CHAPTER 2

Literature Review

This chapter presents a literature review and conceptual framework including the following topics:

1. Team in Nursing
   1.1 Definitions of Team
   1.2 Line of Organization in Nursing Team
2. Leadership Styles of Head Nurses
   2.1 Definitions of Leadership Styles
   2.2 Theories and Conceptual Models of Transformational Leadership
   2.3 Measurements of Transformational Leadership
   2.4 Factors Related to Transformational Leadership
   2.5 Effects of Transformational Leadership to Teams
   2.6 Research Studies Related to Transformational Leadership
3. Team Potency
   3.1 Definition of Team Potency
   3.2 Theories and Concepts Related to Team Potency
   3.3 Measurements of Team Potency
   3.4 Factors Related to Team Potency
   3.5 Research Studies Related to Team Potency
4. Relationship between Transformational Leadership and Team Potency
5. Situations Related to Transformational Leadership of Head Nurses and Team Potency among Nurses, Shanghai, the People's Republic of China
6. Research Conceptual Framework

<center>**Team in Nursing**</center>

Definitions of Team

Many different definitions of teams have been offered over the years. Shea and Guzzo (1987) defined a team as "a set of three or more people that can identify itself and be identified by others in the organization as a group". Katzenbach and Smith (1993, as cited in Sullivan & Decker, 2005) defined a team as "a small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable". In addition, teams are social groups, so they reflect the overall situation of social life and human experience. There are several common elements in the construction of a team, including the fundamental purpose of forming the team, team goals defining the performance expectation, roles of leaders and individual members, relationships and interactions, functions, coordination, and leadership (Porter-O'Grady & Malloch, 2013). Teams are established for interaction, learning, communication, interpersonal relationships, and collective wisdom.

In a health care delivery system integrated across settings, a team environment becomes increasingly important. Several professionals such as doctors, nurses, pharmacists, and therapists are working together. Nursing also occurs in a team environment. A nursing team is defined as a group of nurses who are providing the total care of patients together in one unit under the same team leader (Thomas et al., 1992). According to Tiedeman and Lookinland (2004), nursing teams focus on working collaboratively and cooperatively with shared responsibility, and to some extent accountability, for assessment, planning, delivery, and evaluation of patient care. Every team member is encouraged to make suggestions and share ideas. One nursing unit or ward can be seen as a nursing team, because it fits all of a team's characteristics (Zhang et al., 2008), while there is a head nurse taking the role of team leader. Hence, this study focused on teams in nursing.

<center>9</center>

Line of Organization in Nursing Team

A clear line of organizational structure is necessary for nursing teams. The common organized pattern in nursing departments of Chinese hospitals is a three-line vertical management systems. Nurses are on the first level of organizational structure of the nursing department, meanwhile head nurses are the first-line managers as team leaders in nursing units, followed upward by supervisors, and nursing directors (Yin, Tsai, & Chang, 1997, as cited in Chang, 2008).

To better understand the functions of nursing teams, this study concerns nursing units and head nurses only. Head nurses as team leaders have huge effects on the team as the power of influence which can drive the team toward effective processes in performance and ensure good outcomes regarding reflection, group energy, engagement, coordination, and communication (Yukl, 2009). They create a safe, facilitating context to maintain stable memberships and to value teamwork. Head nurses perform job descriptions to manage teams in the units. They must have leadership characteristics to lead all team members as participants in team processes.

Leadership Styles of Head Nurses

Definition of Leadership Styles

Leadership is an important factor referring to effective team outcomes and influences almost every variable in the team effectiveness model. There is no single definition broad enough to cover the whole leadership process. Scholars often define leadership in their own terms. However, leadership is commonly defined as a process of influence in which the leader influences others toward goal achievement (Yukl, 2009).

With the exploration of leadership, many kinds of leadership styles are discussed in nursing such as transactional leadership, transformational leadership, and laissez-faire leadership (Bass & Avolio, 1994; Kouzes & Posner, 2002). Among these three leadership styles, transformational leadership is more popular in contemporary nursing (Northouse, 2012). It is an important approach for head nurses in nursing management. The definitions of transformational leadership are stated below.

10

Burns (1978, as cited in Marshall, 2011) defined transformational leadership as an ongoing process in which "leaders and followers raise one another to higher levels of motivation and morality."

Bass (1985, as cited in Bass & Avolio, 1994) defined transformational leadership as a philosophy and approach for a leader to arouse the motivation of followers to accomplish the mission by articulating the importance of the vision and communicating confidence in followers' abilities.

Tichy and Devanna (1986, as cited in Warrick, 2011) defined transformational leadership as a systematic process that could be learnt and managed. A transformational leader was a leader with new ways of thinking about strategy, structure, change, innovation and having an entrepreneurial perspective.

Bennis (1989, as cited in Marshall, 2011) defined transformational leadership as a process that focuses on action which changes followers to leaders and change leaders to followers looking for potential motives, seeking to satisfy higher needs and engaging the full person.

Kouzes and Posner's (1995, 2002) definition of transformational leadership is a collection of practices and behaviors. Transformational leaders can motivate followers to work more than expected through five key leadership practices (model the way, inspire a shared vision, challenge the process, enable others to act, and encourage the heart).

Among those definitions, Kouzes and Posner's definition was used in this study, because it focused on transformational leaders' behaviors and fitted the changing health care environment well.

Theories and Conceptual Models of Transformational Leadership

The first mention of transformational leadership was by Downton (1973, as cited in Goethals, Sorenson, & Burns, 2004). After that, transformational leadership theorists had developed some foundational concepts and components outlined below:

Burns (1978, as cited in Marshall, 2011) first independently introduced the concept of transformational leadership. Burns considered leadership as a special form of power. There were two separate forms of leadership; transactional and transforming, determined by leader and followers' motivation. According to Burns' theory, transformational leadership "shapes and alters the goals and values of followers to achieve a collective purpose that benefits society". It operated toward a conscious purpose to collect causation of change within the group: both followers and leaders are ennobled. This theory also recognized that people have a range of needs. The extent to which these needs were satisfied would affect the extent of people's work performance. Transformational leadership fit into the higher levels of Maslow's theory of human needs and included a moral dimension.

Bass (1985, as cited in Bass & Avolio, 1994) extended transformational leadership to an organizational setting. In Bass and Avolio's theory, elements of transactional and transformational leaderships were incorporated. The transformational leader heightens followers to transcend their own self-interests for the shared goals. Transformational leadership is accomplished through four interrelated components which were named the four "I"s: 1) Idealized influence, 2) Inspirational motivation, 3) Intellectual stimulation, and 4) Individualized consideration (Al-Swidi, Nawawi, & Al-Hosam, 2012; Bass & Avolio, 1994; Bass, Avolio, Jung, & Berson, 2003). In the Full Range Leadership Model, Bass and Avolio emphasized that effective leaders use both transformational and transactional leadership (Yukl, 2002).

Tichy and Devanna (1986, as cited in Warrick, 2011) developed the concept of transformational leadership. The behavioral components included recognizing a need for change and creating a new vision and team building to gain support for a new vision. Based on their theory, transformational leaders were identified to possess seven qualities that enabled them to stay competitive in a revolutionary, changing

12

environment. These qualities are: 1) the ability to envision change and to meaningfully communicate it to followers as an image of the future; 2) the ability to be a catalyst for change by motivating others towards shared goals; 3) the ability to conduct themselves by a core set of values; 4) the gift of demonstrating skill in handling the complex ambiguous and uncertain features of the social, technical and political aspects of an organization; 5) the ability to value life-long learning, including an openness to self-assessment in order to improve; 6) the ability for strategic/systems thinking, especially in assessing the strengths and weaknesses of the organization; and 7) a fundamental conviction that people and their abilities have value, leading to a belief that it is important to know people.

Podsakoff, MacKenzie, Moorman, and Fetter (1990) identified six key behaviors of transformational leadership. They are identifying and articulating a vision for the group; providing an appropriate model; fostering the acceptance of group goals, creating high performance expectations; providing individualized support and intellectual stimulation to team members. Each of these behaviors is an important element of the transformational leadership process.

Kouzes and Posner (1995, 2002) utilized the conceptual framework over almost 20 years. After conducting hundreds of interviews and reviewing thousands of case studies, they claimed that transformational leadership is not a position, but a collection of practices and behaviors which can be measured, learnt and taught. The five practices were developed as the essential components of the concept of transformational leadership and recognized as representative of effective leadership practices. Each practice contains two commitments. These practices and ten commitments associated with transformational leaders are:

Model the way. A leader must be a model of the behavior and have some beliefs to stand up for that can win the respect, gain commitment and achieve the highest standards. To model effectively, exemplary leaders go first. The two commitments are to *find their voice* by clarifying their personal values and to *set the example* by daily actions with shared values. The behaviors of leaders are more important than what they say. These leaders believe in consistency between words and actions. They also need to commit and insist on the beliefs in the day-to-day work environment. Kouzes and

13

Posner (2002, p.15) consider that this practice is "essential to earn the right and the respect to lead through direct individual involvement and action". Leaders established the principles of the way people can be treated and goals can be followed.

Inspire a shared vision. Transformational leaders *envision the future* by imagining exciting and ennobling possibilities and *enlist others* in a common vision by appealing to shared aspirations. They possess foresight and innovation. They inspire a clear image and exciting possibilities for the future that they can achieve and make a difference in the organization. They transform their own beliefs to their followers' beliefs through an intimate knowledge of followers' constituents and needs and speaking positive language. Leaders cannot command commitment, but only inspire it. People will follow until they accept the vision as their own.

Challenge the process. Transformational leaders are willing to change the status quo and challenge the process. They *search for opportunities* by seeking innovative ways to change, grow, and improve. They do not only create new ideas, but also recognize and support new ideas. Leaders know well that they *experiment and take risks* with new approaches by constantly generating small wins and learning from mistakes. Learning from every false step opens the door to be successful.

Enable others to act. "Enable other to act" is essential. It means to *foster collaboration* by promoting cooperative goals and building trust and *strengthening others* by sharing power and discretion. Transformational leaders empower their followers and give them freedom of choice in decision-making. Transformational leaders motivate people as if they can do more than they are expected. They enhance everyone's capacity and make people feel powerful, capable, and committed as if they carry ownership and responsibility in the organization.

Encourage the heart. Transformational leaders *recognize contributions* by showing appreciation for individual excellence and *celebrate the values and victories* by creating a spirit of community. People often need to be encouraged and motivated to carry on. Leaders ensure followers see the benefit of behavior and attach rewards, which when done with authenticity and from the heart, will build a sense of belonging for

14

people and inspire them to perform better. Encouragement is part of the leader's job to show appreciation.

From the above reviews, transformational leadership is a behavioral approach in which the leader transforms a vision and strategic goals to motivate followers. Many scholars believe that Kouzes and Posner's leadership practice model is one of the most effective models of transformational leadership in healthcare organizations (Tomey, 2000; Yoder-Wise, 2003). It focuses on transformational leadership only. Thus, this model was chosen in this nursing-setting study.

Measurements of Transformational Leadership

Transformational Leadership Behavior Inventor (TLI) (Podsakoff et al., 1990). The 23-item scale was developed by Podsakoff et al. (1990) to measure transformational leadership. Six transformational leader dimensions were provided in this instrument. They were articulating a vision, providing a model, communicating high performance expectations, providing individual support, fostering acceptance of group goals, and providing intellectual stimulation.

Team Multifactor Leadership Questionnaire (TMLQ). This questionnaire was developed by Bass and Avolio (1994). It included five factors. The first three facts represented team transformational leadership. The fourth factor represented management-by-exception leadership, and the fifth factor represented laissez-faire leadership. Avolio, Sivasubramaniam, Murry, and Jung (1999) adopted and aggregated the first three scales, inspirational motivation, intellectual stimulation, and individual consideration, to form a general scale which was named "transformational leadership". In the transformational scale, there were 14 items. All items used a 5-point Likert scale response format ranging from 5 = "frequently or always", 3 = "sometimes", to 1 = "not at all." The reliability ranges from .89 to .91 (Sivasubramaniam, Murry, Avolio, & Jung, 2002).

Leadership Practices Inventory (LPI) (Kouzes & Posner, 1995, 2002). The Leadership Practices Inventory (LPI) was created by Kouzes and Posner (1995, 2002). The LPI contains five factors which are labeled "Model the Way", "Inspire a Shared

15

Vision", "Challenge the Process", "Enable others to Act", and "Encourage the Heart". This instrument uses 30-items in total, with 6 items reflecting each of the five leadership practices. Each item was cast on a 5-point Likert scale ranging from 1 = *rarely or very seldom* to 5 = *very frequently or almost always* representing the frequency. Two forms were used which were described by the leaders (LPI-self) and observed by the subordinates (LPI-observer). Internal reliabilities for the five subscales of the LPI-self ranged from .70 to .85 and .81 to .92 for the LPI-observer. Test-retest reliability for the five practices was above the .93 level (Posner & Kouzes, 1993).

The Chinese version of LPI was translated by Chen and Baron (2007) in Taiwan, using Brislin's translation method (1986). The Cronbach's alpha coefficients of the Chinese version LPI were .96 for the total score and from .80 to .91 for the five subscales (Chen & Baron, 2007).

According to the literature review, there are several instruments to measure transformational leadership. The researcher used the Chinese version of LPI-observer in this study, since the dimensions in this instrument could fit with the setting of present research and the context of Chinese culture.

Factors Related to Transformational Leadership

Several studies indicated that many factors had a relationship with transformational leadership, showing as follows:

Gender. Posner (2010) stated that leader's gender is one of factors that influences transformational leadership; female's responses were more frequent than male's.

Intellectual ability. Atwater and Yammarino (1993) indicated that intellectual ability is positively related to transformational leadership. Intelligence could facilitate the creation and presentation of visions and impact on leaders' capacity to inspire, stimulate and motivate the followers.

Personality. Bono and Judge (2004) did a meta-analysis on the five factors of personality model and transformational leadership. They observed that there were positive correlations between extraversion, conscientiousness, openness, agreeableness

16

and transformational leadership. A negative correlation was observed between neuroticism and transformational leadership. Rubin, Munz, and Bommer (2005) also stated that personality traits influence the leaders to show transformational leadership.

Emotional intelligence (EI). Reviews of the literature have proven a significant relationship between emotional intelligence and transformational leadership (Harms & Crede, 2010; Jin, Seo, & Shapiro, 2008). EI facilitates transformational leadership.

Managerial experience. Cavazotte, Moreno, and Hickmann (2012) indicated that managerial experience had strong positive effects on transformational leadership ($r = .37$, $p < .001$). The leader who has more managerial experience shows more transformational leadership behaviors.

Work attitudes. Barling, Slater, and Kelloway (2000) claimed that the work attitudes of leaders can also affect the likelihood that they will demonstrate transformational behavior.

Team size. Cavazotte et al. (2012) reported that the effects of team size had a weak and negative relationship with transformational leadership ($r = -.24$, $p < .01$).

Chinese culture. Chang (2008) considered that Chinese cultural values had influences on leadership behaviors in the organizations. Although modern Western culture has influenced nursing, Confucianism continues to have tremendous impact on Chinese nurses.

Effects of Transformational Leadership on Teams

Research on transformational leadership has helped this theory become one of the dominant leadership theories in organizations (Judge & Bono, 2000). Some scholars have investigated the effect of transformational leadership on teams.

To illustrate, Ozaralli (2003) reported that subordinates' self-reported empowerment in teams was correlated with transformational leadership. The empowerment team members felt was positively related to team's effectiveness.

17

Schaubroeck et al. (2007) conducted a study on 218 bank teams in the United States of America and Hong Kong. They found that team values moderate the effect of transformational leadership on team performance ($r = .25$, $p < .01$). Grant's study (2012) also showed when employees communicated with the beneficiaries of their work activities. Transformational leadership was more likely to be positively linked to performance.

Schaubroeck, Lam, and Peng (2011) conducted 191 financial services teams in Hong Kong and the United States of America. They found that transformational leaders moved towards the team's belief in its own capabilities which increased team performance through cognition-based trust.

In Shin, Kim, Lee, and Bian's study (2012), participants evaluated the extent to which the supervisors of their teams were transformational in 68 teams, using the MLQ. They indicated the extent to which they feel confident in their creative skills, called creative self-efficacy. Finally, they found that transformational leadership and creative self-efficacy, presumably, increase the motivation of individuals to utilize and to integrate the diverse perspectives of people in their team ($r = .57$, $p < .01$; $r = .22$, $p < .01$).

In summary, transformational leadership leads to good outcomes on team performance and effectiveness.

Research Studies Related to Transformational Leadership

From the literature review, several studies related to transformational leadership of head nurses in China are shown as follows:

Hu et al. (1999) conducted a study to test the relationship between the transformational leadership behaviors of head nurses and the work effectiveness of nurses. 48 head nurses and 292 staff nurses were investigated in 8 hospitals in Shanghai. LPI for self and other were used to measure transformational leadership. The results showed that transformational leadership behaviors positively related to work productivity ($r = .13$, $p < .05$), organizational commitment ($r = .28$, $p < .01$), and job satisfaction ($r = .36$, $p < .01$).

18

Wang, Chontawan, and Nantsupawat (2009) conducted a study to explore the relationship between nurse managers' transformational leadership and staff nurses' job satisfaction. The data was collected from 238 staff nurses working in Harbin Medical University hospital. Transformational leadership was measured by LPI. They found that nurse managers' transformational leadership as perceived by staff nurses was at a moderate level ($\overline{X}$ = 106.49, SD = 27.31). Transformational leadership was significantly positively correlated with nurses' job satisfaction (r = .55, p < .01).

Yan et al. (2010) conducted a study on 1,094 nurses in different hospitals in China to examine the relationship between the transformational leadership of head nurses and effectiveness of their leadership. They were measured by using Transformational Leadership Questionnaire, Team Cooperation Scale, Team Performance Scale, Team Satisfaction Scale, Team Cohesiveness Scale, Self-efficacy Scale and a self-designed Subordinates' Trust in Leaders Scale. The findings showed that the average score of transformational leadership of head nurses was 4.66 ± 1.04. Transformational leadership of head nurses was significantly correlated with team cooperation (r = .501, p < .01), team performance (r = .530, p < .01), team satisfaction (r = .489, p < .01), team cohesiveness (r = .502, p < .01), self-efficacy (r = .139, p < .01), and subordinates' trust (r = .561, p < .01). This study also proved that transformational leadership can predict the effectiveness of leadership; especially for building trust between head nurses and subordinates.

Team Potency

Team potency is the process of team effectiveness. Since nursing teams perform different types of tasks and are engaged in multiple team situations, it is necessary for nursing teams to build team potency. For a better understanding, team potency is described as follows.

Definition of Team Potency

Team potency is one of key types of team capability beliefs. Recent research has declared that a team's collective sense of capability may be an important determinant of

19

its effectiveness. For the process of team effectiveness model, team potency was defined as follows:

Guzzo et al. (1993) defined team potency as the collective belief that a team can be effective or confidence in its general capability.

Lindsley, Brass and Thomas (1995, as cited in Sun, Cui, & Li, 2010) defined team potency as a collective belief that the group can accomplish its tasks successfully. It is a prospective judgment of group capability.

Gully et al. (2002) claimed in their definition that team potency referred to group members' "generalized beliefs about the capabilities of the team across tasks and contexts".

Lee, Tinsley, and Bobko (2002) defined the essence of group potency as the internal belief that the group can and will achieve its intended goal.

Mathieu, Maynard, Rapp, and Gilson (2008) defined team potency as a belief which referred to the team's overall performance in different areas rather than its capacity to carry out a specific task.

In summary, Guzzo and his colleagues firstly labeled "group potency". The definition of team potency, developed by Guzzo et al. (1993) is most popular in previous researches. Therefore, in this study, team potency was defined in the same way as Guzzo et al.'s (1993).

Theories and Concepts Related to Team Potency

Sayles (1958, as cited in De Jong et al., 2005) firstly considered that collective unconscious was a component of group potency. Sayles stated that the group itself held the collective unconscious or the belief of success and this transcended the individual members of the group. It was the origin of the team potency construct.

Team potency is rooted in self-efficacy and is a group-level construct which parallels the individual concept of generalized self-efficacy (Collins & Parker, 2010; Lester et al., 2002), because both are motivational constructs that reflect judgments of

capabilities. According to Bandura's (1982, as cited in Almost, Doran, Hall, & Laschinger, 2010) self-efficacy theory, self-efficacy reflects an individual's belief in his/her capability to perform a specific task. Although Bandura focused on an individual level of self-efficacy, he suggested that performance beliefs existed at other levels. The strength of groups and organizations lie in people's sense of collective-efficacy (Bandura, 1986), while collective efficacy referred to an individual's belief about the group's ability to perform a specific task. Therefore, these three constructs are distinct and have different implications.

Guzzo et al. (1993) labeled the strong beliefs in the potential for effectiveness as "group potency" and explained team potency as a belief shared by group members about the group's general effectiveness across multiple tasks. This differed from group member's individual beliefs that he or she can be effective. For example, an individual team member had a strong belief in his/her personal efficacy and ability to be effective while he or she might have a weak belief that the team can be successful or effective. In their theory, potency was viewed as a social-psychological phenomenon which was linked to performance in a reciprocal relationship. Therefore, potency was measurable, authentic, and significant. Moreover, Guzzo and his colleagues also utilized an approach that collected individuals' assessments of group capability.

According to the discussion above, team potency refers to a team's belief of the team's capability to cope with general tasks and is an antecedent of collaborative practice. It is an interpersonal context. Team nursing performs several tasks and not just one task. Therefore, in this nursing team study, team potency, provided by Guzzo et al. (1993), was more appropriate.

Measurements of Team Potency

Guzzo et al.'s (1993) Potency Scale. The potency scale is an eight-item scale, developed by Guzzo et al. (1993) to measure beliefs regarding general effectiveness. It is measured by asking individuals to estimate the efficacy belief shared by the teams; these estimates are then aggregated to determine the potency of the group-level belief (Guzzo et al., 1993). The scale contains items: My group 1) has confidence in itself, 2) expects to be known as a high-performing team, 3) feels it can solve any problem it

21

encounters, 4) believes it can be very productive, 5) believes it can get a lot done when it works hard, 6) believes no task is too tough for this team, 7) expects to have a lot of influence around here, and 8) believes it can become unusually good at producing high quality work. The 5-point Likert scale was used (1=To no extent, 2=To a limited extent, 3=To some extent, 4=To a considerable extent, and 5=To a great extent). The coefficient alpha was .95 (Gil et al., 2005).

Collective Efficacy Beliefs Scale (Riggs, Warka, Babasa, Betancourt, & Hooker, 1994). Collective Efficacy Beliefs Scale was created by Riggs et al. (1994). The scale consists of seven items (e.g., "The unit I work with has above average ability," "The members of this department have excellent job skills," and "This department is not very effective"). The items are rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This scale's content is more general than that of other collective efficacy instruments, which aggregate separate efficacy perceptions across a range of group tasks (Gibson, Randel, & Earley, 2000; Schaubroeck et al., 2007). The scale's alpha reliability is .90 (Schaubroeck et al., 2007).

The Guzzo's (Guzzo et al., 1993) Potency Scale was chosen in this study for two reasons. First, this scale was the strongest predictor of a generalized belief regarding group process effectiveness. This was the point of interest for this study. Second, collective efficacy beliefs were relating to specific tasks. This study just focused on general tasks of nursing teams' daily work.

Factors Related to Team Potency

According to the conceptual model of team potency (Guzzo et al., 1993), previous studies found that some factors influence team potency as follows.

Individual team members' appraisals of abilities, knowledge, skills, and experiences represented in a team's capabilities affect a team's sense of confidence to accomplish tasks in a complex environment (Akgun et al., 2007).

The clarity and challenge of team goals positively relate to a sense of team potency (Guzzo et al., 1993). Team potency is a mediator that transforms team goals into team effectiveness.

22

Team leaders' leadership styles impact a team's sense of potency (Gil et al., 2005; Sivasubramaniam et al., 2002). For example, transformational leaders change the factors which shape team potency by doing functional activities such as modelling behaviors, verbal encouragement, and rewarding.

Resources within teams can produce team potency (Guzzo et al., 1993). Team members develop a strong sense of team potency if they perceive that they get adoptable resources for their tasks.

Research Studies Related to Team Potency

According to the behavior literature review, team potency was classified as a key determining factor to link with team outcomes (Gully et al., 2002; Shea & Guzzo, 1987).

Campion, Papper, and Medsker (1996) found that group potency was a significant predictor of team productivity, the satisfaction of team members and also the management assessments of a team's performance.

Some studies have shown that group potency predicts group satisfaction (Foels, Driskell, Mullen, & Salas, 2000; Lee et al., 2002; Lester et al., 2002), because a strong sense of team potency may create a positive interpersonal climate, good communication and greater cooperation among team members (Jex & Bliese, 1999).

De Jong et al. (2005) tested a model of antecedents and consequences of group potency in self-managing teams in the bank of Netherlands (n = 51 teams). The results showed that management support and inter-team support had a positive effect on employee beliefs of team potency (r = .269, p < .01; r = .100, p < .01), while team tenure had a negative effect on team potency (r = -.003). In their findings, team potency would positively affect customer-perceived service quality, when teams possess a higher level of potency consensus (r = .165, p < .01).

Ziegert (2005) conducted a study with a sample of 461 individuals in 39 fast-food restaurants using three different measurements of shared team leadership. Results illustrated that shared team leadership measures are positively related to potency,

23

cohesion, climate for service, employees' subjective ratings of team performance, the objective performance outcomes, and employee satisfaction.

According to Akgun et al.'s (2007) study, team potency functioned as a self-regulation of team efforts; provided team motivation as team members' actions were based on whether they believe that they can be successful or not; and also influenced team functioning, because team members were impacted by their collective belief of their effectiveness (Gallivan, 2003).

In summary, the relationships between team potency and numerous group variables have been explored. Team potency is also treated as a mediating variable between leadership and team outcomes.

Relationship Between Transformational Leadership and Team Potency

Theories or models of team effectiveness have been proposed in order to understand how teams work. One of the most popular models is the Input-Process-Output Model (IPO-Model) of team effectiveness proposed by McGrath (1964). *Inputs* mean antecedent factors that enable and constrain members' interactions. Input factors included three levels: individual team member characteristics (e.g., personalities), team-level factors (e.g., external leader influences), and organizational and contextual factors (e.g., organizational culture, environmental complexity). These inputs drive team *processes*, which describe members' interactions directed toward task accomplishment. Processes describe how team inputs are transformed into outcomes. *Outcomes* are results and by-products of team activity that are valued by one or more constituencies.

Many scholars (e.g. Blendell, Henderson, Molloy, & Pascual, 2001; Driskell, Salas, & Hughes, 1987; Hackman, 1987; Klimoski & Jones, 1995; Tannenbaum, Beard, & Salas, 1992) developed the different team effectiveness models based on the team effectiveness model of McGrath and identified different variables in the Input, Process and Outcome approach. Only the team effective model of Klimoski and Jones (1995) noticed that leadership is an input factor that related to team potency. The model is relevant to this study as the model attempts to identify the relationship between member perspectives of leadership and potency of team performance. Although several studies

24

have examined how leadership styles, such as servant leadership and shared leadership influence group effectiveness, transformational leadership was found to be more suitable than non-transformational leadership styles (Brandt, Heikkila, Sorvari, & Routamaa, 2011).

Several literatures illustrated the relationship between transformational leadership and team potency in various settings. Empirical researches showed that transformational leadership was an important factor in maintaining and promoting higher levels of team potency.

Shamir, House, and Arthur (1993) explained that transformational leaders could enhance the team potency by building collective identification with a group and increasing the meaningful work of followers in a group's efforts. The more positive a member feels about her/his group, the more motivated the person is to promote in-group solidarity, cooperation, and support (Hopkins, 1997).

As Gibson (1995) discovered, a higher status differential within a team may actually increase group-efficacy, because the individual with the greatest status (the team leader) "takes charge" and facilitates interaction, thereby increasing the extent to which the group feels as though it will be able to accomplish its task objectives.

Guzzo and Dickson (1996) argued that team potency was a function of three types of variables: design (e.g., task interdependence), process (e.g., leadership), and context (e.g., operating conditions). Hence, leadership impacts team performance not only in terms of team identity, norm, surroundings, individual member's commitment, but also in terms of team processes and characteristics.

Sosik et al. (1998) conducted a study to examine the effects of leadership style, anonymity and task interdependence on team potency and effectiveness of 36 undergraduate student work groups in computer-mediated environments in two sessions. They found that higher levels of transformational leadership promoted higher levels of team potency and effectiveness. The mean team potency scores for groups participating in the high transformational leadership condition was 3.92 (SD = 0.35) and

25

3.71 (SD = 0.40). According to the results, the effectiveness of those groups might be a function of the interaction of leadership style and anonymity.

An additional study by DeGroot, Kiker, and Cross (2000) suggested that the leader who exhibited charisma might inspire the whole group and lead to a stronger collective performance. Transformational leader behaviors had an impact on followers' effort, performance, and satisfaction by raising followers' self-efficacy, self-esteem (Kark, Shamir, & Chen, 2003; Kirkpatrick & Locke, 1996) and locus of control (Bass, 1985, as cited in Bass & Avolio, 1994) through expressing high expectations of followers and belief in followers' abilities.

Sivasubramaniam et al. (2002) conducted a study to investigate the effects of transformational leadership on team potency. 155 undergraduate students were selected as study sample. TMLQ was used to measure transformational leadership and team potency was assessed by Guzzo et al.'s 8-item potency scale. They found that transformational leadership had a significant positive effect on team potency (r = .66, p < .01).

Gully et al. (2002) discovered that transformational leaders can enhance team potency by communicating high confidence, modeling desired behaviors, using intellectual stimulation, promoting consideration of different viewpoints and inspiring collective action and providing support to followers, which contributed to team effectiveness (e.g., Bass et al., 2003; Schaubroeck et al., 2007; Sosik et al., 1998).

Schaubroeck et al.'s (2007) investigated the effect of transformational leadership on team performance through the mediating effect of team potency among 218 bank teams in the United States of America and Hong Kong. Transformational leadership was measured by Podsakoff et al. 23-item scale (1990), while team potency was measured with the Collective Efficacy Beliefs Scale. They claimed that most of the significant influences of transformational leadership on team performance were mediated by team potency (β = .36, p < .001). Transformational leadership had a strong impact on team potency in high power distance teams (r = .21, p < .001) and collectivist teams (r = .25, p < .001).

26

Contrary to other previous studies, Gil et al. (2005) studied 318 healthcare professionals in 78 teams in hospitals throughout Spain and hypothesized the influence of leadership on team potency. They used questionnaires to obtain information on the groups. The findings became apparent that high potency teams were less affected by external influences such as leadership than low potency teams. This proved that high potency teams could continue to believe in their success and performance in spite of a difference in leadership styles.

In China, most of studies focus on the role of transformational leadership related to other variables of team outcomes. Jiang (2009) conducted a study to explore the influence of transformational leadership on psychological and behavioral processes as well as team outcomes of performance and learning. He selected employees of 37 organizations in four major cities located in China. The organizations consisted of state-owned, private-owned and foreign-invested enterprises, which were in industries such as manufacturing, financial service, construction and information technology. The results showed that transformational leadership had a positive relation to team outcomes, and team knowledge sharing had particular relevance to team performance when tasks presented high levels of knowledge intensity.

Another study done by Zhang, Tsui, and Wang (2011) aimed to explore the roles that two different leadership styles (transformational and authoritarian) used by Chinese leaders play in group creativity through influencing collective efficacy and knowledge sharing among group members. They selected a sample of 163 work groups involving 973 employees in twelve Chinese companies and found transformational leadership to relate positively but authoritarian leadership to relate negatively to group creativity, mediated by both collective efficacy and knowledge sharing among members within the group.

Overall, several scholars support the influences of transformational leaders' behaviors on team members' belief about their team capacity, but inconsistent findings were seen in the literature review. Little research has been done to explain how transformational leadership influences team processes and operates in teams (Conger, 1999; Dionne, Yammarino, Atwater, & Spangler, 2004; Yukl, 1999). Since team potency is a collective belief of group capability, the gap is that the relationship between

27

transformational leadership and team potency should not only be focused on the individual level but also on the team level. The results of other disciplines may not apply to nursing. In China, little research studied team potency and extended the research area to the nursing profession. Therefore, the study about the relationship between transformational leadership behavior and team potency in the Chinese healthcare setting should be conducted in order to fill the gap of knowledge.

Situations Related to Transformational Leadership of Head Nurses and Team Potency Among Nurses, Shanghai, the People's Republic of China

With the healthcare system reform and increasing health needs for the population, nursing care transforms to "person-central" care. The government states that nursing care service should be closed to patients, to clinic practice, and to the society (MOH, 2013b). The Chinese Ministry of Health has launched a demonstration project and is expanding projects of high quality in nursing care since 2010. The project states that hospitals should reform the nursing service pattern, provide enough nursing staff, and increase the time of direct nursing care.

Nursing shortage is a global problem. Human resources of nursing in China remains at a low level compared with international standards. The World Health Organization set a standard that there must be a minimum of 2 nurses per 1,000 individuals in order for a health care system to run efficiently and meet the population's primary care needs (Yun, Jie, & Anli, 2010). However, in China, there were only 1.52 nurses per 1,000 individuals in 2010 (compared with 9.37 nurses per 1,000 individuals in the United States). The nursing shortage is serious in China. China's number of registered nurses reached 2.49 million at the end of 2012. China aims to bring its nursing population to 2.86 million by 2015, meaning there will be 2.07 nurses for every 1,000 people. Furthermore, the Health Administration Ministry of the People's Republic of China stated that nurse-to-bed ratio should be 0.4:1 in China. However, there are only 0.35 registered nurses per hospital bed in tertiary hospitals of TCM, in Shanghai, while the theoretically standard is 0.45:1 (Zhang et al., 2010). The Chinese Ministry of Health set the standard at two nurses per physician, but the nurse-to-physician ratio in Mainland China and Shanghai was 0.61:1 and 0.86:1 (Cao, Ye, Zhang, Lu, & Sun, 2009). Few hospital budgets can meet this standard.

28

The low level of educational attainments influences the nursing professions development. There are five levels of nursing: nursing assistant, registered nurse (RN), head nurse, nurse supervisor, and nursing director or chief nurse executive. Nursing professionals are categorized into four levels: junior RN, senior RN, nurse in charge and professor nurse. For new nurses, they have to rotate to gain practice experience for one year, then they will be put in a specific ward. The China's nursing education system has four levels including mid-associate degree program, associate degree program, bachelor degree program and graduate program. All of nurses are qualified to apply for Chinese Licensure Examination for Nurses (CLEN) in order to pursue Registered Nurse (RN) employment. According to the statistical data from MOH (2011), there were 46% of RNs who earned mid-associate degrees, 42.5% of RNs received associated program education, and only 8.8% of RNs held a bachelor degree or above. Even though the number with college degrees was increasing, the majority of nurses in China only hold mid-associate degrees or associate degrees. They are restricted in the types of care they can provide. It is necessary to develop the nursing profession in higher education.

Nursing administrators are facing the great challenge of retaining their staff nurses. For most of nurses, the input of their effort in working and what they gain as output are unequal. Sixty six percent of nursing staff are dissatisfied with their jobs because of heavy workload, high-stress working environment, low salary and low social status (Cao et al., 2009). Approximately 62.8% nurses feel burnout and among them 8.79% nurses feel heavy burnout (Luo, 2006). The turnover rate of nurses is also high. In Shanghai, for example, a report shows that the annual turnover rate of nursing staff in healthcare organization is about 10%. These will lead to a set of problems which are related to patients' safety and quality of care and also decrease the working effectiveness of the organizations.

Shanghai, one of the largest cities in mainland China, is located on the east coast of Asia. As we all know, it is not only the citadel of China's modern economy but also influences trade, culture, media, fashion, technology, and transport. The permanent resident population in Shanghai was 23.8 million by the end of 2012, a growth of 41.66% from 16.7 million in 2000. It has 3,358 health facilities, including 308 hospitals, 52,067 physicians, 58,892 nurses and 107,130 hospital beds (National Bureau of

Statistics of Shanghai, 2012). In 2011, the number of visits was 20,205.30 million and the number of inpatients was 268.28 million in Shanghai hospitals (National Bureau of Statistics of Shanghai, 2012). The healthcare system and medical institutions are responding to a heavy load of patients. There is a shortage of 13,300 nursing staff in Shanghai (Cao et al., 2009). At present, there is an increasing emphasis on providing high-quality nursing care (MOH, 2010). A comprehensive nursing care system will be established in Shanghai hospitals and medical bodies by 2015 to ensure patients receive quality medical care.

There are two kinds of hospitals in Shanghai: general hospital and special hospital. All of the hospitals are classified into three types (tertiary hospitals, secondary hospitals, and primary hospitals), based on hospitals' bed numbers, functions, and missions (MOH, 1989). The tertiary hospital serves all people across the country and the bed number is more than 501. It provides advanced medical care, higher quality of healthcare services, medical education and scientific research. The secondary hospital serves multi-communities and the bed number ranges from 101 to 500. It provides comprehensive medical services in addition to certain education and research. The primary hospital serves small communities and has a bed number of less than 100. It provides basic medical services. The Chinese Ministry of Health evaluates each hospital's quality of health care services, organizational administration, and medical equipment and then classifies the hospital into Level-A, Level-B or Level-C (MOH, 1989). Level-A hospitals are concerted as having a high quality of healthcare service, good organizational administration, and advanced medical equipment, followed by Level-B hospitals and Level-C hospitals.

Shanghai University of Traditional Chinese Medicine (TCM) is a multidiscipline higher medical institution of TCM in mainland China which was founded in 1956. There are five general hospitals affiliated with Shanghai University of TCM and serve as institute-affiliated medical centers that combine health care, education and scientific research. They include: 1) Longhua Hospital Shanghai University of TCM; 2) Shanghai Shuguang Hospital affiliated with Shanghai University of TCM; 3) Shanghai Hospital of TCM; 4) Yueyang Hospital of Integrated Traditional Chinese and Western Medicine, Shanghai University of TCM; and 5) Putuo District Center Hospital. All of them are

30

Level-A general hospitals. The first four of these five hospitals are tertiary hospitals. The last one is a secondary hospital. This study will just focus on Level-A tertiary hospitals.

All types of hospitals have nursing teams to provide patient care. In nursing teams, the relationship between head nurses and staff nurse is complicated. Management conflict commonly existed between head nurses and staff nurses in Shanghai. Zhang, Ding, Gong, and Wang (2011) did research which involved 486 head nurses within 36 hospitals in Shanghai, and found that moderate level conflict existed between head nurses and their staff nurses. They analyzed the causes of this conflict and concluded that they were due to head nurses' emotion, shift scheduling, benefits, punishments, organizational justice and so on. Many head nurses had the wrong thought that the relationship between themselves and their subordinates was "manage" and "be managed". Therefore, the task conflict easily transformed to relationship conflict which threatened team potency among nursing teams.

In summary, reinforcing the transformational leadership of head nurses and team potency in healthcare organizations to improve the effectiveness of nursing teams is very important. Although these two variables were often identified as determinants of team effectiveness, they were seldom examined together. It is meaningful to explore the relationship between transformational leadership and team potency in Shanghai.

Research Conceptual Framework

Transformational leadership was defined based on Kouzes and Posner (1995, 2002) which referred to the collective practices and behaviors of transformational leaders. It included five sub-dimensions: "Model the way", "Inspire a shared vision", "Challenge the process", "Enable others to act", and "Encourage the heart". Team potency was defined based on Guzzo et al. (1993). It referred to the collective belief in a team that it could be effective and demonstrates the team's confidence in its general capability. More transformational leadership was expected to exhibit higher levels of team potency and vice versa. Transformational leadership might influence team potency by enhancing team capacities. The relationship between the transformational leadership of head nurses and team potency as perceived by nursing teams in China was tested.

31