

A Survey on Nurses' Satisfaction with Complete Bed Bath for Inpatients in Large-Scale Hospitals

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Abstract

This study examined actual complete bed bath in nursing practice in Japan. The aim was to determine nurses' satisfaction with care services that they have provided and inpatient's awareness. A total of 50 large-scale hospitals were randomly selected from large-scale hospitals with 500 beds or more in Japan. Of these, 11 hospitals consented to participation in our study. A survey on complete bed bath was conducted with 1030 nurses working on a ward in these 11 hospitals. The questionnaire consisted of demographic questions and 38 questions about care services. Structured questions and semi-structured items were partially used. The number of valid recoveries was 691 (recovery rate 67.1%). Of these responses, the number of valid responses was 669 (valid response rate 96.5%). Based on these responses, the following results were found: (1) among complete bed bath, bed baths with steamed towels were the most commonly provided; (2) half or more of the nurses were not satisfied with the services that they provided and they conceived that inpatients were also not satisfied with their services; and (3) the reasons that the nurses were not satisfied with the services that they provided were as follows: busy schedule of their tasks, staff shortages and insufficient bed bath effect. The nurses faced the dilemma that complete bed bath, using several steamed towels, was not effective for care. It was also found that the nurses actually provided bed bath services as conventional practice.

要旨

本研究の目的は、我が国の看護実践の場で行われている全身清拭の実態と、自身のケア行為に対する看護師の満足度、看護師が感じている入院患者の認識をより正確に把握することである。研究デザイン：調査研究デザイン。実態調査は全国の500床以上の大規模病院から無作為に抽出した50施設の中から、承諾の得られた11施設の病棟勤務看護師1030名に行った。調査票は属性と38の質問項目で構成した。質問項目は、全身清拭に費やす時間、使用物品、全身清拭の種類と頻度、全身清拭を実施する根拠、自身の全身清拭行為に対する看護師の満足度と看護師が想定する入院患者の満足度とした。一部に半構成的項目を含む構成的質問形式を採用した。分析方法は記述統計のほか、満足度の検討には χ^2 検定を用いた。

有効回収数は691部（回収率67.1%）、そのうち有効回答数は669名（有効回答率96.5%）であった。その結果、以下の結果が得られた。①全身清拭のなかでは、蒸しタオル清拭は約8割と最も多く実施されていた。②半数以上の看護師は自身のケア行為に満足しておらず、入院患者も満足していないと感じていた。③自身のケア行為に看護師が満足していないのは、業務の多忙さ、人員不足、不十分な清拭効果などの理由であった。

看護師は蒸しタオル数本による全身清拭では効果的にケアが提供できていないことにジレンマを感じていた。また、看護師は以前からの慣習で、ケア行為を行っている実態も明らかになった。

Key Words : complete bed bath, bed bath with steamed towels, nurses' satisfaction, inpatient's awareness, nurses' perspective

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Introduction

The latest treatments and tests were introduced to clinical practice as advanced medical care has progressed. In such clinical settings, nurses are extremely busy as their workloads have increased, which has reduced the benefit of simplification of nursing care services and labor saving advances. Consequently, it has been difficult to ensure the quality of nursing care. Inpatient's satisfaction depends on the quality of nursing care services¹⁾. The typical services include hygienic care. The methods of cleaning care include complete bed bath, partial bed bath, assisted shower bathing, and assisted bathing. Above all, complete bed bath, provided to seriously ill patients and patients who receive long-term treatment, is effective for cleansing, temperature control, sedation, painkilling, and refreshment. It provides nurses with an opportunity to improve their ability to provide complete bed bath, through observation and communication with the patient. Thus, complete bed bath is an established expertise provided by nurses who are familiar with the clinical condition of inpatients. However, in routine nursing services, conventional complete bed bath involving the face and other body sites tends not to be performed. The reasons are as follows: a lot of time is required, a large quantity of hot water is required, both inpatients and nurses feel fatigue because it is laborious and intra-epidermal body fluids including sebum and salt are excessively removed. Accordingly, complete bed bath is commonly provided using several steamed cotton towels²⁾. An interview survey that the authors conducted with inpatients to examine this issue³⁾, revealed that inpatients were dissatisfied with the care: cleaning care was overly simplified and the frequency of cleaning care was low. The original purpose of nursing was to provide "support of daily life." Nurses should feel a sense of dismay, given that hygienic care for seriously ill or long-term patients, is not perceived as adequate. In Japan, where there is a unique cleanliness culture, complete bed bath should be positioned as an important care skill for nurses. Inpatients cannot maintain the cleanliness of their body by themselves. Therefore, we believe that confirmation of the current state of practice of complete bed bath in nursing, is urgently necessary.

In previous studies focusing on cleaning care in Japan, there is only one report that examined how complete bed bath was performed in a single hospital²⁾. In previous studies on cleaning care in Western countries, comparisons were made between the bed

bath effect of a traditional method using cotton towels and the effect of a method using disposable synthetic towels. Comparisons were made from the viewpoints of cleanliness, comfort, and economy. In all of these studies, it was reported that the method of using disposable synthetic towels was superior to the traditional method of using cotton towels^{4),5)}. However, these studies only involved summarizing a medical service providers' impression. Thus, the evidence regarding cleaning care practice is insufficient and this has been allowed to continue, unaddressed. In Japan, a new and improved method of complete bed bath is required immediately, this issue has not been a focus of improvements in nursing care as yet.

In this study, the primary objective was to understand the following: the actual method of complete bed bath for seriously ill patients in nursing practice; nurse's judgment for, grounds for, and satisfaction with actual complete bed bath; and inpatient's actual awareness of complete bed bath, as conceived by nurses. Using the results of the survey, the authors aimed to examine a method of effective complete bed bath, which places a low burden on nurses and that might satisfy inpatients.

Methods of Study

1. Definition of the terms

In this study, we define the terms for complete bed bath as follows: the term "complete bed bath" is used to mean a bed bath requiring full-scale assistance, not partial assistance.

2. Study design : Method of data acquisition

Senior nursing officers of 50 hospitals were randomly selected from general hospitals with 500 beds or more in Japan as participants⁶⁾. Of the 50 hospitals, 11 hospitals consented to participate in our study. To 11 senior nursing officers, we mailed 100 envelopes enclosing a written request, a questionnaire, and a self-addressed envelope. We asked them to distribute 10 envelopes to each of 10 wards (1 of 11 hospitals consented to receive 30 envelopes). The subjects were 1,030 nurses working for a ward in these hospitals. The subjects were asked to return the completed questionnaire that was enclosed in the self-addressed envelope, which required no stamp to be paid for by themselves.

3. Survey period

Surveys were completed between June 12 and September 8, 2007.

4. Data acquisition

The questionnaire consisted of 21 structured and non-structured questions regarding the following items: (1) basic personal information to investigate the subject's sex, age, years of experience, specialized educational background, and ward that he/she belonged to and (2) details regarding the complete bed bath that were actually provided, based on the questionnaire used in a survey of actual complete bed bath in the hospitals affiliated with N in Japan performed by ²⁾. The subjects responded to the closed-ended questions regarding the following items: time taken to complete bed bath per inpatient; type and number of the tools used to complete bed bath and type of complete bed bath mainly provided (bed bath with hot water alone, bed bath with hot water and bathing agent, bed bath with hot water and soap, bed bath using steamed cotton towels, bed bath using disposable towels, and other methods of bed bath). Further questions concerned the following items: "actual frequency of complete bed bath and the reasons for it," "nurse's satisfaction with actual complete bed bath and the reasons for it" and "inpatient's satisfaction with actual complete bed bath that nurses conceived and the reasons for it." Regarding the reasons, multiple answers were allowed. Prior to this study, a preliminary investigation was conducted involving 50 floor nurses in a hospital with 240 beds on two occasions; between February 20 and March 1, 2007 and between April 27 and May 7, 2007.

5. Method of analysis

Simple tabulation was performed for the responses to each close-ended question. A Chi square test was used to analyze the association between the nurse's responses to the question regarding "whether a nurse was satisfied with the complete bed bath that he/she provided," and the nurse's responses to the question regarding "whether a nurse conceived that inpatients were satisfied with the actual complete bed bath." The test was performed at the 5 % significance level.

6. Ethical considerations

The following were explained to all the subjects in written form: the purpose of the study; that the collected data will not be used for purposes other than for this study; the data cannot be identified to any particular subject because the data will be statistically

processed; the data will be disposed of after processing; and that participation in this study is voluntary and consent to participate in the study will be provided via submission of the questionnaire. This study was conducted with the approval of the ethical review board of Department of Nursing, Graduate School of Health Sciences, Okayama University (D06-006).

Results

Of the 1,030 subjects that were distributed the survey, 691 subjects returned the completed questionnaire (response rate 67.1%). Incomplete responses were removed from all the survey items. As a result, a total of 669 questionnaires were regarded as valid responses (valid response rate 96.5%) and were included in the analysis.

1. Attributes of the respondents

The attributes of the nursing professionals who responded to the questionnaire were as follows. Respondents were aged between 20–50 years and 50% or more of them were aged in their 20s. The years of experience as a nurse ranged from less than one year to 31 years or more and the respondents with experience of 1–10 years or more accounted for at least 60% of the sample. For the specialized educational background specific to nursing, completion of a three-year degree course accounted for 70% or more of the sample (Table 1).

Table1. Attributes of the nursing professionals who responded to the questionnaire

Items		Number of people (%)
Sex	Female	665 (99.4)
	Male	4 (0.6)
		669 (100.0) In total
Age	20~29 (years)	350 (52.3)
	30~39	173 (25.9)
	40~49	105 (15.7)
	50≤	41 (6.1)
Mean ± standard deviation		32.3 ± 9.2 years old
Ward	Surgical medicine	321 (48.0)
	Internal medicine	157 (23.5)
	Mix	191 (28.6)
		669 (100.0) In total
Years of experience		
1 > (years)		5 (0.7)
1 ~ 10		416 (62.2)
11 ~ 20		138 (20.6)
21 ~ 30		91 (13.6)
31 ≤		19 (2.8)
Mean ± standard deviation		11.1 ± 8.7 years
Specialized educational background		
Three-year degree course		475 (71.2)
University		103 (15.4)
Two-year degree course		85 (12.7)
Master's degree course		
in graduate school		4 (0.6)
Others		2 (0.3)
		669 (100.0) In total

2. Various methods and actual services of complete bed bath

A complete bed bath was provided to 100% of inpatients. In analyzing the types of complete bed bath, according to the implementation rate by the use or nonuse of hot water, “bed bath using steamed towels” without hot water were most common (77.7%) while the rate of traditional “bed bath with hot water” were provided by less than 10% of the respondents (Table 2).

Table2. Various methods and the implementation rate of complete bed bath

Use of hot water	Methods of complete bed bath	Number of responses (%)
No	Bed bath using steamed towels	520(77.7)
	Bed bath using disposable towels	7(1.0)
Yes	Bed bath with hot water *1	
	Wipe the body with hot water alone	67(10.0)
	Wipe the body with hot water containing a bathing agent	57(8.5)
	Wipe the body with soap followed by use of hot water	12(1.8)
	Other methods of bed bath with hot water *2	6(0.9)
		669(100.0) in total

*1, Wipe the body using a towel that was placed in a sink of hot water and squeezed.

*2, Bed bath with hot water including washing of the back and the genitals.

The authors examined the actual frequency of bed baths and the time required for bed baths using the steamed towel method, performed most commonly among the methods of complete bed bath. On analysis of the actual frequency of the bed baths provided, seven times a week per inpatient was most common (56.9%), followed by three times a week (18.1%) and six times a week (12.3%). Regarding the time required for the bed bath, “16 minutes or more” (63.5%) was the most common response, followed by “11–15 minutes,” (27.1%) and “6–10 minutes” (9.0%). Focusing on the descending order of both the actual frequency and the time required, “16 minutes or more,” seven times a week, was most common (64.0%, 189/296 responses), followed by “11–15 minutes” seven times a week (27.4%, 81/296 responses) and “16 minutes or more” three times a week (72.0%, 68/94 responses) (Table 3). Regarding reasons that bed baths using steamed towels were performed, “because it is the conventional practice” was the most common (81.5%) among the 520 responses (multiple answers). This was followed by “because it can be completed in a short time” (55.0%), “because it has hyperthermia effect” (34.0%), “because it provides refreshment” (25.2%), and “because it requires only a few tools” (19.2%).

Table3. Frequency and the time required for bed bath using steamed towels

Time required (min)	Frequency (time/week)							Total (%)
	7	6	5	4	3	2	1	
5≤	1	0	0	0	0	1	0	2(0.4)
6~10	25	6	8	1	4	3	0	47(9.0)
11~15	81	20	4	7	22	7	0	141(27.1)
16≤	189	38	12	14	68	7	2	330(63.5)
合計 (%)	296 (56.9)	64 (12.3)	24 (4.6)	22 (4.2)	94 (18.1)	18 (3.5)	2 (0.4)	520(100.0)

*1, the time required for bed bath per patient includes preparation of the tools and them putting away.

3. Nurses’ satisfaction with services provided and inpatient’s awareness, from the perspective of nurses.

Table 4a shows the nurses’ satisfaction with the care services that they have provided and the inpatient’s impression of the care services. Remarkably, of 276 nurses who responded that the nurse “was satisfied with it,” the nurse who thought that the inpatients “might be satisfied with it,” accounted for 45.7% while the nurse who thought that the inpatients “might not be satisfied with it” accounted for 54.3%. In addition, of 393 nurses who responded that the nurses “were not satisfied with it,” the nurses who responded that the inpatients “might be not also satisfied with it” accounted for 82.4%. In other words, the nurses were not satisfied with the care services that they provided. Furthermore, 70.9% of the nurses felt that the inpatients were also not satisfied with the services.

The number of the nurses who thought that the inpatients “might not be satisfied with it” was significantly higher than the nurses who thought that the inpatients “might be satisfied with it” ($P < .001$). Of all the 674 responses about the reasons that they were not satisfied with the care services that they provided, the following reasons accounted for 60% or more: “we do not have enough time to do it sufficiently because we have many duties” (37.5%), “it cannot warm a patient” (15.4%), and “it cannot be provided sufficiently because of lack of staff” (13.5%). The following other reasons accounted for less than 10%: “we perform bed bathing even if a shower bath or bathing is possible,” “the burden on inpatients is heavy,” “tools are short,” “I’m not familiar with the skill,” and “other staffs are not cooperative.” (Table 4 b).

Of the 380 responses about the reasons that the nurses thought the inpatients might be satisfied with complete bed bath that they provided, the following reasons accounted for approximately 70%: “it causes no distress and can be finished in a short time” (25.3%), “they can feel refreshed” (24.2%) and “complete bed bath

is provided every day" (17.1%). Of the 947 responses about the reasons that the nurses thought the inpatients might not be satisfied with complete bed bath that they provided, "dirt on the skin is not removed" was most common (21.9%). The following reasons accounted for 60%: "it does not warm the body well" (20.9%) and "though a patient wants to take a shower bath or a bath,

only wiping is provided" (17.4%). The following individual other reasons accounted for less than 10%: "it does not provide a refreshed feeling", "it does not improve dry and cracked skin", "a complete bed bath is not provided every day", "wiping, when it is like being stroked, is not comfortable" and, "it takes a long time, which causes distress" (Table 4 c).

Table4. ecognition of nurses' satisfaction with complete bed bath and of patient's acceptance of it

a. Whether a nurse conceives that patients are satisfied with the actual complete bed bath that he/she provided				
	Regarding actual complete bed bath that he/she provided			
	Nurse satisfaction	Nurse dissatisfaction	Total (%)	Test results
Patient's impression				
Patient satisfaction	126 (45.7)	69 (17.6)	195 (29.1)	61.96
Patient dissatisfaction	150 (54.3)	324 (82.4)	474 (70.9)	***
Total (%)	276 (100.0)	393 (100.0)	669 (100.0)	
Note : χ^2 test, *** : $P<.001$				
b. Reasons that a nurse was not satisfied with actual complete bed bath that he/she providedItems				
	Items	*1, number of the responses (%)		
	We have insufficient time because we have many duties	253 (37.5)		
	It cannot warm a patient	104 (15.4)		
	It cannot be provided sufficiently because of lack of staff	91 (13.5)		
	We perform bed bath even if shower bath or bathing is possible	53 (7.9)		
	The burden on inpatients is heavy	51 (7.6)		
	There are insufficient tools	37 (5.5)		
	I'm not familiar with the skill	30 (4.5)		
	Other staff members are not cooperative	10 (1.5)		
	Others	45 (6.7)		
	Total	674 (100.0)		
1, multiple answers obtained from 393 subjects.				
c. Whether a nurse thinks that patients are satisfied with actual complete bed bath that he/she provided				
Patient's impression	Items	*1, number of the responses (%)		
I think that they may be satisfied with it	It causes no distress and can be finished in a short time	96 (25.3)		
	It provides a feeling of refreshment	92 (24.2)		
	Complete bed bath is provided every day	65 (17.1)		
	Wiping the body with moderate strength is comfortable	54 (14.2)		
	It warms the body well	28 (7.4)		
	Stains on the skin are cleaned well	18 (4.7)		
	It improves dryness and cracks on the skin	4 (1.1)		
	Others	23 (6.1)		
	Total	380 (100.0)		
	Items	*2, number of the responses (%)		
I think that they may not be satisfied with it	Stains on the skin are not cleaned	207 (21.9)		
	It does not warm the body well	198 (20.9)		
	Though a patient wants a shower bath or wants to take a bath, only wiping is provided	165 (17.4)		
	It does not provide a feeling of refreshment	93 (9.8)		
	It does not improve dryness and cracks on the skin	87 (9.2)		
	Complete bed bath is not provided every day	85 (9.0)		
	Wiping, like being stroked, is not comfortable	45 (4.8)		
	It takes a long time, which causes distress	36 (3.8)		
	Others	31 (3.3)		
		Total	947 (100.0)	
*1, multiple answers obtained from 195 subjects : *2, multiple answers obtained from 474 subjects				

Discussion

In this study, we clarified actual complete bed bath provided for inpatients by choosing large-scale hospitals with 500 beds or more. The responses obtained from approximately 700 floor nurses were valuable in

understanding the actual condition of complete bed bath objectively. We examined the actual complete bed bath in large-scale hospitals, the nurse's awareness of care services that they have provided, and the critical situation of complete bed bath using steamed towels.

1. Actual complete bed bath provided by nurses totally

For complete bed bath provided by nurses totally, the results of our study revealed that bed bath using steamed towels accounted for approximately 80% of the bed bath services. Bed baths with hot water accounted for 10%. The analysis on types of complete bed bath found that busy nurses chose a method of bed bath using steamed towels. This method had a shorter completion time and required less tools in comparison to bed baths with hot water. Our results were similar to the results of a previous study²⁾, describing that bed bath tended to be done using several steamed towels. In actual nursing settings, complete bed bath is commonly performed together with replacement of clean nightclothes and linens, and washing the genitals. Therefore, it is difficult for nurses to limit the time for a complete bed bath alone. In addition, providing a bed bath to seriously ill patients in a safe and comfortable manner, requires good judgment and technical ability. To do this, nurses assess the degree of sweating, the area of predilection for pressure sore, the site and degree of disorder, and the severity. Our results revealed that half or more of the nurses spent 16 minutes providing a bed bath using steamed towels for inpatients every day (Table 3). In other words, these results should be interpreted as follows: The nurses provided bed baths with the aim of regularly washing the inpatients and meeting their needs of cleanliness.

2. Nurse's awareness and problems of care services that he/ she provided

As has been discussed, the actual frequency and time required for bed bath using steamed towels were appropriate. However, in this study, it was notable that the nurses' satisfaction with care services provided and the inpatients' satisfaction, from the perspective of the nurses, was remarkably low. We examined the main reasons. The reason nurses provided bed baths even if shower baths or bathing was possible for the inpatient, was because nurses gave priority to other circumstances or tasks, resulting from a tight schedule and lack of staff. In addition, the nurses seemed not to be satisfied with complete bed bath that they provided because of a heavy burden of inpatients (Table 4 b). Previous studies^{7), 8)} have demonstrated that there may be detrimental consequences to providing a complete bed bath for seriously ill patients with unstable hemodynamics. Nurses need to assess the individual cleanliness needs of patients and provide safe and comfortable cleaning care via skilled techniques. In the

interview survey conducted with inpatients regarding cleanliness, the inpatients showed satisfaction with care provided by the nurses in regards to timeliness and appropriate method. However, the inpatients were dissatisfied with superficial care provided by nurses and expected to receive safe and comfortable care based on their nurse's skilled expertise³⁾. In addition, for inpatients who cannot maintain clean body by themselves, the necessity of observation of the skin carefully using a scale is mentioned⁹⁾. Steamed towels may not remove marks on the skin of patients who have been unable to take a bath for an extended period. In fact, doing so may worsen dryness and cracking of the skin. It has been found that use of hot cotton towels is effective because it elevates skin temperature via a local thermal stimulus, which leads to comfort^{10), 11)}. However, it has also been confirmed that the temperature of a cotton towel is decreased to 30 degrees Celsius or less in 20 minutes, even if it is warmed to 80 degrees Celsius¹²⁾.

Conclusion

In this study, using steamed cotton towels to provide inpatients with a complete bed bath, was a method used in large-scale hospitals by 80% of the respondents. It was also found that half or more of nurses have low satisfaction with care services that they provided and that the inpatients were also not satisfied. The results of this study revealed that the nurses were in a dilemma that complete bed bath was provided in such a way while they performed complete bed bath based on the conventional practice. There is a possibility that complete bed bath of seriously ill patients carried out by nurses will be omitted more than ever. Alternatively, the complete bed bath may be a work to give to other job types such as nursing assistant, care worker. Therefore, the patient may not be able to satisfy the needs of hygiene care. There are many problems in providing patients with a complete bed bath using cotton towels, as discussed above. In future, we aim to use systematic evidence to develop an effective bed bath procedure.

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