AMERICAN UNIVERSITY OF BEIRUT

# PREDICTORS OF RESILIENCE AMONG REGISTERED NURSES AT THREE PRIVATE HOSPITALS IN SOUTH LEBANON

by
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# AN ABSTRACT OF THE PROJECT OF

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Resilience has an impact on both nurses' job satisfaction and retention. Since high resilience increase nurses' ability to cope with stresses related to job adversities and consequently enhances their job satisfaction, it is worth studying the predictors of resilience among Lebanese registered nurses. Controversies regarding predictors of resilience in the literature make this topic important to investigate. Moreover, the deficiency of data regarding this issue in Lebanon impacts national registered nurses' shortage, and makes it favorable for selection.

The purpose of this study was to assess the average resilience scores (RS)and predictors of resilience among registered nurses at three private hospitals in South Lebanon. A related objective was to explore the relationship between resilience and registered nurses' perception of transformational leadership (GTLS).

A cross sectional study design was used to determine the predictors of resilience among registered nurses in three private hospitals in Saida. A convenience sample of 240 registered nurses who have been working at the three hospitals for more than one year were surveyed. The survey instrument included the True Resilience Scale (C), Global Transformational Leadership Scale and demographic questions. A multiple linear regression model was used to assess predictors of resilience.

The response rate was 85%. The mean resilience score was 119 (SD 15.3) and the nurses' perception of their leadership as transformational score was 25 (SD 6.8). Statistically significant higher resilience scores were reported among nurse managers, nurses with more than five years of experience and those working in critical nursing units compared to bedside nurses, nurses with less than five year experience and those working in non-critical units, respectively ($p<0.05$). A moderate statistically significant correlation ($r=0.53$, $p<0.05$) between perception of GTL and resilience was detected. In the multiple linear regression model, 30% of the variation in resilience was explained by resilience predictors which include: designation ($p<0.05$) and perception of GTL ($p<0.01$). It is worth-noting that 28% of the variation of resilience was explained by perception of GTL.

Among registered nurses at three private hospitals in south Lebanon resilience is predicted by designation and perception of global transformational leadership in this sample. Future research is needed on a national level to achieve a better predictive model and set up a national agenda to increase resilience among bedside nurses to retain them in the profession. Nurse administrators need to set organizational strategies to build resilience in bedside nurses to protect them against the negative effects of stress. Nurse administrators have an obligation to embrace transformational leadership style in order to increase nurses' resilience, engagement and satisfaction in order to increase their retention

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# CHAPTER I

# INTRODUCTION

Nursing shortage is a worldwide concern that impacts both the financial status of hospitals and patient safety (Gillespie, Chabyor, & Wallis, 2009). This shortage is due to an aging workforce, lack of experienced nurses, bullying, abuse and violence (Jackson, Firtko, & Edenborough, 2007). Moreover, Nurses live amid human tragedy, suffering, and pain; consequently they feel emotionally overloaded and this constitutes a major component of job dissatisfaction among them due to stressful working conditions. Adaptation and coping with these stresses positively requires resilience (Gillespie et al., 2009). Resilience is defined as "the ability to rebound and regain original shape following trauma or shock" (Oxford, 1989). Employee resilience is promoted by a better psychological health which is impacted by leadership style. Transformational leadership, in particular, has shown to have a positive impact on employees' psychological health (Walsh, Dupre', & Arnold, 2014). The purpose of this study is to assess the resilience scores and predictors of resilience including perceptions of global transformational leadership among a convenience sample of 240 registered nurses employed at three private hospitals in Saida.

## A. Background

Nowadays, nursing shortage is a global issue and it is a result of an increase in the demand and a decrease in the supply of nurses (Hart, Brannan, & De Chesnay, 2014). The World Health Statistics (2014) reported a global average of nurses/midwives of 2.92 per 1000 population when it was 4.06 per 1000 in 2006 (WHO, 2006), a drop of 1.14 per 1000 population. This shortage and turnover costs affect developed as well as

developing countries. In the United States, the estimated average turnover cost ranges from 22,000$ to over 64,000$ per nurse (Hart et al., 2014) whereas in Lebanon a nurse turnover cost approximates twice the salary (El- Jardali, Dimassi, Dumit, Jamal, & Mouro 2009a). Moreover, studies have shown that turnover and nurse staffing levels affect the quality of patient care (Hart et al., 2014).

Furthermore, nurses face several occupational strains including: high acuity, poor support, long hours (Hart et al., 2014), violence, abuse, and bullying (Jackson et al., 2007). In addition, nurses are exposed to ethical dilemmas (Hart et al., 2014) such as working with incompetent or unsafe staff, providing less than optimal care secondary to management decisions staff (Woods, Rodgers, Towers, & La Grow, 2015) . However; such occupational stresses make of nurses' retention a major challenge particularly the new graduates (Hart et al., 2014).

In an environment where tragedy, human suffering and distress are major components of nurses' daily lives, resilience emerges as an essential requirement of nurses' survival (Jackson et al., 2014, Kim & Windsor, 2015). It is through enduring these occupational stresses and developing adaptability that resilience is built (Lian & Tam, 2014). Resiliency is the ability to deal with a variety of uncertain circumstances successfully (Gooty, Gavin, Johnson, Frazier, & Snow, 2009). Resilience can be enhanced. It helps retaining nurses in the profession rather than leaving when the difficulties of providing care seems to be devastating. It is nurses' resilience that endures challenging working conditions (Debra, Firtko, & Edenborough, 2007). Studies have shown a significant relationship between job satisfaction, resilience and anticipated turnover (Hudgins, 2015).

Employee resilience is promoted by a better psychological health which is impacted by leadership style (Walsh et al., 2014) and it is considered one of the most

important factors that affect subordinates' lives (Krishnan, 2012). Transformational leadership style can provoke high levels of performance through engaging with employees' emotions, attitudes, values and beliefs (Gooty et al., 2009). Through this leadership style, positive psychological capital of followers is enhanced (Krishnan, 2012). Transformational leadership is associated with employees' psychological empowerment and motivation. Moreover, there is a relation between this kind of leadership and work engagement which is highly correlated with organizational commitment and job satisfaction (Kopperud, Martinsen, & Humborstad, 2009). Transformational leadership is a predictor of job satisfaction which in turn predicts nurses' intent to stay (Larrabbe et al., 2010).

Lebanon suffers from qualified nurses' shortage. Lebanese nurses are heavily recruited by countries of the gulf region. Migration of nurses is a major issue in Lebanon. Within 1-2 years of graduation one out of five nurses with Bachelor degree of nursing migrates from Lebanon (El-Jardali, Dumit, Jamal, & Mouro, 2008). In a national study to assess the nursing directors' perspective on the challenges and strategies of nurses' retention, 88% of the hospitals reported that retaining their nurses is a major challenge which need to be addressed otherwise competent and skilled nurses will be lost (El- Jardali, Merhi, Jamal, Dumit, & Mouro, 2009b). Similarly, in another national study conducted to explore nurses' job satisfaction and their intent to leave, the researchers reported that within the next 1-3 years 67.5% of the nurses conveyed their intention to leave of which 36.7% intend to leave Lebanon. This intent to leave is associated with job dissatisfaction (El-Jardali et al., 2009a).

Therefore, in Lebanon, nursing administrators are facing a national nursing shortage as a result of unattractive status of the profession (El-Jardali et al., 2009a), low nursing school enrollees and high migration rates of nurses secondary to job

dissatisfaction (Abu-Saad Huijer, 2007). Nurses' job satisfaction enhances their organizational commitment, and boosts their physical and psychological health (Ward & Cowman, 2007). However, most importantly, nurses' job satisfaction augments their intent to stay (El- Jardali et al., 2009a), and consequently better quality of care is delivered, patient safety measures are implemented, nurses' knowledge and expertise are preserved (Hirschkorn, West, Hill, Cleary, & Hewlett, 2010), nurses' supply is conserved and cost is contained (Duffield, Roche, Blay, & Stasa, 2010). Since nurses with high resilience and those who perceive high levels of transformational leadership in their organizations may be less inclined to leave the workforce, it is important that research is conducted to investigate how self- reported resilience and perceptions of transformational leadership are related in hospitals in Lebanon.

**B. Significance**

Nowadays nurses face several challenges including: nursing shortages, heavy workloads (McCann et al., 2013), lack of autonomy (McDonald, Jackson, Wilkes, & Vickers, 2013), and violence and role ambiguity (Jackson et al., 2007). Such challenges might affect the psychological well-being of nurses leading to burnout (McCann et al., 2013) and turnover (Chesak, Bhagra, Schroeder, Foy, Cutshall, & Sood, 2015). Surviving these stresses in the work-place and learning from them is a major concern requiring high resilience which can be learned and developed (Grafton, Gillespie, & Henderson, 2010; Lian & Tam, 2014; Shirey, 2012). Resilience is promoted by a better psychological health which is impacted by transformational leadership style (Walsh et al., 2014).

Since high resilience increases nurses' ability to cope with stresses related to job adversities and consequently enhances their job satisfaction, it is worth studying predictors of resilience. Transformational leadership may be predictive of higher levels

of resilience among nurses because workers led by transformational leaders have higher motivation and are more committed to their organizations than other workers (Ghafoor, Qureshi, Khan, & Hijazi, 2011). The scarcity of data regarding resilience and nurses perceptions of transformational leadership needs to be addressed because there is a nursing shortage in Lebanon and the proportion of nurses who intend to leave nursing is approximately 29.4% (El- Jardali et al., 2009a).

Assessing the predictors of resilience and its relationship to transformational leadership may assist the development of organizational strategies to encourage nurses to stay in the workforce. Therefore the findings of this study may have implications for nurse administrators and policy makers designing strategies to create and maintain a sustainable nursing workforce in Lebanon.

**C. Purpose**

The purpose of this study is to assess resilience and its predictors, including nurses' perceptions of transformational leadership, among a convenience sample of registered nurses at three private hospitals in Saida, Lebanon.

The research questions are:

1. What levels of resilience and perception of global transformational leadership are reported by registered nurses working at three hospitals in South Lebanon?

2. Do registered nurses with higher scores on the perception of Global Transformational Leadership report higher scores of resilience?

3. What demographic variables predict resilience score among these nurses?

# CHAPTER II

# REVIEW OF LITERATURE

To our knowledge, no studies in Lebanon or in the region have investigated resilience among nurses, nor the relationship between self-reported resilience and perceptions of transformational leadership. This chapter includes literature review related to the workplace stress, resilience, and transformational leadership. Both theoretical and empirical literature was reviewed to appraise the concepts in depth.

## A. Workplace Stress, Resilience, and Transformational Leadership

Workplace stress is a major concern for organizations and employees since it negatively affects employees' well-being and work performance (Lian & Tam, 2014). Human pain and distress, in particular, impact to a high extent the physical and mental well-being of health care professionals. This in turn might lead to burnout and consequently disturbs the ability to deliver effective care (McCann et al., 2013). Moreover, burnout will decrease commitment and work engagement resulting in sickness absence (Sull, Harland, & Moore, 2015) and turnover resulting in a decrease in staffing levels putting patients at risk (Chesak et al., 2015). This turnover will consequently incur costs on the organizations (Lian & Tam, 2014).

In a time of economic uncertainties (Lian & Tam, 2014) health care professionals are living amid many stressors comprising heavy workloads (McCann et al., 2013), resource shortages (McDonald et al., 2013), work-related risks (Gracia & Ayala Calvo, 2012), uncertain job expectations (Avey, Luthens, & Jensen, 2009), time constraints and emotional concerns. Nurses in particular are challenged by the

adversities of the workplace including lack of autonomy, low level staff support (McDonald et al., 2013), violence and organizational restructuring, increased complexity of patients' conditions and role ambiguity (Jackson et al., 2007). These challenges have been associated with difficulties in nurses' retention (Chesak et al., 2015) leading to shortage of nurses. Consequently remaining nurses suffer from heavy workloads and burnout leading to job dissatisfaction (El-Jardali et al., 2009b).

Resilience is defined as "the ability to rebound and regain original shape following trauma or shock" (Oxford, 1989). Grafton et al. (2010) described resilience as the ability to recover from the impact of stress and turn it into a positive learning experience: it has a vital role in protecting individuals' well-being while coping with stressful conditions (Lian & Tam, 2014). Resilience is the capability to survive life challenges, learn and grow from them and consequently become a stronger person. This capacity governs people's response to change (Sull et al., 2015).

Resilience is a dynamic process that exists along a continuum with resilience on one end and vulnerability at the other. Exposure to adversity over time increases resilience; hence employment longevity is an important contributing factor (Shirey, 2012). This implies that resilience can be learned (Grafton et al., 2010; Lian, & Tam, 2014; Shirey, 2012) and developed at any point across the lifespan and at any time (Gillespie, Chabyor, & Wallis, 2007). Enhancing resilience will create committed, motivated, high performing employees amid times of uncertainty and change (Lian & Tam, 2014).

Since resilient individuals are in a better position to deal with the stresses of the workplace changes (Avey et al., 2009; Youssef, 2007), resilient nurses constitute a vital component of the dynamic health care system (Jackson et al., 2007). In critical moments resilient individuals are prone to make sound decisions and are less likely under

organizational stresses to choose to leave organizations which will positively reflect on organizational cost savings (Gracia & Calvo, 2012) particularly recruiting and orienting replacement expenses (Hart et al., 2014). Resilience is protective against emotional exhaustion (Gracia & Calvo, 2012; Rushton, Batcheller, Schroeder, & Donohue, 2015) and is considered a positive organizational factor, which if properly developed will improve employee well-being and productivity and reduce absenteeism and turnover (Sull et al., 2015).

Employee resilience is promoted by a better psychological health which is impacted by leadership style. Transformational leadership is a management practice. It is a leadership style that constitutes a set of leadership behaviors that inspires and empowers followers to go beyond what is required and expected (Walsh et al., 2014), and enhance their organizational commitment. Followers' development and needs are the focus of this leadership style. In such a style the mutual understanding between followers and management is supported (Ghafoor et al., 2011).

Transformational leadership is characterized by its four dimensions: idealized influence, inspirational motivation, intellectual stimulation and individual consideration. Idealized influence takes place when leaders develop trust and respect among followers through exhibiting ethical behaviors. Inspirational motivation occurs when leaders inspire followers by communicating high expectations. Intellectual stimulation happens when followers are encouraged to see issues from different perspectives. Individual consideration arises when followers' concerns and needs are acted upon by leaders (Walsh et al., 2014).

Therefore nurses live amid plenty of work-life stresses leading to burnout and dissatisfaction that can be turned into growth opportunities through resilience which in turn is impacted by transformational leadership. In the following section we will be

examining the studies related to nurses' resilience and its association with transformational leadership.

**B. Empirical Studies**

There is an apparent connection among perceived stress, job dissatisfaction, burnout and organizational withdrawal which leads to voluntary turnover (Avey et al., 2009). This turnover can be decreased by being resilient since it improves employee well-being and productivity (Sull et al., 2015).

Studies have shown that resilience is positively associated with employee job satisfaction (Hudgins, 2015), performance, organizational commitment and ultimately organizational performance (Avey et al., 2009; Youssef, 2007). Resilient individuals show more emotional stability in times of adversity, flexibility to demands and openness to new experiences (Avey et al., 2009; Youssef, 2007). Such individuals show low burnout and absenteeism rate (Maze & Toyokyaa, 2014). Highly resilient nurses are reflective people who possess optimism, cognitive flexibility and active coping skills (Lian & Tam, 2014). Therefore, resilient nurses are in a better position to manage their response to workplace stresses and sustain their well-being particularly in the current nursing shortage and retention difficulties (Grafton et al., 2010). Koen, Eeden and Wissing (2011) reported a mean resilience score of 137.2 among professional nurses in South Africa which implies that nurses reported high resilience.

Relationship of resilience to demographic characteristics has shown contradictions in various studies. Results regarding gender were contradictory. In a study that examined the relationship between psychological capital, job embeddedness and performance among 730 Chinese nurses it was reported that no significant association existed between gender and resilience (Sun, Wen Zhao, Yang, & Fan, 2011). Whereas Sull et al. (2015) reported a significant association between gender and

resilience where females had higher resilience score than males among 845 health care workers in the United Kingdom. Carson (2000) found a significant association between age and resilience in an exploratory study of resilience among rural nurses in UK where increase in age was associated with higher resilience. Mealer et al. (2012) reported a congruent finding to Carson (2000) in their exploratory study about resilience and psychological profile among 774 ICU nurses in the United States. On the other hand, age was not significantly associated with resilience in the studies conducted by Sun et al. (2012). Similarly, Hsieh, Chang, and Wang (2016) did not find age related to resilience in their study that explored the factors related to resilience among 230 Taiwanese nurses working in emergency rooms and psychiatric units. Gillespie et al. (2009) reported that education was not found to be related to resilience in a study investigating the personal characteristics influence on resilience among 753 Australian operating room nurses. A similar finding to Gillespie et al. (2009) was reported by Carson (2000). On the contrary Hsieh et al. (2016) found a positive significant association between resilience and college education versus non-college educated nurses. Furthermore, these researchers found that marital status was not significantly associated with resilience.

Gillespie et al. (2009) reported a modest but significant association between age, years of experience and resilience among Australian nurses working in operating rooms. Similarly, Cameron and Brownie (2010) maintained that experience is one of the themes that positively impacted resilience among registered nurses working in residential aged care facilities in their study that explored the lived experiences of these nurses. Likewise, Kim and Windsor (2015) reported that experienced first-line managers exhibited more advanced skills related to resilience in a study to investigate the meaning of resilience and its relationship to work-life balance among Korean first-

line managers. In contrast, research by Rushton et al. (2015) illustrated that years of experience did not explain resilience among 114 ICU nurses in a cross-sectional survey conducted to study the relationship of nurses' demographics working in high-stress areas to resilience. A similar finding to Rushton et al. (2015) was reported by Hsieh et al. (2016).

In addition Sull et al. (2015) found that clinical staff with managerial responsibilities reported higher resilience scores than those without managerial responsibilities.

Transformational leadership, in particular, has shown to have a positive impact on employees' psychological health and consequently on their resilience (Walsh et al., 2014). This type of leadership promotes work engagement among employees (Ghadi & Fernando, 2013). Krishnan (2012) found that psychological empowerment mediates the relationship between transformational leadership and employees' subjective well-being. Moreover, Salanova, Lorente, Chambel, and Martinez (2011) reported a statistically significant relationship between transformational leadership and self-efficacy which is one of the components of resilience.

In summary, high resilience levels among nurses enable them to survive stressful job adversities and increase their job satisfaction, motivation, and commitment which would ultimately lead to their retention. Transformational leadership has a positive impact on employees' resilience. Studies have shown contradictory results regarding demographic predictors of resilience. To our knowledge, number of independents in relation to resilience was not investigated in the previously mentioned studies. Such controversies make this topic important to investigate.

# CHAPTER III

# METHODOLOGY

The purpose of this study is to assess the resilience scores and predictors of resilience, including perceptions of transformational leadership among a convenience sample of registered nurses employed at three private hospitals in South Lebanon. In this chapter, the study design and methodology is described.

**A. Setting**

The study was conducted at three private hospitals in Saida in South Lebanon. All the recruited registered nurses are either graduates of local universities or institutes.

**B. Design**

A quantitative descriptive study design was used and a cross-sectional survey was conducted to determine average resilience score and predictors of resilience among registered nurses and their relationship to nurses' perception of global transformational leadership at three private hospitals in Saida. The dependent variable is nurses' resilience score and the independent variables are: age, gender, marital status, number of dependents, nurses' years of experience, educational level, designation (position as bedside nurse or nurse manager), clinical specialty and the global transformational leadership perception score.

The categorical variables are: age, gender, marital status, nurses' educational level, number of independents, nurses' years of experience, nurses' designation (position) and nursing unit.

The continuous variables are the resilience score (RS) and the Global Transformational Leadership (GTL) score.

**C. Sample**

The population under study constituted of a convenience sample of 240 registered nurses who have been working at the three hospitals for more than one year. They were recruited from three private hospitals in Saida. The distribution of the sample among the three hospitals is presented in Table 3.1.

Table 3.1.

*Distribution of the study sample among the three hospitals*

| Hospital | Number of nurses |
|---|---|
| Hospital A | 120 |
| Hospital B | 70 |
| Hospital C | 50 |

Nurses were voluntarily consented to participate in the study if they met the inclusion criteria for the study. Registered nurses providing direct patient care and nurse managers and nursing supervisors who have been working for more than one year at the three hospitals were included in the study. All other nursing staff such as practical nurses and auxiliaries was excluded.

**D. Recruitment**

Following ethical approval to conduct the study from the American University of Beirut, Institutional Review Board and administrative approval from the chief executive hospitals and the directors of nursing of the three hospitals an independent Collaborative Initiative Training Initiative (https://www.citiprogram.org/) certified person, Hanadi Ali Saad, a registered nurse and AUB MSN student, who is not employed at any of the three hospitals, approached the nurses when they are on duty, explained the study, and distributed the envelopes that contain the consent document, questionnaires and an envelope in which sealed and returned completed questionnaires to a drop box placed in the office of an assistant hospital administrator.

## E. Instruments

### *1. The True Resilience Scale ©*

Resilience is defined as "the ability to rebound and regain original shape following trauma or shock" (Oxford, 1989). It will be measured using the *True Resilience Scale* © (Wagnild 2015) which is a 25-item scale that measures the degree of individual resilience. The scale results in a score between 25 and 150. It has good internal consistency with a Cronbach alpha coefficient of 0.94 (Appendix I).

### *2. The Global Transformational Leadership Scale (GTL)*

The Global Transformational Leadership (GTL) Scale (Careless & Leon Mann (2000). It is a 7-item scale that measures the perception of transformational leadership. The scale results in a score between 0 and 35 and is a reliable measure of transformational leadership (Cronbach alpha coefficient of 0.93) (Careless & Wearing Leon Mann, 2000) (Appendix II).

Authors of the two scales were contacted for usage of the scales and translation to Arabic and permission was secured. The two scales were translated to Arabic by a bilingual professional followed by an independent back-translation.

## F. Ethical considerations

Permission to conduct the study was obtained from AUB's institutional review board (IRB). There is minimal to no risk to the participants, on the other hand, the benefits relate to making use of study findings in improving nurses' retention. The information collected was kept in a secured location accessible only to the investigator.

## G. Pre-testing the Measures

To ensure face validity prior to data collection, the readability, clarity and meaningfulness of survey items were pre-tested (Drennan, 2003) by five registered nurses. And adjustments were made accordingly. Approval of the three hospital

administrations was sought. Meetings with the hospital directors were done to solicit their support explaining the significance of the study and that results will be reported in aggregate form.

**H. Distribution of the Survey**

The questionnaires (Appendix III) and cover letters (Appendix IV) replacing consents contained in envelopes and two boxes for collecting the returned questionnaires were delivered to the office of assistant administrators (not administrator of nursing office) at the three hospitals by the co-investigator who asked for collection in three weeks' time. An independent Collaborative Initiative Training Initiative (https://www.citiprogram.org/) certified person, Hanadi Ali Saad, a registered nurse and AUB MSN student, who is not employed at any of the three hospitals, approached the nurses, when they were on duty, explained the purpose of the study and the importance of their participation which is voluntary. This CITI certified person distributed the envelopes that contain the questionnaires to all registered nurses, nurse managers, and nursing supervisors. The data was gathered once from each participant (it took 10 minutes to complete the questionnaire).

A cover letter that invited RNs to participate in the study stating the purpose and assuring anonymity was included in the envelopes. The cover letter included instructions about filling the questionnaire, putting it in its envelope, sealing the envelope, and returning to a closed box in the office of an assistant administrator (not administrator of nursing office) at each hospital. Filling and returning the questionnaire indicated consent to participate in the study (Appendix IV). Data was collected over a 20 day period during the month of March 2016.

Completed questionnaires were collected in sealed envelopes from the participating hospitals by the independent CITI registered nurse.

**I. Statistical analyses**

Statistical Product and Services Solutions (SPSS) version 23 was used to analyze the data. All the demographic variables, except the number of dependents, were recoded to create new variables with two groups each. Hence age was recoded into a new variable with a cut point at 30 years, marital status was grouped into married and non-married, educational level was assembled as technical versus university and designation was re-categorized as bedside nurses versus nurse managers. Similarly, years of experience variable was recoded with a cut of point at five years while nursing unit variable was recoded into two subcategories; critical and non-critical.

Descriptive statistics; frequencies and percentages were used to describe the demographic characteristics of the respondents. Mean resilience score was computed and a 95% confidence interval was constructed. Similarly the mean GTLS was computed with construction of 95% confidence interval. Statistical significance was set at 0.05. The relationship between resilience and perception of GTL was analyzed using Pearson correlation. Independent samples t-test was used to study the relationship of resilience to demographic variables. ANOVA analysis was performed to compare group means of the number of dependents variable against resilience. Variables with a p-value less than 0.1 at the univariable level were entered into a Stepwise multiple linear regression model in order to determine the best predictors of resilience.

# CHAPTER IV

# RESULTS

The purpose of this study is to assess the resilience scores and predictors of resilience among registered nurses and their relationship to nurses' perceptions of transformational leadership at three private hospitals in South Lebanon. In this chapter, description of the demographic characteristics of the sample is presented, in addition, to the results of the descriptive, inferential statistics and regression findings.

The research questions are:

1. What levels of resilience and perception of global transformational leadership are reported by registered nurses working at three hospitals in South Lebanon?

2. Do registered nurses with higher scores on the perception of Global Transformational Leadership report higher scores of resilience?

3. What demographic variables predict resilience score among these nurses?

**A. Demographic Data**

The convenience sample consisted of 240 registered nurses who have been working at the three hospitals for more than one year either as bedside nurses providing direct nursing care or as nurse managers or supervisors. This sample was distributed as follows: 120 nurses at one hospital, 70 at another and 50 at the third one. A total of 240 surveys were distributed, 206 were collected but only 204 had more than 50% completed data with a response rate of 85%.

Table 4.1.

*Demographic characteristics of respondents by selected variables (N = 204)*

| Variables | Frequency | Valid Percent |
|---|---|---|
| Age | | |
| Below 30 | 139 | 68 |
| Above 30 | 65 | 32 |
| Sex | | |
| Females | 134 | 68 |
| Males | 62 | 32 |
| Marital status | | |
| Married | 98 | 48 |
| Non married | 105 | 52 |
| Number of dependents | | |
| None | 84 | 41 |
| 1 | 39 | 20 |
| 2-3 | 65 | 32 |
| More than 4 | 15 | 7 |
| Educational Level | | |
| Technical | 96 | 47 |
| University | 107 | 53 |
| Designation | | |
| Bedside Nurse | 173 | 85 |
| Nurse manager | 30 | 15 |
| Total years of experience | | |
| Less than 5 years | 108 | 53 |
| More than 5 years | 96 | 47 |
| Hospital years of experience | | |
| Less than 5 years | 126 | 62 |
| More than 5 years | 77 | 38 |
| Nursing Unit | | |
| Critical | 113 | 55 |
| Non-critical | 91 | 45 |

More than half of the respondents were less than 30 years of age (68%) and the majority females (68%). Married nurses constituted 50% of the study sample. Approximately less than half of the respondents (41%) were not responsible for any dependent person, whereas a third (32%) were responsible for two to three dependent persons, 20% were responsible for one person and only 7% were responsible for more than four dependents. Concerning the educational level; 53% of the respondents had a university degree compared to technical certificate whereas the majority (85%) worked

as bedside nurses providing direct patient care. More than half (53%) of the respondents had less than five years of experience in total whereas 62% had less than five years of experience at the same hospital. Approximately half of the respondents (55%) worked in critical care units (Table.4.1).

**B. Findings**

***1. Research question 1***

The first question was about the levels of resilience and perception of global transformational leadership reported by registered nurses working at three hospitals in South Lebanon. The mean resilience score as reported by the respondents was 119 (SD 15.3) and ranged between77-150 (Table.4.2). This score is a relatively high score consequently nurses at the three hospitals reported high resilience levels.

Table 4.2.

*The mean resilience score*

| Variable | Mean (SD) | CI (95%) |
|---|---|---|
| True Resilience Score | 119 (15.3) | [116.9,121.1] |

Legend: SD=Standard deviation, CI=Confidence interval

The mean of the Perception of Global Transformational Leadership Score turned out to be 25 (SD 6.8) and ranged between 0-35 (Table.4.3). The mean score is a high score which suggests that nurses perceive their leadership as transformational.

Table 4.3.

*The mean perception of global transformational leadership score*

| Variable | Mean (SD) | CI (95%) |
|---|---|---|
| Perception of Global Transformational Leadership scores | 25 (6.8) | [24.06,25.94] |

Legend: SD=Standard deviation, CI=Confidence interval

***2. Research question 2***

The second research question was whether nurses with higher scores on the perception of Global Transformational Leadership report higher scores of resilience.

Results showed significant positive moderate correlation between perception of Global Transformational Leadership scores and resilience scores among nurses ($p<0.01$, $r=0.533$) (Table.4.4).

Table 4.4.

*Correlation between perception of Global Transformational Leadership Score and True Resilience Score*

| Variable | Pearson Correlation | P-value |
|---|---|---|
| Perception of GTLS | 0.533 | .000 |

***3. Research question 3***

The third research question is related to the demographic variables that are associated with resilience among registered nurses.

At the unadjusted level t-tests revealed statistically significant associations between resilience and designation, total years of experience, type of nursing unit and perception of Global transformational Leadership score. Specifically bedside nurses had significantly lower resilience score (Mean=118) compared to nurse managers (Mean=125) ($p=0.018$). Moreover nurses with less than 5 years of experience conveyed significantly lower resilience score (Mean=117) compared to those with more than 5 years of experience (Mean=122) ($p=0.039$). In addition, nurses working in critical areas reported significantly higher resilience score (Mean=121) compared to non-critical areas (Mean=117) ($p=0.049$) (Table.4.5).

No significant associations were identified between resilience and age, gender, marital status, number of dependents and educational level.

Table 4.5.

*Results of independent sample t-test to study associations with the True Resilience Score*

| Variables | Mean (SD) | P-value |
|---|---|---|
| Designation | | |
| Bedside Nurse | 118 (15) | 0.018 |
| Nurse manager | 125 (14) | |
| Total years of experience | | |
| Less than 5 years | 117 (16) | 0.039 |
| More than 5 years | 122 (14) | |
| Nursing Unit | | |
| Critical | 121 (15) | 0.049 |
| Non-critical | 117 (15) | |

Legend: SD=Standard deviation

Variables with a p-value less than 0.1 at the univariable level were entered into a Stepwise multiple linear regression model in order to determine the best predictors of resilience. In the multivariable regression only two predictors made a statistically significant contribution to resilience and they are designation and perception of Global Transformational Leadership. The results of the regression analysis for designation, total years of experience, nursing unit and perception of Global transformational Leadership score is presented in Table.4.6.

Table 4.6.

*Linear regression model for independent variables on resilience scores among registered nurses (N = 204)*

| Variables | B | Std.error | CI (95%) |
|---|---|---|---|
| Perception of GTL | 1.2 | 0.1 | [0.9,1.4]* |
| Designation | -5.5 | 2.6 | [10.5, 0.6]** |
| Bedside vs. Management | | | |

(Adjusted $R^2$= 0.294), *p<0.05, **p<0.01

In summary, more than half of the respondents were less than 30 years of age, most of them were females and half were married. The majority worked as bedside nurses. More than half of the respondent nurses had less than five years of experience and half of them worked in critical care units. The mean resilience score of the sample

was 119 whereas the perception of global transformational leadership score turned out to be 25. Registered nurses with higher scores on the perception of Global Transformational Leadership reported higher scores of resilience. Unadjusted significant associations were found between resilience and designation, years of experience, nursing unit and perception of global transformational; however only designation and perception of global transformational leadership score remained significant predictors of resilience at the adjusted level

# CHAPTER V

# DISCUSSION

The purpose of this study is to assess resilience and its predictors among registered nurses and their relationship to nurses' perceptions of transformational leadership at three private hospitals in South Lebanon. This chapter includes discussion of the study findings in relation to those present in the literature. The discussion is organized according to the findings, followed by directions for future research and leadership implications. Limitations of the study, recommendations and conclusions are included in this chapter.

This study revealed the resilience scores and explored its predictors among registered nurses at three private hospitals in South Lebanon. It also clarified the relationship of these scores to the nurses' perceptions of transformational leadership. The following section presents the discussion according to the research questions.

The findings of the study revealed a very young workforce with only a third (32%) of the registered nurses above 30 years of age. This implies that nurses providing care to patients are relatively inexperienced nurses. These nurses are unable to make sound clinical decisions since for these decisions to be effective, nurses need to combine knowledge, experience and data pertaining to patients (Forseburg, Ziegert, Hult, & Fors, 2013). Inexperienced nurses are unable to recognize patient instability and communicate the problem clearly (Ozekcin, Tuite, Willner, & Hraynak, 2015), they have a decrease in competence compared to experienced nurses (Merctoja, Numminen, Isoaho, & Leino-Kilpi, 2013). Consequently, inexperienced nurses may be less effective in patient care and consequently impacting organizational outcomes.

**A. Research question 1**

The first research question was about the levels of resilience and perception of global transformational leadership reported by registered nurses working at three hospitals in South Lebanon.

The mean resilience score as reported by the respondents was 119 (SD 15.3) and ranged between77-150. Compared to professional nurses in South Africa whose average resilience score was 137.2 (SD 25.7) (Koen et al., 2011), nurses in this study reported a lower resilience score. Our study setting was limited to private hospitals, whereas Koen et al. (2011) included both private and public hospitals.

**B. Research question 2**

The second research question was whether registered nurses with higher scores on the perception of Global Transformational Leadership report higher scores of resilience

A moderate significant correlation ($p<0.01$) was noted between perception of global transformational leadership score and resilience whereby 53% of the variation in resilience is explained by nurses' perception of global transformational leadership. It is worth noting here that 47% of the variance in resilience remained unexplained. This is similar to the results reported by Salanova et al. (2011) in his study to inspect the relationship between transformational leadership and extra-role performance of staff nurses; whereby a statistically significant relationship existed between this kind of leadership and self-efficacy which is a component of resilience.

**C. Research question 3**

The third research question is related to the demographic variables that will predict resilience score among nurses.

Age was not significantly associated with resilience ($p=0.065$) which implies that resilience does not necessarily increase with age. This finding is comparable to

those of Sun et al. (2012) where age was not significantly related to resilience among nurses. Similarly, Hsieh et al. (2016) reported that age did not have any significant association with resilience among emergency rooms and psychiatric wards nurses. Likewise Gillespie et al. (2007) stated that there was no significant relationship between resilience and age among operating room nurses. Therefore irrespective of the cultural background of the respondents, age was not significantly associated with resilience in the above mentioned studies.

On the contrary, Gillespie et al. (2009) using a random sample of operating room nurses, found that age was significantly associated with resilience. Correspondingly, in a national survey among ICU nurses, Mealer et al. (2012) noted a significant association between age among highly resilient nurses compared to non-highly resilient nurses; whereby an increase in age is associated with higher resilience. In both studies conducted by Gillespie et al. (2007, 2009) the average nurses' age was in the forties as compared to a relatively younger majority (68% less than 30 years of age) in our study. Moreover, a weak positive correlation existed between age and resilience among health-care workers in the United Kingdom was described by Sull et al. (2015). Similarly, Carson (2000) while exploring career resilience among rural nurses reported a significant relationship between age and resilience. The majority of the studies presented found a significant relationship between age and resilience

Even though the majority of respondents were females (68%), gender was not significantly associated with resilience ($p = 0.14$) which indicates that resilience among males does not differ significantly from females. This finding echoed the results of the previous studies conducted by Sun et al. (2012) where no significant relationship was noted between resilience and gender. On the other hand, Sull et al. (2015) stated that

females scored higher than males on the resilience score among UK health-care workers.

Marital status did not have any significant association with resilience (p=0.73). This result is similar to the findings of the study conducted by Hsieh et al. (2016) despite the fact that the later study was done in a different context; at a teaching hospital with number of beds ranging from 136 to 1455 as compared to our study which was conducted in the private sector where bed numbers ranged from 50 to 120.

The number of dependents was not significantly associated with resilience (p=0.99). To our knowledge this variable was not investigated in previous studies which represent a noteworthy feature of this study.

This study did not reveal significant association between educational type and resilience (p=0.185). This result suggests that resilience among university graduates does not differ from that of graduates of technical institutes. This goes in parallel with the findings of the studies done by Carson (2000) and Gillespie et al. (2007, 2009) which suggested that resilience is not significantly related to educational level. Carson's (2000) study included registered nurses, licensed practical nurses and nurse aids, whereas the nurses involved in the studies done by Gillespie et al. (2007, 2009) were nurses with hospital certificate, associate degree, nursing degree, masters and PhD. On the contrary, Hsieh et al. (2016) identified a significant relationship between college education and resilience which was noted among nurses working in emergency room and psychiatric wards, however in this study resilience was studied across all wards.

Designation was significantly associated with resilience (p=0.018). This denotes that higher resilience exist among nurses in the management positions as compared to bedside nurses. This result is in concordance with the findings of the study done among health-care workers by Sull et al. (2015) where clinical staff scored

significantly lower than those with line management responsibilities. Similarly, Hsieh et al. (2016) reported a positive correlation between resilience and seniority among Taiwanese nurses. This finding may explain in part why many nurses preference not to work at the bedside. Working in a management role seems to protect resilience, whereas bedside nurses are more vulnerable. A reason for this might be different work-life balance demands among the two groups.

Moreover, nurse managers' role is a stressful one with a wide scope of responsibilities and high expectations with limited resources (Kath, Stichler, Ehrhart, & Sievers, 2013), competing priorities (Udod & Care, 2012), and their decisions impact patients, staff and organizational outcomes (Shirey, Ebright, & Mcdaniel, 2013).

Years of experience had a significant relationship ($p=0.039$) with resilience where registered nurses who had more than five years of experience reported a higher resilience score and this difference is significant. This result goes in line with that of Gillespie et al. (2009) and Sun et al. (2012). On the contrary, no significant association was found between years of experience and resilience as described by Gillespie et al. (2007), Sull et al. (2015) and Hsieh et al. (2016). On the other hand, Mealer et al. (2012) reported a decrease in years of experience among highly resilient nurses as compared to not highly resilient nurses in intensive care unit. Nurses in critical care areas probably feel burned out with time; however it is note-worthy in this study that results revealed a significant relationship between nursing unit and resilience ($p=0.49$) whereby nurses working in critical areas declared more resilience than those working in non-critical areas.

The results of the regression analysis for designation, total years of experience, nursing unit and perception of Global transformational Leadership score showed that two predictor variables made a statistically significant contribution to resilience and

they are designation and perception of Global Transformational Leadership. Using a multivariate linear regression model, 30 % of the variation in resilience is explained by the designation and perception of global transformational leadership. This suggests that there are other variables that explain the variation in resilience which are not tackled in this study. Using a multivariate linear regression model we conclude that being a bedside nurse care result in a decrease of 5.5 points in the resilience score (B=-5.5, p=0.029) compared to nurses in management position. Using this model also suggests that with every one unit increase in the perception of global transformational leadership, an increase of 1.2 points in the resilience score is noted (B=1.2, $p<0.01$). This is because by means of modeling, enthusiasm and high power are transferred by transformational leaders to their subordinates and consequently they will possess high levels of work engagement (Hayati, Charkhabi, & Naami, 2014). Moreover, idealized influence is expected to result in emotional arousal among followers displayed by dedication and courage (Hiller, De Church, Murase, & Dotty, 2011). Empowerment will enhance employees' self- efficacy and consequently boost their satisfaction; thus leading to organizational commitment (Kim, Lee, Murrman, & George, 2012). It is through intellectual stimulation, open- mindedness, creativity and love of learning about moral issues is enhanced, reflecting positive character strength (Zhu, Riggio, Avolio, & Sosik, 2011).

In summary, studying the number of dependents in relation to resilience and resilience across different nursing units at three private hospitals were original features of this study. The results showed that both the mean resilience score among registered nurses (Mean=119) and the perception of global transformational leadership score (Mean=25) were relatively high. Registered nurses in management positions were more resilient than registered nurses providing direct patient care. Moreover, registered

nurses who had more than five years of experience showed more resilience than those with less than five years. In addition, nurses working in critical areas were more resilient than nurses working in non-critical areas. Using a multivariate linear regression model, 30 % of the variation in resilience is explained by the designation and perception of global transformational leadership. Moreover, being a registered nurse providing direct patient care resulted in a decrease of 5.5 points in the resilience score and with every one unit increase in the perception of global transformational leadership scale, an increase of 1.2 points in the resilience score is noted. It is worth-noting that 28% of the variation in resilience is explained by nurses' perception of global transformational leadership.

**D. Limitations**

The study has several limitations. The major limitation is that the resilience score is a reported measure (soft measure) and this might lead to information bias. Another limitation is that the reported results might have been affected by some incidents occurring at the same time of the conduction of the study. A third limitation is that the sample is a convenience sample and this might lead to selection bias. An additional limitation is that the results cannot be generalized except to a setting similar to the hospitals where the study was conducted.

**E. Directions for future research**

Studying components of resilience such as hope and optimism, in addition to the designation and perception of global transformational leadership to achieve a better predictive model.

Conduction of this study using a stratified sampling design on a national level across all hospitals to explore predictors of resilience across hospitals; governmental and private, rural and urban and teaching and nonteaching in order to generalize results

and set up a national agenda to increase resilience among bedside nurses in order to decrease the national shortage.

**F. Implications for Nurse Administrators:**

The results reported imply that it will be constructive for hospitals in Lebanon to:

Set organizational strategies to build resilience in bedside nurses to protect them against the negative effects of stress by providing, training, self-development programs, mentoring relationships, promoting work-life balance and spirituality to strengthen their coping strategies to sustain their careers and, consequently, retain them.

Adopt transformational leadership styles and train all nursing supervisors and nurse managers in the principles of transformational leadership to retain nurses by increasing resilience, engagement and satisfaction.

**G. Conclusion**

In conclusion, the major important finding of the study was that predictors of resilience were designation and perception of global transformational leadership. It was revealed as well that designation, years of experience, clinical specialty, and perception of global transformational leadership are significantly associated with resilience.

## Appendix I

## The True Resilience Scale ©

Please read each statement and circle the number to the right of each statement the best matches your thoughts about the statement. Be sure to respond to all statements.

| | | Strongly Disagree | | | | | Strongly agree |
|---|---|---|---|---|---|---|---|
| 1. | If something is worth starting I'm going to finish it | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | I depend on myself to find a way though anything | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | I stay true to myself even when Iam afraid to do so | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | I know why I am on this earth | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | My deeply held values guide my choices | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | Every day I do something that is meaningful to me | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | I can see most situations from different point of views | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. | I'm honest with myself when something is wrong for me | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. | In a time of trouble, I figure out what needs to be done | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. | Even if I don't feel like it , I do what I need to do. | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. | Looking back to my life I feel satisfied. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. | I'm not upset for too long when life does not go my way | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. | I rely on myself to do what is right for me | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. | I am determined even if the odds are against me | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. | I am excited about the plans I have | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. | I remain calm under pressure | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. | I make decisions that are consistent with my believes | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. | I often tell myself "I can do this" | 1 | 2 | 3 | 4 | 5 | 6 |
| 19. | I can find something positive in whatever happens | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. | I see an obstacle as a challenge to overcome | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. | I can say what I am good at | 1 | 2 | 3 | 4 | 5 | 6 |
| 22. | I rely on my sense of humor to improve my outlook | 1 | 2 | 3 | 4 | 5 | 6 |
| 23. | I take responsibility for my decisions | 1 | 2 | 3 | 4 | 5 | 6 |
| 24. | Disappointments doesn't stop me from trying again | 1 | 2 | 3 | 4 | 5 | 6 |
| 25. | I know what's important to me and this knowledge guides my life | 1 | 2 | 3 | 4 | 5 | 6 |

**Appendix II**

## The Global Transformational Leadership Scale (GLS)

Please read each statement and circle the number to the right of each statement the best matches your thoughts about the statement. Be sure to respond to all statements.

| | | **Strongly Disagree** | | | | | **Strongly agree** |
|---|---|---|---|---|---|---|---|
| 1. | My leadership communicates a clear and positive vision of the future. | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. | My leadership treats staff as individuals, supports and encourages their development. | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. | My leadership gives encouragement and recognition to staff. | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. | My leadership fosters trust, involvement and cooperation among team members. | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. | My leadership encourages thinking about problems in new ways and questions assumptions. | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. | My leadership is clear about his/her values and practices what he/she preaches. | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. | My leadership instills pride and respect in others and inspires me by being highly competent. | 0 | 1 | 2 | 3 | 4 | 5 |

**Appendix III**

## دراسة لمعرفة مقومات المرونة لدى الجهاز التمريضي المجاز في المستشفيات الخاصة في جنوب لبنان

**المعلومات الديموغرافية**

**1.** العمر:

□ أقل من 20 سنة
□ 21- 25 سنة
□ 26 - 30 سنة
□ 31 - 35 سنة
□ 36- 40 سنة
□ 41 - 45 سنة
□ 46 - 50 سنة
□ 51 و ما فوق

**2.** الجنس : □ أنثى □ ذكر

**3.** الوضع العائلي:

□ أعزب \ عزباء
□ متزوج \ة
□ منفصل \ة
□ أرمل \ة
□ غيره , حدد:_____

**4.** ان عدد الأشخاص اللذين أعيلهم هو: ( الأطفال, الوالدين, الأخوة و الأخوات)

□ لا أحد
□ 1
□ 3-2
□ 6 - 4
□ أكثر من 6

**5.** أعلى مستوى تعليمي حصلت عليه هو التالي:

□ امتياز فني (TS)
□ اجازة فنية في التمريض (LT)
□ بكالوريوس في علوم التمريض (BS)
□ ماجستير في علوم التمريض
□ غيره , حدد:_____

**6.** انني أعمل في المستشفى بصفة:

□ ممرض مجاز / ممرضة مجازة : عناية تمريضية مباشرة بالمريض (Registered Nurse)
□ رئيس / رئيسة قسم تمريضي (Nurse Manager)
□ مشرف / مشرفة على الأقسام التمريضية (Nursing Supervisor)
□ غيره , حدد:_____

**7.** عدد سنوات الخبرة في التمريض بعد تخرجي لدي هي :

□ أقل من سنتين
□ 3 – 5 سنوات
□ 6 – 10 سنوات
□ 11– 15 سنة
□ 16 – 20 سنة
□ 21 – 25 سنة
□ 26 – 30 سنة
□ أكثر من 30 سنة

**8.** لقد عملت في مكان عملي الحالي ( هذه المستشفى) في التمريض بعد تخرجي لمدة:

□ أقل من سنتين
□ 3 – 5 سنوات
□ 6 – 10 سنوات
□ 11– 15 سنة
□ 16 – 20 سنة
□ 21 – 25 سنة
□ 26 – 30 سنة
□ أكثر من 30 سنة

**9.** القسم الذي أمضي فيه معظم ساعات عملي هو :

□ العلاج الكيميائي
□ الطبابة و الجراحة
□ الأطفال
□ العناية الفائقة لحديثي الولادة
□ العناية الفائقة ما بعد القلب المفتوح
□ العناية الفائقة
□ العناية الفائقة للقلب
□ غسيل الكلى
□ تمييل القلب
□ النسائي و التوليد
□ الطوارئ
□ غرف العمليات
□ الانعاش
□ العيادات الخاصة
□ العيادات الخارجية
□ غيره , حدد:_____

## مقياس المرونة الصحيح © True Resilience Scale

**10. يرجى قراءة كل عبارة ووضع دائرة حول الرقم المواجه لكل بيان والذي يعبر عن أفكارك حول البيان.**
**الرجاء الرد على جميع البيانات. (1: أعارض بشدة, 2:أعارض الى حد ما, 3:أعارض, 4:أوافق, 5:أوافق الى حد ما, 6: أوافق بشدة)**

| | البيانات | | | | | | |
|---|---|---|---|---|---|---|---|
| | | أعارض بشدة | أعارض الى حد ما | أعارض | أوافق | أوافق الى حد ما | أوافق بشدة |
| 1 | إذا كان هناك شيئا ذو قيمة أقوم بعمله حتى الانتهاء منه | 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | أنا أعتمد على نفسي لايجاد وسيلة على الرغم من أي شيء | 1 | 2 | 3 | 4 | 5 | 6 |
| 3 | أنا أبقى وفيا لنفسي حتى عندما أخشى ذلك | 1 | 2 | 3 | 4 | 5 | 6 |
| 4 | أنا أعرف لماذا أنا على هذه الأرض | 1 | 2 | 3 | 4 | 5 | 6 |
| 5 | إن قيمي الراسخة توجه خياراتي | 1 | 2 | 3 | 4 | 5 | 6 |
| 6 | كل يوم أفعل شيئا له معنى بالنسبة لي | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | أستطيع أن أرى معظم الحالات / الأوضاع من وجهات نظر مختلفة | 1 | 2 | 3 | 4 | 5 | 6 |
| 8 | أنا صادق مع نفسي عندما يكون هناك شيء خاطئ بالنسبة لي | 1 | 2 | 3 | 4 | 5 | 6 |
| 9 | في وقت المتاعب / المصاعب، أعرف ما يجب القيام به | 1 | 2 | 3 | 4 | 5 | 6 |
| 10 | أنا أفعل ما يجب القيام به حتى لو لم أكن أشعر بذلك | 1 | 2 | 3 | 4 | 5 | 6 |
| 11 | إذا نظرت إلى الماضي في حياتي أشعر بالرضى | 1 | 2 | 3 | 4 | 5 | 6 |
| 12 | أنا لا أشعر بالإستياء لفترة طويلة جدا عندما لا تسير الأمور كما أرغب | 1 | 2 | 3 | 4 | 5 | 6 |
| 13 | أنا أعتمد على نفسي لفعل ما هو صحيح بالنسبة لي | 1 | 2 | 3 | 4 | 5 | 6 |
| 14 | أظل عاقد العزم حتى لو كانت الاحتمالات / الظروف ضدي | 1 | 2 | 3 | 4 | 5 | 6 |
| 15 | أتحمس للخطط التي أضعها | 1 | 2 | 3 | 4 | 5 | 6 |
| 16 | أبقى هادئا تحت الضغوطات | 1 | 2 | 3 | 4 | 5 | 6 |
| 17 | اتخذ القرارات التي تتماشى مع معتقداتي | 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | كثيرا ما أقول لنفسي "أستطيع أن أفعل ذلك" | 1 | 2 | 3 | 4 | 5 | 6 |
| 19 | أستطيع أن أجد شيئا إيجابيا في كل ما يحدث | 1 | 2 | 3 | 4 | 5 | 6 |
| 20 | أنظر إلى العقبات كتحديات للتغلب عليها | 1 | 2 | 3 | 4 | 5 | 6 |
| 21 | أستطيع أن / أقول ما أجيده | 1 | 2 | 3 | 4 | 5 | 6 |
| 22 | أنا أعتمد على حس الفكاهة (النكتة) لدي لتحسين نظرتي للأمور | 1 | 2 | 3 | 4 | 5 | 6 |
| 23 | أنا أتحمل مسؤولية قراراتي | 1 | 2 | 3 | 4 | 5 | 6 |
| 24 | خيبات الأمل لا تمنعني من المحاولة مرة أخرى | 1 | 2 | 3 | 4 | 5 | 6 |
| 25 | أنا أعرف ما هو مهم بالنسبة لي، وهذه المعرفة توجه حياتي | 1 | 2 | 3 | 4 | 5 | 6 |

## مقياس القيادة التحويلي العالمي (GTLS)

**11. يرجى قراءة كل عبارة ووضع دائرة حول الرقم المواجه لكل بيان والذي يعبر عن أفكارك حول البيان .الرجاء الرد على جميع البيانات. (0: أعارض بشدة, 1:أعارض الى حد ما, 2:أعارض, 3:أوافق, 4:أوافق الى حد ما, 5: أوافق بشدة)**

| | البيانات | | | | | | |
|---|---|---|---|---|---|---|---|
| | | أعارض بشدة | أعارض الى حد ما | أعارض | أوافق | أوافق الى حد ما | أوافق بشدة |
| 1 | تنقل القيادة المسؤولة عني رؤية واضحة وإيجابية للمستقبل | 0 | 1 | 2 | 3 | 4 | 5 |
| 2 | تعامل القيادة المسؤولة عني الموظفين كأفراد، تدعم وتشجع تطورهم | 0 | 1 | 2 | 3 | 4 | 5 |
| 3 | تقدم القيادة المسؤولة عني التشجيع والتقدير للموظفين | 0 | 1 | 2 | 3 | 4 | 5 |
| 4 | تعزز القيادة المسؤولة عني الثقة، والمشاركة والتعاون بين أعضاء الفريق | 0 | 1 | 2 | 3 | 4 | 5 |
| 5 | تشجع القيادة المسؤولة عني التفكير في المشاكل بطرق مبتكرة و مساءلة / الاستعلام عن الافتراضات | 0 | 1 | 2 | 3 | 4 | 5 |
| 6 | لدى القيادة المسؤولة عني رؤية واضحة حول قيمها و تمارس ما تنصح به | 0 | 1 | 2 | 3 | 4 | 5 |
| 7 | تزرع القيادة المسؤولة عني الفخر والاحترام في الآخرين، وتلهمهم بأن يكونوا على درجة عالية من الكفاءة | 0 | 1 | 2 | 3 | 4 | 5 |

## Appendix IV

**American University of Beirut**
**School of Nursing**
**Nuhad Yazbik Dumit, Principal Investigator ny00@aub.edu.lb**
**Co-Investigator Ms. Hana'a Abdul Salam haa122@mail.aub.edu**
**Dr.Michael Clinton mc42@aub.edu.lb**

### Consent document

Dear colleague,

We are inviting you to participate in a **research study**. The purpose of the study is to assess the predictors of resilience among registered nurses at three private hospitals in South Lebanon. You are one of 240 of registered nurses invited to participate in the study. Please read the following information carefully and feel free to ask any questions that you may have.

- This informed consent document is applicable for use only in the current study.
- The direct recruitment approach in relation to inviting subjects directly to participate in the study is approved by the ethics committee of the American University of Beirut.
- Your participation will be completely anonymous. No one will know whether you took part in the study or not.

A. **Project Description**

1. If you decide to take part in the study, all you have to do is fill out the attached questionnaire which should take about 10 minutes. Please read the instructions on the front page before you start filling out the questionnaire.
2. When you have finished, please seal the questionnaire in the envelope provided and put it in the drop box in the administration office (not nursing administration).

**B. Voluntary Participation**

Participation in this study is entirely voluntary; there are no penalties of any kind for declining to take part or for not answering all of the questions in the survey. Not taking part in the survey or returning an incomplete questionnaire will in no way affect your relationship with your employer or with AUB.

**C. Privacy**

Your participation in this survey is completely anonymous. There is no way anyone will be able to find out whether you took part or not. Data will reported in aggregate only, so no none of the information you will provide will be used in a way that could identify you.

C. **Confidentiality**

I would like to assure you that all the information you provide will be used for research purposes and that format of the study results will not allow the identification of any study participants.

To secure the confidentiality of your responses, please refrain from writing your name or any other identifying information. All questionnaires and data will be kept in a locked drawer in a locker room at the Hariri School of Nursing at The American University of Beirut. The data will

be analyzed on a pass-word protected computer in a secure office at The Hariri School of Nursing. Data access is limited to the Principal Investigator and researchers working directly on this project. Records will be monitored and may be audited without violating confidentiality. All data will be destroyed responsibly after the required retention period (one year.)

**Risks and Benefits**

Your participation in this study does not involve any physical risk or emotional risk to you beyond the risks of daily life. You have the right to withdraw your consent or discontinue participation at any time for any reason. Your decision to withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation does not affect your relationship with any university nursing program.
You receive no direct benefits from participating in this research; however your participation will help researchers better understand the predictors of registered nurses' resilience.

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D. **Contact Information**

1) If you have any questions or concerns about the research you may contact the principal investigator, Dr. Nuhad Yazbik Dumit, American University of Beirut,
Riad El Solh 1107 2020
PO Box: 11 0236
Beirut, Lebanon
Telephone number: 01 374374, ext. 5950,
Email address: ny00@aub.edu.lb

2) If you have any questions, concerns, or complaints about your rights as a participant in this research, you can contact the following office at AUB:

Social & Behavioral Sciences Institutional Review Board, American University of Beirut. Telephone: (961)1350000-extension 5454; email: irb@aub.edu.lb

## References


Abu-Saad Huijer, H. (2007, March 23-25). Developing the nursing workforce: challenges and opportunities in Lebanon. White Paper for Fulbright Academy Workshop in Doha. Retrieved from http://www.fulbrightacademy.org/file_depot/0-10000000/20000-30000/21647/folder/71264/P4+-+Nursing+Workforce+in+Lebanon+-+HAbusaad.pdf

Avey, J., Luthans, F., & Jensen, S. (2009, September-October). Psychological capital: a positive resource for combating employee stress and turnover. *Human Resource Managemen,48*(5), 677-693.

Cameron, F. & Brownie, S. (2010). Enhancing resilience in registered aged care nurses. *Australasian Journal on Ageing, 29*(2), 66-71.

Careless, S. & Wearing Leon Mann, A. (2010). A short measure of transformational leadership. *Journal of Business and Psychology, 14*(3), 389- 405.

Carson, P.P., Carson, K.D., & Lanier, P.A. (2000). The stainless steel career: exploring resilience in the workplace. *Proceedings of the American society of Business and Behavioral Sciences, 7*(3), 313-333.

Chesak, S., Bhagra, A., Schroeder, D., Foy, D., Cutshall, S., & Sood, A. (2015). Ehnancing resilience among new nurses; feasibility and efficacy of a pilot intervention. *The Onchsner Journal*. *15*, 38-44.

Collaborative Initiative Training Initiative (https://www.citiprogram.org/)

Debra, J., Firtko. A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: a literature review. *Journal of Advanced Nursing, 60*(1), 1-9.

Drennan, J. (2003). Cognitive interviewing: verbal data in the design and pretesting of questionnaires. *Journal of Advanced Nursing, 42*(1), 57-63.

Duffield, C., Roche. M., Blay, N., & Stasa, H. (2010). Nursing unit managers, staff retention and the work environment. *Journal of Clinical Nursing, 20*, 23-33.

El-Jardali, F., Dimassi. H., Dumit, N., Jamal, D., & Mouro, G. (2009a). A national cross-sectional study on nurses' intent to leave and job satisfaction in Lebanon: implications for policy and practice. *BMC Nursing, 8*(3). Retrieved from: http://www.biomedcentral.com/content/pdf/1472-6955-8-3.pdf.

El-Jardali, F., Dumit, N., Jamal, D., & Mouro, G. (2008). Migration of Lebanese Nurses. *International Journal of Nursing Studies, 45*, 1490-1500.

El-Jardali, F., Merhi. M., Jamal, D., Dumit, N., & Mouro, G. (2009b). Assessment of nurse retention challenges and strategies in Lebanese hospitals: the perspective of nursing directors. *Journal of Nursing Management, 17*, 453-462.

Forseburg, F., Ziegert, K., Hult, H., & Fors, U. (2014, April). Clinical reasoning in nursing, a think-aloud study using virtual patients- a base for an innovative assessment. *Nurse Education Today, 34*(4), 538-542

Ghadi, M.. & Fernando, M. (2013). Transformational leadership and work engagement. *Leadership & Organizational Development Journal, 34(6)*, 532-550.

Ghafoor, A., Qureshi. T., Khan, M.A. & Hijazi, T. (2011, 4 September). Transformational leadership, employee engagement and performance: mediating effect of psychological ownership. *African Journal of Business Management, 15(17)*, 7391-7403.

Gillespie, B., Chabyor. W., & Wallis, M. (2009). The influence of personal characteristics on the resilience of operating room nurses: a predictor study. *International Journal of Nursing Studies, 46*, 968-976.

Gillespie, B., Chabyor. W., Wallis, M. & Grimbeek, P. (2007). Resilience in the operating room: developing and testing of a resilience model. *Journal of Advanced Nursing, 59*(4), 427-438.

Gracia, G.M., & Ayala Calvo, J.C. (2012). Emotional exhaustion of nursing staff: influence of emotional annoyance and resilience. *International Nursing Review, 59*(1), 101-107.

Grafton, E., Gillespie. B., & Henderson, S. (November, 2010). Resilience: the power within. *Oncology Nursing Forum, 37*(1), 698-705.

Gooty, J., Gavin, M., Johnson, P.D., Frazier, M.L., & Snow, D.B. (2009, May). In the eyes of the beholder. Transformational leadership, positive psychological capital, and performance. *Journal of Leadership and Organizational Studies, 15*(4), 353-367.

Hart, P. L., Brannan, J.D., & De Chesnay, M., (2014). Resilience in nurses: an integrative review. *Journal of Nursing Management, 22*(6), 720-734.

Hayati, M., Chakhabi. M., & Naami, A. (2014). The relationship between transformational leadership and work engagement in governmental nurses:a survey study. *SpringerPlus, 3*(2), DOI**:** 10.1186/2193-1801-3-25.

Hiller, N., DeChurch. L., Murase, T & Doty, D. (2011, July). Searching for outcomes of leadership: a 25-Year Review. *Journal of Management, 37*(4), 1137-1177.

Hirschkorn, C., West, T., Hill, K., Cleary, B., & Hewlett, P. (2010). Experienced nurse retention strategies what can be learned from top performing organizations. *Journal of Nursing Administration, 40*(11), 463-467.

Hsieh, H.F., Chang, S.C., & Wnag, H.H. (2016). The relationship among personality, social support and resilience of abused nurses at emergency rooms and psychiatric wards in Taiwan. *Women & Health,* DOI:

10.1080/03630242.2016.1150385.

Hudgins, T.(2016). Resilience, job satisfaction and anticipated turnover in nurse leaders. *Journal of Nursing Management, 24*, E62-E69.

Jackson, D., Firtko, A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: a literature review. *Journal of Advanced Nursing, 60*(1), 1-9.

Kath, L., Stichler, J., Ehrhart, M., & Sievers, A. (2013). Predictors of nurse managers stress: A dominance analysis of potential work environment stressors. *International journal of Nursing Studies, 50*, 1474-1480.

Kim, B.P., Lee, G., Murrmann, S.K. and George, T.R. (2012), Motivational effects of empowerment on employees' organizational commitment. *Cornell Hospitality Quarterly*, *53* (1), 10-19.

Kim, M., & Windsor, C. (2015, March). Resilience and work-life balance in first-line manager. *Asian Nursing Research, 9*, 21-27.

Koen, C.M., Eeden. V.E., & Wissing, M. (2011). The prevalence of resilience in a group of professional nurses. *Journal of Interdisciplinary Health Sciences, 16*(1), 567-578. Retrieved from: http://www.hsag.co.za/index.php/HSAG/article/view/576

Kopperud, K.H., Martinsen, O., & Humborsted, S.W. (2014). Engaging leaders in the eyes of the beholder: on the relationship between transformational leadership, work engagement, service climate, and self-other agreement. *Journal of Leadership & Organizational Studies, 21*(1), 29-42.

Krishnan, V. (2012). Transformational leadership and personal outcomes: empowerment as mediator. *Leadership & Organization Development Journal, 33*(6), 550-564.

Larrabee, J. H. , Wu, Y., Persily, C. A., Simoni, P. S. , Johnston, P. A., Marcischak, T. L., & Gladden, S. D. (2010). Influence of stress resiliency on RN job satisfaction and intent to stay. *Western Journal of Nursing Research, 32*(1), 81-102.

Lian, S.Y., & Tam, C.L. (2014). Work stress, coping strategies, and resilience: a study among working females. *Asian Social science, 10*(12), 41-52.

Maze, J.A., & Tyokyaa, T.L. (2014). Resilience and organizational trust as correlates of work engagement among health workers in Makurdi Metropolis. *European Journal of Business and Management, 6*(39), 86-93.

McCann, C. M., Beddoe, E., McCormick, K., Huggard, P., Kedge, S., Adamson, C., & Huggard, J. (2013). Resilience in the health professions: A review of recent literature. *International Journal of Wellbeing*, *3*(1), 60-81

McDonald, G., Jackson. D., Wilkes, L., & Vickers, M. (2013). Personal resilience in nurses and midwives: effects of a work-based educational intervention. *Contemporary Nurse, 45*(1), 134-143.

Mealer, M., Jones, J., Newman, J., McFann, K., Rothbaum, B., & Moss, M. (2012). The presence of resilience is associated with a healthier psychological profile in intensive care unit (ICU) nurses: results of a national survey. *International Journal of Nursing Studies*, *49*, 292-299.

Merctoja, R., Numminen, O., Isoaho, H., & Leino-Kilpi, H. (2015). Nurse competence between three generational cohorts: a cross-sectional study. *International Journal of Nursing Practice, 21*, 350-358.

Oxford Dictionary, 1989. Clarendon Press, Oxford. Retrieved from: http://www.oed.com.ezproxy.aub.edu.lb/view/Entry/163619?redirectedFrom=Resilience#eid

Ozekcin, L., Tuite. P., Willner, K., & Hravnak, M. (2015). Simulation Education: Early identification of patient physiologic deterioration by acute care nurses. *Clinical Nurse Specialist, 29*(3), 166-173.

Rushton, C., Batcheller. J., Schroeder, K., & Donohue, P. (2015). Burnout and resilience among nurses practicing in high-intensity settings. *American Journal of Critical care, 24*(5), 412-420.

Salanova, M., Lorente.M., Maria, J., & Martinez, M. (2011). Linking transformational leadership to nurses' extra-role performance: the mediating role of self-efficacy and work engagement. *American Journal of Advanced Nursing, 67*(10), 2256-2266

Shirey, M. (2012, April 11). How resilient are your team members? *Journal of Nursing Administration, 42*(12), 551-553.

Shirey, M., Ebright. P., & McDanial, A. (2013). Nurse manager cognitive decision-making amidst stress and work complexity. *Journal of Advanced Nursing Management, 21*, 17-30.

Sull, A., Harland. N., & Moore, A. (2015). Resilience of health-care workers in the UK; a cross-sectional survey. *Journal of Occupational Medicine and Toxicology, 10*(20), 1-8. Retrieved from://download.springer.com/static/pdf/522/art%253A10.1186%252Fs12995-015-0061-x.pdf?originUrl=http%3A%2F%2Foccup-med.biomedcentral.com%2Farticle%2F10.1186%2Fs12995-015-0061-x&token2=exp=1451845678~acl=%2Fstatic%2Fpdf%2F522%2Fart%25253A10.1186%25252Fs12995-015-0061-x.pdf*~hmac=544a06f1c4b55c1c523bb8dfb8d0a6c553e43d48c566aa70cf901d7d77748eb0

Sun, T. Wen Zhao. X., Bin Yang, L, & Hua Fan, L. (2011). The impact of psychological capital on job embeddedness and job performance among nurses: a structural equation approach. *Journal of Advanced Nursing, 68*(1), 69-79.

Udod, S., & Dean Care, W. (2012). 'Walking a tight rope': an investigation of nurse managers' work stressors and coping experiences. *Journal of Research in Nursing, 9*, 1-13.

Walsh, M., Dupre'. K., & Arnold, A. (2014, March 12). Processes through which transformational leaders affect employee psychological health. *German Journal of Research in Human Resource Management, 28*(1-2), 162-172.

Wagnild, G. (2015). Retrieved from: http://www.resiliencescale.com/about-the-resilience-scale-2/

Ward, M., & Cowman, S. (2007). Job satisfaction in psychiatric nurses. *Journal of Psychiatric and Mental Health Nursing, 14*, 454-461.

Woods, M., Rodgers. V., Towers, A., & La Grow, S. (2015, February). Researching moral distress among New Zealand nurses: a national survey. *Nursing Ethics, 22*(1), 117-130.

World Health Organizations: *Working Together for Health: The world Health Report 2006* Geneva, Switzerland; 2006.Retrieved from: http://www.who.int/whr/2006/whr06_en.pdf

World Health Statistics 2014, World Health organization 2014. Retrieved from: http://apps.who.int/iris/bitstream/10665/112738/1/9789240692671_eng.pdf

Youssef, C. (2007, October). Positive organizational behavior in the workplace: the impact of hope, optimism and resilience. *Journal of Management, 33*(5), 774-800.

Zhu, W., Avolio. B., Riggio, R., & Sosik, J. (2011). The effects of authentic transformational leadership on follower group ethics. *The Leadership Quarterly, 22*, 801-817.