Surgical patients’ experiences of readiness for hospital discharge and perceived quality of discharge teaching in acute care hospitals

Nurhayati Nurhayati1 | Praneed Songwathana2 | Ratjai Vachprasit2

1Faculty of Nursing, Prince of Songkla University, Hat Yai, Thailand
2Faculty of Nursing, Adult and Elderly Nursing Department, Prince of Songkla University, Hat Yai, Thailand

Correspondence
Nurhayati Nurhayati, Faculty of Nursing, Prince of Songkla University, Hat Yai, Thailand.
Email: nurhayati_ns@yahoo.com

Funding information
The financial support of this study was provided by the Higher Education Research Promotion and the Thailand's Education hub for Southern Region of ASEAN Countries Project Office of the Higher Education Commission.

Abstract

Aims and objectives: To examine the level of perception of the quality of discharge teaching and its associations with the readiness for hospital discharge among surgical patients in acute care hospitals.

Background: Discharge teaching is a primary strategy to facilitate patients’ readiness for hospital discharge. The extent to which the surgical ward was perceived as providing patient-focused education when discharged has never been explored. Its impact on a patient’s readiness is also unknown in the Indonesian context.

Design: A correlational descriptive study was used to collect data from four hospitals in Indonesia.

Methods: Ninety-six surgical patients who were in the discharge process enrolled in this study. The demographic form, the quality of discharge teaching scale (QDTS) and the readiness for hospital discharge scale (RHDS) were utilised for data collection. Data were collected from January–February 2018. Descriptive statistics and Spearman rank-order correlation were applied for data analysis.

Results: The discharge teaching quality was perceived as being at a low level. The readiness for hospital discharge was reported to be at a moderate level. Overall, the discharge teaching quality was not statistically associated with the patients’ readiness. However, positive correlations were found in QDTS and RHDS subscales such as content received and delivery, knowledge, coping ability and expected support. Patient’s readiness for hospital discharge was also greater for those who had a caregiver, a short hospital stay, a health insurance and occupation.

Conclusions: Surgical patients perceived a low quality of discharge teaching, which may decrease their readiness for hospital discharge.

Relevance to clinical practice: This study provides baseline information reflecting the patient learning needs in discharge preparation to guide surgical nurses for improving the discharge teaching quality and enhancing the patients’ readiness for hospital discharge.

KEYWORDS
abdominal surgery, discharge readiness, surgical patients, teaching quality
1 | INTRODUCTION

Hospital discharge is the transition phase for the patient and caregiver, during which the nurse needs to be involved in implementing and preparing patients for discharge. In Indonesia, over 50% of nurses in the surgical ward play their role as a nurse educator during the discharge planning period (Pertiwiwati & Rizany, 2017). Two aspects that are most important in discharge education are the information content and the delivery methods that have been used in the clinical practice (Maloney & Weiss, 2008; Weiss et al., 2007). During the transition process, patients who were unready for hospital discharge have a high risk of developing new healthcare issue at home (Rydeman & Törnkvist, 2010; Weiss, Costa, Yakusheva, & Bobay, 2014) that could affect the rate of hospital re-visit within 6 weeks (Coffey & McCarthy, 2013).

2 | BACKGROUND

Nowadays, patients tend to leave hospital earlier and continue their healthcare recovery and rehabilitation at home. This hospital transition to home is regarded as a critical process for the patient in the trajectory of acute care. Reasons for a patient to be discharged earlier include the following: the priorities of the hospital in regarding shorter stays, bed availability, health insurance, standardisation for discharge, admission type and the clinical protocols (Greysen et al., 2017; Maloney & Weiss, 2008; Mcmurray, Johnson, Wallis, Patterson, & Griffiths, 2007; Weiss et al., 2007). To facilitate the patient’s readiness to go home in a transition period, discharge teaching is one of the primary strategies (Knier, Stichler, Ferber, & Catterall, 2015; Mcmurray et al., 2007). However, a decreased length of hospital stay reduces the time available for nurses to provide the discharge teaching to patients (Foust, 2007; Suohon & Leino-Kilpi, 2006; Weiss et al., 2007). In postsurgical management at home, it was found that adequate and appropriate discharge process helps promote the health proficiency of surgical patients and caregivers (Mcmurray et al., 2007; Weiss et al., 2007). Many surgical patients reported feeling unready for hospital discharge, and this could lead to negative consequences such as poor health outcomes, medication discrepancies, dissatisfaction with care and increased readmission rates after returning home (Knier et al., 2015; Wallace, Perkhounkova, Bohr, & Chung, 2016). Since the readiness for hospital discharge is a transitional outcome in the continuum of care from hospital to home, nurses are therefore central to ensuring success in the discharge process. The barrier that commonly comes up within the discharge teaching and readiness was that the content may be delivered in a rushed manner, without individualisation of the content based on a patient’s needs (Knier et al., 2015). Education content and delivery methods are therefore vital elements during the teaching process.

In Indonesia, the data on the discharge process related to surgical patients are limited. Admission statistics from the largest hospital in Bengkulu Province reveal a significantly increased number of surgical patients each year. For instance, within three months, about 700 and 900 surgical patients were admitted in the surgical ward in 2016 and 2017, respectively. Of these patients, most underwent abdominal surgery (Dr. M. Yunus Hospital, 2017). When being discharged, nurses often provide discharge teaching based on the time available on the day of their discharge. In order to obtain useful information for nurses in preparing a better discharge process and outcomes, it is necessary to examine the quality of discharge teaching and readiness for hospital discharge among surgical patients. Furthermore, assessing the relationship between the quality of discharge teaching and readiness for hospital discharge is also essential.

2.1 | Theoretical framework

Meleis’ Middle-Range Theory of Transitions was applied to guide the concept of care transition that is relevant to the two main variables in this study. These variables are related to four key transition components, which are nature of transition, transition conditions, nursing therapeutics and patterns of response. In this study, the nature of transition refers to the post-operative patients being discharge to recovery at home. The transition conditions refer to the condition of surgical patients, whether they themselves, their caregivers and the community have problems in the discharge process. The nursing therapeutics are focused on preventing unhealthy transitions, represented by discharge teaching to help patients cope with new roles and to implement new skills before patients go home. In addition, the pattern of response focuses on developing the patients’ understanding towards their healthcare literacy to encourage their confidence in self-care ability, managing their health demand and feeling connected with supportive persons and the healthcare community. This pattern is represented by the readiness of the patients for hospital discharge (Meleis, 2010, 2012; Weiss et al., 2007).

3 | METHODS

3.1 | Study design, sample and setting

A correlational descriptive study conducted in four main public hospitals in Bengkulu, Indonesia. Each hospital was purposively selected with each having at least one surgical unit. The sample was selected
based on eligible inclusion criteria: (a) adult patients (>18 years); (b) patients who had undergone abdominal surgery and were in the discharge process; and (c) patients fluent in Indonesian language. The result of Weiss's study (2010) was applied to estimate the sample size using power analysis, with an effect size of 0.32, the significance level (α) of 0.05, expected power of 0.80 and effect size estimation of 0.30. The total sample size required was 88 participants. To allow for 10% dropout, a total of 96 surgical patients were invited to participate in this study (See Supporting Information Table S1).

3.2 | Instruments

The study instruments consisted of the demographic form, the quality of discharge teaching scale (QDTS) and the readiness for hospital discharge scale (RHDS). The detail of each instrument is described below.

3.2.1 | Demographic form

The demographic form consisted of the patient’s information including age, gender, marital status, education level, occupation, living arrangements, health insurance, diagnosis on admission, type of surgery in the current admission, previous history of surgery and length of hospital stay.

3.2.2 | The quality of discharge teaching scale (QDTS)

The QDTS was used to examine the perceptions of surgical patients regarding the discharge teaching quality. This tool was developed based on the concept proposed by Weiss and Piacentine (2006) and literature review. The content of each item of this scale was specific to the discharge process of adult abdominal surgery patients. This scale consists of content received and delivery subscale. The content received subscale (12 items) measured the amount of information that the patient actually received during the discharge teaching. This subscale consisted of self-care, emotion, medical needs and treatment, medicine taken, emergency call and family informational needs. The delivery subscale (15 items) reflected the effectiveness of the teaching process provided by the nurses. This subscale consisted of items about listening to and answering the patient’s questions and concerns, paying attention to the patient’s beliefs and values, teaching in an easy way in appropriate time for the patient and caregiver, providing consistent and clear information, promoting confidence in self-care and knowing what to do in an emergency and managing anxiety when returning home (Maloney & Weiss, 2008; Weiss & Piacentine, 2006; Weiss et al., 2007).

3.2.3 | The readiness for hospital discharge scale (RHDS)

The RHDS was used to examine the perceptions of patients on their readiness for hospital discharge. This tool was also developed according to the concept of Weiss and Piacentine (2006) and literature review. It consists of 20 items of four main subscales. (a) Personal Status (six items) refers to the feeling of the patient regarding his/her physical and emotional state on the day of discharge. These items include emotional and physical readiness such as pain, strength, energy and physical ability for self-care. (b) Knowledge (six items) refers to its sufficiency of self-management information related to self-care, medical needs, complications, emergency call for any problems, restrictions and follow-up plan. (c) Coping ability (four items) refers to the ability of the patient to manage demands at home and consists of managing worry, handling demands and fulfilling medical needs and treatments. (d) Expected support (four items) refers to the availability of emotional and physical support at home such as relatives, family, medical care and the social community of the patient.

Both the QDTS and RHDS have a Likert rating scale format. The patients respond to each item of the QDTS scoring from 0 (none) to 10 (very good) and the RHDS scoring from 0 (not at all prepared) to 10 (totally prepared). Then, each measure is categorized into and interpreted for four levels representing 9–10 (very high), 8–8.9 (high), 7–7.9 (moderate) and <7 (low), respectively (Weiss et al., 2014). The possible lowest score was 0, and the highest score was 10.

3.3 | Translation

Initially, the QDTS and RHDS were developed in the English language based on the concept of Weiss and Piacentine (2006) and literature review. The instruments were then translated into the Indonesian language by the back-translation method, proposed by Brislin (as cited in Polit & Beck, 2012). Two bilingual translators and one bilingual reviewer, who were familiar with both the English and Indonesian language and could understand the concept of the study, were invited to perform the back-translation. These translators and reviewer also had clinical and research experience in adult surgical nursing.

3.4 | Validity and reliability of instruments

The content validity of the QDTS and RHDS was validated by a panel of three experts in area of adult surgical nursing. The experts’ agreement on each item of the scale was used to calculate the content validity index (CVI). After obtaining the experts’ suggestion for scale improvement, the scales were accordingly modified, resulting in the scale content validity indexes (S-CVIs) of the QDTS and RHDS of 1.0 for all items. The Indonesian version of the QDTS and RHDS was evaluated with 20 surgical patients who were admitted in a public hospital Indonesia and had similar characteristics to the study population. The reliability of the Indonesian version of instruments was then assessed for the internal consistency by using Cronbach’s alpha coefficient, yielding values for the QDTS entire scale of 0.95 and for the RHDS of 0.91.
3.5 Ethical consideration

Permission from the Research Ethics Committee of the Faculty of Nursing, Prince of Songkla University (PSU IRB 2017-NSt 035) and four selected hospitals was obtained before conducting the study. The researcher clarified the aim, process, potential risks and benefits of study to the participants. The eligible participants were then informed that they had the right to withdraw at any time without any negative consequences. The participants had conveyed their agreement by signing written consent. Participants were assured that all collected data would remain confidential.

3.6 Data collection procedures

The name list of participants was obtained from the nurse’s dictation of surgical ward and the medical records which were prepared for hospital discharge. The researcher then retrieved the medical records to obtain the patient’s primary health profile information such as the medical diagnosis, type of surgery and length of hospital stay. Five participants each day were invited to enrol in this study allocated from four hospital settings to gain a total of 96. The head nurses of surgical ward introduced the researcher to the eligible participants. Each participant was then given a self-report questionnaire packages comprising the demographic form, QDTS and RHDS. For participants who were unable to read, the researcher interviewed them based on the questionnaires. The questionnaires were collected on site by the researcher after completion. So, there were no missing participants from the study.

3.7 Data analysis

The questionnaires were scanned and data entered into SPSS, version 17. Data were analysed using descriptive and inferential statistics (Polit & Beck, 2012). The demographic data and the perception level of surgical patients towards the discharge teaching quality and the readiness for hospital discharge were described by presenting the value of minimum, maximum, mean, standard deviation, percentage and range. Due to the unmet assumption of normality in the quality of discharge teaching score, the correlation between the discharge teaching quality and the discharge readiness among surgical patients was examined using Spearman rank-order correlation (See Appendix Table A1). Linear regression statistics was also performed to analyse the effect of demographic data on the patients’ readiness for hospital discharge.

4 RESULTS

4.1 Demographic data of participants

Ninety-six abdominal surgery patients participated in this study had a mean age of 42.34 years (SD = 17.71). Most were male (63.5%), married (69.8%) and had completed primary school (54.2%). They had been worked as a farmer (31.3%) or private employee (29.2%). Almost all of the participants had health insurance (95.8%). Appendicitis (32.3%) was the most common diagnosis of admission followed by inguinal hernia (29.2%). Over half of the surgical patients for current admission were underwent laparotomy surgery (57.3%). Only a few participants had a previous surgical history (18.8%). Their average length of hospital stay was approximately 4 days. After discharge, most of the patients returned home and were looked after by a caregiver (92.7%; Table 1).

4.2 The quality of discharge teaching perceived by surgical patients

Based on the above criteria for categorisation into four levels of discharge teaching quality, Table 2 shows that the quality of discharge teaching perceived by participants was at a low level (6.66 ± 0.46), in both content received and delivery subscale (6.67 ± 0.64 and 6.65 ± 0.47). Three items were perceived at a high score, namely the family informational needs (8.15 ± 1.16), the content related to emotion (7.62 ± 1.26) and teaching in easy way in appropriate time (7.07 ± 0.77). On the other hand, two items were perceived as of the low quality, namely emergency call needs (5.86 ± 1.15) and teaching manner to reduce patient’s anxiety when they return home (5.04 ± 2.33).

4.3 The readiness for hospital discharge perceived by surgical patients

The overall readiness for hospital discharge was perceived at a moderate level (7.11 ± 0.59), including four main subscales except the personal status subscale which was at a low level (6.86 ± 0.88). Two items were reported with high score; these were family support (7.86 ± 0.88) and follow-up care (7.52 ± 0.73). In contrast, three items of personal status were reported as having a low score; these were physical readiness (6.54 ± 1.05), pain (6.36 ± 1.69) and stress (6.35 ± 2.06; Table 3).

4.4 The relationship between the quality of discharge teaching and readiness for hospital discharge among surgical patients

The results of this study indicated that there was no significant correlation between the discharge teaching quality and discharge readiness among surgical patients. However, a positive relationship was found between some subscales of the discharge teaching quality and discharge readiness. These included the QDTS content received with the RHDS expected support subscale (r = 0.24, p < 0.05) and the QDTS delivery with the RHDS knowledge (r = 0.28, p < 0.01) and coping ability subscale (r = 0.25, p < 0.05; Table 4). In addition, further analysis showed that some demographic data of participants had an impact on the patients’ readiness for hospital discharge. These included patients’ age (β = 0.86, p < 0.01), the availability of caregiver (β = 0.78, p < 0.01), gender (β = 0.52, p < 0.01), health insurance (β = 0.35, p < 0.01), length of hospital stay (β = 0.32,
The quality of discharge teaching perceived by surgical patients was at a low level. This may be related to the teaching process in the clinical practice. This study found that most of the patients were discharged within 3 days after surgery. Thus, they may not have received much discharge teaching from the nurses due to the time limit. This result was similar to previous studies which stated that the decreased length of hospital stay for surgical patients reduced the time available for information to be given by the nurses (Foust, 2007; Foust, Vuckovic, & Henriquez, 2012).

Furthermore, this study also found that the quality of content received and delivery subscale of discharge teaching were perceived to be at a low level, which was consistent with the previous study.
This might be due to the information or content that patients needed, being different depending on each type of surgery received and differences in the nature of illness. Similarly, a previous study found that the patients whose needs were unmet, the discharge teaching content would have perceived as low (Maloney & Weiss, 2008).

In addition, almost all items under the delivery subscale were reported as a low score except for teaching in appropriate time for the patients and caregivers. The patients might feel hesitant to ask for additional information during the teaching process due to their expectation of nurses to provide all necessary information, which was similar to the previous study (Maloney & Weiss, 2008). Besides that, the patients may not be able to apply the discharge information due to lack of confidence and poor experience about their healthcare issues. In this study, most of the patients had received surgery for the first time and over half of them had only completed their educational

### TABLE 3 Level of perception of surgical patients towards the readiness for hospital discharge (N = 96)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal status subscale</td>
<td>3.7–8.7</td>
<td>6.86</td>
<td>0.88</td>
<td>Low</td>
</tr>
<tr>
<td>Strength</td>
<td>3.0–10.0</td>
<td>7.35</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Emotionally ready</td>
<td>3.0–9.0</td>
<td>7.16</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td>Feeling ready</td>
<td>3.0–9.0</td>
<td>7.12</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>Physical readiness</td>
<td>3.0–9.0</td>
<td>6.54</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>1.0–9.0</td>
<td>6.36</td>
<td>1.69</td>
<td></td>
</tr>
<tr>
<td>Stress level</td>
<td>1.0–9.0</td>
<td>6.35</td>
<td>2.06</td>
<td></td>
</tr>
<tr>
<td>Knowledge subscale</td>
<td>5.5–9.5</td>
<td>7.34</td>
<td>0.71</td>
<td>Moderate</td>
</tr>
<tr>
<td>Follow-up care</td>
<td>5.0–9.0</td>
<td>7.52</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Emergency needs</td>
<td>5.0–9.0</td>
<td>7.41</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td>Restriction</td>
<td>4.0–9.0</td>
<td>7.40</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td>Medical needs</td>
<td>5.0–9.0</td>
<td>7.40</td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>Complications</td>
<td>3.0–9.0</td>
<td>6.94</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td>Self-care</td>
<td>5.0–9.0</td>
<td>6.82</td>
<td>0.96</td>
<td></td>
</tr>
<tr>
<td>Coping ability subscale</td>
<td>4.5–10.0</td>
<td>7.01</td>
<td>0.82</td>
<td>Moderate</td>
</tr>
<tr>
<td>Perform medical treatments</td>
<td>3.5–9.0</td>
<td>7.11</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Handle worry</td>
<td>4.0–9.0</td>
<td>7.01</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>Handle demands</td>
<td>4.0–9.0</td>
<td>6.58</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>Expected support subscale</td>
<td>5.5–10.0</td>
<td>7.66</td>
<td>0.84</td>
<td>Moderate</td>
</tr>
<tr>
<td>Family support</td>
<td>5.0–9.0</td>
<td>7.86</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>Medical care or resources support</td>
<td>5.0–9.0</td>
<td>7.44</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td>Emotional support</td>
<td>5.0–9.0</td>
<td>7.36</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>Household activity support</td>
<td>5.0–9.0</td>
<td>7.35</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>Total scale</td>
<td>5.2–8.7</td>
<td>7.11</td>
<td>0.59</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Notes. This table shows that overall the readiness for hospital discharge perceived by surgical patients was at a moderate level. Personal status subscale was reported as having the lowest score out of four subscales.

### TABLE 4 Coefficient correlation between the quality of discharge teaching and readiness for hospital discharge among surgical patients (N = 96)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total quality of discharge teaching scale</th>
<th>Content received</th>
<th>Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total readiness for hospital discharge scale</td>
<td>0.14</td>
<td>0.09</td>
<td>0.19</td>
</tr>
<tr>
<td>Personal status</td>
<td>−0.01</td>
<td>−0.08</td>
<td>0.10</td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.24*</td>
<td>0.19</td>
<td>0.28**</td>
</tr>
<tr>
<td>Coping ability</td>
<td>0.20*</td>
<td>0.12</td>
<td>0.25*</td>
</tr>
<tr>
<td>Expected support</td>
<td>0.19</td>
<td>0.24*</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Notes. *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).
level at primary school. They then perceived the discharge teaching quality as low. Besides that, there were approximately 40 surgical patients admitted in the surgical ward each day, whereas there was a limited number of surgical nurses in each shift around six nurses (head nurse, personal communication, 01 January 2018), which may result in the discharge teaching quality being perceived as low.

### 5.2 The readiness for hospital discharge

The results showed that the readiness for hospital discharge among surgical patients overall was perceived at a moderate level. This may be related to the hospitalisation issue that encouraged patients to be ready for discharge. The four hospitals in this study had the same hospital policy in caring for surgical patients, where the patients who received a minor surgery such as a laparotomy or herniorrhaphy were discharged within 3 days. This may help them feel ready for discharge earlier. The length of hospital stay was also short, and the patients did not have any complications after surgery, which might lead them to perceive that they would be able to handle care demands at home after receiving some knowledge during hospitalisation. This finding is congruent with a previous study that the length of hospital stay and the availability of caregiver in the hospitalisation phase contributed to the patients’ readiness (Weiss et al., 2007).

Furthermore, personal status, which reflects the patients’ feeling on their physical and emotional state on the day of hospital discharge, was perceived the lowest score out of the four subscales. This finding was consistent with the previous studies among surgical patients, which found that their personal status was rated lower than other subscales (Brent & Coffey, 2013; Knier et al., 2015). In this subscale, the participants were emotionally ready to go home, but their physical state was unready for hospital discharge. Their emotional readiness for discharge might be linked to the patient’s role in the family, where most of them were male and had been working as a farmer or private employee. This role could emotionally lead them to be ready for discharge to fulfill their responsibility as the head of the family. This is similar to the previous study which stated that the patients make the decision for discharge due to their work responsibility and competing demands of family life (Rydeman & Törnkvist, 2010).

Moreover, the participants reported the expected support subscale at the same level for all items. These results reflected that the participants had sufficient helpful sources at home (family, relatives and healthcare community resources). Almost all of the participants lived at home with a caregiver, and this may help them gain readiness. This is similar to previous studies which reported that the patients who had been living with a caregiver perceived greater readiness than those who lived alone (Brent & Coffey, 2013; Coffey & McCarthy, 2013; Weiss et al., 2007). Besides that, almost all of the participants had health insurance provided by the government. This might also lead them to feel confident to access the healthcare community services when they were unable to handle their care demands at home (Table 3). In addition, under the knowledge, the self-care item remained low, which is the same as the ability to handle care demands at home in the coping ability subscale. These results reflect that if the patients had low knowledge about self-care for themselves, they would not be able to handle their healthcare demands at home.

### 5.3 The relationship between the quality of discharge teaching and discharge readiness among surgical patients

No significant correlation between the discharge teaching quality and the discharge readiness among surgical patients was found. This finding differs slightly from some previous studies (Bobay et al., 2010; Brent & Coffey, 2013; Weiss et al., 2007), which showed that the discharge teaching quality was associated with the discharge readiness. This could relate to the care situation of the hospital settings in Indonesia where during hospitalisation, the patients were allowed to stay with their caregiver over a 24-hr period. In these hospitals, three to 10 patients were allocated to stay in a room. Thus, they would be able to share knowledge and learn from each other. The patients might obtain more information regarding post-operative care from other patients who had a similar previous surgery. Besides that, people nowadays can gain their knowledge not only from the nurses but also from various sources of information such as mobile web service. This is similar to the previous study which stated that the learning process can be conveyed by internet-based websites. The patients could frequently search for the information to get in-depth understanding and to validate the information they have received from the healthcare provider (Suhonen & Leino-Kilpi, 2006).

However, a positive relationship between the QDTS delivery subscale and the RHDS knowledge and coping ability subscale was found. This indicates that the skill of nurses in delivering effective teaching would help in improving the patients’ understanding of their health care literacy and their ability to manage care demands at home. This may be due to three possible factors including the way
of teaching that nurses have been using in the clinical practice, the teaching methods that were most commonly used by the nurses and the teaching duration that was given for the patients in each teaching session. Furthermore, the QDTS content received subscale and the RHDS expected support subscale were also positively correlated, indicating that the amount of discharge teaching content given by the nurses could help to support the person expected to provide care at home such as a relative, family members and healthcare community resources. Hence, the family informational needs’ item was well perceived by the patients in this study.

Although there was no relationship between the discharge teaching quality and the discharge readiness, some demographic factors were associated with the readiness, such as patients’ age, gender, the availability of caregiver, health insurance, length of hospital stay and having occupation. This indicates that patients’ discharged readiness may be greater in those who have the availability of caregiver, health insurance, short hospital stay and having occupation, not because of the quality of teaching alone. However, the findings may require further exploration.

5.4 | The strength and limitation of the study

The strengths of this study were the adequacy of the sample, thus providing sufficient power to analyse of the discharge teaching quality and discharge readiness. Data were collected from four hospitals that can be generalised to other hospitals in the Indonesian context. The instruments of this study were developed to generate the essential content that is specific to the abdominal surgery care and their reliability was acceptable and their content validity supported. However, using a convenience sampling method during collected data was the limitation of this study.

6 | CONCLUSIONS

There was no significant relationship between the quality of discharge teaching and the readiness for hospital discharge. However, a positive correlation was found in some QDTS and RHDS subscales such as content received and delivery, knowledge, coping ability and expected support. Patients’ readiness for hospital discharge was not only related to how much information they received from nurses but also related to individual factors such as age, gender, the availability of caregiver, health insurance, length of hospital stay and occupation.

7 | RELEVANCE TO CLINICAL PRACTICE

This study results support the concept that surgical patients who have a short hospital stay (3–4 days) may be ready for discharge with the help of delivery teaching. This study shows that nurses need to pay more attention to the teaching content and delivery methods, so that they are specific to the patient learning needs in discharge preparation. The patients’ personal status such as feeling, emotional and physical readiness on the day of hospital discharge is also need to be reassessed. This study also provides a better understanding to guide nurses for improving the discharge teaching quality and enhancing the readiness of the patient for hospital discharge.

ACKNOWLEDGEMENTS

The author(s) acknowledge the Higher Education Research Promotion and the Thailand’s Education hub for Southern Region of ASEAN Countries Project Office of the Higher Education Commission for the financial support of this study.

CONFLICT OF INTEREST

We declare that we have no conflict of interest.

ORCID

Nurhayati Nurhayati https://orcid.org/0000-0002-1082-4041

REFERENCES


**SUPPORTING INFORMATION**

Additional supporting information may be found online in the Supporting Information section at the end of the article.


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### APPENDIX

<table>
<thead>
<tr>
<th>Variables</th>
<th>Skewness</th>
<th>SE</th>
<th>Kurtosis</th>
<th>SE</th>
<th>Z Skewness</th>
<th>Z Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient quality of discharge teaching scale</td>
<td>−0.811</td>
<td>0.246</td>
<td>4.658</td>
<td>0.488</td>
<td>−3.29</td>
<td>9.54</td>
</tr>
<tr>
<td>Patient readiness for hospital discharge scale</td>
<td>−0.412</td>
<td>0.246</td>
<td>1.459</td>
<td>0.488</td>
<td>−1.67</td>
<td>2.98</td>
</tr>
</tbody>
</table>

**Notes.** The normality was checked by examining skewness divided by its SE, and kurtosis divided by its SE. The values must be in the range of ±3.29 (N = 96), proposed by Field (2009). The results revealed that the quality of discharge teaching variable did not meet the assumption of normality, while the readiness for hospital discharge variable did meet the assumption of normality. SE: standard error.