

## ORIGINAL RESEARCH

# Nurse-assisted personal hygiene to older adults 65+ in home care setting

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## ABSTRACT

**Background and objective:** Assisting frail older adults in home care settings with personal hygiene is a daily nursing role. Both Nightingale and Henderson had in their approach to basic nursing focus on assisting patients in their need of nurse assisted bath. Since 1994 focus on using a new technology to patient in dependency of nurse-assisted bath was developed. A clinical study involving older adults in need of nurse-assisted bath was carried out in a public homecare setting. This study aimed to study and compare older adults' attitudes, experiences and evaluation of using traditional bath with soap and water versus prepacked products to their personal hygiene.

**Methods:** A number of 20 men and women participated in our research with focus on their daily need of nurse-assisted bath. The older adults had given a written consent. All participants were informed about the study verbally and in writing and they all agreed to participate and signed written informed consent forms. All data were handled confidentially, and the participants' anonymity was assured. A clinical study was carried out. During three weeks, the older adults had nurse-assisted bath with soap and water two days followed by two days using prepacked wash-cloths. The same nurse assisted the older adults all days, and they were interviewed before the research. Relevant data as age, gender, bath facilities at home, walking ability, dependency on help from others, contact to family/friends were collected. In the research period the older adults' self-reported experiences with the two types of baths were registered. The nurses observed the baths with focus on the older adults' attitude, satisfaction and experiences.

**Results and conclusions:** The patients preferred to have their own individual choice of daily bath type. Pre-packed wash-cloths were overall preferred by the nurses.

**Key Words:** Older adults, Patient involvement, Clinical practice, Personal hygiene, Pre-packed wash-cloths-research

## 1. INTRODUCTION

Every day in both hospitals and home care settings all over the world, many patients need nurse-assisted bath because they are too frail to manage their own hygiene.<sup>[1]</sup> Two types of baths are used in hospitals: the traditional basin with soap and water or the prepared wash-cloths, which are pre-

packed in single units and heated before use.<sup>[2]</sup> A few studies with the focus on nurse-assisted bath in hospitals have been carried out since 1994, where the single unit bath wash-cloths were invented.<sup>[3]</sup> A single unit bath consists of eight wash-cloths comprised in a bag, and the bag is heated in a microwave oven before use. This introduced the beginning

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of a new era in nurse assisted bath methods based on new technology and are today generally used in hospitals all over the world.<sup>[1-6]</sup>

Still, there are very few studies and research to validate, whether the new bath technology is better than the well-known basin-type with soap and water. Only a few studies describe<sup>[1,2,5-10]</sup> the patients' and the nurses' attitude, experiences and evaluations of using the two methods. In home care-settings no studies are found, where the two types of nurse-assisted baths are explored, why it necessary to conduct this study in a home-care setting.

Florence Nightingale published in 1860 "Notes on Nursing"<sup>[3]</sup> her ideas of nursing as based on individual, societal and professionals values influenced by theories as adaptation, need and stress theories.<sup>[3]</sup> She identified five major components of a healthy environment: ventilation, light, warm, control of effluvia and noise. With specific regard to nurse-assisted bath, her focus is on the outcome of the bath. In her opinion both ventilation and skin-cleanliness is pretty much the same, to wit, removing harmful matter from the system as rapidly as possible. Care should be taken in all these procedures of sponging, washing, and cleansing the skin, not to expose too great a surface at once, and to check the perspiration, which would renew the evil in another form.

The various ways of washing the sick need not here be specified, the less so as the doctors ought to say which is to be used.<sup>[3]</sup> According to Virginia Henderson's concept of nursing, there are 14 basic human needs. Virginia Henderson's approach to basic human needs was developed based on physiology, medicine, psychology and physics and published in 1966.<sup>[8]</sup> "The nature of Nursing" is teaching nurses how to assist and support patients to perform activities that contribute to their independence, health and recovery; the patients would perform these activities unaided if they had the necessary strength, will or knowledge to do so.<sup>[8]</sup> Personal hygiene is one of her 14 basic needs.

The Australian nurse and sociologist Lawler<sup>[11]</sup> researched how nurses performed personal hygiene on patients depending on the nurses' assistance. She describes how the patient reacts when they are in the need of help to nurse assisted bath and how this need be taken into consideration during the sequences of bathing. Lawler uses somology as a definition related to the body and integration of the object body (the thing) into an experience, so that it is simultaneously an object, a means of experience, a means of expressions, a manner of presence among other people and a part of one's personal identity. Lawler included in her research four rules: the compliance and control rule, the dependency rule, the modest rule and the protection rule. Two main factors are

described: two regarding the use of uniform and behavior – three factors regarding relations and actions. Thus, she uses the term "minifisms" defined as a description of the need for the nurse to help/assist the patient in feeling comfortable in an uncomfortable situation. Minifisms mean, that the nurse can minimize the likely embarrassment the patient might experience.<sup>[11]</sup>

Skewes<sup>[2]</sup> invented the new bag bath. It consisted of eight wash-cloths, in one bag. Personal hygiene solution was added before the wash-cloths were heated in a microwave oven. A new approach to meet patients' needs for personal hygiene began with the possibilities of choosing soap and water versus pre-packed wash-cloths.

In general, the nurses all over the world preferred very quickly bag bath wash-cloths as an easy and comfortable procedure for personal hygiene. But unfortunately, very little research or documentation was carried out in terms of patients' and nurses' attitude, satisfaction, experiences and evaluation of this pre-packed wash-cloths.

An earlier randomized study was performed in 2004, which compared traditional nurse assisted bath with soap and water versus pre-packed wash-cloths for critically ill patients.<sup>[10]</sup> Since the patients in the study were in intensive care units, they were not able to communicate their experiences and satisfaction about the two different methods of nurse assisted bath; soap and water versus bath wipes. Furthermore, the study had focused on skin, microbiology, nurse satisfaction and cost.

In a Dutch systematic review from 2013 confirms the lack of high-quality research studies in providing evidence-based guidelines for personal hygiene.<sup>[9]</sup> A randomized clinical study from 2014 concluded, that most patients diagnosed with heart failures in an intensive care unit preferred the disposable bath.<sup>[1]</sup>

Present literature research illustrate<sup>[1,2,5-10]</sup> that the cost-benefit effect is a dominating and underlying aim for the four other areas found, i.e. the microbiology, the skin quality, the satisfaction, and the traditional versus the new method of nurse assisted personal hygiene to older adults in homecare settings. Implementation of the new method with washcloths is cost saving and less time-consuming. It seemed necessary to study and compare both the patients' and the nurses' experiences and satisfaction by using disposable bath versus bath with soap and water in a home-care setting.

### 1.1 Aim

To study and compare older adults' attitudes and self-reported experiences by using traditional bath with soap and water versus pre-packed wash-cloths to their daily nurse

assisted bath in a home-care setting.

## 1.2 Ethical considerations

The study was registered and approved by the Danish Protection Agency (No. 2016-55-0804). In agreement with the Declaration of Helsinki, the older adults were given both verbal and written information about the study. They hereby gave their written consent. The aim and procedures of the study were described as well as participation was voluntary and it was possible to withdraw at any time. The older adults were guaranteed confidentiality and secure data storage. Other ethical considerations were respected in relation to being observed while receiving assistance with personal hygiene. The nurses were as professional observers conscious, to be discrete and respectful to patient's modesty.

## 2. METHODS

This was a descriptive study based on patients' and nurses' self-reported data.

### 2.1 Design

A clinical study was planned and carried out in a home-care setting for older adults including men and women in daily need of a nurse-assisted personal hygiene. Twenty men and women participated, and they were introduced to both types of baths. Interviews (see Tables 1-3) were used to describe the older adult's self-reported attitudes and experiences. The older adults and nurses had both verbal and written information about the study.

The older adults were interviewed before the nurses assisted their baths. The information covers data as age, gender, bath facilities at home, contact with family/friends, the ability to walk and possibilities to exercise in a rehabilitation center. The answers are presented as descriptive data (see Table 1).

The older adults agreed to participate in our study design, in a period of three weeks, in total 12 research-days. Consisting of two days of the nurse-assisted bath in the traditional way (preparation time approximately 4-5 minutes),<sup>[1]</sup> followed by two days using pre-packed wash-cloths, heated in a microwave for one minute-Hence, saving time of three to four minutes used in general to meet the older adults needs. The personal hygiene was exactly the same, as what they were allocated to regardless if one or the other method was used.

### 2.2 Procedure

The nurses collected data by observation, interviews and registration of patients' attitude, a self-reported experience of both two types of nurse-assisted baths.<sup>[5]</sup> The involved nurses participated during all 12 research-days. A total of 20 patients were enrolled in the study, and 18 of them completed

the study receiving nurse-assisted bath with soap and water versus pre-packed wash-cloths as planned two days of each procedure in three weeks. The nurses worked together in pairs/two and two, one did the interviews and data collection, and the other assisted the patient with the bath. During the twelve research-days, the same nurse assisted the same patient.

The patients were in this study their own control group, by evaluating the two types of nurse-assisted bath performed equally amount of times by the same nurse.

**Included:** Eighteen patients participated; twelve women and six men.

**Excluded:** Two of the patients did not participate. One male went on holiday with his family and another (female) moved into a nursing home.

### 2.3 Sample and setting

The older adults were included in the study based on following criteria:

- The older adults were allocated home-care nursing.
- The older adults were in need of daily nurse assisted bath.
- The older adults should be able to communicate and respond to the questions about experiences and satisfaction of the two types of baths.
- The older adults diagnosed with dementia or unable to express their thoughts were excluded from the study.

Due to the organization and staff resources in this home-care setting a total of 20 patients were invited to participate in the study. They all had a need of individual care of nurse-assisted bath on a daily basis based on various physical disabilities.

### 2.4 Statistics

For statistical purposes, the dataset was obtained in a Microsoft Excel spreadsheet, and cleaning of the data was done in this program. The information from the 18 patients was then analyzed in SPSS Version 17.<sup>[12]</sup> All statistics were carried out using the Chi-Square test. As statistical significant we considered *p*-values less than .05.<sup>[13]</sup>

The nurses were recruited from the home care setting. They were prepared to this study as part of their introduction course during a three days course, before the three weeks study started. They were trained and supervised by a clinical supervisor and a researcher.

## 3. RESULTS

Twenty patients were invited to participate in this study and data from 18 older adults were obtained. Two patients were

excluded, one man went on holiday with his family, and one woman moved into a nursing home. Finally, 12 women and six men participated. The average age was 73 years (49-102 years).

All the patients were living in their own apartments close to each other. Thus, they had the nearly same type of apartments with bath facilities including separate bathrooms with both washbasin, shower with cold and hot water, and six of the patients also had a tub in their bathroom. 12 of the patients were living alone, and only two of the older adults were able to walk outdoors alone, while a number of 16 were dependent on assistance to walk outdoors. The patients were also asked how often they visited rehabilitation facilities for older adults. Six patients paid visits three times a week after prescription from their medical doctor.

The patients were interviewed about their self-reported health status, and the results were, that nine (50%) patients had a very good health status and nine (50%) had a good health status measured by themselves.<sup>[14]</sup> Four of the patients had contact with their family/friends two to three times a week, 14 of the patients had daily contact with family /friends (see Table 1).

Nurses and patients preferences (see Tables 2-3). The nurses were asked to register their preferences to nurse assisted bath, use of time and ethical considerations. Nurse’s preferences (see Table 2) when evaluating the personal hygiene. The nurse’s preferred disposable baths (67%) compared to wash basins (40%). Concerning time consumption the nurse’s preferred disposable baths (52%) compared to wash basins (17%). Both nurses and patients agreed on the ethical aspects of the two types of baths: while wash-basins (40%)

and disposable baths (34%) were evaluated equally.

The nurses recommended (see Table 3) the use of disposable baths (95%) or alternatively both baths (90%) compared to the use of washbasins (60%). The patients preferred to have a choice of both bath types.

**Table 1.** Patient characteristics

Items	Number (%)
Gender	
Men	6 (33%)
Women	12 (67%)
Age distribution (years)	
≤ 70	3 (18%)
> 70	15 (82%)
Mean age	73 years (49-102)
Live alone	
Yes	11 (61%)
No	7 (39%)
Living in own apartment	18 (100%)
Retired	18 (100%)
Self-reported health	
Very good	9 (50%)
Good	9 (50%)
Working earlier outside home	
Yes	17 (94%)
No	1 (6%)
Bath facilities at home including hot and cold water	18 (100%)
Own bathroom with washbasin and shower	18 (100%)
Bathroom including bath tub	6 (33%)
Being able to walk outdoor alone	2 (11%)
Dependent on walking assistance	16 (89%)
Visiting rehabilitation facilities 3 times a week	6 (33%)
Daily contact to family/friends	14 (78%)
Contact 2-3 times a week to family/friends	4 (22%)

**Table 2.** Nurses preferences

Preferences	Wash-basins % (n/N)	Pre-packed washcloths % (n/N)	Chi-square test p-value
Personal hygiene (very satisfactory)	40% (19/48)	67% (42/63)	.005
Time consumption (< 10 minutes)	17% (8/47)	52% (34/65)	.00002
Ethical considerations (very satisfactory)	40% (19/47)	34% (21/62)	.63

#### 4. DISCUSSION

To our knowledge, only a few studies are carried out in hospitals and nursing homes with focus on patients’ and nurses’ experiences and attitudes to nurse assisted bath comparing the use of soap and water versus a pre-packed was-cloths. To our knowledge no studies are carried out in a home-care setting. This descriptive study indicates an interest and sat-

isfaction from both patients and nurses to carry out further studies, where our approach to nurse-assisted bath to older adults can be carried out both based on Nightingales and Henderson’s nursing theories as well as combined with Lawler’s new research of how the patient reacts when they are in the need of help to nurse assisted bath and how this need to be taken into consideration during the sequences of bathing.

When patients need assistance with personal hygiene, the nurse should inform them about the two methods and involve the patient in the decision. Depending on the patients' decisions we can now support their own choice, knowing that pre-packed wash-cloths are a beneficial and qualified method.

It is faster and more convenient for the patient. Time can be an important factor for patients with less energy, why a priority of activities chosen by the patients can support their involvement in their own rehabilitation, priorities and quality of life.

**Table 3.** Nurses recommendations and patients preferences

	1. Wash-basins % (n/N)	2. Prepacked washcloths % (n/N)	3. Both baths % (n/N)	Chi-square test p-values
Nurses recommendations	60% (27/45)	95% (60/63)	90% (95/106)	1 vs. 2: .00003 1 vs. 3: .00009 2 vs. 3: .44
Patients preferences	42% (18/43)	32% (20/63)	64% (70/109)	1 vs. 2: .06 1 vs. 3: .04 2 vs. 3: .00004

There was consistency between patients' and nurses' preferences with regard to the quality of disposable bath and the possibilities of having an individual choice of bath types. Further clinical research into the two types of nurse-assisted baths is recommended. Further studies are needed in both in hospitals and home care settings including patients with different diseases and needs. Thus, in order to reach a higher evidence-based level of basic nursing based on patient- and nursing involvement.

#### Limitations

This study includes 18 patients living at home and having the need for daily nurse assisted bath. Three weeks were used to study and compare the patients' and the nurses' attitude and satisfaction, and the participants were followed in total of 12 research days. Data was collected and the patients' attitude and satisfaction were observed when being bathed with soap and water versus the disposable bath. But still, there are no studies to compare the results with. The study includes a relatively low number of patients, but the documentation concerning the different situations is thorough, precise, and relevant. Thus, the study may be characterized

as "narrow"; therefore further research is needed in order to expand generalizations across different groups of patients in different milieus, with different lifestyles and living conditions. Further research studies could include cost-benefit analyses.

#### 5. CONCLUSION

This study showed that the uses of pre-packed wash-cloths were positive for both the patients and the nurses especially concerning use of time and convenience. The approach to this study was inspired by both Nightingale and Henderson's nursing theories. Lawler's interesting aspects regarding the patient feeling comfortable in an uncomfortable situation have not been included in this study. With reference to Lawler's research we need to be aware of the patient/nurse relation. Further research is needed focusing on both patients' and nurses' perspectives, experiences and attitudes to personal hygiene in home-care settings.

#### CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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