

Satisfaction and Opinions for Patients and Nurses regarding Different Types of Bed Bath at Critical Unites

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Abstract:

Background: Critical care nurses should ensure that patients' satisfaction, opinions and needs during bed bath and supported by nursing communication skills, the policies, dignity and respect for all patients in ICU.

Aim of the study: To compare between satisfaction and opinions for patients and nurses regarding different types of bed bath at critical unites.

Design: Comparative descriptive research design.

Methods: (60) ICU nurses included in the study assigned to the medical and general ICUs and 60 patients from the previously mention settings. Three tools were constructed to measure satisfaction and opinions for patients and nurses regarding different types of bed bath at critical care unites at Assuit University Hospital, Egypt

Results: patients satisfaction was 50% with traditional bath and 25% disposable bath and 40% patients positive opinions about traditional bath and negative opinion 90% in disposable bath. While nurses satisfaction had 6.7% with traditional bath and 33.3% with disposable bath and nurses had 17.6% positive opinions with traditional bath and 76.6% in disposable bed bath. and there was a statistical significance differences with p. value = 0.001

Conclusions: the study concluded that patient satisfied and had positive opinion with traditional bed bath while ICU nurses satisfied and had positive opinions about disposable bed bath.

Keywords: traditional bed bath, disposable bed bath, satisfaction, opinions, patients, nurses and critical unites.

Introduction:

Bed bathing is fundamental nursing intervention that improves patient's hygiene, removes microorganisms, and decreases infection. This procedure requires direct contact with the patient, use of communication skills, maintaining personal hygiene, excessive wellbeing and provide comfort, and assess skin integrity. Critical care nurses spend a great time for personal hygiene care, especially giving bed baths to patients. Determined that the primary intervention for personal hygiene was bed baths for critically ill patients (54.7%). There are two types of bed baths: the traditional basin used with soap and water, and the disposable wipes bed bath, which is single-use wipes that were warmed before use. [1]

In recent researches it was documented with more studies to compare the traditional basin bed bath to a disposable bed bath, these types depend on three factors as: duration and quality of the bath, patient satisfaction and nurse satisfaction. Regarding a bed bath can be a stressful experience depending on the values, beliefs, culture, mental state, and past experiences of the critically ill patient; it may be

interpreted as an aggressive behavior that causes distress or fear and pain during manipulation. Many patients experience anxiety, fear, related to this procedures, which are chosen according to professional nurse judgment and not to patient needs and preferences. Therefore critical care nurses should recognize patient preferences and needs. [2]

Nurses should ensure that the hygiene needs of the patients in ICU are adequately met. Nurses maintain the personal hygiene needs (especially bed baths) of ICU patients because of their limited level of independence and self-care ability. [3] Skin care takes on particular importance because as critically ill patients the skin becomes more susceptible to bruising, xerosis (dry skin), pressure sores, shear type injuries and delayed wound healing. It is estimated that 59% to 79% of the elderly have pruritic skin conditions. Nurses assume the major responsibility for skin and wound management in most healthcare settings. Administration of the daily bed bath is seen by many nurses as one of their most important nursing role and have a significant impact on the clinical outcomes and satisfaction of critically ill patients in ICU. [4]

Patients' satisfaction: It is patient's feeling of contentment when their needs and expectations have been met. Patients' satisfaction is one of the indicators that measures quality of nursing care. Participants were asked to rate their level of satisfaction on a five-point Likert scale. patient satisfaction as patients' subjective evaluation of their cognitive and their emotional reaction as a result of interaction between their expectations regarding nursing care and their perception of actual nursing care. The purpose of this study is to compare the traditional bed bath with the disposable wipes bed bath in terms of two outcomes: ICU nurses' satisfaction and patient's preference. [5]

Bed bath involve risks for the critical care nurses in ICU, as its demands intense physical effort from the nursing, However, it is also being done and supervised by nurses, as assess the patients' skin conditions. Some studies have found safety risks for the patients during bed bath, such as the risk of falls, accidental intubation in the ICU setting. In these studies, that appoint bed bath as a determinant factor in the work load aimed at optimizing the nurse's role for critical care patients in need of daily nurse-assisted during personal hygiene in ICU settings. Critically ill patients preferred to have their own individual choice of daily bathing procedure include the workload and organizational factors that support this practice, such as medical rounds, interventions by interdisciplinary team professionals, the movement of patients to treatments and procedures, and personnel restrictions that do not allow nurses to attend to bathing at other times of the day. [6]

These study conducted to demonstrate the patients' and nurse's satisfactions and opinions, making it necessary to review care management in critical care unites to favor patient needs, well-being, safety, and comfort. Adverse events have been documented in the researches, including changes in blood pressure, desaturation and mechanical ventilation disconnection, altered heart rate, peripheral oxygen saturation, ventricular fibrillation, and cardiac arrest. Therefore, nursing professionals should ensure that patients' essential hygiene needs are met not only at the expense of the correct implementation of a technique but also by taking into account those nursing procedures that are supported by nursing knowledge, are in accordance with the policies, and provide dignity and respect for all patients. [7]

Significance of the study

Every year in the United States, 2018 approximately 5%-10% of critically ill patients in ICU with a total of 897 beds and found that 98% of all basins sampled were contaminated with some type of microorganism. Also health care associated infections hospital acquired infection reported that there are much larger multicenter trial including 87 hospitals, Marchaim noted that 62.2% of patient bathing basins sampled were contaminated with hospital-acquired pathogens, so produced another methods of bed bath as disposable wipes with antiseptic solution and smoothing lotion to soft skin and cleaning agent and save nurses `times. [8]

Aim of the Study: the current study aimed primary to compare the satisfaction and opinions for patients and nurses regarding two types of bed bath at critically care units.

Research questions:

1. What are the critical care patients' satisfaction and opinions about different types of bed bath?
2. What are the critical care nurse's satisfaction and opinions about different types of bed bath ?

Methods:

Descriptive research design was applied in this study at the medical and general intensive care units, at Assiut University Hospital, Egypt at period from November 2017 to January, 2018. Sample of the study was convenient included sixty patients admitted at previous mention ICUs and had inclusion criteria as patients age between 20 – 60 years, Patients needed nurse-assisted bed baths and patients should be alert, aware and able to communicate. Patients were excluded if they were comatose, had chronic skin diseases and / or patients with dementia. The study included also sixty nurses whom assigned to work at previously listed ICUs. Data were collected using pre-prepared sheet developed by the researcher included three tools. **Tool one** characteristics of the study participant was structured and consisted of two parts:

Part one: Patient's sociodemographic data as age, sex, and diagnosis.

Part two: Nurses' sociodemographic data as nurse's age, sex, educational level, years of experience.

Tool two: Patients' satisfaction and opinion questionnaire: this tools constructed and developed after reviewing related literature [2, 4, 6-11] used to assess patients' opinion and preferences about the two types of bed bath (traditional and disposable bed bath). Included of patient's related questions focused on their satisfaction, preferences, time used and ethical considerations. They consisted of ten questions. Questions number (1, 2, 3, 4 and 5) had three reply possibilities: 1. Not satisfactory, 2. Satisfactory, 3. Very satisfactory and questions number (7, 8, 9 and 10) had four reply possibilities: Strongly Disagree (SD), Disagree (D), Agree (A) and Strongly Agree (SA). The study tool had scoring system ranged from (4- 20). Not satisfactory <50%, satisfactory (50 %- 75 %) and Vary satisfactory > 75%. Positive opinion <60% and negative opinion >75%.

Tool three: Nurses satisfaction and opinion about bed bath questionnaire: used to assess nurses' satisfactions and opinion about the two different types of bed bath (traditional and disposable bed bath) Questions to the patients focused on satisfaction, preferences, use of time and ethical considerations. Nine questions. Questions (1, 2 and 3) had three reply possibilities: 1. Not satisfactory, 2. Satisfactory, 3. Very

satisfactory. **The scoring system:** The total scores ranges from(3 – 9). Not satisfactory <50%, satisfactory (50 %- 75 %) and Vary satisfactory > 75%. But question (4, 5, 6, 7, 8 and 9) had four reply possibilities: 1. Strongly Disagree (SD), 2. Disagree (D), 3. Agree (A) and 4. Strongly Agree (SA). The total scores ranges from (6 to 30). negative opinion <60% and positive opinion >75%.

Ethical consideration

Administrative permission was obtained from the head of the intensive care unite and hospital director to conduct the study. Written official permissions was taken from the head nurses. Oral informed consent was obtained from the participants (nurses and patients). The researchers offer the aim of this study and significance. Participants assured the confidentiality of their responses.

Procedure:

Validity and reliability: The validity of both tools (one and two) were done by five expert professors in critical care nursing. The reliability of the tools was done using Cronbach' alpha test for (Tool one and two) were (0.88% and 0.87%) respectively. To ensure the tools clarity, applicability, feasibility & relevance, a pilot study was carried out on 6 nurses and 6 patients (10 %) from the sample and necessary modifications were done. Preparation phase and implementation phase are the two phases of the present study. Preparation phase, included tools constructing, preparation and tools testing for any different or unclear data.

Measurements/Instruments

Critical ill patients interviews:

The researchers conducted interviews with patients regarding satisfaction and opinions about the two bed-bath practices based on nine open-ended questions. The researcher conducted individual interviews with the patients who agreed to participate in face-to-face interviews in ICU and used the both types of bed bath alternatively according to nurses time and answer the questions. The interview, lasting for 10-15 minutes. Then researchers collected data for comparison two bed baths methods especially opinions of patients by using tool two. The researchers started the implementation phase. satisfaction and opinion assessment questionnaires (tool two) was obtain to each patients in their bed and ask the questionnaire with Arabic language.

Critical care Nurses interviews:

The researchers conducted interviews with ICU nurses satisfaction about the two bed-bath practices based on open-ended questions. One researcher conducted individual interviews with the ICU nurses who agreed to participate in face-to-face interviews in ICU room. The interview, lasting for 10-15 minutes, was administered during a rest period. Then researchers collected data for comparison two bed baths methods especially opinions of nurses. The researchers started the implementation phase. satisfaction and opinion assessment questionnaires (tool three) was distributed to each nurse in their nurse's room. Each nurse who agreed to participate in the study received (tool three) for 10-15 minutes to submit it in their working shift. Nurses instructed to submit the tool in the presence of the researcher for any questions to be answered and clarification was done.

Statistical analysis of the data:

The collected data were coded and entered in a data based file using the excel program for windows. Frequency analysis and manual revision were used to detect any errors. Statistical analysis were performed using the software program package SPSS, version 20 (SPSS Inc., Chicago, USA). Values are expressed as means + standard deviation (continuous variables) or as percentages of the group from which

they were derived (categorical variables). NOVA test used for correlation between variables. Independent samples t-test was used to compare the values of the mean score between the both group. The critical value of the tests P was considered statistically significant when P less than 0.05

Results:

Table (1):- Frequency distribution of sociodemographic data for patient (total number = 60)

Variables	Medical ICU (No=30)		General ICU (No=30)	
	No	%	No	%
Age				
- 20 - 30) Yrs	7	23.3	5	16.6
-(31- 39) yrs	11	36.6	13	43.3
-(40 -49) yrs	9	30	10	33.3
-(50 -60) yrs	3	10	2	6.66
Gender				
-Male	17	56.6	18	60
-Female	13	43.3	12	40
Diagnosis				
a. Diabetes	5	16.6	4	13.3
b. Hypertension	7	23.3	5	16.6
c. COPD	3	10	6	20
d. Ischemic heart diseases	9	30	8	26.6
e. Myocardial infarction	6	20	7	23.3

Table (1): shows that most of the age groups were (31-39) years from both ICUs there percentage were (36.6% and 43.3%) respectively. Concerning the gender, the highest percentage of the study groups (56.6% and 60%) were males while(43.3% and 40%) in the both ICUs were female. Regarding diagnosis of the study groups was found to be (16.6 – 13.3)% respectively in the both ICUs had diabetes mellitus and (23.3% and 16.6%) had hypertension.

Table (2):- Nurses distribution related to their sociodemographic data (total number =60)

Variables	Medical ICU (No=30)		General ICU (No=30)	
	No	%	No	%
Age				
(20 - 30) years.	10	33.3	9	30
(31- 39) years.	11	36.6	13	43.3
(40 -49) years.	7	23.3	4	13.3
(50 -60) years.	2	6.66	4	13.3
Sex				
Male	0	0.00	0	0.00
Female	30	100	30	100
Level of education				
Diploma	17	56.6	15	50
Technical nurse	6	20	9	30
Bachelor degree	7	23.3	6	20
Experience years				
< 5 years.	4	13.3	2	6.66
5 -10 years.	8	26.6	7	23.3
11-15 years.	9	30	11	36.6
>15 years.	9	30	10	33.3

Table (2): illustrated that (36.6% and 43.3%) of the studied sample from the both ICUs their age were from (31-38) years. All the nurses were female. Concerning the level of education (56.6%) of them had diploma degree. As regard to experience years it was observed that (30% and 36.6%) of them had (11-15) years.

Table(3) :- Comparison between both types of bed bath in relation to patients' satisfaction

Questions	Traditional bed bath No = 60		Disposable bed bath No = 60		P. value
	No	%	No	%	
What is your opinion for use of two types					
Not Satisfactory	11	18.3	18	30.0	<0.001**
Satisfactory	18	30.0	32	53.3	
Very satisfactory	31	51.7	10	16.7	
2. What about privacy and dignity during procedure?					
Not Satisfactory	0	0.0	14	23.3	<0.001**
Satisfactory	16	26.7	34	56.7	
Very satisfactory	44	73.3	12	20.0	
3. How clean do you feel after bath?					
Not Satisfactory	0	0.0	40	66.7	<0.001**
Satisfactory	24	40.0	20	33.3	
Very satisfactory	36	60.0	0	0.0	
4. What was softness of skin after bath?					
Not Satisfactory	32	53.3	4	6.7	<0.001**
Satisfactory	26	43.3	27	45	
Very satisfactory	2	3.3	29	48.3	
5. What was your opinion about communications skills during bath?					
Not Satisfactory	12	20.0	8	13.3	0.327
Satisfactory	48	80.0	52	86.7	
Very satisfactory	0	0.0	0	0.0	

Table (3): demonstrates that (53.3%) from the patients was satisfied with the disposable bed bath. Concerning privacy and dignity during procedure, it was observed that (73.3%) were very satisfied with the traditional type of bed bath while (56.7%) was satisfied with the disposable type of bed bath. Regarding feeling of cleanliness after the bed bath (60%) were very satisfied with traditional bed bath while only (33.3%) satisfied with disposable bed bath type. Concerning softness of skin after bath, it was documented that (53.3%) not satisfied with traditional bed bath. While (48.3% and 45%) were very satisfied and satisfied respectively with disposable bed bath type and there was a statistical significance differences between the both types of bed bath with P value(< 0.001**). As regard to patient's opinion about communications skills during bath, it was documented that (80% and 86%) from the both types respectively were satisfactory with communication skills and there was no a statistical significance differences between the both types of bed bath.

Table (4):- Distribution of Patients' opinions about bed bath questionnaire

Questions	Traditional bath No = 60		Disposable bath No = 60		P. value
	No	%	No	%	
1. Did you present any skin problems?					
Strongly Disagree	2	3.3	0	0.0	<0.001**
Disagree	42	70.0	26	43.3	
Agree	10	16.7	32	53.3	
Strongly agree	00	0.00	00	0.00	
2. Did you feel fear and anxiety during bath?					
Strongly Disagree	00	0.00	00	0.00	0.056
Disagree	34	56.7	44	73.3	
Agree	26	43.3	16	26.7	
Strongly agree	00	0.00	00	0.00	
3. Did you prefer to share member of family during bed bath?					
Strongly Disagree	00	0.00	00	0.00	<0.001**
Disagree	0	0.0	22	36.7	
Agree	32	53.3	38	63.3	
Strongly Agree	28	46.7	0	0.0	
4. Did you feel pain during bath?					
Strongly Disagree	00	0.00	00	0.00	0.001**
Disagree	38	63.3	22	36.7	
Agree	22	36.7	28	46.7	
Strongly Agree	0	0.0	10	16.7	
5. What about time consuming during bath?					
Strongly Disagree	0	0.0	22	36.7	<0.001**
Disagree	0	0.0	38	63.3	
Agree	48	80.0	0	0.0	
Strongly Agree	12	20.0	0	0.0	

Table (4): shows that (53.3%) from study sample agree that disposable bed bath causes skin problem. While (70%) from the patients disagree that traditional bed bath caused skin problem. Regarding feeling of anxiety and depression during bed bath, the finding results revealed that (43.3%) from the study sample agree that presence of anxiety and fear during traditional bed bath while only (26.6%) from the patients agree that disposable bed bath cause anxiety and fear. Concerning preference of the patients for presence of family member during bed bath procedure, the present study documented that (53.3% and 63.3%) respectively from the both types of bed bath agree for presence of family member during bed bath procedure. and there was a statistical significance differences between the both types of bed bath with P value (< 0.001**).

As regard to presence of pain during this procedure, it was documented that (36.6%) and (46.6%) respectively from the study sample agree. Concerning to the time consuming during this procedure, it was documented that (80%) agree that traditional bed bath had time consuming. While only (36.6%) disagree that the disposable one

had time consuming and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$).

Table (5):- Distribution of nurses satisfaction about bed bath questionnaire

Questions	Traditional bath No = 60		Disposable bath No = 60		P. value
	No	%	No	%	
1.What was your opinion about two types of bed bath?					
Not satisfactory	14	23.3	6	10.0	0.131
Satisfactory	33	55.0	41	68.3	
Very Satisfactory	13	21.7	13	21.7	
2. what about patients satisfaction feedback?					
Not satisfactory	3	5.0	30	50.0	$<0.001^{**}$
Satisfactory	40	66.7	27	45.0	
Very Satisfactory	17	28.3	3	5.0	
3.How about cleanliness and skin integrity after bath?					
Not satisfactory	0	0.0	28	46.7	$<0.001^{**}$
Satisfactory	34	56.7	32	53.3	
Very Satisfactory	26	43.3	0	0.0	

Chi-square test - Independent samples T- test Statistical significant difference ** ($P < 0.005$).

Table (5) demonstrates that (68.3%) from the nurses had satisfaction with disposable bed bath and there was no a statistical significance differences between the both types of bed bath. Concerning patient's satisfaction feedback, it was observed that (66.6%) had satisfactory with traditional bed bath while (45%) were satisfied with the disposable type of bed bath. and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). Regarding feeling of cleanliness after bath was founded that (56.6%) were satisfied with traditional bed bath while (53.3%) satisfied with disposable bed bath type and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$).

Table (6): Comparison between the both types of bed bath regarding nurse's opinions

Questions	Traditional bath No = 60		Disposable bath No = 60		P. value
	No	%	No	%	
1.what is your opinion with time consuming during bath?					
Strongly Disagree	00	0.0	11	18.3	$<0.001^{**}$
Disagree	00	0.0	49	81.7	
Agree	25	41.6	0	0.0	
Strongly Agree	35	58.3	0	0.0	
2. Did you take much effort during bath?					
Strongly Disagree	0	0.0	6	10.0	$<0.001^{**}$
Disagree	0	0.0	44	73.3	
Agree	38	63.3	10	16.7	
Strongly Agree	22	36.7	0	0.0	
3. Did you take much prepared equipment?					
Strongly Disagree	0	0.0	42	70.0	$<0.001^{**}$
Disagree	0	0.0	18	30.0	

Agree	21	35.0	0	0.0	
Strongly Agree	39	65.0	0	0.0	
4. Did make skin irritations after bath?					
Strongly Disagree	00	0.0	00	0.0	
Disagree	37	61.7	12	20.0	
Agree	23	38.3	41	68.3	<0.001**
Strongly Agree	0	0.0	7	11.7	
5. Did the procedure difficult to apply?					
Strongly Disagree					
Disagree	0	0.0	39	65.0	
Agree	32	53.3	21	35.0	<0.001**
Strongly Agree	28	46.7	0	0.0	
6. Did you observe anxiety and fear for patients during bath?					
Strongly Disagree	00	0.0	00	0.0	
Disagree	27	45.0	36	60.0	
Agree	26	43.3	18	30.0	0.244
Strongly Agree	7	11.7	6	10.0	

Chi-square test Independent samples T- test Statistical significant difference ** (P < 0.005)

Table (6): demonstrates that nurse's opinion about time consuming during bed bath procedure, were (58.3%) had strongly agree and (41.6%) were agree that traditional bed bath consumes time. While (81.6%) were disagree that disposable bed bath consumes time. As regard nurse opinion about bed bath if took much effort, (63.3%) from nurses reported that traditional bed bath took much effort during procedure and need two nurses during procedure. But (16.6 %) were agree that disposable bed bath took effort. Concerning that bed bath took much prepared equipment, it was observed that (65.6%) strongly agree and only (35%) agree. While (70%) strongly disagree and only (30%) disagree respectively were in disposable bath and there was a statistical significance differences between the both types of bed bath with P value (< 0.001**).

Regarding nurse opinion in skin irritation after bed bath, the present study revealed that (38.3%) and (63.6%) respectively in the both types of bed bath (traditional bath cause skin irritation less than disposable bath). Concerning nurse opinion in relation difficult during apply this procedure. It was documented that (53.3%) and (35%) respectively from the two types of bed bath were agree the traditional more difficult to apply rather than disposable bath and there was a statistical significance differences between the both types of bed bath with P value (< 0.001**). As regard the nurses opinions about presence of fear and anxiety during procedure, it was documented that (43.3%) and (30%) from the both types respectively were agree that traditional more cause fear and anxiety than disposable and there was no a statistical significance differences between the both types of bed bath.

Table (7):- Comparison between traditional and disposable bath related to patients and nurses (minimum score and maximum score).

Variables	Min score	Max Score	Traditional bath	Disposable bath	P. value
Patients satisfaction about bed bath	3	15	10.97±1.34	9.43±1.48	<0.001**
Patients opinions about bed bath	5	25	16.67±1.6	13.97±2.01	<0.001**
Nurses' satisfaction about bed bath	3	9	6.65±0.92	5.2±1.01	<0.001**
Nurses' opinions about bed bath	6	30	19.47±2.03	12.85±1.9	0.001**

Independent T- test statistically significant difference with P. value <0.001**

Table (7): shows that traditional and disposable bath related to patient's satisfaction and opinions it was documented that mean \pm SD (10.97 \pm 1.34) and (9.43 \pm 1.48) had score ranged from (3 -15). Also Patients opinions about bed bath with mean \pm SD (16.67 \pm 1.6 and 13.97 \pm 2.01) respectively. While nurse's satisfaction with mean \pm SD (6.65 \pm 0.92 and 5.2 \pm 1.01) respectively and nurses' opinions about bed bath scoring from (6 - 30) with mean \pm SD (19.47 \pm 2.03 and 12.85 \pm 1.9 and there was a statistical significance differences between the both types of bed bath with p. value (<0.001**).

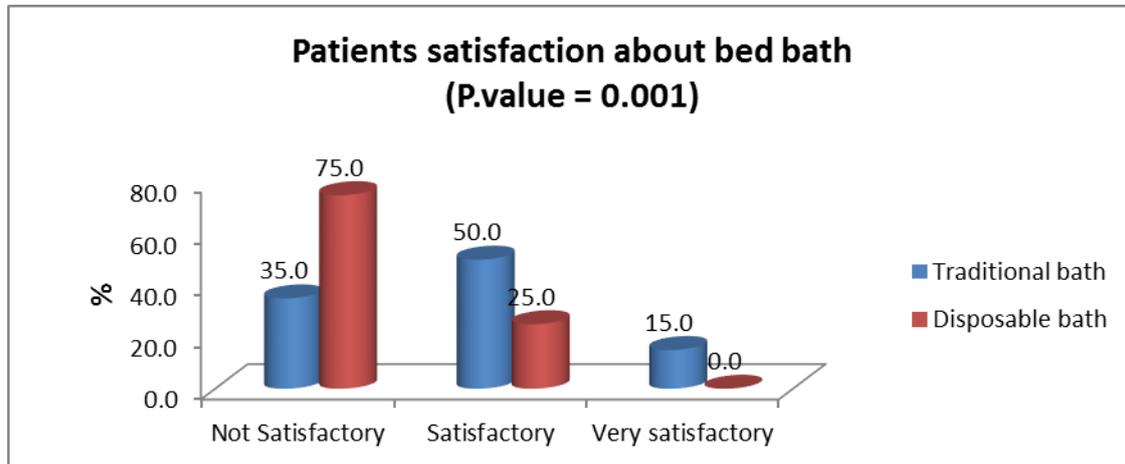


Figure (1):- Comparison between traditional and disposable bath related to patients satisfaction

Figure (1): illustrated that patient's satisfaction, was observed (50%) and (15%) satisfied with traditional methods. While patients satisfaction and very satisfaction about disposable bath was (25% and 0%) respectively and there was a statistical significance differences between the both types of bed bath with p. value = 0.001**.

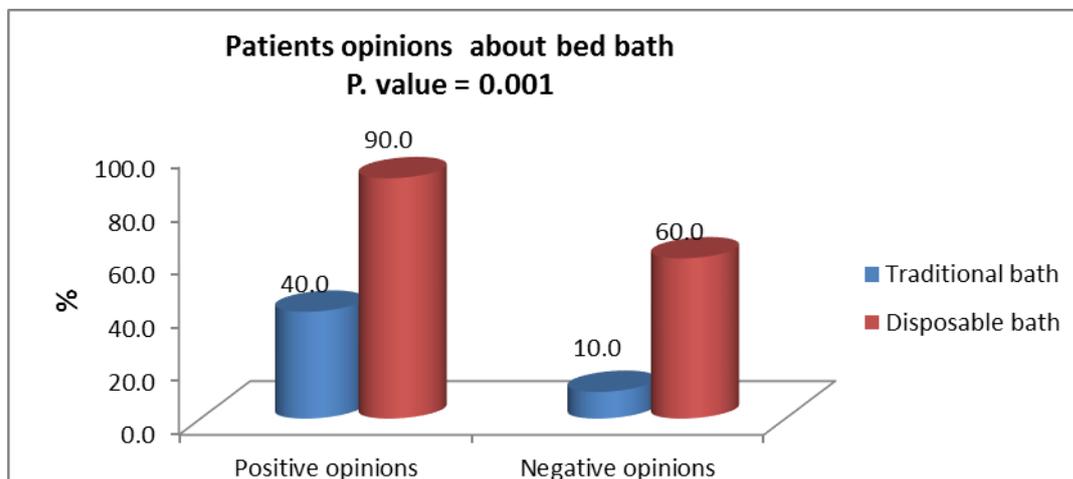


Figure (2):- Comparison between traditional and disposable bath related to patients opinions.

Figure (2): demonstrates that patients opinions were (40%) and (90%) positive opinions with the traditional and disposable bath respectively and there was a statistical significance differences between the both types of bed bath with p. value (= 0.001**).

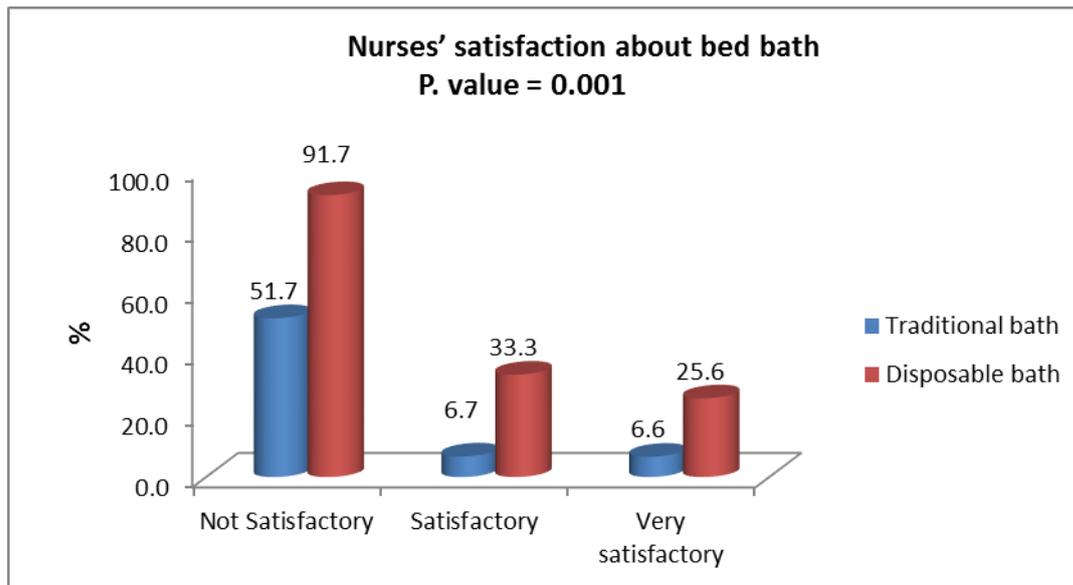


Figure (3):- Comparison between traditional and disposable bath related to Nurses' satisfaction

Figure (3): illustrates that nurse's satisfaction, were (6.7%) and (33.3%) satisfied with traditional and disposable bath respectively. While patients very satisfaction had (6.6% and 25.6%) respectively and there was a statistical significance differences between the both types of bed bath with p. value (= 0.001**).

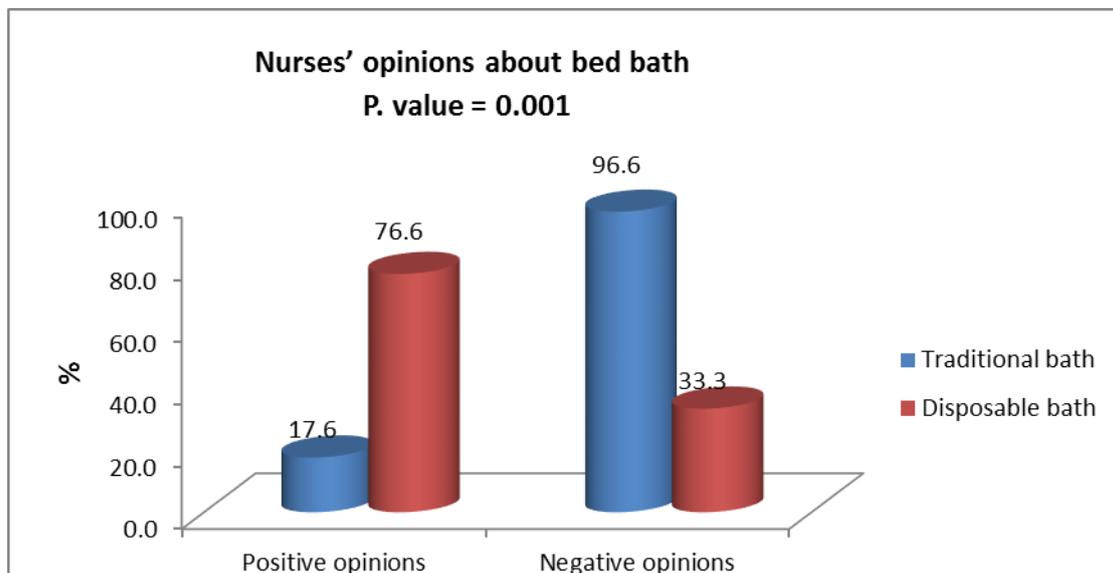


Figure (4):- Comparison between traditional and disposable bath related to Nurses' opinions

Figure (4): demonstrates that nurse's opinions, it was observed that (17.6%) and (76.6%) had positive opinions with the traditional and disposable bath respectively and there was a statistical significance differences between the both types of bed bath with p. value (= 0.001**).

Table (8): Correlations between patients satisfaction and patients opinions related to their sociodemographic data

	No	Patients satisfaction		Patients opinions	
		Traditional bath	Disposable bath	Traditional bath	Disposable bath
		Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD
Age					
20 - 30) years.	10	10.4 \pm 0.97	10.1 \pm 1.45	16.2 \pm 1.4	14.5 \pm 2.22
(31- 39) years	19	11.11 \pm 1.29	9.16 \pm 1.38	17 \pm 1.76	13.84 \pm 2.09
(40 -49) years	24	11.21 \pm 1.41	9.29 \pm 1.55	16.38 \pm 1.53	14.25 \pm 1.82
(50 -60) years	7	10.57 \pm 1.62	9.71 \pm 1.5	17.43 \pm 1.51	12.57 \pm 1.81
P.value		0.343	0.373	0.259	0.202
Sex					
Male	33	10.91 \pm 1.31	9.36 \pm 1.52	16.73 \pm 1.72	14.21 \pm 1.75
Female	27	11.04 \pm 1.4	9.52 \pm 1.45	16.59 \pm 1.47	13.67 \pm 2.29
P.value		0.716	0.690	0.749	0.299

Independent T- test ANOVA. Test *Statistically Significant Difference At P. value <0.05

Table (8): Shows that no correlations between patient's satisfaction and patients opinions related to their Socio demographic data as (age and sex).

Table (9): Relation between Nurses' satisfaction and opinions related to their Socio demographic data

Variables	No	Nurses' satisfaction		Nurses' opinions	
		Traditional bath	Disposable bath	Traditional bath	Disposable bath
		Mean \pm SD	Mean \pm SD	Mean \pm SD	Mean \pm SD
Age					
(20 - 30) years.	13	6.69 \pm 1.03	5.15 \pm 0.9	19.77 \pm 2.09	13.31 \pm 2.14
(31- 39) years.	16	6.81 \pm 0.91	5.25 \pm 0.58	19 \pm 2.25	12.88 \pm 1.71
(40 -49) years.	20	6.7 \pm 0.98	5.3 \pm 1.17	19.4 \pm 2.06	12.55 \pm 2.01
(50 -60) years.	11	6.27 \pm 0.65	5 \pm 1.34	19.91 \pm 1.64	12.82 \pm 1.83
P.value		0.494	0.879	0.652	0.749
Sex					
Male	24	6.75 \pm 0.79	5.21 \pm 1.02	19.33 \pm 2.2	12.54 \pm 1.77
Female	36	6.58 \pm 1	5.19 \pm 1.01	19.56 \pm 1.93	13.06 \pm 1.98
P.value		0.495	0.959	0.681	0.310
Work experience					
< 5 years.	8	6.88 \pm 0.83	4.88 \pm 1.13	20.25 \pm 1.58	12.25 \pm 1.75
5 -10 years.	23	6.65 \pm 1.03	5.3 \pm 1.18	19.7 \pm 1.77	12.52 \pm 1.95
11-15 years.	18	6.61 \pm 0.98	5.17 \pm 0.71	18.44 \pm 2.04	13.56 \pm 2.23
>15 years.	11	6.55 \pm 0.69	5.27 \pm 1.01	20.09 \pm 2.39	12.82 \pm 0.98
P.value		0.889	0.771	0.065*	0.270

Independent T- test. ANOVA. Test *Statistically Significant Difference with P. value <0.05

Table (9): Illustrates that correlations between patients satisfaction and patients opinions related to the nurses work experience only and there was a statistical significance differences between the both types of bed bath with p. value (= 0.001**).

Discussion

From my point of view as a researcher the disposable wipes of bed bath less time consuming and didn't need equipment or more than nurses. So the nurses prefer it than traditional bath. But in relation to the aim of this study patients prefer the traditional bed bath rather than disposable wipes. Finding the current study revealed that the most of age groups (31-39 years) of the both types of ICUs. This results disagreement with **Funda, et al.** [8] who reported that the mean age was (in a range of 24-56 years). Concerning the gender, the highest percentage of the study groups

were males while more than thirty percent in the both ICUs were female. The current study demonstrated the diagnosis of the study groups had low percent in the both ICUs had diabetes mellitus and less than thirty percent had hypertension. Also thirty percent had ischemic heart diseases and low percent in the both types of ICUs had myocardial infarction. This results disagreement with Goldrick^[9] who documented that less than half of the participants indicated there were differences in bathing procedures by medical diagnosis and these differences were not statistically significant ($P > .05$).

The present study illustrated that more than thirty percent age group of nurses from (31-38) years, and all the nurses were female. Concerning the level of education the most of them have diploma education. As regard to experience years it was observed that more than thirty percent of them have (11-15) years. This results disagreement with Horstmann, et al.^[10] who documented that The mean age for the women (54 years) is slightly higher than that of the men (51 years), while majority for the men (37 years) compared to the women (32 years). Concerning the gender, more than half of the study groups were males while less than half in the both ICUs were female, the majority were female, the most were bachelor's degree, work experience was (in a range of 1-36 years), and work experience in ICU >5 years.

Finding the current study demonstrates that the most from the patients had satisfaction with disposable bed bath and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This results disagreement with Musuza, et al.^[11] who documented that the most of patients tend to prefer the traditional bed bath compared with disposable bed bath. Another point of view documented Britta, et al.^[12] who reported that the most of patients prefer both types of baths. Also this agreement with Athayne, et al.^[13] and Lis, et al.^[1] whom reported that the patient's satisfaction with the both types with the nursing team made the large effect on the patients' satisfaction. and there was no a statistical significance differences between the both types of bed bath.

Concerning privacy and dignity during procedure, the current study observed that the majority had strongly satisfactory with traditional bed bath while the most had satisfactory with disposable type of bed bath. and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This results agreement with Gisele, et al.^[7] who documented that privacy is concerned, the nurses should maintain the patient's privacy and dignity, avoiding unnecessary exposure during bath. Another point of view documented with Athayne, et al.^[13] who founded the non-preservation of the patients' privacy during bed bath.

The professional experience and the workload can make up a thin line that can turn the nurses less cautious in care delivery in terms of preserving the patient's privacy during the bed bath procedure. This results agreement with Ian^[2] who reported that the nurses should emphasis on maintaining patient dignity and respect during bed bath procedure. This results agree with Hordam, et al.^[14] who told that the nurse should ensure patient privacy, show respect, promote the expression of needs and promote comfort. Helping patients to maintain their personal hygiene needs contributes to the comfort, safety, well-being, and dignity of the individual in the both types. Regarding feeling of cleanliness after bath, the present study founded that the most of patients had strongly satisfied with traditional bed bath while nearly thirty percent were satisfied with disposable bed bath type and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This result

disagreement with **Gisele, et al.** [7] who reported that most of patients and nurses preferred disposable bath in relation to cleansing and moisturizing. Also this results disagreement with **Lis, et al.** [1] who reported the patients felt clean nearly half percent was found the disposable bath best, low percent found the traditional bath best and there was no significant difference in the preferences. Concerning softness of skin after bath, the current study documented that more than fifty percent not satisfactory with traditional bed bath. While nearly fifty percent were very satisfactory and satisfactory with disposable bed bath type and there was a statistical significance differences between the both types of bed bath with P value $< 0.001^{**}$. This results agreement with **Azza, et al.** [15] who told that patients in the study had strongly satisfaction with disposable bed-bath and described greater skin softness. This results disagreement with **Gisele, et al.** [7] who reported that traditional bath not only improved dry skin, but was overwhelmingly preferred by both patients and nurses participating in this study.

As regard, opinion of patients about communications skills during bath, the present study documented that the majority from the both types respectively were satisfactory with communication skills and there was no a statistical significance differences between the both types of bed bath. This agreement with **Athayne, et al.** [13] who founded that critical care nurses in ICU during the bath interact with patients with communication skills which refer to the bed bath procedure in the critical unites before bed bath. This results supported with **Funda, et al.** [8] who reported that the most of nurses providing communication to the patient, patient feedback, cleanliness, integrity, and softness of skin), the traditional bed-bath application scored higher than the disposable wipes application. With significant difference between the two applications ($p \leq 0.01$). Findings the present study in relation patient opinion about skin irritation during bed bath, it was observed that more than fifty percent from study sample agree that disposable bed bath caused skin irritation. While the majority from the patients disagree that traditional bed bath caused skin problem. This results disagreement with **Schoonhoven, et al.** [16] who documented that there was no high quality evidence suggestive of significant difference in the time taken, frequency or skin dryness and irritations between traditional bed bathing and use of disposable bed bath.

Regarding feeling of anxiety and fear during bed bath, the finding results revealed that less than fifty percent from the study sample agree that presence of anxiety and fear during traditional bed bath while low percent from the patients agree that disposable bed bath cause anxiety and fear and there was no a statistical significance differences between the both types of bed bath. This results agreement with **Azza, et al.** [15] who reported that bed-bath should be performed according to patients' needs to reduce anxiety and fear during procedure. Concerning preference of the patients for presence of family member during bed bath procedure, the present study documented that the most of study sample from the both types of bed bath agree for presence of family member during bed bath procedure and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This results agreement with **Aminate** [17] who reported that the majority of the patients respondents strongly agree that their families should presence during bed bath procedure. Also this results agreement with **Gisele, et al.** [7] who reported that the majority of patients prefer sharing one from the family member's help during the bed bath.

As regard the presence of pain during this procedure, it was documented that more than thirty percent from the study sample agree with presence pain during the both types especially disposable types and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This results agreement with **Gisele, et al.** [7] who reported that it was observed that, the moving of patients in the bed during the bath can turn into a painful for the patient. The patient reports that the time of the bath caused bedsore hurts especially traditional bed bath. Concerning the time consuming during this procedure, the current study documented that the majority was agree that traditional bed bath had time consuming. While more than thirty percent disagree that disposable had time consuming and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This results disagreement with **Lis, et al.** [11] who reported that the time spent bathing was adequate. Nearly half percent was found the disposable bath best, low percent found the traditional best and there was no significant difference. This results disagreement with **Goldrick** [9] and **Funda, et al.** [8] whom documented that the traditional bath is time consuming rather than disposable bed bath.

As regard the nurse satisfaction about two types of bed bath, the current study demonstrates that the majority from the nurses had satisfaction with disposable bed bath and there was no a statistical significance differences between the both types of bed bath. This results agreement with **Britta, et al.** [12] who reported that the most of nurses prefer disposable baths compared to wash basins. Concerning time consumption documented that half percent from the nurses prefer disposable baths compared to traditional basins. Also this results agreement with **Azza, et al.** [15] who told that nurses in the study had strongly satisfaction with prepackaged bed-bath, ease of administration with this type of bed-bath. This results disagreement with **Funda** [8] who documented that critical nurses preferred the traditional bed-bath application versus disposable wipes bed bath. This results disagreement with **Swan, et al.** [18] who reported that mostly ICUs nurses preferred traditional bed baths than wipes. This results agreement with **Horstmann, et al.** [10] **Martin, et al.** [19] whom mentioned that ICU nurses' satisfaction/preference the disposable bed-bath versus the traditional bed bath application.

Another point of view documented with **Gillis, et al.** [20] who told there was no significant difference in the nurse preferences of the two types of bed baths. Regarding feeling of cleanliness after bath was founded that the majority had satisfied with traditional bed bath while the most satisfied with disposable bed bath type and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This results supported with **Swan, et al.** [18] who reported that the critical care nurses communication with patients, patient satisfaction feedback, and cleanness and integrity of skin were the reasons for those who preferred the traditional bed bath. Concerning the nurses and opinion about time consuming during bed bath procedure, it was observed that the most of nurses was strongly agree and more than thirty percent were agree that traditional bed bath took time consuming during this procedure. While the majority were disagree that disposable bed bath took time consuming and there was a statistical significance differences between the both types of bed bath with P value $< 0.001^{**}$. This results agreement with **Azza, et al.** [15] who told that the timing of bed-bath, it was observed that the majority of nurses took up to 20 minutes in performing bed-bath practices in traditional methods. This results online with **Funda, et al.** [8] who documented that

the highest percentages of traditional bed baths were take time consuming nearly about 21-30 minutes. There was a statistically significant difference in application time and in numbers of nurses between the two bed baths. This results agreement with **Horstmann, et al.** [10] who told that there is a significant difference in time consumption. Therefore it is clear that using the disposable bed bath is quicker compared to using the traditional bed bath.

As regard nurse opinion about bed bath if took much effort, the majority from nurses reported that traditional bed bath took much effort during procedure and need two nurses during procedure. But low percent were agree that disposable bed bath took effort and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This results agreement with **Gisele, et al.** [7] who reported that another point of view the majority of nurses reported that the bed bath involves intense physical effort to move and change the patient in bed. This results online with **Funda, et al.** [8] who documented that the highest percentages of traditional bed baths were take much effort than disposable wipes bed-bath method. Concerning that bed bath took much prepared equipment, it was observed that the majority of nurses strongly agree in traditional method. While the majority strongly disagree with disposable bath and there was a statistical significance differences between the both types of bed bath with P value ($< 0.001^{**}$). This results agreement with **Azza, et al.** [15] who reported that the prepackaged bed-bath resulted in the use of significantly less product, a reduction in time to gather equipment and perform the bath, and strongly satisfaction of nurses.

As regard correlations between patients satisfaction and opinions related to their Socio demographic data as (age and sex), it was observed that no correlations between patients satisfaction and opinions related to their Socio demographic data as (age and sex). This results agreement with **Gillis, et al.** [20] who told that there was no correlation between the both types in relation to patients ` age and gender. Also **Gillis, et al.** [20] who documented that disposable bath were at the high end of the score (score 8–10 “The disposable bath was quick and easy to use.” “Patients experienced a high level of comfort.” Combining nurses’ and patients’ satisfaction was possible in thirty percent cases. There was a correlation in the majority of preferences, where the disposable bath was favored.

Conclusions

The present study concluded that the patient satisfied and had positive opinion with traditional bed bath. While ICU nurses satisfied and had positive opinions about disposable bed bath.

Recommendations

Based on the findings of the current study, the followings are recommended:

For nursing practice: Educational programs should be conducted for the nursing staff, in intensive care settings about the needs of patients preferences and his opinions in bed bath procedure.

For nursing education: The importance should be given to the nurses about bed bath practices in ICU.

For nursing administration: The nurse administrator should plan and organize educational programs policies and traditional believes of patients about bed bath.

For nursing research: Further studies on the bed bath practices in all ICUs.

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