having children	1.10	.31	**-.247****	.073	**.490****	-							
5.PD	3.52	.49	-.059	-.001	-.044	.004	-						
6.DA	2.93	.87	-079	-.013	-.042	-.045	**.179***	-					
7.SS	2.83	.68	.012	.028	-.087	-.069	-.014	**.269****	-				
8.Exhaustion	2.79	.43	-.016	.018	-.032	-.071	**.232****	**-.149***	-.124	-			
9.Disengagement	2.64	.43	**.150***	.070	.020	-.001	.135	**-.150***	**-.323****	**.536****	-		
10.Burnout	2.71	.37	.076	.050	-.007	-.041	**.210****	**-.171***	**-.255****	**.877****	**.876****	-	
11.Turnover Intention	2.28	1.00	**.158***	.026	.033	-.018	.131	-.022	**-.154***	**.302****	**.403****	**.402****	-

**correlation is significant at 0.01 level (2-tailed)
*correlation is significant at 0.05 level (2-tailed)

Table 7 correlations between employment variables, PD, DA, SS, burnout (exhaustion and disengagement), turnover intention

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1.Education	2.24	1.02	-											
2.Experience	2.57	.83	**.156***	-										
3.working in other units	1.66	.48	-.081	.030	-									
4.Working status	1.15	.49	**-.169***	**-.305****	-.040	-								
5.Working shift	3.30	1.81	-.038	-.051	.036	-.018	-							
6.PD	3.52	.49	.061	**-.152***	.035	.060	**.235****	-						
7.DA	2.93	.87	.056	.079	.014	**-.209****	.122	**.179***	-					
8.SS	2.83	.68	.049	-.050	-.002	.017	.033	-.014	**.269****	-				
9.Exhaustion	2.79	.43	-.023	-.080	-.083	.070	.030	**.232****	**-.149***	-.124	-			
10.Disengagement	2.64	.43	-.016	**.151***	-.022	**-.166***	-.035	.135	**-.150***	**-.323****	**.536****	-		
11.Burnout	2.71	.37	-.022	.041	-.060	-.55	-.003	**.210****	**-.171***	**-.255****	**.877****	**.876****	-	
12.Turnover Intention	2.28	1.00	-.045	**.172***	-.080	.005	-.021	.131	-.022	**-.154***	**.302****	**.403****	**.402****	-

**correlation is significant at 0.01 level (2-tailed)

*correlation is significant at 0.05 level (2-tailed)

Table 8 The effects of psychological demands, decision authority, and social support on exhaustion: Multiple Regression Analysis

Variables	**B**	**SE**	**β**	**T**	**P**
Constant	2.368	.256	-	9.243	.000
PD	.228	.063	.263	3.631	**.000**
DA	-.087	.037	-.177	-2.355	**.020**
SS	-.045	.046	-.072	-.977	.330

R^2 : 0.096 F: 6.365 Durbin- Watson :1.459
a: Dependent Variable : Exhaustion

Table 9 The effects of psychological demands, decision authority, and social support on disengagement: Multiple Regression Analysis

Variables	**B**	**SE**	**β**	**T**	**P**
Constant	2.852	.251	-	11.360	.000
PD	.128	.061	.148	2.091	**.038**
DA	-.048	.036	-.097	-1.319	.189
SS	-.185	.046	-.295	-4.064	**.000**

R^2 : 0.13 F: 8.911 Durbin- Watson :1.593
a: Dependent Variable : Disengagement

is noteworthy to remind that the hypothesis, H5, was shown to be supported through the analysis of the data employing correlation analysis.

5.2.6 The Effects of Psychological Demands, Decision Authority, and Social Support on Burnout: Multiple Regression Analysis

Multiple Linear Regression Analysis was also employed to predict Burnout based on Psychological Demands, Decision authority, and Social Support. The results are shown in Table 10. A significant regression equation was found (F= 8,860, p= .000), with R^2 of .129. According to the results, a significant and positive relationship between psychological demands and burnout (β: .235, p = 0.001) was pointed out. Moreover, there has been found a negative and statistically significant relationship between decision authority and burnout (β: -.156, p =.035), as well as between social support and burnout (β:- .209, p = 0.004). This findings support our initial hypotheses which are H1, H4, and H7.

Table 10 The effects of psychological demands, decision authority, and social support and burnout: Multiple Regression Analysis

Variables	**B**	**SE**	**β**	**T**	**P**
Constant	2.610	.220	-	11.851	.000
PD	.178	.054	.235	3.304	**.001**
DA	-.068	.032	-.156	-2.122	**.035**
SS	-.115	.040	-.209	-2.885	**.004**

R^2: 0.129 F: 8.860 Durbin- Watson :1.463
a:DependentVariable Burnout

5.2.7 The Effects of Psychological Demands, Decision Authority, and Social Support on Turnover Intention: Multiple Regression Analysis

In order to predict turnover intention based on Psychological Demands, Decision authority, and Social Support, multiple linear regression analysis was additionally utilized. The results are shown in Table 11. With respect to the results no statistically significant regression equation was found (F= 2519, p = .060, with R^2 of .041). On the other hand, it has been shown that social support has a significant and negative influence on turnover intention alone (β= -.151; p=.049). This result supports our initial hypothesis which is H9. It is important to state that this findings are not consistent with our initial hypotheses, H3 and H6. It is also important to keep in mind that factors that we used are not satisfactory to explain turnover intention according to the analysis.

Table 11 The effects of psychological demands, decision authority, and social support on turnover intention: Multiple Regression Analysis

Variables	**B**	**SE**	**β**	**T**	**P**
Constant	1.999	.619	-	3.231	.001
PD	.264	.151	.130	1.741	.083
DA	-.006	.089	-.005	-.062	.951
SS	-.223	.112	-.151	-1.986	**.049**

R^2: 0.041 F: 2.519 Durbin- Watson :1.947
a:DependentVariable Turnover Intention

5.2.8 The Effects of Exhaustion and Disengagement on Turnover Intention: Multiple Regression Analysis

Multiple Linear Regression Analysis was additionally employed to predict Turnover Intention based on Exhaustion, and Disengagement. The results are shown in Table 12. A Statistically significant regression equation (F= 18,824, p = .000), with R^2 of .173 was found. According to the results, exhaustion (β: .120, p = .136) was shown to have no effect on Turnover Intention. This result does not reflect our initial hypothesis which is stated in H10a. On the other hand, disengagement was found to possess a statistically significant and positive effect on turnover intention (β= .339; p=.000). This finding completely supports our initial hypothesis which is H10b.

5.2.9 The Relationship between Burnout and Turnover Intention : Simple Linear Regression Analysis

Simple Linear Regression Analysis was also employed to predict turnover intention based on burnout.The results are shown in Table 13. A significant regression

Table 12 The effects of Exhaustion, and Disengagement on Turnover Intention: Multiple Regression Analysis

Variables	**B**	**SE**	**β**	**T**	**P**
Constant	-.604	.497	-	-1.215	.226
Exhaustion	.282	.188	.120	1.497	.136
Disengagement	.795	.188	.339	4.222	**.000**

R^2 : .173 F: 18.824 Durbin- Watson :2.039
a: Dependent Variable : Turnover Intention

equation (F= 34,948, p = .000), with R^2 of .162 was found. With respect to the results, burnout was shown to have a statistically significant effect on turnover intention (β: .402, p=.000). This result is consistent with our initial hypothesis, H10, co-supported by correlation analysis.

Table 13 The relationship between burnout and Turnover Intention: Simple Linear Regression Analysis

Variables	**B**	**SE**	**β**	**T**	**P**
Constant	-.641	.499	-	-1.284	.201
Burnout	1.077	.182	.402	5.912	**.000**

R^2 : 0.162 F: 34.948 Durbin- Watson : 2.019
a: Dependent Variable : Turnover Intention

Overall, the results obtained through regression analysis are summarized in Figure 2.

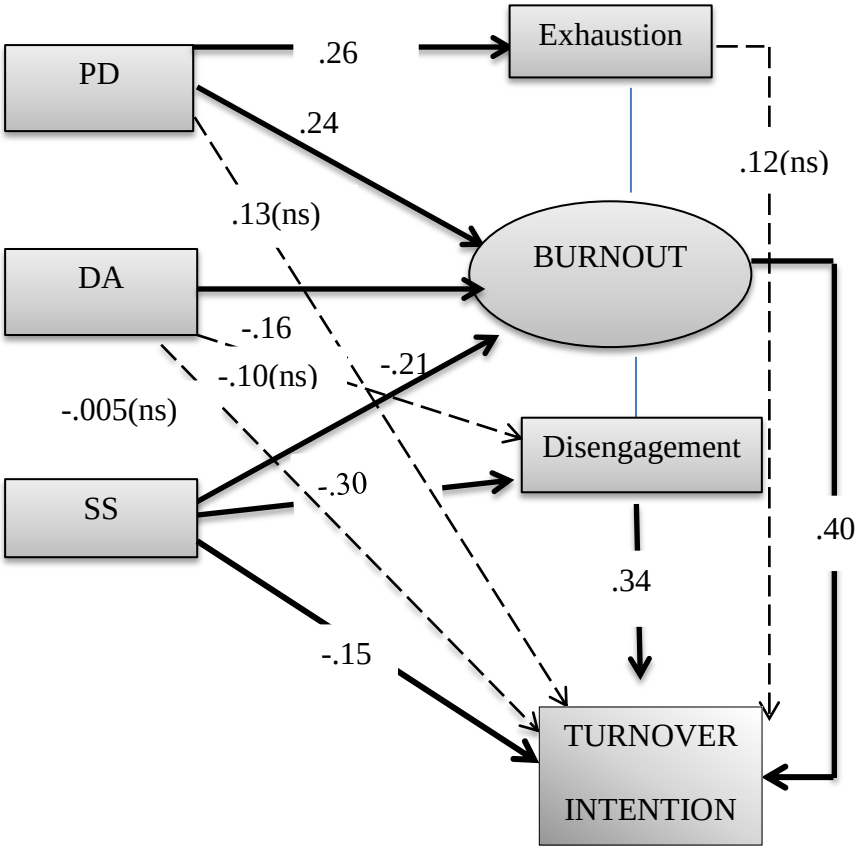

Figure 2. Results obtained through Regression Analysis
*ns: not significant

Chapter 6

DISCUSSION

There has been so many research studies conducted on the measurement of burnout and turnover intention for various occupations including nursing profession. However, a scientific investigation on the identification of burnout and turnover intention among the nurses actively working in TRNC has not been performed. Although the population of TRNC is reported more than 300.000 people and there are more than 10 state and private hospitals hiring hundreds of nurses, the presence of turnover intention and burnout as well as factors acting on these parameters have not obtained enough attraction so far. Therefore, at the beginning of this study, we have decided to measure the relationship between burnout and turnover intention as well as the factors (i.e., psychological demands, decision authority, and social support) affecting on these parameters for the nurses hired in TRNC. Besides, demographic and employment variables of nurses were also investigated. In order to reach this aim we have come out with several hypotheses and investigated their accuracy employing the results statistically analyzed with several methods. It is important to note that a written permission is obtained directly from the minister of health of TRNC to follow our measurements performed throughout the research.

This study includes the nurses working in four regional state hospitals (i.e., Gazi Magusa Hospiatl, Braıs Ruh ve Sinir Hastaliklari Hospital- Lefkosa, Dr. Akcicek Hosptal- Girne, Cengiz Topel Hospital- Guzelyurt) of TRNC. 183 out of 256 nurses

hired in these hospitals have participated in this research. The data was obtained through previously prepared surveys and the data obtained from those nurses were evaluated and analyzed employing the SPSS program. Depending on the factor analysis results, the items are all accepted in decision authority, social support, OLBI and turnover intention, excluding psychological demands. The fourth and fifth questions placed under psychological demands were not employed due to their low factor load. It is important to state that in a previous study conducted by Demiral et al., (2007), similar results were obtained for the fourth and fifth questions utilized in the same questionnaire.

In order to test our hypotheses, the data were evaluated employing different statistical methods, including correlation analysis, simple linear regression, and multiple linear regression. In addition to these, the reliability of each questionnaire was also calculated.

Correlation analysis conducted in order to analyze the relationship between study variables showed that there are significant relationships between them. Accordingly, psychological demands have statistically significant and positive relationships with decision authority, exhaustion, and burnout. The increase in the present psychological demands of nurses concomitantly accompanies to the increase of exhaustion and total burnout level. In other words, it is expected that higher the psychological demands higher the exhaustion and total burnout. These results are supported by the results shown in various literatures demands (Demerouti et al., 2000; Yener & Coşkun, 2013). However, there has been found no relationship between psychological demands and other study variables (i.e.,social support, disengagement, and turnover intention) in our study.

Showing a statistically significant and positive relationship with social support, decision authority indicated significant and negative relationships with exhaustion, disengagement, and total burnout. A positive relationship between decision authority and social support shows that an increase in the level of decision authority also means an increase in the level of social support. However, it was found that there is a negative relationship between decision authority and other study variables (i.e., exhaustion, disengagement, and burnout) which shows that in the case of an increase in the level of decision authority, the level of exhaustion, disengagement and burnout decrease. Similarly, it was mentioned that decision authority is a crucial parameter for the measurement of disengagement, and burnout (Demerouti et al, 2000). On the other hand, there was found no statistically significant relationship between decision authority and turnover intention.

According to the results, a significant and negative relationship was found between social support and disengagement, total burnout, and turnover intention. This shows that social support has a decreasing negative effect on the level of disengagement, total burnout, and turnover intention. This result also shows similarity with the previous studies (Nissly, Mor Barak& Levin, 2005; Houkes et al., 2003; Demerouti et al, 2000).

When analyzing the relationship between the dimensions of burnout and turnover intention, there was found a statistically significant and positive relationship between exhaustion and turnover intention. Similarly, it was found that there was a positive and consistent correlation between disengagement and turnover intention. In case of an increase in both exhaustion and disengagement level, it can be said that an increase will be in the level of turnover intention. Numerous studies performed on

the relationship between turnover intention and both exhaustion and disengagement support our findings (Maslach, Schaufeli & Leiter 2001; Golden, 2006; Alarcon, 2011; Scanlan & Still, 2013).

The results on the analysis of the relationship between total burnout and turnover intention pointed out a statistically significant and positive relationship between both study variables. It shows that nurses who have higher level of burnout have more tendency to leave the job. This result supports the previous studies that had the same results (Maslach & Jackson, 1981; Blankertz &Robinson, 1997; Drake & Yadama, 1996).

According to the result of multiple and simple linear regression analyses, a positive and significant relationship was found between psychological demands and exhaustion which is dimension of burnout. As it is consistent with our hypothesis, this indicates the increase in the exhaustion level concomitant to increasing psychological demands. It was also found out that there was a significant but negative relationship present between decision authority and exhaustion. This implies that through the elevation of decision authority, one might possess lower exhaustion level concomitant to its positive effects.

The multiple linear regression analysis results also pointed out a significant relationship of disengagement both with psychological demands and social support, although, the relationship of psychological demand and disengagement was underestimated in our initial hypotheses. However, the negative relationship between social support and disengagement found was initially shown in our hypothesis. This

negative interaction between social support and disengagement implies a positive effect on nurse's disengagement with high level of social support.

With respect the multiple regression analysis to find out the relationships between burnout and independent variables, each of the variables was shown to be significantly related to burnout. The strongest relationship was found for psychological demands, and the least strong one was shown to be decision authority.

The analysis performed to investigate the effect of independent variables (i.e., psychological demands, decision authority, social support, exhaustion, disengagement, and total burnout) on turnover intention indicated that social support is negatively and significantly correlated with turnover intention, whereas disengagement is positively and significantly related. On the other hand, burnout level of nurses showed a strong relationship with turnover intention. Nurses who have high burnout level have more tendencies to leave their job.

Following summarizing the research results, it can be said that current study provides the answers for research questions that were mentioned before. In demographic variables, only age was found out as indicator of disengagement of nurses. It implies that the level of disengagement of nurses increases as their age increases. Among employment variables; experience, working status, and working shift were found as sources of related dependent variables. Experience had a positive relationship with disengagement of nurses. As years of experience increase, the level of disengagement of nurses increases, that is, the number of years in working leads to disengagement. Working status was found to be related with decision authority positively and disengagement negatively, that is, regular nurses may have more

control over their decisions. Moreover, regular nurses have less tendency to leave their job comparing with other nurses had different working status such as contracted nurses. Working shift was found as an indicator of psychological demands for nurses, that is, increasing the number of working shift may lead to experience psychological demands. Moreover, psychological demands have a positive relationship with burnout, which, in turn leads to turnover intention. Nurses who have time pressure, excessive workload also experience burnout and this leads to leave their job. On the other hand, if they have decision authority over their job or social support from their co-workers or supervisors the negative effect of psychological demands on burnout may decrease. Similarly, the negative effect of psychological demands on disengagement may decrease with the positive effect of social support that nurses have, which, in turn decrease the negative effect of disengagement on turnover intention.

As a result, our most of the hypoyheses were supported with correlation analysis, except H3, and H6. On the other hand, our most of the hypotheses were supported with Multiple Linear Regressin Analysis and Simple Linear Regression Analysis, except H3, H5, H6, and H10a.

6.1 Recommendations

According to the results obtained, there are some recommendations for managers to overcome burnout and turnover intention that nurses experience. These are presented below;

1. Since psychological demands have been found to be related with burnout positively, reducing the level of demands will help to reduce the level of

burnout nurses experience, which ,in turn, may help reducing the level of turnover intention.

2. Results indicated that there is a negative relationship between decision authority and burnout. For this purpose, increasing the nurses' level of decision authority on organizational decisions, negative effects of other variables on burnout should be reduced which, in turn, will reduce the turnover intention.
3. Since social support was found to be related with burnout, disengagement, and turnover intention, it is crucial to take into consideration the importance of the effect of support from co-workers and supervisors on nurses' the level of burnout and turnover intention.
4. The results obtained showed that nurses are subjected to perform their job in a limited time, and this may be derived from personnel shortage. To reduce the level of psychological demands of nurses, the number of nurses to work should be increased which, in turn, may provide low level of burnout and turnover intention.
5. Depending on the excessive demands, it must be given the necessary support to the nurses to relief negative consequences. Otherwise, nurses feel worn themselves under workload conditions and time pressure.
6. With regards to the results, working shift has effect on the level of psychological demands, and the negative consequences such as high burnout and turnover intention might be reduced through decreasing the hours that nurses work.
7. Since an important difference has been found related to the disengagement levels of regular and contracted nurses, it is apparent to evaluate separately

the negative aspects of disengagement on contracted and regular nurses working for state hospitals.

6.2 Limitations

As in other studies, this study also has some limitations, although, the study has beneficial outcomes about nurses working for state hospitals in TRNC. First of all, study was carried out in four regional state hospitals in TRNC.

Second, limited variables (i.e., psychological demands, decision authority, and social support) were used to assess burnout and turnover intention. In order to have more accurate results, some other variables such as reward, justice at work, and satisfaction should be added in future studies.

Third, the different hospital units that nurses are working are not evaluated separately. Therefore, in future studies, considering the effect of the units that nurses work might result in having further outcomes from this study.

Furthermore, the status, salary issues, and other social and economic factors for nurses working for private hospitals of TRNC are completely different. Because of this reason, the outcomes of this study have limited application for nurses working in private hospitals. Consequently, the results obtained cannot be generalized for all nurses who work in TRNC.

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