

**Head Nurses' Authentic Leadership and Group Cohesion as Perceived by Nurses
in Tertiary Hospitals in Yunnan Province, China**
ภาวะผู้นำที่แท้จริงของหัวหน้าพยาบาลและความเห็นใจแย่ในกลุ่มตามการรับรู้ของพยาบาล
ในโรงพยาบาลติดภูมิในจังหวัดยูนนาน สาธารณรัฐประชาชนจีน

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Abstract

Group cohesion is an important factor in a nursing organization which can encourage nurses to perform creative and complex work. The purposes of this descriptive correlational study were to examine the levels of head nurses' authentic leadership and levels of group cohesion, and to explore the relationships between head nurses' overall authentic leadership, each dimension of authentic leadership and overall group cohesion as perceived by nurses in tertiary hospitals in Yunnan Province, China. The sample consisted of 362 nurses working in provincial tertiary hospitals in Kunming City, Yunnan Province, China. The research instruments included: 1) Authentic Leadership Questionnaire (ALQ) translated into Chinese by Walumbwa et al. (2008); and 2) Group Environment Questionnaire (GEQ) revised by Eys et al. (2007) and translated from English to Chinese by this researcher. The Cronbach's alpha coefficient for the ALQ was .97, and for the subscales of self-awareness, international moral perspective, balanced processing and relational transparency were .91, .89, .89, and .94, respectively. The Cronbach's alpha coefficient for GEQ was .98, and for the subscales of GI-T, ATG-T, GI-S, and ATG-S were .93, .97, .86, and .88, respectively. Data were analyzed by descriptive statistics and Spearman's rank-order correlation.

The results of this study were as follows:

1. Nurses in Yunnan Province perceived head nurses' leadership and the dimensions of self-awareness, balanced processing, relational transparency at a moderate level ($\bar{X} = 2.41$, $SD = 0.52$; $\bar{X} = 2.23$, $SD = 0.65$; $\bar{X} = 2.25$, $SD = 0.67$; $\bar{X} = 2.31$, $SD = 0.61$, respectively). However, the dimension of international moral perspective was at a high level ($\bar{X} = 2.84$, $SD = 0.74$).

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Received 11 June 2018; Revised 12 July 2018; Accepted 26 July 2018

2. Nurses perceived overall group cohesion and the dimensions of Group Interaction-Task (GI-T), Individual Attractions to the Group-Task (ATG-T), Group Interaction-Social (GI-S), and Individual Attractions to the Group-Social (ATG-S) at a moderate level ($\bar{X} = 5.91$, SD = 1.14; $\bar{X} = 6.07$, SD = 1.22; $\bar{X} = 6.02$, SD = 1.27; $\bar{X} = 5.48$, SD = 1.29; $\bar{X} = 6.02$, SD = 1.21, respectively).

3. There were moderate level of association between head nurses' overall authentic leadership, the dimensions of self-awareness, international moral perspective, balanced processing, relational transparency and overall group cohesion as perceived by nurses ($r_s = .42$, $p < .01$; $r_s = .33$, $p < .01$; $r_s = .46$, $p < .01$; $r_s = .30$, $p < .01$; $r_s = .35$, $p < .01$, respectively).

The findings of this study could be good for nurse managers in that they can promote nursing group cohesion by encouraging head nurses to use authentic leadership styles.

Keywords: Authentic leadership, Group cohesion, Nurse, Tertiary Hospital, China

บทคัดย่อ

ความเห็นใจแหน่งในกลุ่มเป็นปัจจัยสำคัญในองค์กรพยาบาลที่กระตุ้นให้พยาบาลปฏิบัติงานที่สร้างสรรค์และซับซ้อนได้ การศึกษาเชิงพรรณนาหาความสัมพันธ์ครั้งนี้มีวัตถุประสงค์เพื่อ ศึกษาระดับภาวะผู้นำที่แท้จริงของหัวหน้าตึกและระดับความเห็นใจแหน่งในกลุ่ม และศึกษาความสัมพันธ์ระหว่างภาวะผู้นำที่แท้จริงโดยรวมและรายด้านกับความเห็นใจแหน่งในกลุ่มโดยรวมตามการรับรู้ของพยาบาล ในโรงพยาบาลตติยภูมิ จังหวัดยุนนาน สาธารณรัฐประชาชนจีน กลุ่มตัวอย่างคือ พยาบาลจำนวน 362 คน ที่ทำงานในโรงพยาบาลตติยภูมิในเมืองคุนหมิง จังหวัดยุนนาน สาธารณรัฐประชาชนจีน เครื่องมือที่ใช้ในการวิจัยประกอบด้วย 1) แบบสอบถามภาวะผู้นำที่แท้จริง (ALQ) แปลเป็นภาษาจีนโดยวัลลัมบ์วา และคณะ (Walumbwa et al., 2008) 2) แบบสอบถามบรรยาศภัยในกลุ่ม (GEQ) ฉบับปรับปรุงแก้ไขโดยอีซ์ และคณะ (Eys et al., 2007) แปลจากภาษาอังกฤษเป็นภาษาจีนโดยผู้วิจัย ค่าสัมประสิทธิ์อัลฟากองบากของแบบสอบถาม ALQ เท่ากับ .97 และองค์ประกอบด้านการตระหนักในตนเอง ด้านการมองศีลธรรมในระดับนานาชาติ ด้านกระบวนการที่สมดุล และด้านความโปร่งใสเชิงสัมพันธ์ มีค่าเท่ากับ .91, .89, .89 และ .94 ตามลำดับ ส่วนค่าสัมประสิทธิ์อัลฟากองบากของแบบสอบถาม GEQ เท่ากับ .98 และองค์ประกอบด้าน GI-T, ATG-T, GI-S และ ATG-S มีค่าเท่ากับ .93, .97, .86 และ .88 ตามลำดับ วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา และสัมประสิทธิ์สหสัมพันธ์ของสเปียร์แมน

ผลการศึกษาพบว่า

1. พยาบาลในจังหวัดยุนนานรับรู้ภาวะผู้นำที่แท้จริงโดยรวมของหัวหน้าพยาบาล และองค์ประกอบด้านการตระหนักในตนเอง ด้านกระบวนการที่สมดุล และด้านความโปร่งใสเชิงสัมพันธ์ อยู่ในระดับปานกลาง ($\bar{X} = 2.41$, SD = 0.52; $\bar{X} = 2.23$, SD = 0.65; $\bar{X} = 2.25$, SD = 0.67; $\bar{X} = 2.31$, SD = 0.61, ตามลำดับ) ส่วนด้านการมองศีลธรรมในระดับนานาชาติมีการรับรู้อยู่ในระดับสูง ($\bar{X} = 2.84$, SD = 0.74)

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2. พยาบาลมีการรับรู้ความเห็นใจแన่นในกลุ่มโดยรวม และองค์ประกอบด้านการรับรู้ปฏิสัมพันธ์กลุ่มด้านงาน (GI-T) ด้านแรงดึงดูดของบุคคลต่อกลุ่มด้านงาน (ATG-T) ด้านปฏิสัมพันธ์กลุ่มด้านสังคม (GI-S) และด้านแรงดึงดูดของบุคคลต่อ กลุ่มด้านสังคม (ATG-S) อยู่ในระดับปานกลาง ($\bar{X} = 5.91$, $SD = 1.14$; $\bar{X} = 6.07$, $SD = 1.22$; $\bar{X} = 6.02$, $SD = 1.27$; $\bar{X} = 5.48$, $SD = 1.29$; $\bar{X} = 6.02$, $SD = 1.21$, ตามลำดับ)

3. ภาวะผู้นำที่แท้จริงโดยรวมของหัวหน้าพยาบาลและองค์ประกอบในด้านการตระหนักในตนเอง ด้านการมองศีลธรรมในระดับนานาชาติ ด้านกระบวนการที่สมดุล และด้านความโปร่งใสเชิงสัมพันธ์ มีความสัมพันธ์ทางบวกในระดับปานกลางต่อความเห็นใจแnanในกลุ่มโดยรวมตามการรับรู้ของพยาบาล ($rS = .42$, $p < .01$; $rS = .33$, $p < .01$; $rS = .46$, $p < .01$; $rS = .30$, $p < .01$; $rS = .35$, $p < .01$, ตามลำดับ)

ผลการวิจัยครั้งนี้จะเป็นประโยชน์ต่อผู้บริหารทางพยาบาลในการส่งเสริมให้เกิดความเห็นใจแnanในกลุ่มพยาบาล โดยการกระตุ้นให้หัวหน้าพยาบาลได้ใช้รูปแบบภาวะผู้นำที่แท้จริง

คำสำคัญ: ภาวะผู้นำที่แท้จริง ความเห็นใจแnanในกลุ่ม พยาบาล โรงพยาบาลตติยภูมิ สาธารณรัฐประชาชนจีน

Background and Significance

Nowadays, with the rising demands and rapid changes in healthcare systems, instructions must focus on quality of healthcare services to improve competitive competency (Yusefi, Bastani, Bordbar, Sadeghi, & Hesami, 2018). To meet these needs, Chinese healthcare organizations launched the project “High Quality of Nursing Care” in 2011 (Ministry of Health of China [MOPH], 2018), which requires nurses to provide a holistically continuous quality of care. It is a requirement for providing high quality of care that relies on group cohesion (Sanko, 2015). Nursing groups with low levels of cohesion show less willingness to work together and more willingness to work in an uncoordinated effort, which can decrease the quality of care, such as by failing to prevent adverse events; however, a cohesive group performs better, and improves patient satisfaction and the quality of care outcomes (Kosiol & Fitzgerald, 2017). Moreover, different meta analyses suggest that group cohesion is a supportive and empowered mechanism which promotes nurses’ problem-solving performance to achieve group success, enhancing nurses’ satisfaction and engagement, and increasing intent to stay, which leads to lower turnover and burnout (Ko, 2011; Li, Early, Mahrer, Klaristenfeld, & Gold, 2014).

Group cohesion has been defined as “a dynamic process that is reflected in the tendency of a group to stick together and remain united in the pursuit of its goals and objectives or for the satisfaction of member needs” (Carron, Widmeyer, & Brawley, 1985). In China, about 98.2% of nurses were female (MoH, 2018), and females typically express more cohesiveness (Valentova, 2016). China also has a long history of collectivist culture that emphasizes solidarity (Liang, Wu, & Zhang, 2018). However, group

cohesion is a worldwide issue in healthcare organizations, and nurses perceived lower levels of group cohesion compared with other healthcare professions (Kosiol & Fitzgerald, 2017). Additionally, Chinese nurses are less attracted to nursing groups since nurses have high workloads and low social and professional status (MoH, 2018). A study of nurses in Yunnan Province showed group cohesion was at a moderate level; nurse’ experience, status, support from nurse managers, and opportunity to participate in decision-making could result in a lack of group cohesion (Wang, 2017). Thus, nurse managers should be encouraged to identify various strategies to improve group cohesion and develop a support system for nurses.

In order to improve group cohesion, this study focused on authentic leadership since leaders’ authentic behaviors can promote followers’ self-disclosure, sharing, trust, group identification, good psychological capabilities and relationships. These, in turn, achieve group cohesion, making it easier to cultivate and manage (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008; García- Guiu, Molero, & Moriano, 2015).

Walumbwa et al. (2008) defined authentic leadership as “a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development”. Literature on empirical studies identified that authentic leadership is directly related to positive organizational behaviors such as organizational identification, commitment and citizenship behavior (Benson, Eys, & Irving, 2016), and enhances

followers' engagement, job satisfaction and performance (Liu, 2016). Previous studies showed different levels of authentic leadership in different countries (Regan, Laschinger, & Wong, 2016; Dirik & Intepeler, 2017; Malik, Dhar, & Handa, 2016). Chinese traditional Confucianism, Tao Te Ching and hierarchy have a certain influence on authentic leadership (Zhang, Everett, Elkin, & Cone, 2012). Up to now, little is known about authentic leadership in China, only one study was found in the nursing field, and the application of authentic leadership in Yunnan is unknown.

Three studies have shown a positive relationship between authentic leadership and group cohesion. Houchin (2011) was the first person to examine this relationship in sports teams where there was a significant positive relationship between authentic leadership and group cohesion ($r = .34$, $p < .01$). García-Guiu, Molero, Moya, et al. (2015) focused on security and emergency teams and confirmed that authentic leadership had a direct positive correlation with group cohesion ($r = .53$, $p < .01$). García-Guiu, Molero, and Moriano (2015) also studied 210 staff members at Spanish companies with results that showed that a significant direct relationship between authentic leadership and group cohesion ($r = .40$, $p < .01$). However, the nursing group differs from the sample groups in the above studies since the majority of nurses are female. Thus, this study examined the overall effect, as well as the effect of each dimension of authentic leadership on group cohesion in the nursing field in Yunnan Province.

Objectives

This study aimed to explore nurses' perceptions of the authentic leadership of their head nurses and group cohesion in tertiary

hospitals in Yunnan Province, China. It further examined the relationship between overall authentic leadership and each dimension of head nurses' authentic leadership and overall group cohesion.

Conceptual Framework

The conceptual framework was based on Walumbwa et al.'s authentic leadership model (2008) and Carron et al.'s group cohesion model (1985). Authentic leadership was defined as a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to more greatly foster the four dimensions of self-awareness, internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development. Group cohesion was defined as a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives or for the satisfaction of member needs. It consisted of GI-T, ATG-T, GI-S and ATG-S. Head nurses' authentic leadership and its dimensions provide a supportive group environment and good member relationships for nurses maintaining involvement in the group; thus, group cohesion can be promoted.

Methodology

Population and Sample

This descriptive correlational study was designed to study a population of 2,823 inpatient nurses who worked in three tertiary hospitals in Yunnan Province.

The sample subjects were 350 nurses. A multistage sampling technique was used to select the sample (a proportionate sampling

method was used to determine the number of nurses needed in each hospital; proportional stratified random sampling method was employed to determine the number of nurses selected from inpatient units of each hospital; and randomly drawn sampling determined nurses from the name list in the nursing departments in each hospital until the required number of nurses was obtained). Nurses who were willing to participate and had worked for more than one year were included in the study.

Research Instruments

The instruments used in this study included three parts:

1. The Demographic Data Form.
2. The Authentic Leadership Questionnaire (ALQ) developed by Walumbwa et al. (2008) with a total of 16 items (self-awareness: 4 items; moral perspective: 4 items; balanced processing: 3 items; relational transparency: 5 items) using a five-point Likert scale ranging from 0 (not at all) to 4 (frequently), with higher scores reflecting greater authentic leadership.
3. The Group Environment Questionnaire (GEQ) revised by Eys et al. (2007) and including GI-S (4 items); ATG-S (5 items); GI-T (5 items) and ATG-T (4 items). Responses were measured on a scale from 1 (strongly disagree) to 9 (strongly agree), and a higher score meant a higher level of group cohesion. The validity of all instruments was proven in previous studies (Walumbwa et al., 2008; Carron et al., 1985). In this study, the Cronbach's alpha coefficient of the ALQ was .97, and for the subscales of self-awareness, international moral perspective, balanced processing and relational transparency were .91, .89, .89, and .94, respectively. The Cronbach's alpha coefficient for GEQ was .98, and the subscales of GI-T, ATG-T, GI-S, and ATG-S were .93, .97, .86, and .88, respectively.

Ethical Considerations

The study was approved by the Institutional Review Board of the Faculty of Nursing, Chiang Mai University, Thailand. Permission to collect data was obtained from the selected hospitals. Participants were informed of the purposes of the study and methods of data collection, and voluntary participation was assured through a consent form. Anonymity and confidentiality of all the information was maintained by using numerical codes in the questionnaires instead of using participants' names.

Data Collection

Data collection was carried out by the researcher and two coordinators from the hospitals who were charged with voluntarily distributing and collecting research packages, which included a cover letter, a consent form, and a questionnaire. The participants were asked to return the questionnaires in a sealed envelope to the researcher or coordinators within two weeks. Almost all questionnaires distributed (89. 29%) were returned and 362 completed questionnaires (86. 19%) were used for data analysis.

Data Analysis

The study used Social Sciences (SPSS) 13.0 to analyze data. Demographic data were analyzed by using frequency, percentage, range, mean and standard deviation. The overall and separate dimensions of authentic leadership of head nurses and nurses perceived group cohesion were analyzed using mean and standard deviation. Spearman's Rank-Order correlation was used to examine the relationships between authentic leadership and group cohesion since Kolmogorov-Smirnov's (KS) test showed data was non-normally distributed.

Results

Demographic data: the average age of nurses was 31.74 years old ($SD = 7.21$), and over half of them (74.86%) were less than 35 years old. The majority of nurses (95.58%) were

female. Most of the nurses (69.06%) had worked less than 10 years. The largest group of nurses (64.36%) worked on a rotating shift. More than half (62.98%) were temporary nurses.

Table 1 Mean, Standard Deviation and Level of Head Nurses' Overall and Separate Dimensions of Authentic Leadership as Perceived by Participants ($n = 362$)

| Authentic Leadership | \bar{X} | SD | Level |
|---------------------------------|-----------|------|----------|
| Overall authentic leadership | 2.41 | 0.52 | Moderate |
| Self-awareness | 2.23 | 0.65 | Moderate |
| International moral perspective | 2.84 | 0.74 | High |
| Balanced processing | 2.25 | 0.67 | Moderate |
| Relational transparency | 2.31 | 0.61 | Moderate |

Head nurses' overall and separate dimensions of authentic leadership as perceived by participants in Table 1 showed that nurses perceived overall authentic leadership of head nurses was at a moderate level, and the self-awareness, balanced processing, and relational transparency

dimensions were at moderate levels ($\bar{X} = 2.41$, $SD = 0.52$; $\bar{X} = 2.23$, $SD = 0.65$; $\bar{X} = 2.25$, $SD = 0.67$; $\bar{X} = 2.31$, $SD = 0.61$, respectively), while the international moral perspective was at a high level ($\bar{X} = 2.84$, $SD = 0.74$).

Table 2 Mean, Standard Deviation and Level of Overall and Each Dimension of Group Cohesion as Perceived by Participants ($n = 362$)

| Group Cohesion | \bar{X} | SD | Level |
|---|-----------|------|----------|
| Overall group cohesion | 5.91 | 1.14 | Moderate |
| Group Interaction-Task (GI-T) | 6.07 | 1.22 | Moderate |
| Individual Attraction to the Group-Task (ATG-T) | 6.02 | 1.27 | Moderate |
| Group Interaction-Social (GI-S) | 5.48 | 1.29 | Moderate |
| Individual Attraction to the Group-Social (ATG-S) | 6.02 | 1.21 | Moderate |

Overall and each separate dimension of group cohesion as perceived by participants in Table 2 showed that nurses perceived overall group cohesion and the GI-T, ATG-T, GI-S and

ATG-Sat a moderate level ($\bar{X} = 5.91$, $SD = 1.14$; $\bar{X} = 6.07$, $SD = 1.22$; $\bar{X} = 6.02$, $SD = 1.27$; $\bar{X} = 5.48$, $SD = 1.29$; $\bar{X} = 6.02$, $SD = 1.21$, respectively).

Table 3 Relationships Between Head Nurses' Overall and Each Dimension of Authentic Leadership and Overall Group Cohesion as Perceived by Participants (n = 362)

| Authentic Leadership | Group Cohesion (overall) |
|---------------------------------|--------------------------|
| Overall authentic leadership | .42** |
| Self-awareness | .33** |
| International moral perspective | .46** |
| Balanced processing | .30** |
| Relational transparency | .35** |

** p < .01

Overall and each separate dimension of authentic leadership and overall group cohesion as perceived by participants in Table 3 showed that there were moderately positive relationships between head nurses' overall authentic leadership and each dimension of authentic leadership and overall group cohesion.

Discussion

Authentic leadership

The results of this study showed that the nurse's perception of head nurses' authentic leadership was at a moderate level. This was consistent with Regan et al. (2016) findings in Canada, but incongruent with the results of studies conducted in Turkey and India (Dirik & Intepeler, 2017; Malik et al., 2016). The findings could be explained by Chinese culture. Chinese humanistic management of hospitals encourages head nurses to focus more on improving relationships and communicating openly with nurses (Zhenxiang, 2014). Furthermore, head nurses who have received administrative training realize that authentic leadership is an effective management method (MoH, 2018). However, obtaining authenticity is more challenging for female leaders than it is for male leaders, since qualities such as relationality and rationality are mainly attributed to men (Eagly, 2005).

Among the four dimensions of authentic leadership, self-awareness was at a moderate level. This is likely because Chinese Confucianism suggests that daily examination of one's actions will correct views or behaviors over time (Zhang et al., 2012). However, Chinese traditional hierarchy emphasizes obedience; nurses are expected to unquestionably obey orders from head nurses (Zhang et al., 2012) which may hinder head nurses' motivation to be aware of their behavior. The international moral perspective was at a high level. The possible reason may be due to China using Tao Te (morality) Ching as cultural value to regulate quality of care in Chinese hospital. Polsa, Fuxiang, Saaksjarvi, & Shuyuan (2013) mentioned that Chinese cultural value will influence hospital managers' behaviors as manifest themselves in caring and nurturing for others. Thus, this Chinese culture might promote head nurses to go beyond their own self-interests and act with high moral standards and core values, and to motivate nurses to do the same. However, in this study, 50% of head nurses are young, young head nurses would lack experience and comprehensive consideration to make decisions (Zhang & Jiang, 2015). Relational transparency was at a moderate level. This may relate to head nurses accurately sharing and delivering hospital policies or measures to nurses on time. This

statement was supported by the result of item respond which illustrated that 61.05% of nurses reporting that head nurses say exactly what he or she means in this study. However, for saving "face", the Chinese rarely admit their mistakes in public (Martinsons, Davison, & Huang, 2017), and it is hard for head nurses to admit mistakes.

Group cohesion

The results of this study showed that nurses perceived overall group cohesion was at a moderate level. This finding is similar to the results of previous studies (Ko, 2011; Risman, 2014; Wang, 2017). Yet, it's inconsistent with the results of Sanko's (2015) and Hildebrandt's (2015) studies, in which group cohesion was at a high level. This may because a strong collectivist culture in China advocates that nurses work interdependently and help maintain a good relationship with each other (Liang et al., 2018). However, in this study 62.98% of nurses are temporary nurses (TN), receiving lower benefits, such as medical insurance or opportunities, than permanent nurses (PN). Dissimilarity from PN felt by TN can lead to weak group cohesiveness (Dansby, Stewart, & Webb, 2012).

All dimensions of group cohesion were at a moderate level. The possible reason for this finding may be due to the fact that the majority of nurses in this study (95.58%) were female, and females tend to show more cohesive attitudes, especially a willingness to help others, than males (Valentova, 2016). Moreover, in Chinese hospitals, units can give nurses enough opportunities to improve their personal performance such as attending conferences and studying for higher education, and also hold a variety of activities, such as climbing mountains or having dinners, which help nurses related to one another better, cultivating good group spirit

and increasing nurses' unity. In addition, 66.02 % of nurses state that their best friends were in the same group with them, and this social relationship may be the reason they are attracted to nursing groups. However, 69.06 % of nurses in this sample had been working less than 10 years; nurses who have less experience had lower unity and task cohesion with their unit (Ko 2011; Benson et al., 2016). In addition, the largest group of nurses in this study (64.36%) worked on rotating shifts, but nurses typically dislike night shifts due to sleep deprivation (Hu, 2017) . Moreover, 74.86% of nurses in this study were less than 35 years old, and younger people tend to have a weaker sense of social cohesion than older people (Cramm & Nieboer, 2013). Furthermore, more than 82% of nurses in this study thought that they had low social status and received less respect from patients and communities which meant that they couldn't enjoy being a part of the social activities of the group .

Relationship between authentic leadership and group cohesion

There were moderately positive relationships between the overall and each specific dimension of authentic leadership and group cohesion in this study. This finding is consistent with the results of studies which were conducted among other professions (Houchin, 2011; García-Guiu, Molero, Moya, et al., 2015; García-Guiu, Molero & Moriano, 2015). The reason may be as follows.

Head nurses with a high level of self-awareness understand their strengths and weaknesses, and the effect on their staff, which contributes to nurses remaining in their group, and promotes nurses' self-regulation to understand their mission and responsibilities, and improve interpersonal relationships at work

(Walumbwa et al., 2008; Regan et al., 2016). Head nurses who act with deep personal values, convictions and morals, fostered positive psychological potential, respect, and trust among nurses, creating a good environment and promoting greater incentive to remain in the group (Liu, 2016). When head nurses with balanced processing cultivate a fair and attractive work climate, group cohesion improved; nurses perceive their interests were being considered more fully, and feel motivated to stay involved in the group (Agote, Aramburu, & Lines, 2016). Head nurses with relational transparency present their true self, practice open communication, share information to heighten levels of nurses' group identification, promote trust and relationships, and create the ideal group environment to promote group cohesion (Walumbwa et al., 2008; García-Guiu, Molero, & Moriano, 2015). In other words, authentic behaviors foster agreement with group goals, inspire positive psychological capacities, create a good climate and relationships, and shape group commitment and identity.

Conclusion

Nurses at tertiary hospitals in Yunnan perceived head nurses' overall authentic leadership at a moderate level. They also perceived that self-awareness, balanced processing and relational transparency were at a moderate level. However, the international moral per-

spective was at a high level. Nurses perceived overall group cohesion and each specific dimension of group cohesion at a moderate level. There was a moderate positive relationship between head nurses' overall authentic leadership and each dimension of authentic leadership, and overall group cohesion as perceived by nurses.

Application of Research Findings

Nurse administrators should enhance self-awareness, balanced processing, and relational transparency in head nurses through training, encouragement, improving educational levels, (especially for graduate study), and increasing competition. Units should provide enough resources to support nurses including fair improvement opportunities and salary, activities, appropriate courses, motivation, adequate nurses, improving education level, good communication and so on. With adequate support, nurses have more confidence in nursing groups and patient care.

Recommendations for Future Research

Studies of head nurses' authentic leadership and group cohesion should be explored in primary, secondary, or other tertiary hospitals in other regions in China. Future research should explore other factors related to group cohesion, especially for predictive studies on the factors related to group cohesion among nurses.

References

Agote, L., Aramburu, N., & Lines, R. (2016). Authentic leadership perception, trust in the leader, and followers' emotions in organizational change processes. *The Journal of Applied Behavioral Science*, 52(1), 35-63.

Benson, A. J., Eys, M. A., & Irving, P. G. (2016). Great expectations: How role expectations and role experiences relate to perceptions of group cohesion. *Journal of Sport and Exercise Psychology*, 38(2), 160-172.

Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1985). The development of an instrument to assess cohesion in sport teams: The group environment questionnaire. *Journal of Sport Psychology*, 7(3), 244-266.

Cramm, J. M., & Nieboer, A. P. (2013). Relationships between frailty, neighborhood security, social cohesion and sense of belonging among community-dwelling older people. *Geriatrics & Gerontology International*, 13(3), 759-763.

Dirik, H. F., & Intepeler, S. S. (2017). The influence of authentic leadership on safety climate in nursing. *Journal of Nursing Management*, 25(5), 392-401.

Eagly, A. H. (2005). Achieving relational authenticity in leadership: Does gender matter? *The Leadership Quarterly*, 16(3), 459-474.

Eys, M. A., Carron, A. V., Bray, S. R., & Brawley, L. R. (2007). Item wording and internal consistency of a measure of cohesion: The group environment questionnaire. *Journal of Sport and Exercise Psychology*, 29(3), 395-402.

García-Guiu, C., Molero, F., & Moriano, J. A. (2015). Authentic leadership and its influence on group cohesion and organizational identification: The role of organizational justice as a mediating variable. *Revista de Psicología Social*, 30(1), 60-88.

García-Guiu, C., Molero, F., Moya, M., & Moriano, J. A. (2015). Authentic leadership, group cohesion and group identification in security and emergency teams. *Psicothema*, 27(1), 59-64.

Hu, D. R. (2017). Effect of sleep deprivation on sleep quality, emotional state and self-efficacy of night nurses. *Chinese Convalescence Medicine*, 26(03), 312-314. (in Chinese)

Houchin, G. (2011). *Authentic leadership in sports teams* (Unpublished master's thesis). The University of Tennessee at Chattanooga, USA.

Investigation Report on the Development of Chinese Nurses' Group (IRDCNG). (2017). Retrieved from <http://news.xinhuanet.com/gongyi>

Ko, Y. K. (2011). Group cohesion and social support of the nurses in a special unit and a general unit in Korea: Group cohesion and social support of nurses in Korea. *Journal of Nursing Management*, 19(5), 601-610.

Kosiol, J., & Fitzgerald, A. (2017). *Resilience and team cohesion amongst senior nurses*. Unpublished manuscript.

Li, A., Early, S. F., Mahrer, N. E., Klaristenfeld, J. L., & Gold, J. I. (2014). Group cohesion and organizational commitment: Protective factors for nurse residents' job satisfaction, compassion fatigue, compassion satisfaction, and burnout. *Journal of Professional Nursing, 30*(1), 89–99.

Liang, X., Wu, S., & Zhang, S. (2018). From friendship to family: Jiangyiqi and strong interpersonal relationship development in Chinese organizations. *Management and Organization Review, 14*, 1-29.

Liu, J. (2016). Influence of authentic leadership on nurses' job burnout and turnover intention. *Chinese Nursing Research, 30*(8), 2752-2755. (in Chinese)

Loci, S. (2017). Authentic leadership: How personal legacy, education, and identity contribute to the level of unique vision. *Dynamic Relationships Management Journal, 6*(1). doi: 10.17708/DRMJ.2017.v06no1a04

Malik, N., Dhar, R. L., & Handa, S. C. (2016). Authentic leadership and its impact on creativity of nursing staff: A cross sectional questionnaire survey of Indian nurses and their supervisors. *International Journal of Nursing Studies, 63*, 28-36.

Martinsons, M. G., Davison, R. M., & Huang, Q. (2017). Strategic knowledge management failures in small professional service firms in China. *International Journal of Information Management, 37*(4), 327-338.

Ministry of Health of China. (2018). *The trial draft of promotion of quality care and transcript of the National Health Council's regular press conference*. Retrieved from <http://www.nhfpc.gov.cn/>. (in Chinese)

Regan, S., Laschinger, H. K. S., & Wong, C. A. (2016). The influence of empowerment, authentic leadership, and professional practice environments on nurses' perceived interprofessional collaboration. *Journal of Nursing Management, 24*(1), E54–E61.

Risman, K. L. (2014). *Individual empathy, person-organization fit, and patient care quality: The moderating effect of cohesion* (Unpublished doctoral dissertation). University of Akron, USA.

Sanko, J. S. (2015). *Exploring the cohesion-performance relationship in inter-professional healthcare teams* (Unpublished doctoral dissertation). University of Miami, USA.

Polsa, P., Fuxiang, W., Saaksjarvi, M., & Shuyuan, P. (2013). Cultural value and health service quality in China. *International Journal of Health Care Quality Assurance, 26*, 55-73.

Valentova, M. (2016). How do traditional gender roles relate to social cohesion? Focus on differences between women and men. *Social Indicators Research, 127*(1), 153-178.

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management, 34*(1), 89–126.

Wang, X. L. (2017). *Conflict management and perceived team cohesion of nurses in affiliated hospitals of Dali University, The People's Republic of China* (Unpublished master's thesis). Chiang Mai University, Thailand.

Yusefi, A. R., Bastani, P., Bordbar, S., Sadeghi, A., & Hesami, S. Z. (2018). The effects of health system reform plan implementation on the performance indicators of public hospitals. *Health Scope International Quarterly Journal*, 7(S), e62566. doi: 10.5812/jhealthscope.62566

Zhang, H., Everett, A. M., Elkin, G., & Cone, M. H. (2012). Authentic leadership theory development: Theorizing on Chinese philosophy. *Asia Pacific Business Review*, 18(4), 587-605.

Zhang, J. C. & Jiang, D. H. (2015). Problems and measures of young head nurses in nursing management. *World Latest Medicine*, 15(77), 135-136. (in Chinese)

Zhenxiang, R. (2014). *Construction of hospital organizational culture after transformation of public hospitals: The case of R Hospital* (Unpublished doctoral dissertation). ISCTE-Instituto Universitario de Lisboa, Portugal.