

# Satisfying Toilet Needs in Pre-School

## —Experiences of 5 - 6 Years Old

Barbro Lundblad<sup>1</sup>, Renée Johansson<sup>2</sup>, Helena Wigert<sup>1,3</sup>, Anna-Lena Hellström<sup>1,4\*</sup>

<sup>1</sup>The Sahlgrenska Academy at Gothenburg University, Institute of Health and Care Sciences, Gothenburg, Sweden

<sup>2</sup>Center of Clinical Education in Family Medicine, Gothenburg, Sweden

<sup>3</sup>Division of Neonatology, Sahlgrenska University Hospital, Gothenburg, Sweden

<sup>4</sup>The Gothenburg University Centre for Person-Centred Care (GPCC), Gothenburg, Sweden

Email: \*[annalena.hellstrom@fhs.gu.se](mailto:annalena.hellstrom@fhs.gu.se)

**How to cite this paper:** Lundblad, B., Johansson, R., Wigert, H. and Hellström, A.-L. (2016) Satisfying Toilet Needs in Pre-School. *Health*, 8, 1687-1696.

<http://dx.doi.org/10.4236/health.2016.815164>

**Received:** September 29, 2016

**Accepted:** December 3, 2016

**Published:** December 6, 2016

Copyright © 2016 by authors and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

---

### Abstract

**Background:** It is known that, for reasons of hygiene and/or anxiety, some first year primary school children actively choose to avoid going to the toilet whilst at school, while at the same time many young children's primary care visits are due to urinary tract and bowel problems. By this age most children can recognise the bodily signals indicating the need for a toilet visit, and can independently perform the associated routines. Aim of this study was to describe the experience of healthy 5 to 6 years old when needing and using toilets whilst at pre-school. **Methods:** A qualitative descriptive method was used. Seventeen children aged 5 to 6 years were interviewed. **Results:** Nearly all used the toilet when the need arose, but there were times during the day when their freedom to use the toilet was restricted. Most children experienced periods of waiting outside the toilet and a long wait could result in a decision to not use it. On those occasions when help was needed, it was usually necessary to shout once or more in order to attract the teacher's attention. Some children found the toilets clean and fresh while others found them dirty and smelly. Privacy during toilet visits was desirable among the children but queue outside the toilet was a cause of worry. **Conclusion:** The children were mostly able to use the toilet whilst at pre-school, despite the challenges to their senses and integrity and occasionally issues with the teacher's rules. The need for privacy often had to yield to the teacher's need to control the children or even because toilet doors and/or locks were not adapted to the children's requirements.

### Keywords

Children, Pre-School, Integrity, Safety, Toilet Habits

---

## 1. Introduction

Most children in Sweden have already started attending pre-school when they begin to develop urinary and bowel continence [1]. The pre-schools are mostly administered by Local Authorities and private pre-schools are administered as parent-cooperatives. The Swedish pre-school curriculum Lpfö 98 rev 2010 emphasises that pre-schools are meant for children and that the joint initiatives of parents and teachers should contribute to the children's learning and development [2].

By the age of three to four most children have developed the ability to control their need, to urinate and defecate and bladder capacity has increased together with the ability to properly empty the bladder [3] [4]. There are wide variations in the number of times children urinate when awake, but on average a child of early school age urinates 5 times a day [5] [6]. Similarly there are large variations in the number of bowel movements but one or two movements per day are common [7].

It has been shown that five- to six-year-old children from western countries have developed complete bladder and bowel control, and can manage the various tasks associated with a toilet visit. These involve being able to pull clothes up and down, hand washing, bottom wiping, flushing, and if desired, locking the door [1] [8]. It is also known that some children in Sweden by the age of seven have not yet developed daytime continence and some have developed neither day nor night continence [5].

Several international studies, including three in schoolchildren in Sweden [9] [10] [11], have shown that a number of children completely refrain from or, if possible, avoid going to the toilet whilst in school. The main reasons given for this were the poor hygiene in the toilets and the fear and anxiety associated with going to the toilet at school.

Boyt [12] shows that teachers often lack general knowledge about children's toilet habits and the extent to which these can affect urinary and intestinal health. This imperfect knowledge can lead to problems for children, especially those suffering from functional bladder disturbances.

Studies of the experiences of both teachers and school children show how teachers' attitudes and rules for toilet visits influence the children's toilet habits [10] [12] [13]. The results also show how rules could vary amongst teachers and that they are made mainly to help teachers with class supervision.

Because it is known that some young school children have already adopted irregular toilet habits due to experiences during toilet visits and perceptions of the school toilets and that many children develop urinary tract and bowel problems whilst growing, there is a need to investigate the experiences of pre-school children of needing and using toilets whilst at pre-school.

### Aim

The aim of the study was therefore to describe 5- to 6-year-old experiences when needing and using toilets whilst at pre-school.

## 2. Methods

### 2.1. Participants

Seventeen children from 17 different pre-schools, ten girls and seven boys, aged between 5 and 6 years, all with the daily experience of being in pre-school. The children and their families lived in two towns in western Sweden.

A total of twenty parents and their pre-school children were informed about the study and its purpose. All parents were given written information about the study during a routine health check or when visiting a nurse at their child's primary care centre. One week later the study leader telephoned parents who had responded positively and whose children were happy to talk about their experiences, exclusion criteria was any confirmed problems with bowel or urinary tract function according to parents. During the telephone conversation a time and place for the interview was agreed. Seventeen out of the twenty children and their parents who were asked expressed a wish to participate in the study, but three of the informed parents later withdrew stating lack of time to be present at the interview.

### 2.2. Interviews

The study uses a qualitative approach with individual interviews. Interviews with the children were conducted according to the parents' wishes—mostly at home, although some chose to be interviewed at their pre-school. The interviews were conversational, took between 15 and 40 minutes, and were recorded. All children had one parent present during the interview. Most of the children attended Local Authority schools although some attended parent-cooperatives. None of the children had any confirmed problem with bowel and urinary tract function.

An interview guide comprising open-ended questions formed the basis for the interviews. Examples of questions asked in the interviews are; "Tell me what you do when you need to wee or poo and you're at pre-school", "Tell me what you do if you need the toilet during outdoor play", "Tell me what the toilets are like at your pre-school". The level of structure in the interviews was adjusted to the stage of the children's understanding.

The parents were reassured that the interviews would be confidential and that the data and results would be anonymous.

### 2.3. Data Analysis

Qualitative content analysis inspired by criteria developed by Krippendorff [14] was applied to the data starting with a full transcription of the interviews. References to the respondents' identification were removed. The next step was to read all the texts several times to obtain an overall impression and ideas for the subsequent analysis. Significant units were then identified and condensed from the text, these could be single words, parts of and whole sentences. The meaning units were coded and after several iterations of coding and decoding, sub-categories were identified and clustered into categories

**Table 1.** Example of analytical process.

| Meaning unit  | Condensation                       | Code                | Sub-category      | Category                                    |
|---|------------------------------------|---------------------|-------------------|---|
| I shout that I've is finished and she comes to help me (8)        | Shout and she comes                | Shout for help      | Teacher's help    | Going to the toilet rarely a private matter |
| Sometimes it stinks bad, maybe someone has forgotten to flush (9) | Stinks, someone forgotten to flush | Stinks, not flushed | Toilets' standard | Influencing factors                         |

describing the manifest content.

The analytic process identifying categories included an alternating consideration of the text as a whole and in parts. The validity of the categories was initially tested by the first author. Another author independently analysed parts of the text during the analysis process tested and retested codes and categories in order to confirm the validity. An example of the analytical process is illustrated in **Table 1**.

Ethical approval was given by The Research Ethics Committee at University of Gothenburg (Drn 038-13).

### 3. Results

Findings from the different school were similar. The content of the text was divided and described in two categories as follows;

**Going to the toilet is rarely a private matter**, contains four sub-categories; *Toilet needs is usually satisfied*, *Teacher's consent is needed*, *Teacher's help*, and *Privacy*.

**Influencing factor**, contains four sub-categories; *Toilet availability*, *Toilets' material standards*, *Toilets' hygiene standards*, and *Need to be prepared*.

The two categories are presented in the text together with quotations from the participants.

#### **Going to the toilet is rarely a private matter**

##### *Toilet need is usually satisfied*

Almost all the seventeen children used the toilet when they needed to. However, there were some who preferred to defecate at home and there were some who, for no apparent reason, actively chose not to go to the toilet when they needed to urinate. Several children were aware that their teacher reminded them to go to the toilet. On occasion the need to urinate was so urgent that the child felt they must urinate in their clothes. The children managed this situation without any help from the teacher; either by changing into dry clothes or simply waiting until the urine dried. Quotation: "*All the children go to the toilet*" (5). "*I need to go to the toilet but don't want to*" (9). "*I wee in my pants and let it dry*" (3).

When playing outdoors it was usual for the children to go indoors to use the toilet, sometimes with and sometimes without the teacher's help. On trips out or if the need was urgent teachers on occasion asked children to find a good place nearby to urinate. One child even chose to urinate outside. During outdoor play of trips away children had also been asked by teachers to hold on and wait until they were back in school. Quotation: "*I wee outside if no one can see me*" (4). "*The teacher says that we must wait*"

*until we've gone in because it's a hassle with all the clothes" (1).*

#### *Teacher's consent is needed*

Most children understood that their teacher needed to know about visits to the toilet and that they had to have the teacher's approval. Amongst the children who used the toilet independently, some still told their teacher that they were about to go. The children understood that it was important to inform the teacher so they would be ready to come and help as well as know where the child was. Quotation: *"You must tell the teacher before you go to the toilet but she doesn't always answer" (5).*

It appeared, however, that freedom to use the toilet when needed was limited. There was a broad understanding that all the children must urinate before going on an outside trip out, and also that a toilet visit must wait until after assembly/register/circle time. At lunch time the children had differing perceptions of when they were allowed to use the toilet. Several thought that they were not allowed to use the toilet whilst they were eating, but if they asked for permission to go they would get different responses on different occasions. Some children thought that they were only allowed to use the toilet before sitting down to lunch, others that they must finish their food before using the toilet. Quotation: *"The teacher says go and wee, put on your jacket and go out" (6).* *"No you must hold on, it's lunchtime soon—say many teachers" (1).* *"I always ask the teacher, sometimes she says yes, sometimes no" (9).*

#### *Teachers' help*

Most children could urinate without help from an adult, but many needed help after defecating. This meant that a toilet visit could take a while. Some children received prompt help, others had to wait patiently. There was a consensus among the children that it was necessary to shout loud one or more times in order to attract the teacher's attention and get help. Children in the toilet queue would even act as messengers when it was thought that the teacher had not heard the shout for help. Help with bottom-wiping in this situation could prove sensitive for the children, some of whom missed their mother's caring touch. Quotation: *"I go to the toilet by myself" (7).* *"I shout that I've finished and the teacher comes" (8).* *"You must shout if you need the teacher's help" (5).*

#### *Privacy*

Apart from a few exceptions all children were able to shut the toilet for their visit, most commonly with a door, with or without a lock, but some children experienced using a curtain or sheet of material instead of a door. In the latter cases children indicated to others that the toilet was occupied by pulling round a string until a red sign became visible. Quotation: *"There's a door that you can lock". (11)* *"There's a curtain" (10).* *"The other toilet hasn't got a door, there isn't anything for a door; so people can see in, everyone sees when someone's weeing" (8).* *"You can hear the others through the walls" (2).*

It was apparent both that the children worried about being seen on the toilet as it could lead to ridicule and that despite there being locks most children did not use them or even close the door. The choice not to close and/or lock the door was sometimes the

child's decision, but typically this action was the result of an instruction from the teacher. There were children who locked the door and others who wanted to do so but found the mechanism too difficult to operate and so left the door unlocked. The habit of not locking the door could even arise from of an earlier experience of being locked in a toilet. Quotation: *"She usually says to leave the door a bit open so she can hear when we shout"* (1). *"It's wide open but I want it to be shut"* (6). *"I wee with the door closed because I don't want anyone to see me when I wee"* (8). *"Once, in the young children's part, I shut the door and when I (tried to) open it I was locked in, so I shrieked and the teacher came and opened the door"* (5).

### **Influencing factors**

#### *Toilet availability*

The children's groups typically had access to two toilets usually situated in the same section of the pre-school as the children, or in a nearby cloakroom. There was also a third toilet—a teacher's toilet—which the children were allowed to use on occasion, for example if a child had a specific task or where a child's need to use the toilet was urgent and the other toilets were occupied. Quotation: *"There are only two toilets"* (8). *"When you're in the 'Elk' group you can use the teacher's toilet"* (10).

All the children had experienced having to wait outside the toilet. They were also aware that they must form a queue and wait their turn before using the toilet. Some children found it fun to wait, others thought it was tiresome and dull. Distraction techniques used when queuing and/or when desperate included various physical movements or talking to another child in the queue. If the queue was perceived as taking too long, children might even leave and go back to the game they had been playing before queuing. Quotation: *"I have to wait and wait and wait until it's my turn"* (8). *"I spin around on the floor really quickly"* (12).

#### *Toilets' material standards*

The toilets were shared by boys and girls. The walls were usually white or light coloured but occasionally, as with the floors, stronger colours were used. The children thought that the teachers had chosen the colour schemes. The walls were often decorated with pictures or drawings of sky and sun, animals, plants or fruit. The children didn't always appreciate the motives behind the decorations; some children found the decorations scary. Quotation: *"The toilet is lovely"* (13). *"The teachers decide what colour to paint the toilets"* (5). *"I'm frightened of a picture of a scary fox"* (14).

There was a wide variation in toilet equipment in the different pre-schools. In addition to the toilet bowl and cistern, most had a hand basin, toilet paper and a towel. Some toilets even had soap, a mirror, a glove dispenser and a bin bag or bin in the toilet. *"There's a sink, soap, a toilet and pipes that poo and wee go in, there's pipes that go around the wall and up into the roof"* (12). *"The toilet is white with a mirror, paper and a bin bag for paper"* (12).

#### *Toilets' hygiene standards*

The children had differing ideas about the hygiene standards of the toilets. Several found them clean and fresh, others found them dirty and smelly. Some of the children

knew that their pre-school had a cleaner who cleaned the toilets. Quotation: “*It’s not nice in the toilets; the walls are white and there’s paper with wee on the floor*” (8). “*(Cleaner’s name) cleans everywhere, apart from the roof*” (2).

Several children considered the reasons why they found the toilets dirty. The bad smell, paper on the floor, and why the floor was wet were amongst the observations noted. Quotation: “*They aren’t very good at putting paper in the toilet; sometimes it lands outside the toilet but sometimes there isn’t any paper on the floor*” (8). “*When you flush it (the water) shoots up really high in the toilet*” (15). “*Sometimes it stinks, maybe because someone has forgotten to flush*” (9).

Children who found the toilet smelly tried to deal with the problem independently. Trying the next toilet to see if it was better was the preferred action but if this was unsuccessful they could hold their nose with one hand to try and shut out the unwanted smell. Some children avoided using the toilet if the smell was bad. Quotation: “*I pull down my trousers with one hand and hold my nose*” (10). “*No, I don’t go to a different toilet, I go somewhere else and play*” (15).

#### *Need to be prepared*

Some children using the toilet experienced being disturbed by children waiting to use it. Shouts, laughter, knocking on the door and pulling the door handle all caused concern and created the problem of how to get the children outside the toilet to stop the disturbance. The first attempt to solve this problem was typically a verbal appeal to stop the activity. If this was unsuccessful the child in the toilet would try to protect themselves by grabbing and holding the door handle while they sat on the toilet; to try to stop it being opened. Quotation: “*It’s a bit of a pain because they come and laugh and I don’t think that’s fun*” (8). “*If someone rattles the door handle I can grab it*”. (1)

## 4. Discussion

The seventeen children were at ease in the interview environment and most could easily recall their experiences. The use of qualitative interviews for research data collection with younger children has been studied and discussed [15]. It has been shown that even small children can remember and describe events that happened a long time ago. It is however important that the children feel secure in the interview setting and that what is expected of them is carefully explained. The latter requirement was met by the interviewer striving to converse with the children before the interviews. Emphasis was placed on listening to the children’s questions so that, in conjunction with the presence of a parent, a safe interview environment was created.

Most of the children used the toilet when the need arose whilst in pre-school. Nearly all children urinated but a selection of children avoided defecation. It is shown that this aversion behaviour increases significantly when children become older and change to a new school environment. When children aged from six to sixteen were asked, 60% said they always avoided defecating in the school toilets [9]. The habit of ignoring defecation signals can lead to constipation as well as intestinal pain that may eventually require clinical investigation and treatment [7].

The teachers encouraged informing about a toilet visit and the children thought it was good that the teacher knew. From a health perspective this can be appropriate as it can afford the teacher a view of the child's toilet habits and can even be a warning sign of health problem. However, the requirement to always announce the need to use the toilet can result in a child's integrity and/or dignity not being fully respected [16]. Studies of children's toilet habits in school show that their need for privacy increases as they grow older [10] [13]. Several studies [12] [13] emphasise that teachers could improve their understanding of children's physical development, maturing processes, and even become aware of indications that development is faltering. According to the curriculum [2] pre-school is meant for children and the joint initiatives of parents and teachers should contribute to the children's learning and development. It is well known that many primary care visits by children are due to urinary tract and intestinal problems [7] [17] and this is a good reason for initiating regular dialogue between parents and teachers about children's toilet habits whilst at pre-school.

The children in this study had differing experiences of the toilet environment. Opinions regarding the décor and equipment were not considered significant; however several children were disturbed by the lack of peace and calm. Many of the seventeen children used the toilet with the door unlocked or half open, following the teacher's instructions, and this causes distress. In Sweden children begin primary school at the age of 6 or 7 and the school environment changes markedly. Children at this age are expected to be able to use all the equipment in the toilet and take care of their personal hygiene themselves. Several studies [9] [10] [11] have shown that children can be perplexed by the locking devices used in school toilets and may be worried that children waiting outside the toilet can open the lock. This introduces the risk of the child being seen in a compromising or embarrassing position. An important part of the curriculum [2] is to minimise problems that prevent children from taking care of their health. Pre-school teachers could teach children how to use all the equipment in the toilet properly, especially the lock. The significance of good hygiene is an important part of the pre-school curriculum, but the curriculum could be extended to encourage children to consider both their own and their classmates' comfort and privacy when using the toilet.

**Key Messages**

The children mostly used the toilet when they needed to whilst in pre-school but they had unpleasant sensory experiences

It was a lack of privacy and occasionally unhelpful rules imposed by their teachers

The children's need for privacy could be overridden by the teacher's need to control the class

The door or lock did not meeting the children's requirements

A dialogue between teachers, children and parents needs to be conducted concerning rules, safety and integrity

## Acknowledgements

This paper was supported by grants from the Swedish Mayflower Foundation for Children.

## References

- [1] Janson, U.B., Hanson, M., Sillén, U. and Hellström, A.-L. (2005) Voiding Pattern and Acquisition of Bladder Control from Birth to Age 6 Years—A Longitudinal Study. *Journal of Urology*, **174**, 289-393. <https://doi.org/10.1097/01.ju.0000161216.45653.e3>
- [2] Skolverket (2014) Statistik & Utvärdering. (Statistics & Evaluation.) <http://www.skolverket.se/statistik-och-utvardering/statistik-i-tabeller/forskola/barn-och-grupper>
- [3] Duong, T.H., Jansson, U.B., Holmdahl, G., Sillén, U. and Hellström, A.-L. (2013) Urinary Bladder Control during the First 3 Years of Life in Healthy Children in Vietnam—A Comparison Study with Swedish Children. *Journal of Pediatric Urology*, **9**, 700-706. <https://doi.org/10.1016/j.jpuro.2013.04.022>
- [4] Janson, U.B., Hansson, M., Hansson, E., Hellström, A.-L. and Sillén, U. (2000) Voiding pattern in Healthy Children 0 - 3 Years Old—A Longitudinal Study. *Journal of Urology*, **164**, 2050-2054. [https://doi.org/10.1016/S0022-5347\(05\)66963-7](https://doi.org/10.1016/S0022-5347(05)66963-7)
- [5] Hellström, A.-L., Hanson, E., Hansson, S., Hjälmås, K. and Jodal, U. (1990) Micturition Habits and Incontinence in 7-Year Old Swedish School Entrants. *European Journal of Pediatrics*, **149**, 434-437. <https://doi.org/10.1007/BF02009667>
- [6] Mattson, S., Gladh, G. and Lindström, S. (2003) Relative Filling of the Bladder at Daytime Voids in Healthy School Children. *Journal of Urology*, **170**, 1343-1346. <https://doi.org/10.1097/01.ju.0000086552.49727.a9>
- [7] Nader, N., Youssef, M.D. and Di Lorenzo, C. (2001) Childhood Constipation. *Journal of Clinical Gastroenterology*, **33**, 199-205. <https://doi.org/10.1097/00004836-200109000-00006>
- [8] Hjälmås, K., Sillén, U. and Holmdahl, G. (2012) Barnurologi. (Pediatric Urology). In: Damber, J.-E. and Peeker, R., Eds., *Urologi*, 2nd Edition, Studentlitteratur, Lund, 495-537.
- [9] Lundblad, B. and Hellström, A.-L. (2005) Perceptions of School Toilets as a Cause for Irregular Toilet Habits among Schoolchildren Aged 6 to 16 Years. *Journal of School Health*, **75**, 125-128. <https://doi.org/10.1111/j.1746-1561.2005.tb06656.x>
- [10] Lundblad, B., Berg, M. and Hellström, A.-L. (2007) Experiences of Children Treating Functional Bladder Disturbances on Schooldays. *Journal of Pediatric Urology*, **3**, 189-193.
- [11] Vernon, S., Lundblad, B. and Hellström, A.-L. (2003) Children's Experiences of School Toilets Present a Risk to Their Physical and Psychological Health. *Child Care Health Development*, **29**, 47-53. <https://doi.org/10.1046/j.1365-2214.2003.00310.x>
- [12] Boyt, M.A. (2005) Teacher's Knowledge of Normal and Abnormal Elimination Patterns in Elementary School Children. *Journal of School Nursing*, **21**, 346-349. <https://doi.org/10.1177/10598405050210060801>
- [13] Lundblad, B., Hellström, A.-L. and Berg, M. (2010) Children's Experiences of Attitudes and Rules for Going to the Toilet in School. *Scandinavian Journal of Caring Sciences*, **24**, 219-223. <https://doi.org/10.1111/j.1471-6712.2009.00707.x>
- [14] Krippendorff, K. (2004) Content Analysis: An Introduction to Its Methodology. Sage, London.
- [15] Docherty, S. and Sandelowski, M. (1999) Focus on Qualitative Methods-Interviewing Children. *Research Nursing Health*, **22**, 177-185.

[https://doi.org/10.1002/\(SICI\)1098-240X\(199904\)22:2<177::AID-NUR9>3.0.CO;2-H](https://doi.org/10.1002/(SICI)1098-240X(199904)22:2<177::AID-NUR9>3.0.CO;2-H)

- [16] Edlund, M. (2003) Vårdighet i ett kliniskt perspektiv [Dignity from a Clinical Perspective]. In: Eriksson, K. and Lindström, U.Å., Eds., *Gryning II Klinisk vårdvetenskap Vasa*, Åbo Akademi, Finland, 123-132.
- [17] Loening-Baucke, V. (1997) Urinary Incontinence and Urinary Tract Infection and Their Resolution with Treatment of Chronic Constipation of Childhood. *Pediatrics*, **100**, 228-232. <https://doi.org/10.1542/peds.100.2.228>



Scientific Research Publishing

**Submit or recommend next manuscript to SCIRP and we will provide best service for you:**

Accepting pre-submission inquiries through Email, Facebook, LinkedIn, Twitter, etc.  
A wide selection of journals (inclusive of 9 subjects, more than 200 journals)  
Providing 24-hour high-quality service  
User-friendly online submission system  
Fair and swift peer-review system  
Efficient typesetting and proofreading procedure  
Display of the result of downloads and visits, as well as the number of cited articles  
Maximum dissemination of your research work

Submit your manuscript at: <http://papersubmission.scirp.org/>

Or contact [health@scirp.org](mailto:health@scirp.org)

