Orderlies in Action: Cleaning from the bottom of a hospital hierarchy



Report from an anthropological study among orderlies at two hospitals in Ghana with focus on cleaning in relation to healthcare associated infections

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Abstract

Between 5-10 pct. of all patients admitted to a hospital acquire an infection due to their stay at the hospital. This is also true for Ghana, where studies suggest that the prevalence of Healthcare Associated Infection (HAI) is even higher. Cleaning is an important part in prevention of these infections, but it is likewise recognized, that cleaning is often not done according to the Infection Prevention Control (IPC) guidelines. This report is based on a three months field study among orderlies at two Ghanaian hospitals and concerns the social, cultural and material factors shaping cleaning in relation to HAI and IPC. The research is part of the greater HAI-Ghana project which is investigating healthcare associated infections from different perspectives and testing possible solutions.

The study found that the guidelines in IPC did affect how cleaning was practiced and understood. But simultaneously aesthetic logics had a high impact on the cleaning practice. The status of the orderlies as among the lowest groups in the hospital hierarchy carried implications for the work done as well as it influenced the cooperation with other staff groups. Ideas of what it means to be a good orderly, and how to be visible and receive recognition likewise affected the practice of cleaning. Finally also material aspects such as access to supplies and tools, the health of the orderlies, and the material standard of buildings and interior affected how cleaning was shaped.

Based on these findings the report contributes with some recommendations for action in order to improve cleaning as part of prevention of healthcare associated infections.



1. Introduction

Healthcare associated infections (HAI) pose a serious health problem worldwide. Within the framework of Infection Prevention and Control (IPC) cleaning is seen as an important activity in the efforts to curb HAI (Aldeyab et al. 2009:305; Dancer 2014:667; Ministry of Health, Ghana, 2015:59; Schmidt et al. 2013:530; Weber and Rutala 2013:449). However, it is likewise recognized, that cleaning is often not done according to the guidelines (Carling and Huang 2013:507; Dancer 2014:676; Rupp et al. 2013:100; Ministry of Health, Ghana 2015:3; Weber and Rutala 2013:449). Compliance to the guidelines are found at times to be less than 50 pct., with a range of 35-81 pct. (Dancer 2014:676).

This report is a reflection of the importance of cleaning in prevention and control of healthcare associated infections. It builds on an anthropological study among orderlies at two Ghanaian hospitals in a quest for better understanding the social, cultural and material contingencies which are shaping cleaning. Through identifying these contingencies the project seeks to understand how cleaning is perceived and practiced in context of the hospital organization.

After analyzing the data three main themes have been identified:

- Understanding of dirt and cleanliness
- Status of orderlies and of cleaning
- Impression management

The themes will be further developed in the chapter on findings. But before I move on to the findings I will present the background and the organizational set up of the study and describe the methods. Based on the insights derived from the three main themes, the report will end out with some implications and recommendations for actions.

The findings and following recommendations presented in this report build on the author's analysis of data. The purpose of the report is to serve as a tool for dialogue with orderlies and other stakeholders at the hospital. The results should thus be open for discussion to broaden the perspective and enhance the credibility of the results.



2. Background

The anthropological study among orderlies at two hospitals was connected to a multidisciplinary study on healthcare associated infections in Ghana: *The HAI-Ghana Project*, with the aim of improved prevention.

The scope of the HAI-Ghana Project reflects the severity of the problem of HAI. It is estimated that 5-15 pct. of hospitalized patients acquire an infection while under hospital care (WHO 2019). The consequences vary from prolonged sickness to death. Among prevalent diseases are pneumonia, infections in surgical wounds and urinary tract infections (Ducel et al. 2002:1; Klevens et al. 2007:167). Besides having severe consequences for the patients, the infections are costly both for the hospitals, the insurance companies and for the patients due to prolonged stays at the hospital, readmissions, expenses to medicine and treatment facilities and loss of workdays because of sickness (Rahmqvist et

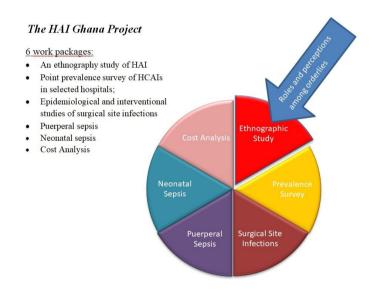


Fig. 1: The place of the study among orderlies in the HAI Ghana Projekct

al 2016; Ducel et al 2002:9). Furthermore also an unknown number of staff are affected.

The HAI Ghana project is organized and managed from Ghana but supported financially by DANIDA and implemented in cooperation with Danish universities. The study among orderlies is contributing to the ethnographic part concerning staff, patients and relatives (Sunkwa-Mills 2017).

The fieldwork lasted for three months, and the study was conducted at Korle

Bu Teaching Hospital in Accra, and at Eastern Regional Hospital in Koforidua. Korle Bu is the third largest hospital in Africa with 2.000 beds and an intake of 1.500 patients and 250 admissions per day. Eastern Regional Hospital in Koforidua is dimensioned with 400 beds.

Each ward had a team of orderlies which consisted of about four people, often two female and two male orderlies. The wards were connected to bigger medical units. At some wards the matron was

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the manager of the orderlies while at other wards or departments a hospitality manager was having the daily management of the orderly staff. Following the rest of HAI-Ghana Project the Maternal Care Unit, the Surgical Unit and NICU (Neonatal Intensive Care Unit), which belongs under Child Health Unit, composed the total of possible sites.

2.1 Cleaning in context

Within the social sciences, dirt cannot be understood as an absolute. In her now classical essay: Purity and Danger: an analysis of concepts of pollution and taboo (Douglas 2001 (1966) the British anthropologist Mary Douglas (1921-2007) made it clear that the definition of dirt is cultural specific and depends on how people define, classify and organize their world. An often used example is a pair of shoes, which in a specific cultural context are considered clean as long as they are on the floor, but dirty at the table (ibid:37). Dirt is *matter out of place*, Douglas stated. This insight is an important cornerstone of the work described in this report: When investigating cleaning and understanding what is dirty and thus what must be cleaned, dirt must be understood in its specific cultural and social context.

The study is further inscribed in other social studies on persons working with cleaning. Besides from all of the studies being influenced by the basic theory of Douglas, they are generally concerned with two other aspects: One aspect is regarding gender and hierarchies and their relation to status, while the other aspect is concerning dirt and pollution and the ways cleaners deal with experiences of defilement and low status.

In the article: "Hospital trash: Cleaners speak of their role in Disease Prevention", Karen Messing (1998), a Canadian biologist who has done ethnographic fieldwork among hospital cleaners, describes how cleaners at two health care facilities in French-speaking Canada are lowest in the hierarchy and how this affects their work. Messing has a feminist approach, her study has a focus on cleaning as a domestic task and she finds the female cleaners are even lower in the hierarchy than the male. The cleaners in her study were generally perceived as invisible, treated with disrespect, not listened to regarding change in work-conditions and were excluded from information about the patients, otherwise shared among the other staff groups. This, she finds, affected their cleaning in different ways. For example some of the cleaners gathered piles of garbage at a visible spot in order to render their work more visible.

A group of British sociologists, (Hughes et al. 2016) have done a study among street cleaners and refuse collectors. In the article: "Beyond the symbolic: a relational approach to dirty work through a study of refuse collectors and street cleaners", they, like Messing, notice how cleaners are low in the human hierarchy at the hospital with subsequent experiences of invisibility and being treated with lack of respect. The article concerns understandings of dirt and strategies applied by the cleaners in order to handle taint associated with dirt, and is thus inscribed in a general subject-genre on *dirty work*. This genre is concerned with how people doing *dirty work* are affected by the social stigma linked to their work, and what strategies they employ to live with or overcome this stigma. It is further interested in categorization of dirt within different social spheres (Hughes et al. 2017:107-108). Following the trend within *dirty work literature*, Hughes et al. link the low status of cleaners to their relatedness to dirt.

Whereas Messing directs attention to the influence on the life and work of cleaners made by hierarchies, Hughes et al. focus on an understanding of dirt as a relational phenomenon, including both human and nonhuman relations and how it influences the cleaners. Where Messing has an interest in both cleaners and the cleaning, the focus of Hughes et al. is on dirt and its relation to the cleaners, and is not oriented towards the effect on cleaning. Both articles show how the cleaners act in different ways, and have different strategies to handle experiences of invisibility, disrespect and difficult working conditions.

Although the two studies have different approaches, they both point to social and cultural factors influencing cleaning, and they both grapple with the problem of low status attached to cleaning and the people cleaning. Together the studies are inspiring by pointing towards aspects such as hierarchies, status, stigma, understandings of dirt and material factors, and how these aspects affect the cleaners and the work they do.

3. Methods

The main method of the study was participant observation. The method implies that the researcher enmesh him or herself with the people under study to, with the words of one of the founders of modern anthropology, Bronislaw Malinowski: "... grasp the native's point of view, his relation to life, to realise *his* vision of *his* world" (Malinowski 2012 (1922):79).

During my study I cleaned with the orderlies and in other ways shared their workday. I also visited some of the orderlies in their homes and shared some social life outside work with them. This way I gained insights regarding practices and perceptions among the orderlies understood within the context of their daily lives and the cultural and organizational setting of the hospitals.

I further conducted semi-structured interviews with key-informants and with

stakeholders (see fig. 2). As a supplement to

Fieldwork in numbers

Activity	Numbers
Participant observation	3 months
	2 hospitals
	3 wards
	3 key informants
Semi structured interviews	15 interviews:
	3 orderlies (key informants) interviewed twice
	2 orderlies interviewed once
	3 hospitality-managers and/or matrons
	3 IPC managers or nurses
	1 microbiologist, phd student

Fig. 2

the primarily qualitative methods, the study included a survey among all orderlies at the participating departments (see appendix), and by data based on official information about the two hospitals, national and international guidelines as well as statistics and literature on Ghana and its health system.

3.1 Speaking the language

When doing participant observation both ethical and practical issues must be considered. As I did not speak the local languages, some information was not accessible to me. The Norwegian anthropologist, Unni Wikan, has argued that a researcher can actually gain a lot of information from not speaking the local language, because then the researcher has to pay attention to the nonverbal aspects of social life: "There is a time and place for everything, and perhaps even a time when one might bless oneself lucky not to have words to get in the way of one's senses or intuitions", she wrote (Wikan 1992:470). As the content of this report will show, the lack of access to the local languages, did not exclude me from insights. But at the same time there were situations, where details of interaction between orderlies and between staff groups were excluded from being part of the data, because I did not speak the local language. This makes it even more urgent, that the content of this report is shared with the stakeholders in order to have their reflections on the study and to strengthen the validity.

3.2 The survey

The survey, which was distributed among all orderlies at the departments of surgical and maternity at the two hospitals should be seen as complementary and enhancing of the qualitative design. The aim of the survey was to make it possible to generalize some of the findings in the qualitative part of the study – or deciding whether findings should be understood as more specific in case they were not generalizable (Cresswell and Clark 2011:7).

The survey was distributed in person to each of the respondents by help of research assistants, who were also speaking the local languages Twi and Ga. As many in the group of orderlies found it difficult to read English, the research assistants guided the respondents through the questionnaire.

The response rate of the survey reached 85 pct. of 153 orderlies in the target group. A rate which is considerably above an average of 50 pct., and must thus be considered as high. Thus the representationality of the survey must be regarded as good (Baruch and Holtom 2008:1153).

However, the results should be used with care as the survey holds some deficiencies. One is that some questions were ambiguous and could be understood in different ways. Another problem is that some of the questions altered through the process. For example the question ""*Do you always have what you need of paper-towels, detergent/soap, bleach, savlon, gloves, apron, duster, mop, toilet-brush, high duster*"? was altered to: "*Are what you need to work effectively always available?*" The consequence was that more orderlies answered "yes" even though they were almost always out of for example aprons and paper towels, because they did not regard it as necessary for effectively doing their work.

Because of these flaws it is not possible to lean too heavily on the numbers. But understood within its context, and with precautions, the information from the survey is still useful as a supplement to the qualitative work.

3.3 Ethics

The study was approved by the Ghana Health Service Ethical and Science review board and from the internal review board at participating hospitals. The work was further guided by the "Code of Ethics of the American Anthropological Association (AAA 2009).

All participants, that is orderlies and staff at the wards where participant observation took place, was formally informed through an information sheet (See appendix). The groups of orderlies, with whom the researcher worked, were informed by help of an interpreter in either Twi og Ga. During the information they had possibility to ask questions.

For participation consent was given orally and informally in order to secure a relationship based on mutual trust between researcher and participants (Clark et al. 2000). All participants who partook in interviews or on photographs (with a few exceptions) gave a formal consent (see consent forms in appendix). All participation was voluntary, and all participants have had the possibility to withdraw their consent whenever they wanted, as long as it is practically possible. This far none has made use of this possibility, but a few rejected being photographed, and one rejected participating in an interview.

All participants were further promised anonymity, and during the study it became clear that the anonymity is of high importance to the participants.

Representation, that is how the researcher interpret her data, and how they are communicated, is an important ethical issue in anthropology. Both because of the risk of misinterpretation, but also because it could be argued that the data is partly owned by the participants, and they should have the right both to influence them and to benefit from them. One way to ensure a fair representation is the method of "reporting back" (Stewart 2009). With this method the findings of the study are refined, and checked through sharing the results and engaging in a following dialogue with the interlocutors of the study. All along the study it has been my intention to conduct such a "reporting back". However, while writing this report, this has not yet been done (March 2019), and to that respect this report is preliminary as it doesn't contain the response from the orderlies and other stakeholders.



4. Findings

Before embarking on the different findings of the study, the following description of a morning cleaning with one of the orderlies, Michael, should provide an idea of the context.

4.1 Morning cleaning

It is 4:50 in the morning. Outside it is still dark and the city is quiet. But at the ward Michael is already busy gathering waste from the small buckets placed around the ward and emptying them into the big bin. He hardly says hello as I arrive at the ward. Busy, busy. Fast movements. He is running out of time. Soon visitors will come and the floor must have been cleaned. The other male orderly is on leave, so Michael is alone on duty.

Michael starts sweeping the floor. First the cubicles. Move, move: He stretches the broom over the floor and withdraws it. A heap of dropped items: torn pieces of toilet paper; lids from water bottles; wrappings from medicine and medical equipment are gathered along with soil brought into the room by the shoes of visitors and staff.

After the sweeping, Michael goes to the dump to empty the wheelbarrow toppled with brown and black garbage-bags: A ten minutes walk through the dawning streets of the hospital. Then, back at the ward, he takes to mopping the floor. First he fills a bucket with water. This morning the tap is not flowing, so he takes from some meter high plastic barrels filled with water stowed away for occasions like this. The water in the bucket is mixed with liquid soap and bleach. The measurement of the bleach is one to nine. For example measured in used coke-bottles it is nine bottles of water and one of bleach. This information he picked up at a staff-meeting, since he never attended a training course.

When mopping he divides the floor into squares of about 4m². He moves over the tiles twice: first a wet mop and then a squeezed mop. He rubs the mop over the floor in short, abrupt movements. Around and under the lockers next to the beds personal belongings of the patients are placed at the floor: Shoes, bags, bottles. Michael tells me these places get dirtier than the rest of the floor, as they are more difficult to clean. Ready for a new square the mop is soaked and squeezed again. The water is getting muddy. I notice it when the mop breaks the cover of white foam which otherwise obscures the brownish color of the content below.

When half the cubicle is done, Michael moves to mop another part of the ward, changing both water and using another mop. Or rather: two thin-haired mops taped together into one. There is a shortage of mops. Ideally, he tells me, they should also have separate mops for each area of the ward: Each cubicle, the waiting areas and corridor, the offices: Each area having its own distinct color. But they don't. Although they have several mops, they don't have enough. And the mops are so quickly worn.

Back in the cubicle, he changes back to the ward mop. This sequence of mopping is different from most other days where he normally finishes the cubicle before he moves to the other parts of the ward. The explanation of the altered pattern is found on the floor between two beds where a patient has had an accident. A brownish puddle mixed with pieces of white paper-tissue. This is what he planned to do last. Michael tries to remove the puddle with the mop. Then he retreats to the dustpan into which he scoops the most solid part and then empties it into the toilet. The rest he can mop. The dustpan is rinsed with water.

Michael speaks with the patient in a local language. Later he tells me that the patient was embarrassed and apologized. But to Michael it is OK. It is his job, he says. The accident happened, because the patient has a stoma-bag and had fallen and thus spilled the content from the stoma on the floor.

After the accident has been cleaned, morning cleaning for Michael is over and he turns to rinse the bucket and mops, He asks me to help by running a line of soap around the bottom of the top sink, which is placed above the flush sink. As the tap is not flowing, he lifts a meter-high plastic jerrycan with his left hand and pours water from it into the sink where it is mixed with the soap. From here the water continues cascading into the flush-sink below where Michael with his right arm splashes the mop up and down, up and down in the pouring, soap-mixed water. Gradually the water around the mop becomes clearer. After rinsing the mops they are placed outside to dry in the sun.

When asked why the mops are not rinsed in bleach, Michael explains that the water he used while mopping had contained bleach. Thus the germs had already been killed. In a subsequent interview, he further told that his manager had said they should use bleach for rinsing the mops. But the bleach is scarce. They do not have enough. One mop is not put into the sun to dry: The day-mop. A thin-haired, old, used one. The mops used for morning cleaning were preferably young, with lots of hair still tied to the mop-head, and thus able to suck more water and wash bigger areas. The day-mop should be ready to clear accidents in the cubicles, sluice-ends, offices and corridors during the day. Accidents could be anything from spill of water, which is important to mop, so the floor will not be slippery, or it could be blood, stool or vomit.

4.2 Context and contingencies

The example shows how cleaning is part of the daily routines at the ward: The floors must be clean before the visitors start to come. The cleaning, like all other tasks, are part of what needs to be done in order to care for the patients; and the orderlies, like other staffgroups, interact with the patients in different ways.

The example also shows how cleaning is affected by material deficiencies. The cleaning by Michael is affected by shortage of staff, he can not rely on access to flowing water, the mops are too few for him to follow the guidelines recommending one mop for each place. The cleaning is further affected by a restricted access to bleach. To overcome these material problems Michael and his colleagues invent solutions such as tying used mops together or to decide that he doesn't need to use bleach when rinsing the mops after morning cleaning.

Thus Michael has ideas and perceptions about cleaning which relates it to removal and killing of germs. To that respect he is affected by the ideas in IPC with a biomedical explanation of infection and contamination and a recommendation of segregation of places into high risk and low risk areas (Ministry of Health, Ghana, 2015: 59-61). However, Michael has not received training, helping him to better understand the rationales of HAI, how for example bleach works. Further the case presents a mix of two different ways of dividing tasks and mops: In the morning cleaning mops are sought divided into places, while after morning cleaning the use of mop is guided by time. Thus during the day the same mop is used for accidents with bodily fluids, and with cleaning up spilled water, no matter where at the ward the accidents take place.

The example shows how Michael's morning cleaning is shaped through a negotiation between cultural ideas such as IPC-guidelines, social aspects such as his training and how cleaning is

arranged and material factors such as access to bleach and the number and standard of mops. Through the three themes:

- Definition of dirt
- Social status of orderlies and cleaning
- Impression management.

The following sections will describe some of the material, social and cultural contingencies which affect the shaping of cleaning.

4.3 Definition of dirt

As described in the background chapter, the question of what is dirty and thus what cleaning is directed towards, should be understood within its social, cultural and material context. In the study of orderlies I found that what was defined as dirty was never settled, but could change depending on the situation. However, I identified some aspects which at different times were influencing the definition of dirt. The aspects I identified as most influential was:

- The intelligibility of microbes. Experience – or lack of experience - of microbes and healthcare associated infections
- Material factors Access to supplies and resources, physical demands, health of staff and convenience
- Negotiations and relations between staff
 To whom is something dirt? Who is responsible for the cleaning?

4.3.1 Intelligibility of microbes

The language of HAI is that of biomedicine and that of the lab. Like illustrated through Michael's morning cleaning: germs, IPC guidelines and the risk of infection at times were something the orderlies spoke about and thought about. In their daily business, however, the orderlies did not experience germs. To assess whether the water was dirty they had to use their vision, and to assess whether a place had been cleaned they used also their nose and the touch of their fingers. This way they used the logic of aesthetic: A personal and moral assessment of what was neat. This also counted for their managers and the matrons who assessed their work.

Two examples may illustrate that even though the orderlies knew about germs and the risk of infections, other logics than HAI and IPC at times were more decisive in evaluating what to clean and how.

The one example comes from Harriet, whom I spoke with while she was cleaning a door. That day she was not using bleach for general cleaning but a detergent. When I asked her whether she ought to add bleach to the water when dusting the door knobs, she – after thinking about it said that: yes, probably it would be the right way to do it. However, the detergent, which she used that day, had a nicer smell and then she added, that it also had some disinfecting qualities.

On another occasion, at another ward, I had been around the hospital with the orderly Emma. On our way back to the ward I raised my un-gloved hand to push the door open. But Emma stopped me: "Use your foot", she cautioned, and explained that the door was a place for many infections.

According to the guidelines frequently touched places should be cleaned daily and with the use of disinfectant, because they are perceived as high risk areas. Both Emma and Harriet shared this understanding of doors as high risk places. Emma took care of me by warning against touching the door with my un-gloved hand, and Harriet agreed that probably the doorknobs should need bleach, but she preferred the nice smelling detergent. Even though places like doors were recognized as high risk places for infection, I never experienced doorknobs and light switches as a central part of the cleaning, or something which were perceived as especially dirty in a way which demanded use of disinfectant. Also to some managers it was not perceived as important. For example the manager Fati told me that doors should be dusted "once in a while". It could be, if blood had been spilled on them.

To both the orderlies and their matrons and managers the senses and the logic of aesthetic worked as a guideline for daily cleaning. What was "matter out of place" was what could be seen, touched and smelled. But this way of assessing cleaning, however, did have no place in the language of HAI as a biomedical problem. Within the biomedical tradition, which characterizes the hospitals approach to infection, germs must be detected in the laboratory. If something looks dirty or has a foul smell, it is not necessarily infectious (Lupton 1995:36). Thus the aesthetic perspective of cleaning could not be seriously discussed within the biomedical framework. In the biomedical discourse, what is relevant to talk about are microbes and phenotypes and the content of the guidelines, not what looks, feels or smells dirty. This also counted for material aspects such as lack of staff; shoes and patient equipment on the floor; lack of mops or water taps not flowing. Even though these aspects were mentioned and talked about, they were outside the biomedical discourse and thus something, which was difficult to discuss meaningfully.

4.3.2 Patients as a source of infection

When I asked people at the wards: matrons, nurses, doctors or orderlies, they could not tell me how many healthcare associated infections they had at the ward, and it was difficult for me to find examples of patients who had acquired an infection during their stay at the hospital. Their experience with infections acquired at the hospital derived from themselves or colleagues getting infected, and in these cases patients were often regarded as the source of infection.

To perceive the hospital as the "dirty" place and the patients as source of infection, is not only a phenomenon at the hospitals of this study. A study on nurses in England likewise found that the nurses perceived the hospital and the patients to be contagious and something they should protect themselves from instead of the ones, who should be protected (Jackson 2016).

This understanding of patients as source of transmission and the germs they brought into the hospital as something the staff should be protected from was mirrored in the daily way of talking about it. Gloves and face-masks for example were categorized as "protective gear", and the ones being protected were the ones wearing them. This perception was mirroring the way IPC managers at times talked about healthcare associated infections. In an interview an IPC manager told me, how she used the risk of infection as a way to motivate orderlies to follow IPC guidelines:

"They want to do it (cleaning ed.) their way, which they feel is much easier. But we tell them: it's not your way that matters, but how you yourself will be safe in that environment and not pick up illness back to your families. (...) (at the last training ed.) I asked them: "How many of you have babies at home?" A number of them raised their hands. "Oh I have a baby; Oh I have a baby who's now crawling, I have a baby who is 10 months old, I have a baby, which is this and all that". Then I tell them: "Okay, you see when you enter your room you walk with your shoes inside, don't you? And those shoes are picking up organisms from the hospital environment, and if you don't disinfect it, then you move it straight to your room. That child is crawling and everything the child picks they put in their mouth, so the infection you pick from the hospital, you have taken it home, and your child will pick what has fallen on the floor into the mouth".

At other times it was also recognized by orderlies that patients should be protected from contagion. For example one day when Michael had been assisting by moving a patient from a wheelchair to the bathroom, I noticed him leaving the patient: He was walking with his hands held apart from his body, cautious not to touch anything, heading directly towards the sink, where he could wash his hands. On his way through the ward he was careful not to touch anything, and when he pushed the door to open, he used his shoulder, and by the sink, the tap was opened by his elbow, not the hands. When I spoke with him about it, Michael explained that he felt contaminated after the work with the patient, and he was concerned not to spread possible germs by touching anything.

4.3.3 Statistically invisible

Thus to the orderlies, as to most other staff groups, germs were undetectable to their senses, making space for the logic of aesthetic in the assessment of cleaning. In their own experience with hospital acquired infections, it was the risk of the staff getting infections based on their contact with patients, which were at attention. But also statistically the healthcare acquired infections were invisible, as the hospitals in the study did not have an active surveillance program on HAI (Labi et al. 2018:9).

The French philosopher, Michel Focault, among others, has described how statistics are a way to create knowledge about a problem (Foucault 2003 (1976):243). Furthermore statistics often play a substantial part in creating a category, and in defining what it is at all possible to talk about (Hacking 1992). At the hospitals healthcare associated infections were realized as a theoretical problem regarding the patients. There were off course many patients with infections. But without statistics these concrete infections were not marked out as a special type and not linked to special activities or discussions at the wards. Thus, without a specific category of patients with HAI the concept was weakened in the daily shaping of what and how cleaning should be done, and what was good cleaning.

4.3.4 Material aspects

In defining what should be cleaned, and how it should be cleaned, material contingencies often played an important part. As in the example of Michael's morning cleaning, he was busy because he was one man doing the job normally carried out by two persons. The patient-stuff placed at the floor likewise influenced what was being cleaned and the scarce supplies of bleach led to the decision that the mops had already been rinsed in bleach while cleaning the floors, so it might not be so important to rinse them in bleach after the cleaning. At some days, Michael would take away the patient stuff at the floor before cleaning. Maybe at days where they were two persons to do the job. Thus what was defined as dirt was relative.

Also the physical ableness of the body played its part. Some days for example, we stopped cleaning after maybe one hours work. "I am tired", Maggie, one of the orderlies said. Her body was aching. Body-pain and sickness were part of the work. Several days she complained about a running stomach or just feeling week. I think twice during my stay, she said she had malaria and took medication. But she went to work anyway. Who else should clean? she asked me.

It could also be the impression of an overwhelming deterioration. For example one day we noticed the windowsills, which were covered with rusty flakes falling from above. We discussed it with the manager and was told, that it should not be cleaned every day: Once a week would do. This meant, that the flakes were not "out of place" on the other days. Unless, maybe, the body was fit and able and other rationales took over. Or maybe there should be an exam on the ward that day. At the exams visiting doctors came to examine the student doctors or nurses, and the ward should present itself at its best.

4.3.5 Negotiations and relations between staff

In this way dirt, and subsequently what to clean, was continually shaped in a negotiation or a relation between what was sensed, by IPC guidelines, the ableness of the body, what tools were at hand and special events like for example audits or exams and power relations. At some times it was also part of a negotiation between staffgroups, considering: To whom is this dirt?

The following story from the ward may bring an understanding of this relational aspect of negotiation closer:

One day some nurses had gotten hold of a cardboard box filled with yams. With a lot of happy giggling the box was brought to the nurses' station, which was situated in the corridor. Here the yams were distributed among the nursing staff, and the box was gotten rid off. However, the box had not been sealed at the bottom resulting in a pile of redbrown, dusty soil left on the floor. Nobody seemed to take action. Time went. Then the matron came and ordered Joseph, one of the orderlies, to clean it up. A bit reluctantly he found a broom and a dustpan and got rid of the soil.

The nurses, the orderlies and the matron all shared a mutual understanding of the soil on the floor as "matter out of place": they noticed it, and nobody disputed that something should be done about it. But neither the nurses nor the orderlies found it was their responsibility, and thus it depended on a negotiation regarding who should interpret it as dirt and thus take action towards it. That the orderlies were lowest in the hospital hierarchy didn't exclude negotiation. Both Joseph and the nursing staff negotiated by passivity, and the question of who should clean it up was not solved till it was decided by the matron.

4.4 Status of orderlies and of cleaning

The above example of negotiating to whom the soil on the floor was dirt points to a relational aspect of shaping cleaning. One part of a relationship is often differential status among people in the relation. Regarding cleaning several studies have described how cleaning and the people doing the cleaning are attached to low status (Messing 1998; Hughes et al. 2016; Dancer 2014). This was likewise found in this study, where both the task of cleaning and the orderlies as a group were low in the hospital hierarchy.

4.4.1 Low status of orderlies

The orderlies were very well aware of their low status, which they experienced was communicated to them in different ways.

One way was the rooms assigned for them to stay in, when they were not cleaning. These rooms were all assigned for other purposes, for example utility rooms, pantries or change-rooms. Some orderlies even, had no room at all.

Status has to do with respect. When a person has a low status he or she can expect to be treated with less respect¹. This becomes significant when there are conflicts between the staff groups. For example at one ward I experienced how



Fig. 3

The orderlies did not have a room which they could use for resting like other staffgroups had. Instead they used rooms assigned to other purposes as well, as for example this utility room. /Foto: Mette Breinholdt

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used paper towels had been discarded into a basket for used cotton towels. I talked with one of the orderlies, Angela, about it: "That is what the nurses normally do", she said and explained that when they are short of cotton hand towels, they use the paper towels. But instead of discarding them in the dustbin, the nurses add it to the cotton-towels. "So when we come, we need to be doing the sorting, and remove the hand-towels from the paper-towels", Angela said.

When I asked her, why she thought the nurses did it, she said she was sure, they did it intentionally. That is, just to bother the orderlies.

Danny, another of the orderlies explained how he and the other orderlies were showed their low place in the hierarchy by the way some nurses talked to them:

Danny: They (the nurses ed.) do show this in, for instance, how they call you to come and do something for them. They call you as if you are their younger kid or ... like they are even older than you². That is some of the things they do.

Mette: Like, what could they say?

Danny: They are using (words ed.) here in our language – you are looking down upon a person. So: "Hey Danny." Hey then, I call your name. I don't regard you. The respect: I don't give it to you. Some are like eh – in a situation like, so: "This place that is dirty. Haven't you seen it to come and clean!" They are (not ed.) talking to you: "Oh Danny: eh. This place here, can you come and clean it for us?" They don't do that. They use a harsh tone to talk to us.

Mette: Is it all of them who do so?

Danny: I can say a few people respect us a lot.

Thus the low status was continuously communicated on a daily basis telling the orderlies who they are in a rather outspoken way. As illustrated by Danny's remark "a few people respect us a lot", it was not all the nurses or other members of the staff, whom the orderlies experienced as disrespectful. Thus the role of an orderly were not necessarily expressed with disrespect in the daily interactions. You could be an orderly and still be respected as a person and a colleague.

The orderlies also felt their low status expressed through hospital structures. For example they talked a lot about not getting allowances if they were told to work at public holidays or on days when they should otherwise be off. They experienced it as differential treatment, because they were

sure that other staff groups got allowances and were paid overtime, when they were told to stay longer hours.

But while all orderlies felt they held a low status at the hospital, their status could be higher outside the hospital. They could even be envied by family or friends because they were employed at the hospital with a steady income and the benefits following a public position³. For example did Michael focus on the stable payment when he explained why the work as an orderly made him proud: Before he started to work at the hospital he was never sure whether he would get a payment that month:

"Then how can you plan? You can't plan. For this month allowance has come. Next three months allowance has not come. So it was up and down. I couldn't decide for myself, because I didn't receive my money frequently. When I was employed as an orderly, at that month, salary started coming. Regardless of it is very small. But it started coming. So I can plan for myself."

To others, however, also outside the hospital, they felt it embarrassing to hold a position as an orderly, and some even kept the nature of their work as a secret to some of their friends and family-members.

4.4.2 Low status of cleaning

Also the task the orderlies were doing: Cleaning, had a low status.

The low status of cleaning was for example reflected in the way hospital authorities accepted when orderlies did not follow rules. I heard of several examples where non-compliance to instructions or behaviors like showing up randomly were not sanctioned. This left the hospitality managers with staff they could not rely on and the orderlies with colleagues who were of no help. The message they read out of it was that cleaning was not prioritized by hospital management: Anyone could do it – or not do it. No consequence was taken. When they compared the situation to nurses, they could not imagine that a nurse who had violated instructions and had received warnings, would be able to keep the job.

Also training of the orderlies apparently had a rather low priority: "I am blind", said Michael one of the first days we met, and the statement was repeated in an interview. By this he wanted to say that he did not know what he was doing in a biomedical way, as he had had no training despite several years of employment as an orderly. What he knew about cleaning and infections, he had picked up from other orderlies, from the medically trained staff he worked with or from his manager.

Michael was far from the only orderly not receiving training. According to the survey 14 percent of the orderlies had never participated in a training course, and more than half had not had an initial training course when they started working. This indicates that the position as an orderly is not automatically linked by the management to a need for training and learning a skill.

4.4.3 Reasons for low status

Thus the study found that both the task of cleaning and the orderlies as a group were ascribed low status at the hospitals. The American sociologist, Erving Goffman, found that what constitutes something as low status is not constant. Accordingly for example to be an orderly can be related to low status inside the hospital while the role is related to high status outside the hospital. To understand why something is related to a certain status, you must understand it in its context (Goffman 1990 (1963):13). This might explain why the low status of orderlies in my study didn't seem to be related to proximity to dirt as otherwise described by Hughes et al. in their study on street cleaners and refuse collectors (2017).

Likewise the low status of the orderlies at the hospitals were not found to be related to gender, as otherwise suggested by Messing (1998). Although I experienced gender differences for example in division of labor, I did not find that male cleaners were generally more valued or the opposite. Nor from the insights I got of their salaries, did I notice any difference based on gender.

Messing also suggested, that the low status of cleaning could be due to the activity being far from the core mission of the hospital: To biomedically treat and care for the patients (Messing 1998:178). This is in line with other findings linking status at hospitals to the level of how close activities or staffgroups were related to biomedical activities and biomedical knowledge (Dancer 2014:666; Andersen 2004:2009). At the hospitals of my study cleaning was for daily purposes understood within an aesthetic logic, and was not perceived as a biomedical activity. Regarding biomedical knowledge the orderlies were associated with being uneducated and not having a professional attitude towards their work.

Both the relatedness of cleaning to the core mission of the hospital and the level of education and professionalism are meaningful traits within the hospital setting. Here the biomedical tasks of caring for and treating the patients are at the center, and biomedical training and the biomedical hierarchy

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is directive for evaluation of the professionalism of staff and tasks. Therefore it is likely to assume, that the low status of cleaning and of orderlies at the hospitals to a great extent can be explained by the fact that cleaning is not a part of the core mission and the perception of orderlies being unprofessional and uneducated.

4.5 Impression Management

Some times, mostly after morning cleaning, I could find an orderly taking a nap: Head on table, or with two chairs dragged together: Legs on one chair and resting the corpus on the other. The orderlies could also be away, doing errands on the street or visiting colleagues. Some of it was a reaction to being expected to work long hours without compensation for overtime. At other times it was a reaction to the experience of being treated with disrespect. If they (the hospital) don't respect me, then I don't need to show respect the other way, the argument went. Others supplied their low income with extra jobs.

Another consequence of the status difference at the wards was, that communication could be restricted between the staff groups.

4.5.1 Restricted communication

Because of the status difference communication between the groups were at times restricted. In some situations communications between the staff groups was restricted because staff of lower status could not ask people of higher status to manage a task. For example it was difficult for orderlies to talk to nurses or doctors who dropped waste on the floor and didn't clean after themselves. Instead it could lead to musing when a group of nurses had eaten, and left the place untidy with crumbles on the table and maybe a forgotten plate: "They are worrying me", was a typical expression pouted while the orderly reluctantly cleaned after them.

Communication between the orderlies and the other staff groups was also curbed regarding access to knowledge about the patients. As described earlier patients were perceived as infectious, and the orderlies were concerned that proximity to patients could lead to infections. For example HIV or hepatitis. The patients could also pose a risk if they were mentally unstable and maybe aggressive or even violent. But knowledge about the patients was generally not shared with the orderlies: A withholding of information the orderlies experienced as endangering to their personal security. In another job he had held at the hospital, Michael had felt regarded by the nurses and treated as their

equal because essential information about the patients was shared between them. Now, in his position as an orderly, he said he felt unregarded and kept in the dark.

The nurses explained that they did not share knowledge about the patients with the orderlies because of the confidentiality. They were not allowed to convey information about the patients to people who are not part of the health care staff. Instead the orderlies were told that they should act as if all patients had HIV.

I asked Michael, whether it affected his work and his answer fell instantly: "YES! Off course. I have a wife and children. Should I go in, have a problem, and no one will come? No, no. It affects my work. I will not work hard. No. I will not kill myself."

This way the restricted communication between the groups made it difficult to cooperate and have the sense of everyone being in the same team, which was otherwise stated as the way it should be by the matrons both in interviews and in random talk.

4.5.2 Division of labor

The difference between the groups was also marked through division of labor. However, these borders were not rigid, and as illustrated by the example with the yams and negotiation of who should clean the floor from the spilled soil, it was not always clear who should do what. The orderlies could do tasks otherwise assigned to nurses like moving the patients, helping them with a bath or other minor tasks, and if the orderlies were significantly understaffed, or if they didn't show up, nurses could do some cleaning.

While the orderlies often enjoyed taking over tasks like caring for patients in different ways, they tended to resent doing nurses-tasks closer related to cleaning like managing soiled bed-sheets or picking up scrap from the floor dropped by nurses or doctors.

Through taking on activities or refraining from activities the orderlies to different degrees embraced or distanced themselves to the symbolic meaning attached to the task. Goffman noted how a person could be contaminated from his or her activities (1969:63). While cleaning was associated with low status, work associated with higher status at the hospital such as caring for patients or administering utensils, would then add status to the individual orderly and maybe to the orderlies as a group, whereas nursing tasks like cleaning the nurses' table, rinsing soiled linen or picking up scrap others

had lost, would not add anything new to their status, but rather be an affirmation of their status as subordinate.

4.5.3 A good orderly

Thus, what the orderlies did, how they acted and the tasks they performed affected their status and how they were regarded. This way they actively did their best to influence others perception of them through what Goffman called Impression Management (Goffman 1990 (1959)).

To understand what they were striving for, you must ask the questions: what traits or behaviors defined a good orderly? especially what was regarded by their superiors as a good orderly? and what tasks did their superiors especially recognize and give a positive evaluation?

Maggie, one of the orderlies, often chose to sit in the corridor, visible to the nursing staff, when she was not busy cleaning. She explained to me, that it was because this way she showed that she was available. When I asked her what part of her work was most important to the hospital, she likewise pointed to availability:

Maggie: The good thing I do is that I always respond to their call any time they need me. I don't wait. At times when they call me: Uh come in, clean the bed; There's a vomit also at the floor; Come and wipe; or go and clean the sluice end. I don't wait. I do this to help the hospital. I don't wait for someone to tell me so far as it is my duty to do it. And then, because of that, the matrons on the ward like me.

The matron at Maggie's ward agreed to the description. When we talked about the orderlies and what in her opinion it took to be a good orderly she said:

"Some are very good. Some like Maggie. Devoted. Yes. She knows what to do. You will not ask her: Have you done this? You are supposed to do this. .. She is the one too, who is always staying close. She will not leave the ward and you go round looking for her."

4.5.4 Invisibility

But it is not much use to be a good orderly if you are not visible to your audience. Therefore visibility was an important issue and some tasks are more easy to make visible than others.

Sitting in the corridor is rather visible, while working from 4-7am, which was where the main performance of the male orderlies often took place, happened before the matron would enter the

ward around 8am, and was thus less visible. Furthermore cleaning generally might be a difficult task to make visible, unless the difference before and after cleaning is obvious to the senses.

In an interview, Angela told about the importance of her work being recognized:

Angela: When they don't normally recognize my work, I don't feel happy within. I don't work with joy. Because even if there is dirt, or there is something that has been put wrongly, and I need to redo it, I will not do it, because I will say: Ah, after when I do it, they will not even recognize it. So let me just let go, and at the month end, they will give me my salary. (...) They have to respect us, because if we don't work, they also can't come and work. We need to clean the place for them to come and sit, and work.

Angela felt that her work should be recognized, because it was important for the ward to function. But most often she found that the appreciation of her work was not there. Some colleagues, however, did recognize her work, and especially some parts were recognized:

Angela: Some of the matrons or doctors will make comments. At times they will say: "oh, today dear: Auntie⁴ Angela didn't report to work. If Auntie Angela was to be around, they wouldn't have done it in that way (in a bad way ed.)."

Mette: And what does that mean to you?

Angela: Oh, it makes me happy, because they value - they see what I do. That makes me feel good.

Mette: What of the things that you do, do they notice the most?

Angela: With the doctors' and the matrons' office, I normally dust in there. (...) And then I make sure I clean: (...) Then do their things; you just put things here, just like that (arrange the things on the table ed.) So I make sure, that I arrange it well. So, when they come, they say, "oh this, my dear, this was auntie Angela who did it. Not any other orderly would do that". (...)

Mette: Are there other things that are important; that you know the other staff groups will notice?

Angela: Most of the times I do errands for them. Maybe a patient needs to be sent to the x-ray or the ultra-scan. (...) And when the staff on duty is not many, they will call me: Oh

auntie Angela can you please help us clean the incubators. That is what I normally do for them. (...).

What Angela sets into words is the importance of ones work being recognized. And what is appreciated by the superiors is not her ability to understand and perform cleaning according to the IPC guidelines. Rather it is her ability to keep it neat where her superiors work, and to understand their needs, and be ready at hand when needed. This adds to the insight, that cleaning was assessed by the senses. If it is important to the orderlies to be recognized, then it is directing for their cleaning how their work is assessed by their superiors. When the managers assessed the work, it happened by use of their senses. They looked around: Did it look nice in an aesthetic sense? At times they could drag a finger along a surface. Accordingly attention when cleaning was first and foremost at the parts of the work which were directly observable by a quick glance.

5. Conclusion

The definition of dirt, and thus what to clean, is cultural specific and depends on how people define, classify and organize their world, Mary Douglas taught us (Douglas 2001 (1966)). Later works have added attention to material and interactional aspects such as access to supplies or social phenomenons like status (Hughes et al. 2016, Messing 1998). This is also be true of cleaning at hospitals in Ghana.

At the hospital, the biomedical way of understanding infections and cleaning was an important way of classifying and organizing the local world. This happened through the concept of Healthcare Associated Infections and IPC-guidelines and it influenced the practice of cleaning: For example when Michael did his best to segregate places into high risk and low risk, and when he added bleach to the cleaning water. But the influence of this biomedical understanding of infections and cleaning was restricted in several ways.

One problem to HAI was that it was kind of invisible. The germs were not perceptible to the senses and infections acquired by patients during their stay at the hospitals were not singled out as a special category through statistics. Training of the orderlies were likewise limited. Furthermore adherence to IPC-guidelines was not offered much attention in the daily assessments. Instead the aesthetic aspects of cleaning was guiding the evaluation of when something was well cleaned, and what was important to clean.

In the strive for recognition and being a good orderly, cleaning frequently touched places was not rewarding, while actions like being present and visible to matrons and doctors for example by tidying up their offices, were recognized and valued by superiors.

The low status of cleaning and of orderlies, and the way status difference between orderlies and especially nurses were experienced also affected what was cleaned: High status tasks such as caring for patients, were at times prioritized over cleaning, and cooperation between the different groups at the ward was restrained. The low status of cleaning could also lead to less commitment to the job, and it curbed the cooperation between the staff groups at the wards, where the orderlies experienced not being regarded as part of the ward team.

Material factors such as lack of supplies; the experience of rusty beds; broken tiles; tired bodies; the ease by which a broom or a mop could move around the floor: the risk related to proximity to

germs, and working conditions such as working hours; payment and yearly leaves were all influential factors affecting what was cleaned. For example the few and worn down mops made it difficult to follow guidelines, and the worn down ward affected the sense of cleanliness; the motivation to make it nice.

To sum up cleaning was not always done according to the IPC-guidelines, and at times orderlies detached themselves from the hospital, revolting to what they found was unjust treatment by running errands during work hours, visiting colleagues, sleeping or in other ways becoming invisible. What was visible or otherwise accessible to the senses and valued by their superiors was prioritized activities. The orderlies engaged actively in cleaning wanting both to make a good impression, be acknowledged and they cared for the patients and their workplace. This engagement points towards ample motivation for improvement. Below I have described some recommendations derived from the study.

5.1 Recommendations

Following the findings in this study, efforts to promote hygiene and infection control should target:

- Cleaning in the way cleaning is perceived, organized and cleaning practice.
- Activities directed towards the **orderlies**, their status, their place in the **ward team** and relation to other staff groups.
- **Material** conditions such as access to tools and supplies, health of the orderlies and the material standard of the wards.

The following will further describe the recommendations for action.

5.1.1 Cleaning

Orderly work should be changed into a profession. This involves demands for education, and different levels of professionalism. For example "apprentice", "skilled worker" and "professional", allowing the more skilled to supervise the less skilled and do more difficult tasks.

The importance of orderlies as a profession within the health setting could also be signaled through proper uniforms, and adequate protective gear.

However, visible changes like the above alone, will not make the change unless it is followed by actual change in the competence of orderlies through systematic training in educational programs, and an evaluation and feed back which mirrors what is taught during training sessions.

In order to enhance a biomedical

understanding of infections and the existence of HAI as a problem for patients, the germs and infections must be presented as present and made intelligible as an existing problem related also to cleaning functions. This could for example be done through pictures of germs found at the wards. These are pictures, which the microbiologists have access to. They could be part of training material. Maybe the orderlies could visit the laboratory as part of their training sessions, or they could watch a



In the lab, microbes are colored as a way of identifying them. Pictures from the lab may enhance the understanding of microbes. /Photo: Mette Breinholdt

movie from the laboratory, in order to understand the process of making the germs visible. Measuring the prevalence of HAI at the ward, with numbers and recognition of affected patients – and maybe also staff – and the increase or decrease in HAI at the ward, would also be a way to make cleaning visible as a professional and biomedical tool targeting the problem of HAI.

Recognizing, that for daily purposes cleaning must be assessed through the senses, the visibility of dirt, the smell or the feel, the aesthetic perspective should be incorporated as a legal way to talk about cleaning. This should happen through a dialogue with microbiological experts, and thus microbiologically relevant observations could count as observation. This method is inspired from other places, where biomedicine has gone into dialogue with local understandings (Leach and Hewlett 2010:57).

5.1.2 Orderlies and the ward team

The orderlies were among the lowest in the hierarchy. This were in some ways contra productive for their engagement with the work and the cooperation between staff groups at the ward. Following the analysis above a professionalization of the orderlies would probably contribute to enhance their status. Further it would contribute to enhancing their status if some of their sign equipment (Goffman 1990 (1959):32-33) such as the rooms assigned to them for resting, the quality of their tools and access to supplies were improved. Making sure the orderlies have comparable equal facilities such as resting rooms, tools for their work or equal payment patterns will at the same time be a message from management about a more equal status of the orderlies, and a way through which the orderlies can represent themselves as having a more equal status.

A more equal status among the staff groups will enhance the possibilities for the staff groups to work together as a team at the wards. It should be possible for orderlies and nurses to directly exchange ideas about how to solve different tasks, and how to handle for example situations of shortage. A dialogue about who should do which tasks would be possible, and thus it would be easier helping each other out during the daily work for the patients.

In order to have a good communication between the staff groups it is likewise important to have a dialogue about who knows what, and how to share important information at the ward. In order for this to work, the orderlies off course also need to adhere to rules of confidentiality.



A hand hygiene station, recommended by the national IPC-guidelines (Ministry of Health, Ghana, 2015: 21). It is an example of how material conditions are taken into consideration when designing guidelines.

5.1.3 Material aspects

Material aspects were at times important obstacles to promoteing hygiene and cleaning according to the IPC recommendations. In order to improve cleaning these material aspects could be worked on.

This regards access to flowing water, sufficient access to bleach and other important supplies, proper tools like mops and dusters chosen in cooperation with the orderlies.

Access to protective gear such as gloves, boots and handsanitizer, also showed important for the orderlies to feel secure when doing their work. Otherwise reluctance towards certain tasks could be expected, as well as increased sickness among the cleaning staff further more enhancing the work load. However the quality of the working gear is of importance, as gloves so thick that the orderlies can hardly perform their work, or aprons so heavy and clumsy that the physical nature of cleaning work is made difficult, must be taken into consideration.

At times access to supplies and tools might not be possible to any of the groups at the hospital, or prioritization is hard. In these circumstances it is important to be able to talk about the actual circumstances, and maybe in cooperation with microbiologists or other experts find useful solutions. The hand wash station at the picture (*fig. 5*) is one such example of a solution to a problem with access to flowing water. Likewise it can be important for managers to address the physical status of the building and equipment. A sense of deterioration can affect the feeling of efficiency and making it "nice". In this situation it is important to agree on what the standards should be: When is it clean, and when is it not. Are the actual problems with access to tools, supplies and the physical standard of buildings and for example beds not addressed, it risks undermining the authority of the IPC organization, because they don't communicate into the reality in which the orderlies perform their work.

5.1.4 Solutions in cooperation

As noted above (chapter 3), this report has not yet been read and discussed with the people of interest: The orderlies, their managers and colleagues. Accordingly the description, conclusion and recommendations, should be seen as work in progress.

In order to be sure, that the situation is correctly described and recognizable to the people whom it concerns it needs to be discussed with them, and their comments evaluated and taken into consideration in a probably revised report.

Subsequently it is important that the mentioned recommendations are elaborated and executed by actively engaging the orderlies and their colleagues. This course of action will ensure that the solutions are solid and anchored in local practice, and it will grant the legitimacy needed for sustainable change. To involve all stakeholders in designing the change will simultaneously contribute to enhance the status of orderlies and communicate to the organization that everybody is on the same team with the object of improving the health and welfare of the patients.

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Appendix

- Information sheet orderlies
- Information sheet other staffgroups
- Consent form orderlies general
- Consent form orderlies specific
- Consent form other staffgroups general
- Questionaire survey
- Survey, Report Eastern Regional Hospital, Koforidua
- Survey, Report Korle Bu Teaching Hospital

- 1 My understanding of status derives from different writings on the subject. Erving Goffman noted about a social role, that it is "the enactment of rights and duties attached to a given status" (Goffman 1990 (1959). Further, in a review on status, which mainly concerns businesses, the concept of status is broadly defined as "the position in a social hierarchy that results from accumulated acts of deference" (Sauder et al. 2012:268). Together these statements bring me to an understanding of status as *a position in a hierarchy, which is attached to certain rights and duties, and build on the amount of respect the person or group is shown from others*. By its link to degrees of respect, rights and duties, status is restraining or enabling an actors ability to affect the environment. This way status is closely related to power in the understanding of the British anthropologist, Richard Jenkins (1952-). In a paper discussing the work of power in Goffman's theories, he describes power as a matter of taken-for-granted, 'normal' everyday order of interaction, which enables and constrains efficacy and capacity (2008:159). In other words: *Status is an essential aspect of a person's possibilities within which to act and how to be understood*, and thus it is essential in influencing a persons' possibility to manage his or her impressions.
- 2 Danny is referring to a relation in Ghana between age and status, where people who are older are endorsed with respect due to their age. This was both mentioned to me during my fieldwork and is likewise described in an article on differential treatment in a Ghanaian hospital: (Andersen 2004)
- 3 In her study on differential treatment at a Ghanaian hospital, Andersen likewise found that a job in the public sector is attractive because of their relatively regular salary, pension, housing and other benefits. As her study regarded the health workers, they were simultaneously seen as part of the educated elite, which added to their status (Andersen 2004:2007)
- 4 Auntie, meaning aunt, is a title used to show respect to a woman who is no longer young.

Investigating Healthcare Associated Infections

Healthcare Associated Infections (HCAI) is a serious health problem at hospitals all over the world. HCAI are infections acquired by patients or staff during their stay at a hospital or another health care facility. Many of these infections could be prevented.

In the period: July – December 2017 a study is carried out at the Neonatal (NICU), Surgical and Maternity units of the Korle-Bu Teaching Hospital and the Eastern Regional Hospital, Koforidua.

The study is interested in learning about the socio-cultural and material aspects and perspectives of HCAI, as well as the role played by hand hygiene and Infection Prevention and Control (IPC) practices in prevention of the infections.

What and why

Participant observation means, that the researcher will observe your work and as much as possible participate in your daily duties. The researcher might also ask questions to learn about your daily life, and maybe he/she will take some photographs. Some staff members will also be invited for in depth interviews and asked to take pictures of his or hers work and daily life. Special information sheets and written consent-forms will be available for these tasks.

Through the participant observation, the study will obtain understanding of what is important to you in your job and under which conditions you work. The study will also reach an understanding of how orderlies perceive their work, how you are instructed and how you understand this instruction. This knowledge is important in order to create programs for preventing hospital acquired infection, both at this hospital and at other hospitals.

Consent, risks and benefits

It is important for you to know that your participation is voluntary. That is: The researcher will be at your workplace but only make interviews and close observations of those who consent to be part of the study. You do not have to answer any question or take part in the interview if you do not wish to do so. You do not have to give us any reason for not responding to any question, or for refusing to take part in the interview.

If you choose to participate you should know that the information obtained from you is confidential and no one else apart from the research team will have access to the information you provide in a form, which can be easily identified with you. Any information that may identify you will be kept secure. However, even the research team do all their best to secure your anonymity, there will always be a minimal risk that someone will be able to identify you, or that there will be security breaches.

The study will bring no direct benefit to you, but your participation is likely to help us find out more about how to prevent HCAI and reduce the workload and resources related to HCAI.

The study might lead to changes in your work as a consequence of its results.

Confidentiality and sharing of results

As mentioned, everything you tell the researcher will be kept confidential and only shared in an anonymous form. A summary of the research findings will be shared with you and the hospital management to help in shaping policies concerning HCAI. This will be followed by publications in peer reviewed journals in which you will remain anonymous so that other interested people may learn from this research. We also expect the results of the study to be disseminated in reports and on conferences and shared with stakeholders and other who wish to learn from the findings.

Who to Contact

If you have any questions, you can ask them now or later. You may contact any of the following:

<u>Gifty Sunkwa-Mills (PI)</u> HCAI_Ghana Project Office Department of Microbiology, Korle- Bu Telephone: 024 4663 333 E-mail: gsunkwamills@gmail.com <u>Prof. Kojo Senah</u> Department of Sociology University of Ghana Legon, Accra Tel: 0243 771 547 Hannah Frimpong The Administrator Ethical Review Committee Ghana Health Service P. O. Box MB 190, Accra Tel.: 050704223

Names and facts of the study

Research Topic: Healthcare-associated infections Principle Investigator: Gifty Sunkwa-Mills Institutions: School of Global Health, University of Copenhagen and College of Health Sciences, University of Ghana Name of Sponsor: Danish International Development Agency (DANIDA) Name of Project: HCAI_Ghana Project

Investigating Healthcare Associated Infections

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The study is interested in learning about the socio-cultural and material aspects and perspectives of HCAI, as well as the role played by hand hygiene and Infection Prevention and Control (IPC) practices in prevention of the infections.

As part of the study, the researcher(s):

will be conducting participant observation among the orderlies at your workplace.

What and why

Participant observation means, that the researcher will observe the work of the orderlies and as much as possible participate in their daily duties. The researcher might also ask questions to learn about their daily life, and maybe he/she will take some photographs. Some staff members will also be invited for in depth interviews and asked to take pictures of his or hers work and daily life. Special information sheets and written consent-forms will be available for these tasks. The interaction with other staff groups is also of interest for the study. Thus members of other staff groups, managers and staff with special responsibility regarding IPC, will also be asked for interviews.

Through the participant observation, the study will obtain understanding of what is important to the orderlies and under which conditions they work. The study aims at reaching an understanding of how orderlies perceive their work, how they are instructed and how they understand this instruction. This knowledge is important in order to create programs for preventing hospital acquired infection, both at this hospital and at other hospitals.

Consent, risks and benefits

It is important for you to know that all participation is voluntary. That is: Maybe the researcher will be at your workplace but only make interviews and close observations of those who consent to be part of the study. You do not have to answer any question or take part in the interview if you do not wish to do so. You do not have to give us any reason for not responding to any question, or for refusing to take part in the interview.

If you choose to participate you should know that the information obtained from you is confidential and no one else apart from the research team will have access to the information you provide in a form, which can be easily identified with you. Any information that may identify you will be kept secure. However, even the research team do all their best to secure your anonymity, there will always be a minimal risk that someone will be able to identify you, or that there will be security breaches.

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Confidentiality and sharing of results

As mentioned, everything you tell the researcher will be kept confidential and only shared in an anonymous form. A summary of the research findings will be shared with you and the hospital management to help in shaping policies concerning HCAI. This will be followed by publications in peer reviewed journals in which you will remain anonymous so that other interested people may learn from this research. We also expect the results of the study to be disseminated in reports and on conferences and shared with stakeholders and other who wish to learn from the findings.

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Certificate of consent – HAI Ghana Project

- Topic: Healthcare-associated infections
- Principle Investigator: Gifty Sunkwa-Mills
- Institutions: School of Global Health, University of Copenhagen and College of Health Sciences, University of Ghana
- Name of Sponsor: Danish International Development Agency (DANIDA)
- Name of Project: HAI_Ghana Project
- This Informed Consent Form has two parts:
 - Information Sheet (to share information about the study with you)
 - Certificate of Consent (for signatures if you choose to participate)
- You will be given a copy of the full Informed Consent Form

I have been invited to participate in research in relation to HAI Ghana Project. The participation may involve in-depth interview, observation and other kinds of interaction.

I am aware, that I can withdraw my consent partly or in whole at any time until it is no longer practically possible.

I have read the foregoing information, or it has been read to me.

I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction.

I consent voluntarily to be a participant in this study.

Print Name of Participant_____

Signature of Participant	

Date _____ (Day/month/year)

Statement by the person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands what the study is about its benefits and its risks. I have made it clear, that participation in this research is completely voluntary.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability.

I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the participant.

Name of person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____ (Day/month/year)

Certificate of consent – HAI Ghana Project

- Topic: Healthcare-associated infections
- Principle Investigator: Gifty Sunkwa-Mills
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I have been invited to participate in research in relation to HAI Ghana Project. By my signature, I consent to following kinds of participation:

In-depth interview

The interview will be recorded and later transcribed. My participation will be kept confidential and anonymous as described in the information sheet.

Photographing

Any pictures of me will be kept confidential. Should the researcher want to publish any pictures of me, they must return for renewed consent.

I am aware, that I can withdraw my consent partly or in whole at any time until it is no longer practically possible.

I have read the foregoing information, or it has been read to me.

I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction.

I consent voluntarily to be a participant in this study.

Print Name of Participant

Signature of Participant _____

Date _____ (Day/month/year)

Statement by the person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands what the study is about, its benefits and its risks.

I have made it clear, that participation in this research is completely voluntary.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability.

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Signature of Researcher /person taking the consent_____

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I have read the foregoing information, or it has been read to me.

I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction.

I consent voluntarily to be a participant in this study.

Print Name of Participant	

Signature of Participant	

Date _____ (Day/month/year)

Statement by the person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands what the study is about its benefits and its risks. I have made it clear, that participation in this research is completely voluntary.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability.

I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the participant.

Name of person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____ (Day/month/year)

This survey gathers knowledge of perceptions, background and work-conditions for orderlies. The survey is part of the HAI Ghana Project, which investigates different aspects of Healthcare Associated Infections.

Please read the questions carefully and then respond spontaneously. Your answers are anonymous and will be kept strictly confidential.

1. Personal ID: 2. Date:
Personal information
3. Facility/Hospital:
4. Gender: Female Male
5. Age: 20 – 30 years 30 – 45 years 45 – 60 years <
6. Department: Neonatal Intensive Care Unit Surgery Maternity
7. Years of employment at this hospital: < 5 years 5 - 10 years >10 years
8. Level of completed education:
Secondary senior/Senior High Tertiary (any education above
Other – What
General training
9. What kind of training did you receive when you started working as an orderly at this hospital?
A senior colleague taught me I attended a training course Both
I had no initial training Other – What:
10. When did you last participate in a course on cleaning?
A year ago or less 1 - 2 years ago 3 - 4 Years ago > 4 years
I don't remember I have not participated in any course of cleaning

10a. If you attended a course which subjects were covered. You may check more than one box?

(Only to be answered if you attended a course. Otherwise jump to question 11)

Hand washing /Hand hygiene	se of gloves Use of apron
Use of work clothes Use of d	uster Mopping the floor
Use of detergents and savlon/bleach	Cleaning water
How to clean a bed/Incubator/craddle	Transmission of infection more generally
Other – What:	

11. When did you last receive instructions in cleaning from your supervisor, manager, matron or IPC-nurse?

(By instructions we mean: How to clean and not What to clean)

I got instructions from somone else – Who? (<i>Function – not name</i>)
A month ago or less $1-3$ months ago $3-6$ months ago
6 – 12 months ago More than a year ago Never
11a. If you have received instructions what were they about. You may check more than one box? (Only to be answered if you had instructions as stated in question 11. Otherwise jump to question 12)
Hand washing /Hand hygiene Use of gloves Use of apron
Use of work clothes Use of duster Mopping the floor
Use of detergents and savlon/bleach Cleaning water
How to clean a bed/Incubator/craddle Transmission of infection more generally
Other – What:
12. From who do you most often receive instructions in cleaning?
From my manager/supervisor
I have not received instructions
Hand hygiene

13. Did you receive formal training in how to wash your hands within the last three years?

____No

Yes

14. Is alcohol-based handrub / sanitizer available at your workplace?
Yes No
14a. Do you routinely use an alcohol-based handrub/sanitizer?
(Only if you answered yes to question 14 – otherwise jump to question 15)
Yes No
15. What is the most important reason for washing hands/hand hygiene?
Protect myself and my family from diseases Protect patients from infection
Both - It is equally important Other – What:
16. Among all safety issues, how important is washing hands/hand hygiene at your institution?
Low priority Moderate priority High priority Very high priority
17. What importance does the head of your department attach to the fact that you perform optimal hand hygiene/washing hands?
No importance Very high importance
18. What importance do your colleagues attach to the fact that you perform optimal hand hygiene/washing hands?
No importance Very high importance
19. What importance do patients/relatives attach to the fact that you perform optimal hand hygiene/washing hands?
No importance Very high importance
Not applicable
Supplies

20. Do you always have what you need of paper-towels, detergent/soap, bleach, savlon, gloves, apron, duster, mop, toilet-brush, high duster?



20a. At this day, what are you run out of?

(Only if you answered "No" to question 20. Otherwise jump to question 21)

Item / For how long?	≤1 week	2 weeks	2-4 weeks	>4 weeks	l can't remember	We never had it
Paper towels						
Detergent/Soap for						
cleaning						
Bleach						
Savlon						
Gloves						
Apron						
Duster						
Мор						
Toilet brush						
High duster						
Other						
What:						

21. How much do you agree with the following statements?

That was all!

- Thank you for your time. Your contribution is very valuable for our work to prevent Health Care Associated Infections and create a safe environment for both patients and staff.

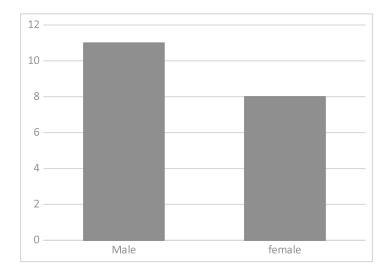
Report, Survey, Orderlies, Koforidua, Autumn 2017

Report kindly produced by Julian Adinkrah

Total number of questionnaires administered is **19** out of a possible **21** orderlies in the Surgical, Maternity and NICU departments.

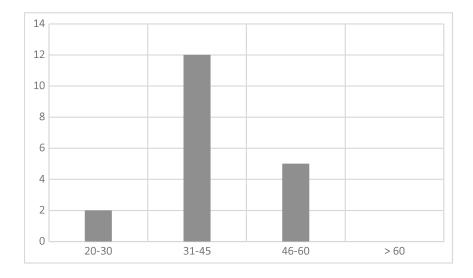
Q4. Gender

Male11Female8Total19



Q5. Age group distribution

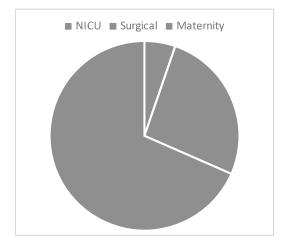
Age Group	Number	Percentage %
20-30	2	10.5
31-45	12	63.2
46-60	5	26.3
> 60	0	0.0



Q6. Departments orderlies belong to

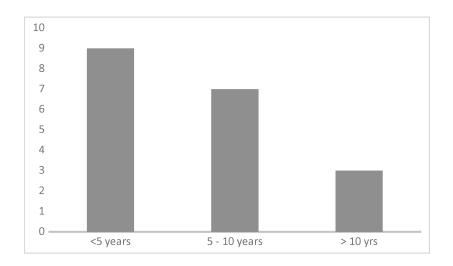
DEPARTMENTS	NUMBER	PERCENTAGE
NICU	1	5.26
CUDCICAT	-	2 (22

SURGICAL	5	26.32
MATERNITY	13	68.42
	1	



Q7. Years of employment

Years of employment	Number	Percentage
< 5	9	17.86
5 - 10	7	31.25
> 10	3	50.89



Q8. Level of Education

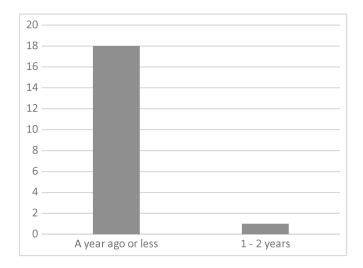
LEVEL OF	NUMBER	PERCENTAGE
EDUCATION		%
PRIMARY	0	0.0
JHS	7	37.1
SHS	12	62.9
TERTIARY	0	0.00

Q9. Kind of training received

Training	Number	Percentage %
A senior colleague taught me (A)	5	26.5
I attended a training course (B)	1	5.3
Both A and B	13	68.2
I had no initial training	0	0.0

Q10. Last time one participated in training

Last training	Number	Percentage %
A year ago or less	18	94.7
1 - 2 years	1	5.3
Total	19	100.0



Q10b. All 19 respondents said they had gone through trainings within the last two years.

Handwashing/ hand hygiene - 19	Mopping of floor – 18
Use of gloves – 19	Use of Apron – 16
Use of work clothes – 17	Use of duster – 11
Use of detergents and savlon/bleach - 17	Cleaning water – 19

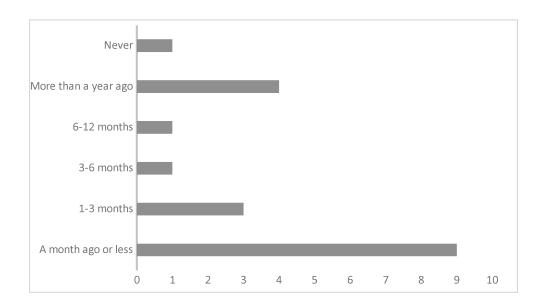
How to clean bed/incubator/cradle - 11

Transmission of infection more generally – 4

From the above results, it shows that during the training all the orderlies irrespective of time of training were trained on handwashing, usage of gloves and usage of cleaning water

Q11. The last time one went

Last Instruction	Number	Percentage %
A month ago or less	9	47.4
1 – 3 months	3	15.7
3 – 6 months	1	5.3
6 – 12 months	1	5.3
More than a year ago	4	21.0
Never	1	5.3
Total	19	100.0



Most orderlies said they had supervisors who come in every morning and or at least twice a week to inspect their work and give instructions. Hence, the large number observed in the response of receiving instructions "Less than a month ago".

Q11b. From question 11 above, 18 of the orderlies agreed on receiving instructions of some sort irrespective of when they received the instructions.

Handwashing/ hand hygiene -3	Mopping of floor – 3
Use of gloves – 12	Use of Apron – 2
Use of work clothes -2	Use of duster – 5
Use of detergents and savlon/bleach - 16	Cleaning water – 10

How to clean bed/incubator/cradle -15

Transmission of infection more generally -2

Q12.

Receive instructions from	Number	Percentage %
Manager/Supervisor	15	78.9
Matron	3	15.8
I have not received instructions	1	5.3
Total	19	100.0
Manager/Supervisor M	atron I have not receive	d

Q13.

FORMAL TRAINING	NUMBER	PERCENTAGE %
YES	18	94.4
NO	1	5.6
TOTAL	19	100.0

18 respondents said they had received training on Handwashing in the past 3 years.

Q14.

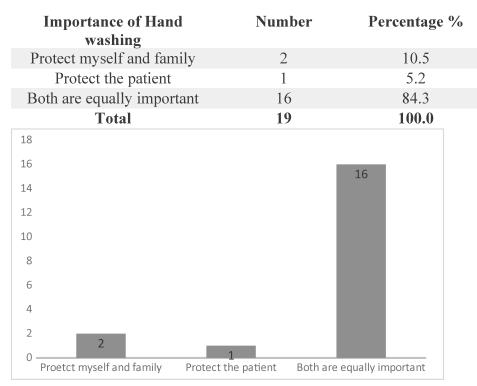
Availability of Alcohol-	Number	Percentage %	
Based Hand rub			
YES	14	4.5	
NO	5	95.5	
TOTAL	19	100.0	

Out of the 19 respondents 14 of them confirmed the availability of alcohol-based hand rubs in their departments. Most of them added that the hand rubs that were in the facility were either kept at the nursing stations (where the nurses usually sit) and anytime they walk by, they have access to them. Other's also added that, they had their personal hand sanitizers that they personally purchase.

Q14b. From the above question, 14 respondents confirmed the availability of hand rub in their departments hence the respondents here were 14 as stated above.

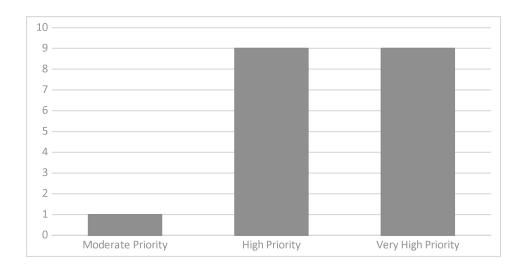
usage of Alcohol-Based	Number	Percentage %
Hand rub		
YES	4	28.6
NO	10	71.4
TOTAL	14	100.0

Q15.



Q16.

Importance Of HH To Facility	Number	Percentage %
Moderate Priority	1	5.2
High Priority	9	47.4
Very High Priority	9	47.4
Total	19	100.0



Q17. Importance the head of department attaches to the fact that the health worker performs optimal Hand hygiene.

	Number	Percentage %
No Importance	0	0.0
	1	5.3
	0	0.0
	1	5.3
	2	10.5
	6	31.5
Very High	9	47.4
Importance		

Increasing order of importance

Q18

Importance colleagues attach to the fact the health worker performs optimal hand hygiene.

	Percentage	
	Number	%
No Importance	1	5.3
	0	0
	1	5.3
	1	5.3
	1	5.3
	10	52.5
Very High		
Importance	5	26.3

Increasing order of importance

Q19

Importance patients/relatives attach to the fact the health worker performs optimal hand hygiene.

	Number	Percentage %	
No Importance	4	21.0	Inc
	2	10.5	of
	6	31.6	
	2	10.5	
	1	5.3	
	1	5.3	
Very High Importance	3	15.8	•

Increasing order of importance

Q20

Are what you need to work effectively always available?

Working materials	Number	Percentage %
Yes	18	94.7
No	1	5.3
Total	19	100.0

Q20b<

The respondents to this question were only 1.

Q21a

Nurses in this ward have less troubles with supplies.

	Number	Percentage %
I fully agree	2	10.5
	0	0
	0	0
	2	10.5
	0	0
	5	26.3
I don't agree at all	10	52.7

Q21b

Doctors in this department have less trouble with supplies

	Number	Percentage %
I fully agree	8	42.1
	4	21.1
	2	10.5
	2	10.5
	2	10.5
	1	5.3
I don't agree at all	0	0

Q21C Wards and departments have better access to supplies than others

	Number	Percentage %
I fully agree	6	31.5
	4	21.1
	1	5.3
	1	5.3
	0	0
	3	15.7
I don't agree at all	4	21.1

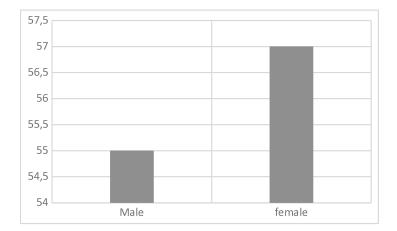
Report, Survey, Orderlies, Korle Bu Teaching Hospital, Autumn 2017

Report kindly produced by Julian Adinkrah

Orderlies Questionnaires – Total number of questionnaires administered is **112** out of a possible **132** orderlies in the Surgical, Maternity and NICU departments.

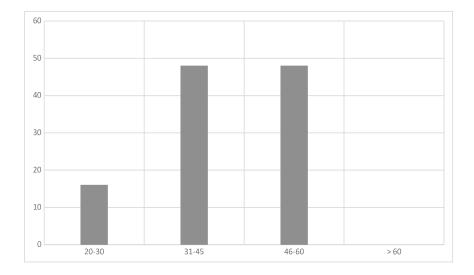
Male55Female57Total112

Q4. Gender



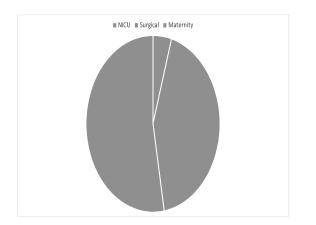
Q5. Age group distribution

Age	Numbe	Percentage	
Group	r	%	
20-30	16	14.3	
31-45	48	42.9	
46-60	48	42.9	
> 60	0	0.0	



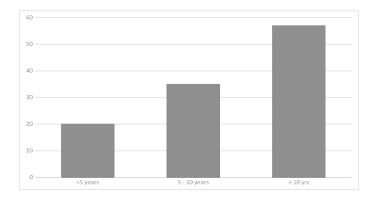
Q6. Departments orderlies belong to

DEPARTMENTS	NUMBER	PERCENTAGE
NICU	5	4.46
SURGICAL	48	42.86
MATERNITY	59	52.68



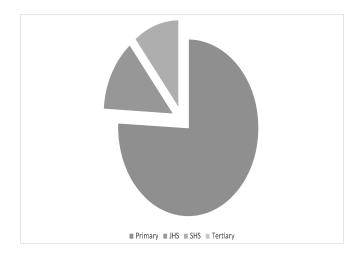
Q7. Years of employment

Years of	Numb	Percenta
employment	er	ge
< 5	20	17.86
5 - 10	35	31.25
> 10	57	50.89



Q8. Level of Education

LEVEL OF	NUMBER	PERCENTAGE
EDUCATION		%
PRIMARY	85	75.89
JHS	15	13.39
SHS	12	10.71
TERTIARY	0	0.00

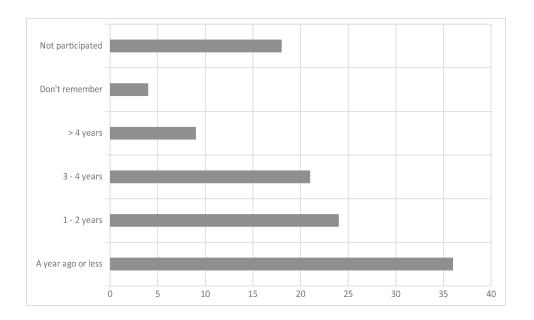


Q9. Kind of training received

Training	Number	Percentage %
A senior colleague taught me (A)	60	53.57
I attended a training course (B)	32	28.57
Both A and B	11	9.82
I had no initial training	9	8.04

Q10. Last time one participated in training

Last training	Number	Percentage %
A year ago or less	36	32.1
1 - 2 years	24	21.4
3 - 4 years	21	18.8
>4 years	9	8.0
Don't remember	4	3.6
Not participated	18	16.1
Total	112	100.0



Q10b.

With this question there were only 94 respondents recorded. 18 out of the 112 orderlies from the above question said they hadn't been to any training. Despite 4 of them saying they didn't remember the last time they had been to a course, they still remembered what the training was about.

Handwashing/ hand hygiene - 94	Mopping of floor – 94
Use of gloves – 94	Use of Apron – 79
Use of work clothes – 94	Use of duster – 65
Use of detergents and savlon/bleach - 94	Cleaning water – 94
How to clean bed/incubator/cradle - 94	

Transmission of infection more generally – 33

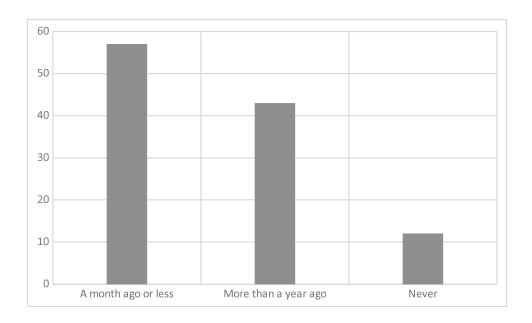
From the above results, it shows that during the training all the orderlies irrespective of time of training were trained on handwashing, using of gloves, mopping of floor, using of work clothes, mixing of detergents, cleaning water and cleaning of beds/cradles.

In addition to this, orderlies stated other topics covered during training sessions. These are listed below:

- How to dispose sharps into the sharps box
- How to relate with patients
- How/when to use the nose and face masks
- Advice on lifestyle practices during working hours. Eg. No smoking or drinking alcohol

Q11. The last time one went

Last Instruction	Number	Percentage %
A month ago or less	57	50.9
More than a year ago	43	38.4
Never	12	10.7
Total	112	100.0



Most orderlies said they had supervisors who come in every morning and or at least twice a week to inspect their work and give instructions. Hence, the large number observed in the response of receiving instructions "Less than a month ago".

Q11b.

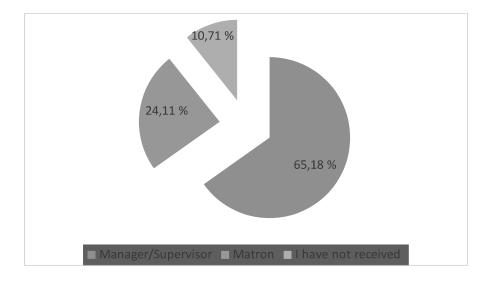
From question 11 above, 100 of the orderlies agreed on receiving instructions of some sort irrespective of when they received the instructions. Twelve (12) of the orderlies said they hadn't received instructions before, hence respondents to this question were 100.

Handwashing/ hand hygiene – 3	Mopping of floor – 45
Use of gloves – 12	Use of Apron – 2
Use of work clothes – 36	Use of duster – 5
Use of detergents and savlon/bleach - 80	Cleaning water – 16
How to clean bed/incubator/cradle - 15	
Transmission of infection more generally – 1	

From the above result it can be seen that, instructions received from supervisors are mainly on use of detergents and savlon/bleach. Followed by the mopping of floor.

Q12.

Receive instructions from	Number	Percentage %
Manager/Supervisor	73	65.2
Matron	27	24.1
I have not received instructions	12	10.7
Total	112	100.0



Q13.

FORMAL TRAINING	NUMBER	PERCENTAGE %
YES	81	72.3
NO	31	27.7
TOTAL	112	100.0

81 respondents said they had received training on Handwashing in the past 3 years.

Q14.

Availability of Alcohol-	Number	Percentage %
Based Hand rub		
YES	5	4.5
NO	107	95.5
TOTAL	112	100.0

Out of the 112 respondents only 5 of them confirmed the availability of alcohol-based hand rubs in their departments. Most of them added that the hand rubs that were in the facility were either kept away from them or was for a particular set of workers. Some also added that they were not available at all.

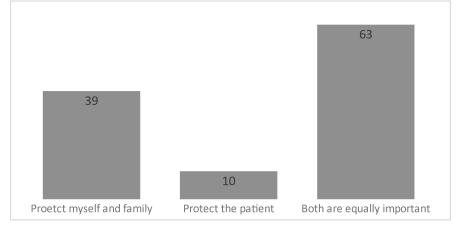
Other's also added that, they had their personal hand sanitizers that they personally purchase.

Q14b. from the above question only 5 respondents confirmed the availability of hand rub in their departments hence the respondents here were only 5.

usage of Alcohol-Based	Number	Percentage %
Hand rub		
YES	2	40.0
NO	3	60.0
TOTAL	5	100.0

Q15.

Importance of Hand washing	Number	Percentage %
Protect myself and family	39	34.8
Protect the patient	10	8.9
Both are equally important	63	56.3
Total	112	100.0



Q16

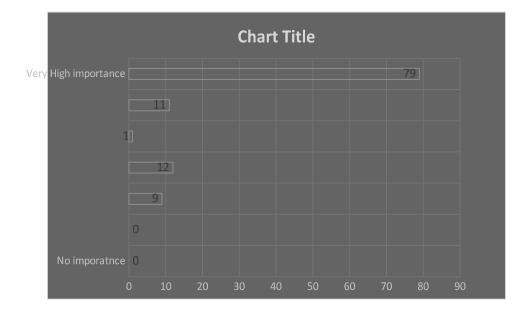
Importance Of HH To Facil	lity	Number	Percentage %
Moderate Priority		2	1.8
High Priority		22	19.6
Very High Priority		88	78.6
Total		112	100.0
100			
90			
80			88
70			
60			
50			
40			
30			
20	22		
10			
0 Moderate Priority	High Priorit	:y	Very High Priority

Q17.

Importance the head of department attaches to the fact that the health worker performs optimal Hand hygiene.

	Number	Percentage %
No Importance	0	0.0
	0	0.0
	9	8.0
	12	10.7
	1	0.9
	11	9.8
Very High Importance	79	70.5

Increasing order of importance

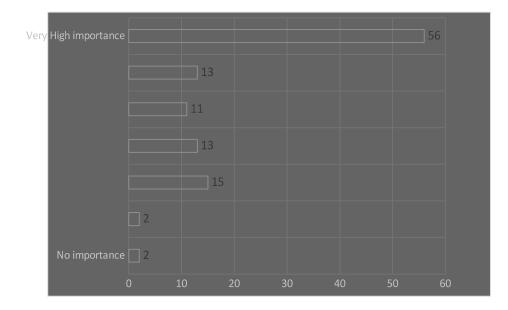


Q18

Importance colleagues attach to the fact the health worker performs optimal hand hygiene.

	Percentage	
	Number	%
No Importance	2	1.8
	2	1.8
	15	13.4
	13	11.6
	11	9.8
	13	11.6
Very High		
Importance	56	50.0

Increasing order of importance

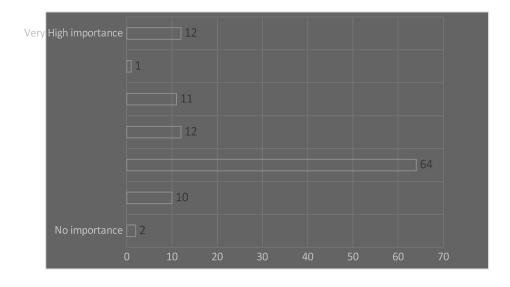


Q19

Importance patients/relatives attach to the fact the health worker performs optimal hand hygiene.

	Number	Percentage%
No Importance	2	1.8
	10	8.9
	64	57.1
	12	10.7
	11	9.8
	1	0.9
Very High Importance	12	10.7

Increasing order of importance



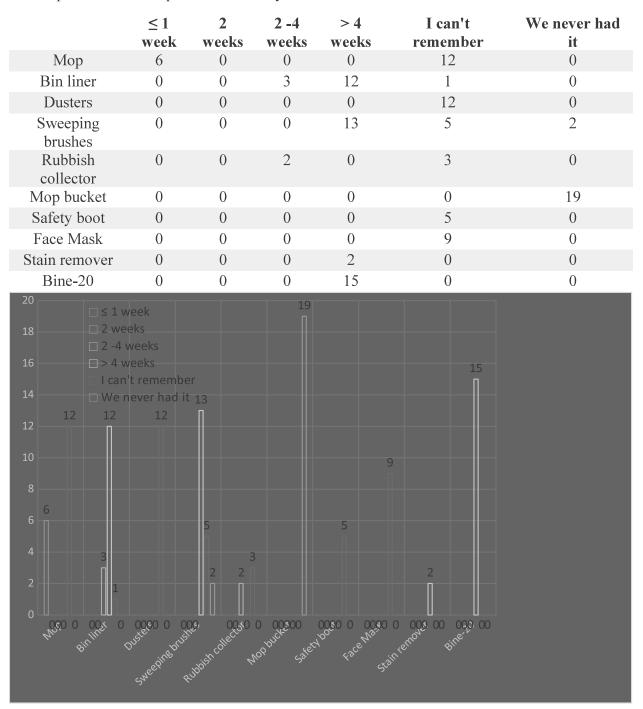
Q20

Are what you need to work effectively always available?

Formal Training	Number	Percentage %
Yes	90	73.8
No	22	26.2
Total	112	100.0

Q20b

The respondents to this question were only 20.

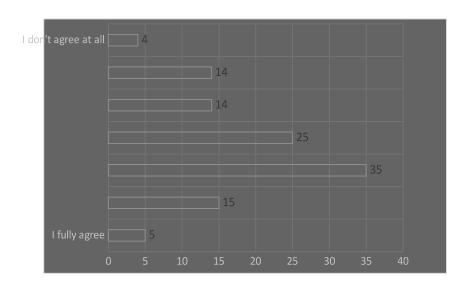


Bine-20 is some kind of detergent. The orderlies said they usually mix it with mopping water to give the whole place a nice fruity smell.

Q21a

Percentage Number % 5 4.5 I fully agree 15 13.4 35 31.3 25 22.3 14 12.5 14 12.5 I don't agree at 4 3.6 all

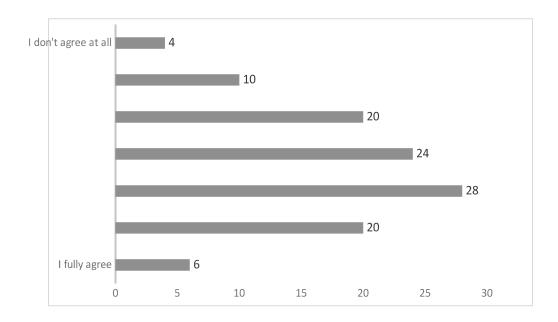
Nurses in this ward have less troubles with supplies.



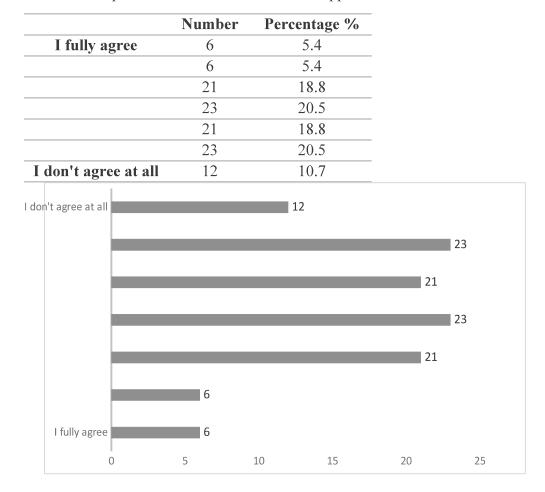
Q21b

Doctors in this department have less trouble with supplies

	Number	Percentage %
I fully agree	6	5.4
	20	17.9
	28	25.0
	24	21.4
	20	17.9
	10	8.9
I don't agree at all	4	3.6



Q21c



Wards and departments have better access to supplies than others