

The bed bath with or without water? It's a wash!

Citation for published version (APA):

Groven, F. M. V. (2021). The bed bath with or without water? It's a wash! Experiences with the washing without water invention used for the bed bath. [Doctoral Thesis, Maastricht University]. Gildeprint Drukkerijen. <https://doi.org/10.26481/dis.20211207fg>

Document status and date:

Published: 01/01/2021

DOI:

[10.26481/dis.20211207fg](https://doi.org/10.26481/dis.20211207fg)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
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IMPACT



Impact

In this dissertation's introduction, hypothetical narratives were presented for the patient Mr. Johnson, Nurse Ms. Jackson, and family member Mrs. Quinn. Mr. Johnson needs to be bathed in bed and finds personal hygiene important but experiences a lack of control over the bed bath. Nurse Jackson is described as facing high workloads, especially during morning care when multiple patients need to be bathed, often in bed. Finally, family member Quinn struggled with her dad's (Mr. Johnson) mood swings, which seemed to be partially influenced by his experiences with the bed bath and wondered how she could support her dad's well-being. For the course of this research, we have talked to nursing home residents (patients), nurses and family members whose experiences showed resemblances with the hypothetical narratives. Based on their experiences with the bed bath, one of the foremost conclusions of this dissertation is the general importance of the bed bath to the well-being of these actors. The other main conclusion of this dissertation is that the washing without water intervention is a suitable alternative to the traditional bed bath with water and soap.

In this chapter, we will present the societal and scientific impact of this dissertation. First this dissertation's societal impact is described by paying attention to the concept of customer delight, by relating our findings to time constraints in health care (amongst others during the COVID-19 pandemic), and by presenting implications for nursing education. Second, the presentation of the scientific impact will focus on the interdisciplinary research approach and our model on balanced centrality.

SOCIETAL IMPACT

The bed bath as a delightful experience

Customer delight is described as "a positive emotion that people experience in response to having their expectations exceeded to an unanticipated and surprising degree" (p. 2).¹ Actor well-being is positioned in this dissertation to be dependent on actor experiences; therefore, we posit that customer delight, as a positive experience, could contribute to actor well-being. In the case of the bed bath, customer delight mainly refers to delightful experiences of patients being bathed in bed. Although the bed bath might seem an activity in which delightful experiences are unlikely, several studies found that customer delight can also emerge in relatively mundane service encounters or even in times of crisis, such as the COVID-19 pandemic.² Our results have societal impact by showing health care managers and nurses how the bed bath in general, and the use of washing without water could lead to customer delight.

We will focus on a few determinants of customer delight that are applicable to the bed bath and relevant for the use of washing without water, being autonomy, solving a customer problem, and sensory experiences. Experiences of having some control over the service experience (i.e. autonomy) contribute to customer delight.¹ Therefore, if patients experience control over or choice in the course of the bed bath (which relates to their need for autonomy), patients are more likely to feel delighted.

Unfortunately, morning care, including the bed bath, often is focused on the task-oriented health care rhythm instead of on patient choices.^{3, 4} Health care managers and nurses can increase patients' autonomy (and therefore contribute to delight) by offering patients a choice between the traditional bed bath and the washing without water bed bath. Another determinant of customer delight is solving a customer problem or fulfilling a customer need. For the bed bath, patient delight can be created if the bed bath fulfills patients' needs, such as their need for hygiene or comfort. Our results indicate that washing without water is able to fulfill such patients' needs at least equally well as the traditional bed bath. Moreover, washing without water could add to customer delight because it outperforms the traditional bed bath on some outcomes, such as patients' skin condition. For example, one resident interviewed for our qualitative study mentioned that she loves the smooth feeling of her skin after a bed bath with washing without water. The "skin feeling" is an example of a sensory experience, which is another determinant of customer delight. Therefore, health care professionals can contribute to patient delight with the use of washing without water. Furthermore, the industry could contribute to patient delight by developing pleasant sensory experiences, for example, by using pleasant fragrances in washing without water products.

The bed bath in times of time constraints in health care

Nurses are increasingly facing high workloads, also during morning care,⁵ which negatively affects their mental health. Mental health is described as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his or her community" (p. 1336).⁶ The mental health of nurses is negatively affected by the increased workload, which causes stress, which in turn could lead to physical and psychological complaints, job dissatisfaction and even intentions to leave the profession.^{4, 7} Moreover, the quality of care offered to patients could suffer because nurses that face time constraints and high workloads generally perform worse.⁵ Our findings indicate that washing without water could decrease the burden on nurses (both physically and in terms of time) and thereby support the well-being of nurses and patients.

Therefore, health care managers should especially consider the use of washing without water in case of time constraints. The washing without water bed bath has been shown to be shorter than, yet at least as suitable as, the traditional bed bath. Moreover, nurses can feel assured that they live up to their responsibility of offering a proper bed bath if they provide a washing without water bed bath. We found no evidence for any underperformance of the washing without water bed bath across a range of outcome measures and patient experiences (e.g. patients' perceived emotional comfort during the bed bath). Furthermore, findings indicate that washing without water outperforms the traditional bed bath with respect to skin condition, time effectiveness, bathing completeness, and physical demands for nurses.

Impact

Despite the workload on nursing staff and the growing evidence about the washing without water intervention, the traditional bed bath is still expected to be provided most. Even 20 years after its introduction, washing without water is seen as an innovation by many. Times of excessive burden on health care systems, such as the COVID-19 pandemic, could offer an opportunity to rearrange bathing routines and could (combined with the new evidence provided by this dissertation) be a catalyst for the use of the washing without water intervention.^{8,9} Also post-corona, the increasing demand for care and the decreasing availability of health care workers could urge health care institutions to implement innovations, such as washing without water, to alleviate nurses' stress levels and even retain nurses.^{5,7}

Implications for nursing education

This dissertation offers valuable insights for nursing educators. First of all, the results can be included in teaching materials about bed bathing methods, which currently predominantly focus on the traditional bed bath. Second, our research showed the added value for nursing students to acquire personal experience with providing the bed bath or receiving the bed bath as a patient. Although many students refused to participate in our crossover RCT, enough students were still willing to participate and some mentioned how worthwhile it was to personally experience the bed bath. By (re)introducing bed bathing exercises on real people in the curricula, this experience can be offered to more nursing students, including those that are too shy or insecure to voluntarily participate in a research experiment. Finally, nursing educators could consider to apply service marketing theories, such as balanced centrality or value co-creation, to their courses. Some nursing students might find additional intrinsic motivation if they have the possibility to look at their future profession from another perspective.

SCIENTIFIC IMPACT

Apart from the societal impact, we would like to discuss two scientific impacts: 1) the added value of interdisciplinary research and 2) our model on balanced centrality.

First, we would like to plea for more multidisciplinary or even interdisciplinary research. We have approached the bed bath from a multidisciplinary perspective. The research team consisted of scientists from nursing science and service (marketing) science and the discussion between the different disciplines in the discourse of the research led to interesting findings. Interdisciplinary research can contribute to scientific innovation and the generation of discipline-transcending knowledge,¹⁰ which is also applicable to our general discussion in which we integrated the psychological needs of autonomy, competence and relatedness with the findings about the use of the washing without water intervention. The adoption of service marketing theories, such as value co-creation, has been proven fruitful and increased our impact on nursing science.

The second scientific impact of our dissertation is the presentation of the balanced centrality model in Chapter 2, which adds to our understanding of network well-being. This conceptual model shows the importance of fulfilling the needs of all actors involved in value co-creation; in our specific case, the needs of patients, nurses and family members involved in the bed bath. The model shows that actors have different needs, which all relate to the universal psychological needs of autonomy (i.e. to have control), competence (i.e. to be proficient), and relatedness (i.e. to belong). If actors' needs are aligned, all actors' needs can be fulfilled and the well-being of all actors increases. However, sometimes actors' needs are conflicting and therefore not all actors' needs can be fulfilled by and during the bed bath. Consequently, actor well-being and network well-being is pressured. If all actors' needs are fulfilled, balanced centrality is achieved (i.e. a situation in which all actors' needs are fulfilled simultaneously), which we posit as an indicator for network well-being. Our model could be valuable to understand actor and system well-being in other health care and service activities, in other service systems, and for other kinds of actors.

DISSEMINATION

To ensure proper use of washing without water, it is important that all parties involved are informed about the evidence about this intervention. Because mainly health care managers decide on the use of washing without water,¹¹ this dissertation is a valuable source of information for them. Health care managers can share this dissertation's results with nursing staff and involve them in decisions with respect to the bed bath. Involving nurses in the decision-making process is stressed to be important for the use of innovations in health care.¹²

The findings are already disseminated in several ways. All studies have been submitted to academic journals, three of these studies are published as an open access study, and one study is available online. Furthermore, some of the studies were presented during international conferences, such as Servsig, the European Nursing Congress and the Gerontological Society of America. In addition to dissemination in scientific journals and conferences, results are presented at the website of basic care revisited and in the popular science magazine "Quest". The results have also been presented to health care managers of different health care institutions in the Netherlands who were interested in using the washing without water intervention or who participated in the research. Finally, the research is presented to the industry at a conference of the nonwoven branch organization EDANA.

We will continue to disseminate the findings of this research with health care institutions, nursing educators, policy makers, and researchers. If desired, the results can be presented and discussed personally with interested health care managers and nursing educators. Health care managers and nursing educators can use the Bed Bath Beliefs tool, which is fully presented in this dissertation (see Appendix 1 for the tool in Dutch). Also researchers can use and refine this tool and are invited to use our

Impact

conceptual model on balanced centrality. Policy makers can use our findings as input for guidelines, for example, on daily care activities. Finally, the findings are shared with the industry (sponsor) who could use the information to identify innovation opportunities, which ultimately could benefit health care.

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Appendix 1 – Bed Bath Beliefs Tool (in Dutch)

Beste zorgverlener,

Dank u wel dat u mee wilt doen met het onderzoek naar de wasbeurt op bed van cliënten/bewoners/ patiënten (vanaf nu cliënten genoemd). Het invullen van de vragenlijst is anoniem. Uw antwoorden zijn alleen voor het onderzoeksteam toegankelijk en worden alleen voor onderzoeksdoeleinden gebruikt.

Probeer de vragenlijst a.u.b. volledig in te vullen. Eerst volgen hieronder enkele vragen over uzelf:

-
1. Wat is uw geslacht? Zet een kruisje voor uw antwoord.
 - Man
 - Vrouw
 - Anders, namelijk
.....

 2. Wat is uw leeftijd: jaar

 3. Wat is uw hoogstgenoten afgeronde opleiding? Zet een kruisje voor uw antwoord.
 - Zorghulp
 - Helpende
 - Verzorgende
 - Verzorgende (IG)
 - Verpleegkundige (MBO opgeleid)
 - Verpleegkundige (HBO opgeleid)
 - Anders, namelijk:
.....

 4. Wat is uw huidige functie? Zet een kruisje voor uw antwoord.
 - Zorghulp
 - Helpende
 - Verzorgende
 - Verzorgende (IG)
 - Verpleegkundige (MBO opgeleid)
 - Verpleegkundige (HBO opgeleid)
 - Anders, namelijk:
.....

 5. In welke zorgsector werkt u?
 - Ziekenhuis
 - Verpleeghuis
 - Thuiszorg
 - Anders, namelijk:
.....

6. Wat is het type afdeling waar u werkt (afdeling waarvoor u deze vragenlijst invult)? Zet een kruisje voor uw antwoord.
- Somatische afdeling
 - Psychogeriatrische afdeling
 - Anders, namelijk:
.....
7. Hoe lang bent u al werkzaam (indien u dit niet precies weet, probeer dan in te schatten):
- a. In de ouderenzorg? jaar en maanden.
- b. Binnen uw huidige zorgorganisatie? jaar en maanden..
- c. Op uw huidige afdeling? jaar en maanden.
8. Ongeveer hoeveel uur per week verleent u werkelijk gemiddeld zorg aan cliënten in deze organisatie (dit kan verschillen van het aantal uur in uw contract):
- uur.

Vanaf hier gaat het bij alle vragen altijd over de volledige wasbeurt op bed van cliënten die ondersteuning nodig hebben. Wij bedoelen hiermee een lichaamswassing waarbij de zorgverlener alle lichaamsdelen van de cliënt op bed wast (eventueel met hulp van de cliënt). Doorgaans wordt dit in de ochtend gedaan met waskommen, water en zeep of met wegwerpbaar natte doekjes of washandjes. Een volledige wasbeurt op bed is dus **niet** "alleen de onderbeurt" (incontinentiezorg) of "wasbeurten die niet op bed worden gegeven" (zoals bijvoorbeeld een wasbeurt aan de wasbak of in de douche).

9. In de tabel hieronder staan enkele stellingen over wat u vindt van de volledige wasbeurt op bed. Per stelling kunt u aangeven in hoeverre u het ermee eens bent door naast elke stelling een kruisje te zetten in de kolom van uw antwoord. Er zijn geen goede of foute antwoorden, het gaat om uw mening over de volledige wasbeurt op bed.

Impact

	Volledig oneens	Een beetje oneens	Neutraal	Een beetje eens	Volledig eens
Ik vind dat ik een belangrijk contactmoment met de cliënt mis als ik deze niet was.					
Ik vind wassen mijn belangrijkste zorgtaak.					
Ik vind dat iedereen cliënten kan wassen.					
Ik denk dat cliënten het wassen de belangrijkste activiteit van de dag vinden.					
Ik denk dat cliënten zich niet op hun gemak voelen in het contact met anderen als ze niet gewassen zijn.					
Ik denk dat cliënten gewassen worden een belangrijke start van de dag vinden.					
Ik vind wassen een van de basisactiviteiten voor verzorgenden (niveau 1-3).					
Ik vind wassen een van de basisactiviteiten voor verpleegkundigen (niveau 4-6).					
Ik denk dat cliënten het een must vinden om gewassen te worden.					
Ik vind dat cliënten alleen mogen worden gewassen door mensen die hiervoor zijn opgeleid.					
Ik vind dat elke zorgverlener moet weten hoe je een cliënt wast.					
Ik vind wassen mijn belangrijkste contactmoment met de cliënt.					
Ik denk dat cliënten gewassen willen zijn voordat ze contact met anderen hebben.					
Ik denk dat cliënten de dag niet goed beginnen als ze niet gewassen worden.					
Ik vind wassen een belangrijk onderdeel van mijn werk.					

Wassen-zonder-water

Volledige wasbeurten op bed kunnen worden gegeven met water en zeep of met wassen-zonder-water. Dit zijn pakketjes met wegwerpbare wasdoekjes of washandjes met hierin een waslotion. Wasbakken, water, zeep, handdoeken en katoenen washandjes zijn dan niet meer nodig. Voorbeelden van wassen-zonder-water producten zijn hieronder afgebeeld. Vanaf nu gaan de vragen over wassen-zonder-water.



10. Wist u voordat u begon met het invullen van deze vragenlijst wat het wassen-zonder-water concept was?
 - Ja (ga door naar vraag 11)
 - Nee (ga door naar vraag 13)

11. Heeft u het wassen-zonder-water concept al eens gebruikt voor een volledige wasbeurt op bed van een cliënt?
 - Ja (ga door naar vraag 12)
 - Nee (ga door naar vraag 13)

12. Ongeveer hoe vaak per week gebruikt u momenteel wassen-zonder-water voor de volledige wasbeurt op bed (probeer hiervan een inschatting te maken)?
Gemiddeld ongeveer keer per week.

13. De stellingen in de tabel hieronder gaan over uw mening over het wassen-zonder-water concept. **Het maakt daarbij niet uit of u zelf ervaring heeft met het gebruik van wassen-zonder-water of niet.**
Per stelling kunt u aangeven in hoeverre u het ermee eens bent door naast elke stelling een kruisje te zetten in de kolom van uw antwoord. Er zijn geen goede of foute antwoorden, het gaat om uw mening over wassen-zonder-water. Wel is het belangrijk om ook bij deze stellingen er rekening mee te

Impact

houden dat het gaat over het gebruik van wassen-zonder-water voor de volledige wasbeurt op bed van cliënten.

	Volledig oneens	Een beetje oneens	Neutraal	Een beetje eens	Volledig eens
Ik vind/denk dat het weinig moeite kost om cliënten met wassen-zonder-water te wassen.					
Ik vind/denk dat cliënten geen vieze geurtjes (meer) hebben als ze zijn gewassen met wassen-zonder-water.					
Ik vind/denk dat het snel gaat om cliënten met wassen-zonder-water te wassen.					
Ik vind/denk dat cliënten zo weinig mogelijk pijn ervaren tijdens een wasbeurt met wassen-zonder-water.					
Ik vind/denk dat het gemakkelijk is om cliënten met wassen-zonder-water te wassen.					
Ik vind/denk dat cliënten de wasbeurt op bed met wassen-zonder-water aangenaam vinden.					
Ik vind/denk dat cliënten schoon zijn als ze met wassen-zonder-water zijn gewassen.					
Ik vind/denk dat cliënten niet graag worden gewassen met wassen-zonder-water.					
Ik vind/denk dat wassen-zonder-water alleen wordt ingezet als bezuiniging.					
Ik vind/denk dat wassen-zonder-water goed is voor de huid van cliënten.					
Ik vind/denk dat cliënten tevreden zijn met wassen-zonder-water.					
Ik vind/denk dat cliënten weinig persoonlijke aandacht krijgen als ze met wassen-zonder-water worden gewassen.					
Ik vind/denk dat vuil en bacteriën goed worden verwijderd met wassen-zonder-water.					
Ik vind/denk dat cliënten geen huidproblemen hebben (bijvoorbeeld uitslag en jeuk) als ze worden gewassen met wassen-zonder-water.					
Ik vind/denk dat het gebruik van wassen-zonder-water de kwaliteit van zorg vermindert.					
Ik vind/denk dat ik een voldaan gevoel heb als ik cliënten met wassen-zonder-water was.					
Ik vind/denk dat cliënten lekker ruiken als zij met wassen-zonder-water zijn gewassen.					

Dit is het einde van de vragenlijst. Heel erg bedankt voor uw medewerking.