Chapter 5

Discussion and Conclusion

We are witnessing an exponential surge in the growth of the healthcare sector which, is believed to be reaching $14 trillion in 2020 according to the EH News bureau (2015). Human resource forms an integral part of the healthcare system (Gill, 2011) among these, nurses form an important part of direct interaction with patients facilitating recovery (Buchan & Scholaski, 2004). Though there are a number of researches carried out, most of them focus on the dysfunctional aspects. The chapter here interprets the findings reported in Chapter 4 relating it to the literature reviews that supports identifying the research questions for this study. Besides, the practical implications are presented from various levels that influence nurses along with limitations and suggestions guiding future researches.

The main intention of this research was to examine the influence of positive psychological capacities on emotional intelligence and subjective well-being of nurses. The results also provide a perceptual perspective of the nurses. The findings of this study address the need to understand the positive psychological resource stock (Derryberry & Tucker, 1994) to enhance workplace outcomes. The modelling of the relationship is established by relating self-efficacy, hope, optimism and resilience on emotional intelligence and subjective well-being.

Distribution of data

The first stage of analysis considered the skewness and kurtosis. Data are a little skewed and kurtotic for all six scales of the study but it does not differ significantly from normality. We can assume that the data are approximately normally distributed in terms of skewness and kurtosis and further parametric tests could be applied for analysis
of data (Sekaran, 2006). A second level descriptive statistic was carried out to describe the basic features of the data. These basic features helped address the first two research questions:

1) What is the level of efficacy, hope, optimism and resilience among nurses in the healthcare sector?

2) What is the level of emotional intelligence and subjective well-being among nurses in the healthcare sector?

The current study is the first to examine positive psychological capacities among the nurses in the healthcare sector. We can observe from the results that self-efficacy and hope was found to be on a moderate level among the nurses while optimism and resilience was low comparatively. This shows the need to look into the lower levels of optimism and resilience among which resilience is considered to be important to the profession of nursing. In the case of emotional intelligence, it is identified that among the positive factors of interpersonal skill and flexibility and appraisal of positive emotion was found to be low while emotional facilitation and goal orientation was moderate. And for the negative factors of interpersonal conflict and difficulty was high while negative emotions were moderate. These findings are similar to the results of emotional intelligence reported among staff nurses working in Villupuram district, however their results were found to be lower (Srinivasan & Samuel, 2016).

Subjective well-being; as a variable is not explored much among the nurses in India this study attempts to explore the physical, psychological and social description of happiness and satisfaction. Considering the eleven factors which encompasses the positive and negative factors we see a combination of high, low and moderate across the two. A moderate level was reported across general well-being positive affect,
expectation-achievement congruence, confidence in coping and transcendence which are all positive in nature. While a high incidence was seen across the positive factor of primary group support and social support both indicating a good environment associated with one’s family and friends. On the other hand, negative factors of general well-being negative affect, deficiency in social contact and perceived ill-health was high. This indicated that though they had their family and friends to support yet other factors which may be due to the nature of their job increased the negative conditions. The factor of inadequate mental mastery was only found to be low which defines the inability to manage the anxieties and tensions. (Sell & Nagpal, 1992).

**Correlational Analysis**

The next two research questions considered in this study was to establish the relationship between the predictor and the criterion variables that was executed through a correlational analysis. The questions addressed here are:

3) What is the relationship of self-efficacy, hope, optimism and resilience on emotional intelligence among nurses in the healthcare sector?

4) What is the relationship of self-efficacy, hope, optimism and resilience on subjective well-being among nurses in the healthcare sector?

Consistent with prior research self-efficacy, hope, optimism and resilience positively correlated with emotional intelligence. The current study identified a moderate positive relationship between efficacy and emotional intelligence (Brayan, 2007). Studies have also suggested that emotional intelligence can predict better work outcomes than cognitive mental abilities (Kelly & Caplan, 1998). It has also been pointed that emotional intelligence can clearly estimate self-efficacy belief. Hope also showed a positive relationship which may impact the performance of nurses at workplace (Adams, et al., 2003; Jensen & Luthans, 2002; Luthans 2002a, 2002b;
Luthans, Avolio, Walumbwa, & Li, 2005; Luthans & Jensen, 2002; Luthans, Van Wyk & Walumbwa, 2004; Luthans & Youssef, 2004; Peterson & Luthans, 2003; Synder, 1995b, Youssef & Luthans, 2003, 2006). Considering the relationship between optimism and emotional intelligence positive relationship, supports a few of the studies that have established similar findings (Kumcagiz, Celik, Yilmaz & Eren, 2011). This means that as the levels of the positive psychological capacities increases the emotional intelligence of the nurses also increase.

This relationship can be further substantiated through the conservation of resource theory (Hobfall, 2001). According to this theory increase in the level of positive psychological capacities will reduce the level of stress and increase the effectiveness to function in an individual (Hobfall, 2001, 2002).

Taking into consideration subjective well-being and positive psychological capacities we do not find a significant relationship showing inconsistent findings with the previous studies. This failure to establish the relationship between positive capacities and subjective well-being among nurses was insightful. The lack of significant relationship could have possibly occurred due to how the nurses perceived their subjective well-being that is also related to happiness (Diener, 2009).

**Test for Significance**

This research also explored the demographic variables considered for the study and established the significant mean difference findings across the age groups, experience, marital status, designation and type of organisation (government, private and trust). This helped address the fifth research question:

5) What is the difference between self-efficacy, hope, optimism, resilience, emotional intelligence and subjective well-being across demographic among nurses in the healthcare sector?
There were certain notable findings when each of the variables were studied across the demographics. When the positive psychological capacities were compared across experience, nurses below 6 years of experience showed better efficacy, optimism and resilience when compared to other with higher experience. This could probably be due to the increased training programmes provided to nurses in recent years compared to the one’s working earlier. Emotional intelligence also showed significant variation when compared across experience that are also consistent with prior research (Ajamieh, 1996).

The effect size further substantiated by the post-hoc results for designation and hospital type showed a difference between special patient care nurses and common patient care nurse on interpersonal conflict and difficulty was observed. The results also suggest that common patient care expressed higher scores emotional facilitation and goal orientation. When considering hospital type a significant difference was seen between ‘private hospital nurses and government’ and also between ‘trust and government’ in the area of interpersonal conflict and difficulty. The government and private nurses showed higher scores, while in negative emotions private and government nurses showed higher scores. This resulted in the acceptance of the alternate hypothesis.

The mean difference for subjective well-being across the demographics showed a significant difference across age groups. The nurses of higher age group showed a marginally better score on the positive aspects of subjective well-being (general well-being positive affect, expectation-achievement congruence, confidence in coping, transcendence) while the younger nurses showed marginally higher scores on negative aspects of subjective well-being (general well-being negative affect, perceived ill-health). There were significant differences noticed across the dimensions of
subjective well-being among married and unmarried nurses. A higher score was observed among the married nurses for expectation-achievement congruence, family group support, general well-being negative and deficiency in social contact. When the demographics of experience was compared, we may observe a variation across the dimensions the higher in experience showed greater scores for expectation-achievement congruence and deficiency in social contact while the nurses with lesser experience showed higher scores on primary group concern (the sense that family life is happier when both the spouses work) and perceived ill-health.

The post-hoc results showed notable effect size difference across ‘special patient care and common patient’ care for general well-being positive affect and ‘special patient care and nursing administration’ on perceived ill-health. The scores indicated higher general well-being positive affect for common patient care and higher perceived ill-health for nursing administration. The post-hoc results also explained the difference across the type of hospitals the government hospital nurses showed higher family group support as well as social support but also general well-being negative affect was higher among them. These results directed the acceptance of the alternate hypothesis that there is a difference in subjective well-being across age and experience of the nurses.

Finally, taking all the variables together we could highlight that there was no significant difference established between positive psychological capacities and age, designation, marital status and type of hospital. Similarly, no difference between emotional intelligence, age and marital status as well as subjective well-being designation and type of hospital.

**Regression Analysis**

The regression analysis was carried to predict the outcome variable and establish the potential criterion and predictors. This was used to address the final two
research questions were addressed

1) What is the effect of self-efficacy, hope, optimism and resilience on emotional intelligence among nurses in the healthcare sector?

2) What is the effect of self-efficacy, hope, optimism and resilience on subjective well-being among nurses in the healthcare sector?

The linear regression values of self-efficacy, hope, optimism (adapted) and resilience (adapted) showed that the model applied is significantly good in predicting the emotional intelligence.

Figure 12.9. Regression analysis of relationship between positive psychological capacities on emotional intelligence. *p<.05. **p<.01. ***p<.001

Positive psychological capacities showed a positive moderately significant (p=.01) relationship between all the pairs of the variable with emotional intelligence. This led to accepting the hypothesis that there is a significant relationship between self-efficacy, hope, optimism and resilience on emotional intelligence. The overall relationship between the dimensions was moderate to low, as supported by the variance value estimated for self-efficacy (22.3%), hope (35.1%), optimism (32.4%) and resilience (34.8%) explaining the variability in predicting emotional intelligence. These
findings support studies on the relationship of self-efficacy, hope, optimism, resilience and emotional intelligence (Bryan, 2007; MacInnis & deMello, 2005; Landa et al, 2007; Cam & Buyukbayaram, 2015; Razzaque, 2015). Though these studies show a high relationship the current study expressed a moderate to a low significant relationship could also be due to the substantial amount of variance unexplained.

The linear regression values of optimism and resilience is significantly good in predicting the subjective well-being.

Figure 12.10. Regression analysis of relationship between positive psychological capacities on subjective well-being. *p<.05. **p<.01. ***p<.001

The null hypothesis in the study was supported in relation to self-efficacy, hope, optimism adapted and resilience adapted with subjective well-being. The correlation analysis showed no significant relationship between the positive psychological capacities and well-being of nurses. There was a significantly low correlation (p=.01) between resilience adapted and confidence in coping along with optimism adapted and family group support. This can be justified with the variance of
optimism adapted (1.2%) and resilience adapted (2.5%). Further the variance value for self-efficacy (0.6%) and hope (0.3%) which is negligible did not predict subjective well-being. Though a large amount of unexplained variance exists in optimism adapted and resilience adapted they are considered significant to predict subjective well-being. Therefore, this is considered to be in agreement with studies on resilience and optimism and subjective well-being (Kung et al, 2006; Worsch & Scheier, 2003; Luthan, Avolio, Walumbua & Li, 2005; Souri & Hasanradi, 2011).

Even though most of the studies show a positive relationship of Psychological capacities and subjective well-being. The current study that was carried out contradicts the previous findings. This could be attributed to the nature of the sample chosen for the study, that is, the nurses of the Indian healthcare sector not considered in the other studies. The above statistical explanations clearly indicate a lack of in identifying a relationship between positive psychological capacities, there are certain theoretical explanations as to why this relationship may not have occurred. Some of the explanations from research studies are mentioned below:

(a) The dimensions of subjective well-being are closely and immediately associated with personal experiences that may have the highest influence (Andrew & Withey, 1976, Campbell et al, 1976)

(b) There may be an influence of temporary mood that could influence the responses to the subjective well-being questions (Schwarz & Clore, 1983)

(c) Diener (1984) has contributed substantially to understanding the concept of SWB which is also considered alternatively as happiness. Scales that measure the positive and negative component may independently influence the responses. Moreover, happiness to a certain point can also function as a trait and a state.
The condition in which it is measured influences the way one perceives subjective well-being.

**Qualitative Analysis**

These findings initiated the third phase of the research for a qualitative investigation of the perception of nurse’s subjective well-being. The research question addressed through the qualitative approach using an unstructured interview on participants (n=15) representing government, trust and private hospitals are:

- What is the perception of personal happiness among nurses?
- What is the perception of work-related happiness among nurses?

The theoretical explanations previously stated in the quantitative analysis suggest that there is a possibility of personal factors influencing subjective well-being. This qualitative interview substantiates the quantitative findings by providing a deeper explanation of the phenomena of subjective well-being. The interpretations drawn from the qualitative analysis will be able to support existing literature. Four themes have been identified for discussion: family expectation, service to mankind, work-related dissatisfaction and duty of nurse. These themes would help explain the research questions raised in this study.

The themes of family expectation and service for mankind explains the first research question relating to personal happiness of nurses. As the participants were all women there seemed to be a greater value associated with expectations raised in the family. Even today, as historically deemed nursing and caring oriented careers were more towards women (Reverby, 1987). This career choice was also highly influenced by their family members however, they were glad to have made it their profession too. Regardless of the age and experience the nurses had they did have a lot of family
support which could also be attributed to the reason for their contentment. Social psychology does emphasise this peculiar kind of interdependence and interrelatedness of family and self in the Indian ethos that influences an individual's development (Dalal & Sharma, 1984). Universally, it is believed that the nursing profession is a service to mankind. This concept was also seen among the nurses in this study who seem to believe that their job was indeed a service to mankind. Thus, it explains that though the study found their personal positive psychological capacities were moderate to low, yet their subjective well-being was high.

The subjective well-being was further explored through the second research question that addressed their perception of happiness related to work. From the responses, we may deduce that the nurses perceived their profession as a duty bound to help and serve the people suffering from ill-health (Patidar, Kaur & Sharma, 2011). There were a substantial set of nurses who were inspired by Florence Nightingale and Mother Teresa’s dedication to the service of mankind. They also believed that they were blessed to do this duty which brought them immense satisfaction. This sense of duty help the nurses to overcome their work-related dissatisfaction. They expressed a helpless attitude towards the states of affair in their work environment, especially seen more among the government hospital nurses. Further it was observed that they received no team building activities beyond their core curriculum training in-house. While they harboured this ill-feeling it did not seem to affect their subjective well-being or happiness. Thus, we may conclude that their occupational challenge did not affect their satisfaction (Gulavani & Shinde, 2014).

While most of the nurses felt that they were destined to be in this profession. There were few other who chose this profession to be able to get an opportunity to travel abroad to better their standard of living. Among them, two of the nurses had a
strange attraction towards their professional attire that inspired them to make this career choice. Therefore, they mentioned disappointment with the state of affair of their job. In conclusion, this study failed to establish a relationship of subjective well-being with positive psychological capacities that was found in the other studies. This could be due to the fact that there are relatively few studies done on nurses in India. We may also see social comparison playing a predominant in the evaluation of happiness (Emmons et al, 1983). The responses of the nurses in the quantitative findings highlighted family group support and social support having high mean values. The qualitative analysis also derived a correlation of the influence of family support to subjective well-being. Therefor we find that the reason for subjective well-being not having a relationship to positive psychological capacities could be due to the influence of the family and their support in the Indian context.

Implications

The aim of the study was to address the limited empirical research done on integrating the positive psychological variables among the nurses forming the critical resources in the healthcare sector. The findings of this study can be applied at various levels: Managerial, organizational and personal.

From a managerial point of view, the relationship between the positive psychological capacities and subjective well-being suggests a need in enhancing resource stock that builds better coping mechanisms in nurses. The implication from my study may advise the nursing superintendent to incorporate in-house training intervention programme based on building positive psychological capacities that have a direct influence on enhancing emotional intelligence and thus impact attitudinal and behavioural outcome that are ideal for better service delivery and patient care. Training
increases coping with problem situation (Castledon et al, 2011; Zander et al, 2010; Gillespie et al, 2007; Cameron & Brownie, 2010; Guleryuz, 2008).

Healthcare industry has been currently experiencing increased shortage of nurses with the expansion of healthcare services (Economic Times, 2015; Choudhury, 2011). Based on the findings we do see that the intention of the nurses to move to other countries for better opportunity is a strong tendency. The personal health and deficiencies are also an observation that can be made from the research. The results do highlight development of intensive health-related activity for the nurses who engage in continuous patient care. The organization can make health promotion programmes compulsory for nursing professionals, as it is essential in nursing care to have better well-being to deal with improving the well-being of the patients (Lorenzo et al, 2007). Nurse Managers and hospital administrators can plan and implement health-related policies such as; incorporating personal goal plans, physical activity, nutritious diet plans and others.

On a personal level goals can be set by individual nurses for better nursing practices. It is imperative that they take care of themselves before supporting others (Moonie, 1986). Nursing managers can ensure that their team of nurses have personal goals set towards measuring their physical health as well as their positive psychological needs. Building these positive capacities by mindfully engaging in it would help them to carry out their role in a much more effective manner. Mentoring and other psychological support systems can also be built for the nursing staff to successfully engage in enhancing their psychological capital.

Limitation
Whilst this study makes significant implication to the field of nursing and positive psychological research, there are certain limitations to it. This study engaged with the perspective of the nurses belonging to a single geographic location which may become a possible limitation in generalising across the nurse population. Besides, the participants who volunteered for this study comprised largely from the female population which may be a limiting factor in generalising across gender. Lately, we have seen a rise in males opting for nursing programme to about a 40% (The Times of India, 2012). Further many hospitals have begun preferring to have more male nurses in emergency situation and function easier operation theatre. Additionally, the responses received to participate in this study were predominantly from the Trust-based hospitals (44%) and of which 69.5% below six years of experience. Thus, this could also be a limiting factor in generalising. Also, the fear of sharing perceptions when responding to surveys could influence the accuracy of nurse's response though the confidentiality is ensured.

Further the cultural context of the study group was a limiting factor. Research design using positive psychology from an Indian context needs to take care of cultural roots and tenets (Mehrotra & Tripathi, 2011) held by certain professions. Though an Indian scale was used to measure SWB the study had to incorporate a qualitative approach to obtain the relationship.

The regression analysis in this study predicted a small percentage of optimism and resilience on subjective well-being. Though a large number of studies do find resilience as a core critical need in nursing practice and does influences subjective well-being (Garcia-Dia et al, 2013; Scholes, 2008; Atkinson et al, 2009; Zander et al, 2010, Gillespie et al, 2009). The Cronbach alpha values for the subjective well-being scale had a wide range from moderate to high across the dimensions. This being said, there
could also be the reason that the subjective well-being scale has not been used on the nursing population. Professional attitude of the nurses, as a large majority who participated in the study belonged to the Trust based hospitals may have affected subjective well-being; a tool specifically to measure Indian nurse’s subjective well-being can be developed.

Most positive psychological studies have used cross-sectional design, even this study has incorporated the cross-sectional design to carry out the research. However, this might have been a limiting factor due to the fact the qualitative analysis was done to complete the study. This methodology has been criticised as there are large number of studies relying on such designs (Sheldon, Kashdan & Steger, 2011). Perhaps such variables might require longitudinal studies for better understanding. Research designs can adopt newer trends to gather more personal data from a qualitative perspective using case studies, grounded theory approach to obtain a deeper understanding of personnel’s in the healthcare sector from the Indian perspective.

Suggestions

This study serves as a resource for future research to examine the other possible positive psychological variables in the nursing domain. Specifically, there is a need for longitudinal researches to establish a stronger relationship between positive psychological variable using newer statistical models to conclude the same. This study was conducted in the urban setting only therefore studies in rural settings could also be included to get a deeper functioning of the positive psychological reserve from the Indian context. Further, the studies could also consider the impact on patient interaction using intervention models to get a complete understanding of the cause and effect.
Finally, the qualitative findings of this study may form a discussion source to nursing managers to conduct training programmes to improve nurses’ well-being.
Conclusion

The study makes multiple contributions to the existing literature and research being initiated in the field of positive psychology. First, studies oriented towards examining positivity in the healthcare sector are at its niche stage (Luthans & Jensen, 2005). This makes it important to understand how the variables function in a given population. According to Hoffball (2001), the conservation of resource theory suggests that people with higher level of positive resources have lower stress than people with limited access to resources. Therefore, positive psychological capacities should reduce stress and increase emotional intelligence and subjective well-being. As predicted by Broaden-and-build theory (Fredrickson 1998, 2001) there exist a positive relationship between positive psychological capacities and emotional intelligence of nurses as well as resilience and optimism on the subjective well-being of nurses.

The empirically reviewed studies clearly indicated lower quality of life of nurses (Jathanna & DeSilva, 2014) this study also contributes the finding of a moderate level of positive psychological capacities in nurses. Emotional Intelligence has been a popular concept among nurses and has been related to various factors such as life satisfaction, psychological well-being, occupational success and job performance (Freshwater & Stickley 2004; Adeyemeye & Adeleye, 2008; Bar-On, 1997, 2005; Salovey & Mayer, 1990). The significant outcome relationship established between efficacy, hope, resilience, optimism and emotional intelligence emphasised that a stronger association with positive factors of emotional intelligence can promote their thought-action repertory, that in turn affects their positive work behaviour a connection that endorses the assumed affective, behaviour relationship (Isen, 2000) which makes one adaptable (Isen & Daubman, 1984), integrative (Isen et al, 1991) and effective (Isen & Means 1983, Isen et al, 1991).
Second, the sample on whom the research was carried out contributes significantly in terms of its findings. Examining the positive variables and well-being mechanism of healthcare workers, especially nurses who are considered as an integral part of healthcare management system has evolved as a major research interest (Kristen, 2012; Zaho et al, 2015; Razzaque, 2015; Jeyarathnam & Kausalya, 2013). The result from this study clearly highlights the importance of looking into the level of positive psychological variables that on an average is at a moderate level across the nursing population. Significant demographic findings resulted in establishing relationship with (a) efficacy, hope, optimism and resilience with experience or years of service, (b) emotional intelligence it with designation and type of hospital they work (c) significant differences with subjective well-being across age, marital status and experience which has a potential to influence work-related outcomes (Choudhary, 2010; Wilma, et al, 1999; Ajamieh, 1996). These findings can be used as a source for nursing managers and hospital administrators to implement training on stress management and personality development for the nurses.

Third, this study probes into the relationship from the theoretical view of Broaden-and-build theory (Fredrickson 1998, 2001). This theory is pertinent in the present context since nurses have become a growing need in this vastly expanding health care industry (Economic Times, 2015). The result exerts a significant influence of efficacy, hope, resilience and optimism on emotional intelligence (Mellao & Monico, 2013) along with resilience and optimism on subjective well-being (Luthans, Avolio, Walumbua & Li, 2005; Zaho et al, 2015).

Fourth, while the statistical analysis clearly highlights no correlation with subjective well-being and positive psychological capacities along with the inability to predict it, except resilience and optimism. There is some empirical evidence that
suggested disagreement in the way emotional intelligence has been related to both the
cognitive and affective components of subjective well-being (Zeidner, et al, 2009,
2012). Similarly, with that of positive psychological capacities the dimensions of
subjective well-being are closely and immediately associated with personal experiences
that may have had the highest influence (Andrew & Withey, 1976, Campbell et al,
1976). The qualitative analysis gathered through the study further substantiated that
nurses viewed themselves as happy individuals despite their work-related
dissatisfaction's as almost all saw their profession as service for mankind. Further the
role family played an important factor in the subjective well-being of nurses.