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## “CLEANING OF LAVATORY- AN IMPORTANT TASK”

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### ABSTRACT

A lavatory is a challenging cleaning object. The space is often rather small, working postures are inconvenient and dirt is disgusting. The aim of this research was to find out what people think about lavatory cleaning. The main focus was on young adults. The material consists of the writing of the first-year university students and students in a home economics school. The material was analysed using content analysis, which showed that in lavatory cleaning there are two different orientations: work order orientation and dirt orientation.

*Keywords: lavatory, house cleaning, work order orientation, dirt orientation*

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### INTRODUCTION:

The lavatory is a very important place in the home and everywhere. A clean lavatory gives plenty of comfort. Hygienic factors are very important in sanitary facilities for health reasons, but poor maintenance decreases the active service life of surface materials. Public toilets especially are often dirty, and the idea of dirt is connected with lavatories everywhere. In lavatory cleaning, harmful microbes are often emphasized. Besides microbiological factors in lavatory cleaning, there are many more points of view than one might imagine. In this paper, lavatory cleaning is examined from points of view other than the microbiological.

#### The Lavatory as a Space

A lavatory is a necessity in every home and every workplace. The qualities of these spaces vary according to the age of buildings and the habits and values of a society. A lavatory can be small and stuffy, but it can also be large and luxurious. The surface materials vary from painted surfaces to plastic, ceramic tiles and stone. The facilities vary depending on needs and economic possibilities. In western countries a toilet seat and a washbasin are the most essential fittings. In addition, there are other objects that influence cleaning, for example, a floor drain, pipe systems, a radiator, skirting, different dispensers, ventilators, hooks, a litter basket, a window, shelves, cupboards, indoor plants, and decorations. According to (Gunnarsson and Olsson, 1968) medical needs, inhabitants' wishes, manufacturers' wishes and demands of society are things that must be taken into account in evaluating the quality of bathrooms. (Linn, 1985).

#### Lavatory Cleaning as a Job

The most important object to be cleaned is the

toilet seat. In most lavatories, there is also a washbasin and a mirror. Depending on the space and requirements, the lavatory space may be fitted with a mirror, shelves and cupboards. When a lavatory is cleaned regularly, a slightly alkaline detergent (pH value 8–10) is often sufficient. If lime encrustations are found, an acidic detergent is needed now and then. However, disinfectants are needed only in exceptional cases. It is important that there be specific tools designated for lavatory cleaning, which are used only in the lavatory space so that microbes will not be transferred to other spaces. It must be stated that a lavatory is a unique place as a cleaning object. Dirt is very special in comparison with that of other places. It is important to emphasize lavatory cleaning as such without the generalization of all cleaning work.

Ideas about lavatory cleaning differ, especially with regards to work order and the point at which the toilet seat should be cleaned. However, it is sensible first to flush the toilet, then to add the cleaning solution into the toilet bowl and let the solution soak the grime. Once the exterior of the toilet seat has been cleaned, the bowl can be scrubbed. According to the Finnish cleaning standard 13127 A (VVM, 1971b), it takes 1.0 minutes to clean a toilet seat that is normally dirty. If the toilet seat is very dirty, the cleaning takes 1.5 minutes, and if it is terribly dirty, the cleaning requires 2.5 minutes.

The guidelines for cleaning a washbasin are not uniform either. In cleaning of a washbasin, common sense must be used; depending on the use of the washbasin, the worst dirt is not in the same area every time. Sometimes the exterior is very dirty; other times it may not be necessary to clean the exterior as often as the interior of the basin. According to the Finnish cleaning standard

13125 A (VVM, 1971a), it takes 1.0 minute to clean a washbasin. If it is very dirty, it takes 1.5 minutes, and if it is terribly dirty, the time needed is 2.2 minutes. It takes 0.45 minutes to clean a mirror. All toilet bowls and washbasins are not similar. Some constructions are very difficult to keep clean.

### **Working Postures**

Lavatory cleaning is often difficult because the room is so small. Because of small corners and narrow spaces, inconvenient postures must often be used. (Linn, 1985) has found in her doctoral dissertation that people mainly use four postures when they clean a toilet seat:

- A bent-knee posture, often one leg in front of the other;
- A posture with one knee on the floor;
- A posture resting on both knees with the body bent forward, supported by one hand; and
- Bending from the waist with the legs straight or almost straight.

A bent posture is common in toilet cleaning, which is very troublesome for the human back. Postures two and three above are better, but they are not very common. According to (Lagerspetz 2002), our behaviour reflects our ideas about the properties of an object. It is natural to think about dirt in connection with toilet seats and no one wants that kind of dirt near one's face. For this reason the working posture is often poor. Another reason may be a wet and dirty floor.

To avoid the physical costs of work, it is important to avoid bent and twisted postures. (Steidl and Bratton, 1968) states in their classic *Work in the Home* that an untrained worker often works against her body rather than letting her body work for her. When a worker is untrained, even light work is tiring if the body is used in the wrong way. Thus, domestic tasks should be practiced, even when they are thought to be very simple. Poor layout in the lavatory may compel people to work in poor postures (Linn, 1985), but a skilled person is able to develop a working method that strains the body as little as possible. In professional cleaning, bent and twisted postures are common and pose a health risk (Krüger, Louhevaara, Nielsen & Schneider, 1997). At home, working skills are often on a lower level, which also means bigger workloads and unfavourable working postures. For safety reasons it is important to use one's body in the correct way.

Correct equipment choices also help. Using

equipment requires an ability to coordinate the movements of the body together with a tool. A tool is the extension of the body. (Parviainen, 2006). (Bullinger, Solf and Stübler 1984) speak about the importance of motion in a functional and anatomic sense, meaning that work performance should be ergonomically favourable. It is thus important to simplify one's work. The correct work order and the overlapping of different tasks demand a clear understanding of the whole and the system behind it. (Gross, Crandall and Knoll, 1973) see that the simplification of work has greater significance in a household than in an industry. It frees up more time for the family.

### **Characteristics of Lavatory Cleaning**

Besides narrow spaces and inconvenient working postures, lavatory cleaning involves dirt. According to (Lagerspetz, 2006), every object has its own way of being dirty or clean. Lavatory dirt can be visible or invisible. Visible dirt is unpleasant if it differs from the average kind of dirt found in rooms. Visible dirt in a toilet bowl is disgusting, and for this reason it is easy to see the need for cleaning. However, invisible dirt is injurious and therefore insidious. The general principle is that the cleaning operations should be performed in aseptic order or from clean surfaces to dirty ones. When the aseptic order is followed, harmful microbes are not transferred to clean areas. As for the toilet seat, the aseptic order is not always the same.

The dirtiest area is the interior of the toilet bowl, but the dirtiness of the exterior is very much determined by the number of users and their behaviour in the toilet space. In a similar way, there are cleaner and dirtier points in a washbasin. It is important to note that taps, knobs, and grips are insidious objects. Although they are often bright, they can be polluted by invisible dirt.

According to (Stübler, 1972) there are macro and micro shares in tasks. The main task is like a project, which means that a whole is put into practice. The scale of these shares can vary. The micro shares are an essential part of the whole. The cleaning of a lavatory may be a main task, while the cleaning of the toilet bowl or washbasin are the micro shares. In the same way the cleaning of a toilet bowl may be seen as a main task, and in this case the wiping of the rim of the bowl is a micro task. (Shove, 2003) states that one

way to consider cleanliness is to think about it as a composite service that consists of different operations according to the situation.

(Engeström and Engeström, 1982) states that everyone performs cleaning tasks in their own order. However, it is important to identify strategic dirt, be aware of it and perform a task according to the demands of the situation. Working must not cause any hygienic risk. Individual habits and preferences influence choices, and it is possible that a sensible work order is not always considered; then again, the average individual may not even be aware of the work order. When the whole of work involves several tasks, it means that a worker must change work objects. Simultaneously, preparations and concluding tasks must be involved. (Järvinen, 1991). For example, the cleaning of a washbasin, a toilet bowl and a floor are different tasks, and the hygienic situation and the correct work order should be taken into account.

#### **Lavatory Cleaning Demands Broad Understanding**

A toilet is a very important part of the home and of public spaces. Its impact extends in many directions. (Venkula, 1993) speaks about vertical, horizontal, substantial, and memorial contexts, which are connected with routine and skilful performance. A vertical level means understanding the reasons for something. When a lavatory is clean, it is understood that cleanliness is important for hygiene and safety reasons. If cleanliness is neglected, hygienic safety is endangered. A horizontal level means that an object or situation has connections with matters around it. A clean lavatory is seen as a pleasant part of the home. On a substantial level people understand why certain types of chemicals and equipment are used and why a lavatory needs its own cleaning equipment. In a memorial context, people remember how untidy public toilets may be and are not willing to accept the same level of cleanliness in their homes. Connections with different contexts are important learning factors. They encourage reasoning, which produces useful knowledge. The working situation should be understood as a whole. (Löfström, 2005) speaks on situational interest which means the interaction between an individual and the environment. It is important to understand the influence of separate performances on other activities and on hygiene.

The vertical factor – the understanding of contexts – is important in the practice of a job. If a job contains many phases and different tasks, it is not possible to put it into practice in the correct way only by repeating the task. Rather, the knowledge of the correct work order and the relationship of different elements are needed. According to (Rauramo, 2004), education alone does not make people skilful; long professional experience is also needed. A part of skills and knowledge is created through practical experience, which means consideration and evaluation of one's own doings. The skill of applying one's own abilities in different situations develops through trial and error. Contextual skills develop simultaneously, and the working situation is understood as a whole. As has already been stated, in certain tasks and subtasks aseptic work order is a principle that should be followed to prevent harmful microbes from being spread to clean surfaces. This is the result if the job is done in the opposite order. However, it may happen that the dirtiest object in the toilet space – the toilet bowl – is cleaned first because, on one hand, it is more pleasant to work in the room thereafter and on the other hand, the average person is not aware of aseptic order.

(Shove, 2003) sees social and material differences in how comfort and cleanliness are specified and attained. Cleanliness contains things that are connected with moral, social, and symbolic meanings. (Clayhill, 1996) points out that nowadays, the demand for cleanliness has been transferred to one's own body and to clothes, which are longer in washing machines than in use. In practice, cleanliness is a very realistic thing, connected with everyday safety. According to (Shove, 2003), people connect decay and smell to danger and illness. In miasma-based theories of illness, air transmits injurious elements that make people ill. These thoughts occur naturally in lavatories. In a recent survey of the European Tissue Symposium it was found that 72% of washroom users see hygiene as the most important factor when drying their hands (Laffeaty, 2009). The concern of hygienic safety can be seen in a wide variety of washroom products and high tech facilities, which make it possible even to have paperless toilets ("Paperless toilet", 2009) or toilet seats which get disinfected and dry after 12 seconds' use ([www.autosanit.com](http://www.autosanit.com)).

#### **Framework in a Condensed Form**

On the basis of these thoughts it is possible to

observe that in connection with cleaning, a lavatory can be described in many ways:

A lavatory as an indoor space and a part of the whole dwelling,

A lavatory as a work place and the object of work, and

A lavatory as a dirty room.

These factors can be assumed to influence how an individual begins to clean a toilet and how she experiences the room. One person may consider microbes, another may think of how to get the task done and a third individual may emphasize comfort.

The aim of this research was to find out what young adults think about toilet cleaning. A cautious assumption was that they consider it disgusting work. Their thoughts were reflected against the thoughts of cleaning professionals.

## METHODS

The material consists of stories written by 43 students and four cleaning professionals. Of these students 11 studied in a home economics school and 32 were first-year university students. The participants were given a sheet of paper on which a certain situation was described in a few sentences. The students were asked to identify with the situation and continue the story. They were asked to imagine that they were assigned to clean the lavatory space in a supermarket. Half of the respondents were asked to imagine that the lavatory was very dirty, while half were to imagine that the lavatory was clean.

The writings were analysed using a content analysis. The material was categorised according to themes that were further divided into subthemes. Conclusions were drawn on the basis of these categories.

The professionals wrote their stories of lavatory cleaning on the basis of a demand in a trade magazine. The writings of the young adults were reflected against them.

## FINDINGS

The analysis of the writings showed that in lavatory cleaning, there are two main orientations:

- work order orientation
- dirt orientation.

The work order orientation turned out to be somewhat stronger.

### Work Order Orientation

The most important theme turned out to be work order. Almost everyone had something to say about this. Half of the respondents described working in the aseptic order. The other half cleaned the imaginary lavatory in the opposite order – the toilet seat first. Although the aseptic order is recommended, average person is not very well aware of this order. There are also different recommendations in guide books. For this reason it is no wonder that many respondents emphasized cleaning the toilet seat. It is the dirtiest object in the toilet space and the cleaning of the room is more comfortable if the dirtiest object is cleaned first. Most respondents described only the work order, but some people gave reasons for how they would proceed.

Before starting the cleaning, I look around and wonder where it is sensible to start so that cleaning takes as little time as possible and there is no need to perform the same task twice.

This statement shows that the individual wanted to perform the tasks in a systematic way and avoid useless work. It is possible, however, that those who spoke of work order without any particular reasoning given have some reason in mind or the order may be inherited from somewhere.

Besides cleaning the toilet seat, another important object to clean is the mirror. If a mirror is bright, it makes a pleasant impression. It is possible that the respondents remembered public toilets in which a mirror was broken and dirty and which gave the impression of poor maintenance.

I wash a mirror with a cloth, which has been wet with all-purpose detergent and I dry the mirror with a squeegee.

In the same way empty soap dispensers, an empty towel dispenser and an empty toilet paper dispenser irritate those who use toilets. Perhaps the participants' own memories prompted them to mention these things. A memorial context is important in the understanding of phenomena (Venkula, 1993). These are very small objects, although extremely important. The order, in which a mirror and the other objects are cleaned and filled, depends on the work order principle. Most respondents described in detail, how they would clean and the fill the soap and towel dispensers. These objects are not big fittings, such as a washbasin, but they received much more attention. One of the reasons may be that they need time. According to one standard, a

washbasin can be cleaned in a minute (VVM, 1971a). Instead, the filling and cleaning of dispensers takes more time. Laying stress on the filling of dispensers gives strength to (Laffeaty's, 2009) idea that people pay particular attention to toilet hygiene when washing and drying their hands.

### Dirt orientation

The other thing emphasized was dirt and mess. Those who imagined cleaning a dirty toilet space were sometimes horrified at the mess, but nevertheless that believed the lavatory must be cleaned and someone has to do the work.

*"First I think, oh, no, but cleaning must be done."*

The respondents wandered at people's behaviour and noticed litter on toilet floors.

*"I think it is astonishing how people make such a mess in public spaces. How many of them throw hand towels on the floor at home?"*

*"Why are public rooms so messy? Why is others' property not respected?"*

In this connection young adults' responsibility was emphasized.

*It is disgusting to use a dirty public toilet. Somebody must take care of the cleanliness. So even though the task is not the most pleasant, I would like to perform it properly and not using the technique of "anything goes".*

Those whose objects looked clean were positively surprised. It seems that dirtiness is a default mode. It is possible that the memorial context (Venkula, 1994) has an influence on expectations. Many respondents stated that, although everything looked clean, the lavatory should be cleaned again because of invisible dirt. The professionals emphasized mostly hygienic issues and cleaning result.

*"In public lavatories I think of myself as a customer. If my cleaning result pleases myself, it pleases others, too."*

### Chemicals and equipment

Young adults mostly thought about work order or untidiness. Sometimes, along with these things, they also thought about equipment and cleaning chemicals. Cleaning agents suitable for certain surfaces and suitable pH values were spoken of.

*"I wipe the surfaces using a spray made for glass surfaces."*

*"I have a variety of equipment and a number of cleaning agents to use. I look at them a moment and start work."*

When considering the work order, the

respondents mainly thought about products that were suitable for surface materials. (Figure 1.) When they thought of dirt, their view of chemicals was in their effectiveness at remove dirt. As to the spaces that looked clean, the removal of microbes was emphasized. In this case very few people spoke of usual cleaning or routine cleaning.

*"I remember to pay attention to places where dirt and microbes accumulate."*

This indicates that although the redundancy and trouble of the continuous use of disinfectants have been spoken about in the media, the horror of bacteria and the belief in the necessity of disinfection are firm.

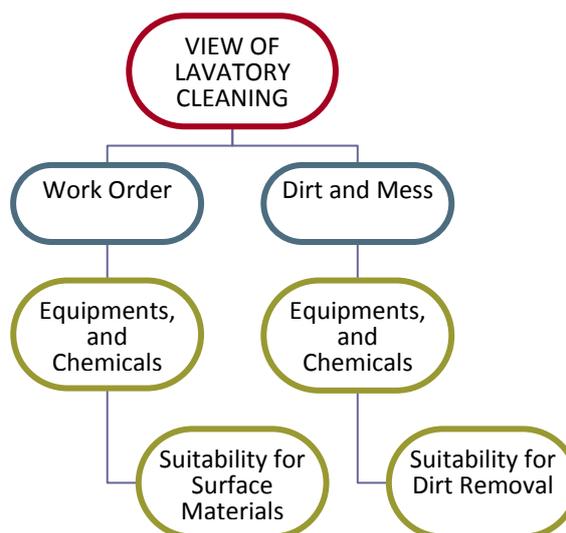


Figure 1. The role of cleaning equipment and chemicals in lavatory cleaning

The choices represent different rationality. It is possible that work order orientation sometimes includes also dirt orientation because some respondents described working in the aseptic order.

## DISCUSSION AND CONCLUSIONS

In principle the number of student writings was large enough to give an impression of the issue of lavatory cleaning. However we cannot generalize the findings, because given on educational institutions in which the young adults were studying, it can be assumed that the respondents had some interests in domestic issues. Because the respondents were young adults, their experiences and skills in doing household tasks could not be very extensive. Therefore, it was natural to concentrate on dirt or work order and things connected with it, because these things belong to the learning of skills (Aulanko, 2008). If

the respondents had been randomly chosen, the writings might have been somewhat different. In the writings it was easy to see the themes uppermost in people's minds when they begin to clean a lavatory. It was also possible to see, which themes young people need more knowledge of. It is especially important to speak more about the types of cleaning agents used in everyday cleaning (Linn, 1985) has found out that there are plenty of poor working postures in lavatory cleaning. The findings showed that people are not aware of the significance of ergonomics although their working postures may be very poor. At least it is not the first thing in their mind. Many people move too little and for this reason some extra steps may be useful but bent and twisted positions and sudden movements can cause trouble.

It is logical to think of work order in which the task at hand proceeds in a flexible and purposeful way. If the task is not very pleasant, then fluency is especially desirable. It must be observed that people did not try to perform tasks as easily as possible; in spite of its unpleasant features, they wanted to perform the task well. This is an indication of responsibility. It is important to note that most people did not emphasize the unpleasant features of lavatory cleaning. The main emphasis was on the importance of cleanliness.

The writings showed that the young respondents thought mainly on the mechanical level, yet it was possible to find some contextual thinking. Contextual thinking involved the question of microbes, which people seemed to consider a default mode. (Thiele-Wittig, 1999) sees that all activities contain a health dimension. Thus, it is possible that the idea of microbes came from routine thoughts without any connection to the situation at hand. The professionals instead had a strong contextual and holistic view. The main emphasis was on hygiene but it was connected with materials, equipment and chemicals as well as the behavior of lavatory users. The holistic view means that the working situation can be taken into account as a whole and different operations can be performed according to the demands of the situation. To get this holistic attitude time and tacit knowledge are needed. As for the lavatory cleaning, healthy circumstances can be supported working in the aseptic order and using correct chemicals and clean equipment. However, the correct work order should be emphasized. It is a

key to safety and it is favourable to the environment.

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