Hand Hygiene Routines in Outpatient Care of Malnourished Children in the Philippines

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Institution of Health and Care Sciences
SAMMANFATTNING:


Syfte: Syftet med studien var att studera vårdpersonalens roll i att säkerställa och upprätthålla goda handhygienrutiner i öppenvård av barn med undernäring.

Metod: Etnografisk metod valdes och data samlades in under fem veckor genom deltagande observationer på en utländsk välgörenhetsorganisation i Manila, Filippinerna. Kvalitativ innehållsanalys användes vid analys av data.


Diskussion: Ökad medvetenhet om vikten av god handhygien skulle göra att vårdpersonalen minskade risken att sprida infektioner. Områden för förbättringsarbete som observerades var ökad tillgänglighet till hygienprodukter, att rikta undervisningen till rätt målgrupp och att använda fler plattformar för undervisning.
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1. Introduction
Statistics from the World Bank show that in 2008, 20.7 percent of the children under five years in the Philippines suffer from malnutrition (The World Bank, 2008). There is a risk of severe infections among malnourished children since malnourishment abates the immune system and diminishes resistance against infections (Björkman & Karlsson, 2006; United Nations Children’s Fund & World Health Organization, 2009). Health care-associated infections (HCAI) are a worldwide problem, present in all kinds of health care settings, and affect hundreds of millions of patients every year. The prevalence of HCAI has been shown to be much higher in low- and middle-income countries than in high-income countries, but not much research is done on the subject in low-income countries. In addition to the risk factors which can be found in high-income countries there are also risk factors such as lack of basic hygiene, malnutrition, lack of trained staff, overcrowding and limited financial support in low-income counties (World Health Organization, 2011a).

Infections can be prevented by good hand hygiene (Ericson, Ericson, & Robertsson, 2009). Research proves that it is possible to reduce the HCAIs by 50 percent or more by compliance to the hygiene guidelines of the World Health Organization (WHO). Evidence shows that proper hand hygiene in outpatient care reduces the risk of spreading infections (World Health Organization, 2011a).

Therefore we studied health workers hand hygiene practice in outpatient care in Manila, the capital of the Philippines. The role of the health workers is important both in how they handle their hand hygiene, but also in how they educate parents about the importance of proper hand hygiene.

2. Background

2.1. The Philippines

Table 1. Country Facts (Sveriges ambassad, 2008; Utrikespolitiska Institutet, 2012a)

<table>
<thead>
<tr>
<th><strong>Official name</strong></th>
<th>Republic of the Philippines</th>
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</thead>
<tbody>
<tr>
<td><strong>Area – km²</strong></td>
<td>Approximately 300,000 km², about 7100 islands</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>94,852,030 million (2011)</td>
</tr>
<tr>
<td><strong>Capital</strong></td>
<td>Manila</td>
</tr>
<tr>
<td><strong>Government</strong></td>
<td>Republic after American model.</td>
</tr>
<tr>
<td><strong>Currency</strong></td>
<td>Peso</td>
</tr>
<tr>
<td><strong>Official languages</strong></td>
<td>Filipino (Tagalog) and English.</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td>83% Catholics, 9.5% Protestants and other Christians, 5% Muslim, and 2.5% other faiths</td>
</tr>
</tbody>
</table>
The Philippines consists of more than 7100 islands located in Southeast Asia in the West Pacific Ocean, of which 900 of the islands are inhabited. The largest islands are Luzon in the north and Mindanao in the south. Approximately 11 percent (ten million) of the total population lives in Manila, the capital located on Luzon. The climate is hot, humid and tropical with much precipitation. The islands are often struck by natural disasters since they are situated in the middle of a typhoon belt and have several active volcanoes (FN-förbundet UNA Sweden, 2010). In 2009 the Philippines was the country with the highest number of reported natural disasters in the world (World Health Organization, 2011b).

The Philippines is rich in minerals and in the future, if developed, the mining industry might play a major role in economic growth together with tourism (Sveriges ambassad, 2008). The service sector and the manufacturing industry play an important role in today’s economy, more important than agriculture, fishing and forestry. Thus the agriculture, fishing and forestry employ the largest proportion of the population (Utrikespolitiska Institutet, 2012a). The gross domestic product (GDP) growth was seven percent in 2010 and in 2011 the GDP per capita amounted to 2 117 US dollars (Sveriges ambassad, 2008). For comparison the GDP per capita in Sweden was 54 476 US dollar in 2012 (Utrikespolitiska Institutet, 2012b). The national debt has historically been very high in the Philippines; in 2003 its size was 90 percent of the GDP. In 2006 the national debt in relation to GDP had decreased to 65 percent (Sveriges ambassad, 2008). The official unemployment is in the range of seven percent while hidden unemployment is stated in the vicinity of 20 percent, which by independent assessors is thought to be a low number (Regeringskansliet, 2010).

The Philippines are among the most densely populated countries in Southeast Asia which in the long run might pose a severe threat to economy and sustainable development. If no active actions are taken, like family planning, the country’s population will double within 30 years. Comparing Sweden and the Philippines one finds that both countries had approximately four million inhabitants in the beginning of the 20th century. Today the Philippines have a population of almost 90 million as compared to Sweden’s 9 million (Sveriges ambassad, 2008).

2.1.1. Health Care System in the Philippines

The WHO’s recommendation that at least five percent of GDP should be directed to health care is not followed by the Philippines. The national budget allocated only approximately 1.8 percent. This has been heavily criticized and at least a doubling of the current budget is required to get a functional health system (Regeringskansliet, 2010).

There is a large difference between rural and urbanized populations in availability of health care. The health care system in the Philippines consists of both a private and a public part, where the private part dominates. Many people are excluded from private facilities due to high costs for the individual. For those who can afford it the private sector has capability to offer quite good medical and health care. Public health care has large resource limitations and the social welfare system is under financed (Regeringskansliet, 2010). Of all revenues to the health care system, 54 percent comes out-of-pocket of individuals (World Health Organization, 2011b). This can be compared to Sweden, where two percent of the County Councils’ health revenues comes from charges (Sveriges Kommuner och Landsting, 2011).
The Local Government Code in 1991 resulted in a division and minimization of the public health care system. The responsibility was decentralized and divided into several levels, where every local health-care facility had its own budget. Attempts to improve cooperation have been made in several projects. However, decentralization is still one of the biggest challenges for the health care system (World Health Organization, 2011b). “The Aquino Health Agenda: Achieving Universal Health Care for All Filipinos,” was signed in December of 2010, aiming to give all Filipinos, with a special focus on vulnerable groups, access to affordable health care (World Health Organization, 2011b).

2.1.2. Social Conditions
The Philippines is one of the poorest countries in Southeast Asia and the society is dominated by an immensely wealthy elite. Ten percent of the population owns 65 percent of all assets in the country. One third of the population lives under the poverty limit and the rural population is in general the poorest. Urbanization and growth of city slum areas have increased. Only in Manila more than three million people live in the slum areas, where many lack drinking water (Sveriges ambassad, 2008). 22 percent of all reported diseases and almost six percent of all reported deaths are due to water- and air pollution, unhygienic practices and poor sanitation. Only 71 percent of the poor families have access to safe water and 24 percent do not have sanitary toilets (World Health Organization, 2011b).

The Philippines has a double burden of disease. The majority of the causes of morbidity are communicable diseases such as pneumonia, diarrhea, influenza, tuberculosis, malaria and dengue fever. The non-communicable diseases such as heart and vascular diseases and diabetes mellitus, have steadily increased during the last five decades and have become some of the leading causes of mortality (World Health Organization, 2011b).

Life expectancy is 69 to 73 years for women and 66 years for men (FN-förbundet UNA Sweden, 2010). There are, however, large regional differences. As a comparison a woman in the Ilocos region might live 14 years longer than a woman in the Autonomous Region of Muslim Mindanao (ARMM) (World Health Organization, 2011b). Child mortality in the Philippines is close to 29 deaths per 1000 births (FN-förbundet UNA Sweden, 2010). In the last fifteen years, neonatal mortality has not improved even though the deaths often are preventable. 31 percent of the deaths are caused by birth asphyxia and 19 percent by severe infections or sepsis. The high rates of neonatal sepsis and mortality can be explained by the fact that medical care for the newborn babies are often below WHO standards (World Health Organization, 2011b).

2.2. Malnutrition
In the Philippines malnutrition is a major public health problem. Among pregnant women, new mothers and children, malnourishment is common (Regeringskansliet, 2010; World Health Organization, 2011b). 13 percent of the total population suffers from malnourishment (FN-förbundet UNA Sweden, 2010) and as many as every fourth child under five is underweight and stunted (World Health Organization, 2011b).

Malnutrition includes both undernutrition and overnutrition. In this study we will focus on undernutrition rather than overnutrition when speaking about malnourishment. Lack of food is the most common reason for undernutrition, but not the only one. Poor hygiene, lack of care, frequent illnesses and inappropriate feeding practices are other causes of malnutrition. When the body does not get the proper amount of energy, protein, fat and micronutrients malnutrition will gradually appear (United Nations
Malnutrition or undernutrition includes being underweight and/or to short for one’s age (stunted), dangerously thin and/or deficient in vitamins and minerals (United Nations Children’s Fund, 2006). In this study we will use the term malnutrition. The present definition from WHO of malnutrition for children under five, is when the weight for age is two standard deviations below the median for the international reference population ages 0-59 months (United Nations Children’s Fund, World Health Organization, & The World Bank, 2012).

On a global level malnutrition among children under five has decreased from 36 percent in 1990 to 16 percent in 2011. This is a great improvement, but still approximately 101 million children under five suffer from malnutrition (United Nations Children’s Fund et al., 2012).

In the long run, malnutrition leads to ceased growth, children become short for their age. Malnourished children, especially those under five years, also have a risk of impaired mental and social development (United Nations Children’s Fund, 2006). A consequence of malnutrition is an abated immune system which increases the risk of infections (Björkman & Karlsson, 2006). For example, malnourished children suffer a greater risk of severe, prolonged and more frequent episodes of diarrhea than well-nourished children. Diarrhea often leads to decreased food intake, reduced nutritional absorption and implies higher nutritional requirements, which increases the risk of worse malnutrition (United Nations Children’s Fund & World Health Organization, 2009). This vicious circle has to stop to save children’s lives.

Of all deaths under five years of age, malnutrition is estimated to contribute to one third (United Nations Children’s Fund et al., 2012). The risk of mortality is 5-20 times higher for children with severe acute malnutrition than for well-nourished children. Severe acute malnutrition is both a direct cause of death among children and also an indirect cause since it increases the risk of death by infections like diarrhea and pneumonia. WHO estimates that about one million children die from severe acute malnutrition every year (World Health Organization, World Food Programme, United Nations System Standing Committee on Nutrition, & The United Nations Children’s Fund, 2007).

2.3. Outpatient Care
According to World Health Organization (2012) outpatient care is defined as care given to patients outside hospital. This includes home care, primary health care and long-term care facilities.

The previous recommendations for treatment of children with severe acute malnutrition were treatment in a health-care facility. Today evidence suggests that children with severe acute malnutrition without medical complications can be treated in their communities without attending a health-care facility. This community-based management creates the possibility for health workers to identify children with severe acute malnutrition and offer them treatment at home. The WHO, the World Food Programme (WFP), the United Nations Standing Committee on Nutrition (UNSCN) and the United Nations Children’s Fund (UNICEF) are examples of organizations supporting this community-based management to prevent and treat acute severe malnutrition (World Health Organization et al., 2007).

The organization where we conducted our observations is also working to discover malnutrition, treat malnourished children and teach parents about their children’s nutrient requirements. Their work is guided by the recommendations described above.
about community-based management of severe acute malnutrition (World Health Organization et al., 2007). The organization also has two Mother and Child Health Clinics where they are able to conduct further examinations by both nurses and a doctor if needed.

2.4. Health Care Associated Infections
Florence Nightingale (1860-1910) was one of the first to pay attention to the connection between the health facility environment and the patients’ health. Without knowing about viruses or bacteria, she recommended cleanliness and fresh air around the patient. At the same time an obstetrician in Wien, Ignaz Semmelweis, instituted compulsory hand wash with chlorine water before examining any patients. This reduced the mortality of delivering mothers from ten to one percent (Ericson et al., 2009).

Even though we now know much more about infections and how they are spread, HCAI is still a common unpleasant and undesirable incident for patients in all kinds of health care settings (World Health Organization, 2011a). The definition of HCAI is “an infection occurring in a patient during the process of care in a hospital or other health-care facility which was not present or incubating at the time of admission. This includes infections acquired in the hospital, but appearing after discharge, and also occupational infections among staff of the facility” according to WHO (2011a, p. 6). It is impossible to diagnose HCAI by one simple lab test since the diagnosis is based on several criteria. Because of its complexity HCAI is described as a hidden problem, existing in every health-care facility throughout the world. The WHO estimates that hundreds of millions patients worldwide are affected by HCAI every year (World Health Organization, 2011a). One of the most common causes of HCAI is infection spread via the hands and clothes of the staff (Ericson et al., 2009).

HCAI cost the Swedish community 3.7 billion crowns in year 2002 according to calculation done by the National Board of Health and Welfare in Sweden (Socialstyrelsen, 2006). Apart from the fact HCAI causes a serious additional cost for health systems it also increases the resistance of microorganisms which will be devastating for future treatment of infections. Furthermore HCAI causes a great deal of suffering for the patients and their families in terms of high costs, prolonged illness and hospital stay, long-term disability and in some cases even deaths (Ericson et al., 2009; World Health Organization, 2011a).

It is hard to say if infections in outpatients are due to the health care or if they are acquired in the community, and there is little research done on the subject. However, research shows that good hand hygiene in outpatient care reduces the risk of spreading infections (World Health Organization, 2012). All kinds of infections are caused by microorganisms. By reducing the number of microorganisms in health care settings as much as possible, the number of HCAI will also decrease. Compliance to hygiene routines among all health care professionals is the key to reduce the number of microorganisms and contagions in health care (Ericson et al., 2009). Research shows a poor adherence to hand hygiene routines among health-care workers worldwide (World Health Organization, 2009).

2.5. Hand Hygiene
According to the WHO it is possible to reduce and prevent HCAI by 50 percent or more (World Health Organization, 2011a). The most efficient way to prevent HCAI is hygiene routines and the most important of all hygiene routines is to maintain good hand hygiene (Ericson et al., 2009; World Health Organization, 2009).
The most common transmission of pathogens from one patient to another is via the hands of health workers. To avoid transmission of pathogens from one patient to another, health workers must be aware of this situation and act accordingly. Therefore compliance to hand hygiene routines is essential to prevent HCAI. Using hand disinfection in the correct way and in correct situations is an effective and easy way to stop pathogens from entering the patients’ bodies or passing on infections to health-care workers (Smittskyddsinstitutet, 2009; World Health Organization, 2009).

An important natural defense for infections is intact skin. Cuts and abrasions could be a source of entry of infections and it also complicates hand hygiene practices. Therefore, if a health care worker has a cut or abrasion it is important to cover it with a waterproof dressing (Felembam, John, & Shaban, 2012).

To reach the best result when using hand disinfection, an alcohol-based hand rub should be used. Use 2-4 ml hand rub, start by rubbing the palms, then the upper side of the hand, the fingers, in between the fingers, the fingertips, the thumb and complete with the forearms. Rub until the hands are dry for full effect (Smittskyddsinstitutet, 2009; World Health Organization, 2009).

2.5.1. Guidelines from WHO

- “Wash hands with soap and water when visibly dirty or visibly soiled with blood or other body fluids, and after using the toilet.
- If exposure to potential spore-forming pathogens is strongly suspected or proven, including outbreaks of Clostridium difficile, hand washing with soap and water is the preferred means.
- Use an alcohol-based hand rub as the preferred means for routine hand antisepsis in all other clinical situations described below, if hands are not visibly soiled. If alcohol-based hand rub is not obtainable, wash hands with soap and water.
  - Before and after touching the patient
  - Before handling an invasive device for patient care, regardless of whether or not gloves are used
  - After contact with body fluids or excretions, mucous membranes, non-intact skin, or wound dressings
  - If moving from a contaminated body site to another body site during care of the same patient
  - After contact with inanimate surfaces and objects (including medical equipment) in the immediate vicinity of the patient
  - After removing sterile or non-sterile gloves
- Before handling medication or preparing food perform hand hygiene using an alcohol-based hand rub or wash hands with either plain or antimicrobial or soap and water.
- Soap and alcohol-based hand rub should not be used concomitantly.”

(World Health Organization, 2009, p. 152)

Figure 1. WHO Guidelines on hand hygiene in health care.
To summarize these guidelines there are five situations when performing hand hygiene with alcohol-based hand rub are strongly recommended: before patient contact and aseptic work, after unclean work, patient contact and contact with immediate environments of the patient (Smittskyddsinstitutet, 2009).

2.5.2. Gloves
Gloves should not be used to replace hand hygiene, such as the use of hand disinfection and hand wash, but should be used when risk of contact with body fluids, non-intact skin or other potentially infectious materials. The same gloves should not be used for more than one patient or when moving from one contaminated body site to another even if you are working with the same patient (World Health Organization, 2009).

2.5.3. Other Hand Hygiene Routines
To be able to accomplish good hand hygiene health workers should not wear any rings, bracelets or watches. Nails should be kept short and without nail polish, neither should artificial nails be worn in health care situations. Health care workers should wear short sleeved shirts to be able to accomplish good hand hygiene routines such as hand disinfection (Ericson et al., 2009).

2.5.4. Adherence to Routines Among Health Workers
According to the WHO, research shows that the higher demand of adherence to hygiene guidelines the lower adherence among health care workers is shown. There are many explanations why, for example, the patients’ needs may be considered a higher priority than hand hygiene, and there may be a high workload, under-staffing, overcrowding and lack of hand hygiene supplies. There may also be a factor of forgetfulness and lack of scientific information about the importance of good hand hygiene (World Health Organization, 2009).

Research from developing countries indicates that health workers experience lack of availability of hand hygiene products as the single most important factor to poor hand hygiene adherence. Improving the availability of running water, sinks, soap, paper towels and/or alcohol-based hand rub is seen as key factors in improving hand hygiene compliance (Borg et al., 2009; Yuan et al., 2009). In community health care and when health care workers visit the patient’s home there are often even less hand hygiene products available than in the hospital. This and lack of knowledge among health care workers results in inadequate hand hygiene behaviour (Felembam et al., 2012).

3. Aim
As previously mentioned, health care-associated infections are the cause of wide spread suffering and has become a global problem present in all forms of medical care. Proper hand hygiene is the single most effective method for preventing transmission. However, lack of knowledge and insufficient compliance with proper procedures are common throughout the healthcare field, especially in low-income countries. Because the trend towards outpatient care steadily increases and the susceptibility to infection associated with malnutrition is on the increase, the aim of this thesis is to study the role of health workers in ensuring and maintaining proper hand hygiene routines in outpatient care settings in the treatment of malnourished children in the Philippines.
3.1. Specific Objectives

- To assess health workers’ hand hygiene routines in outpatient care settings.
- To assess how health workers cope with difficulties which arise when practicing good hand hygiene in slum areas.
- To assess how health workers pay attention to the hand hygiene routines of parents.
- To assess how health workers educate parents about the importance of proper hand hygiene, in which ways and to what extent.

4. Method

As a basis for this study we have chosen an ethnographic research method: participating observations, for the purpose of investigating the role of health workers in ensuring and maintaining proper hand hygiene, in the treatment of malnourished children in outpatient care. This method is based on the idea that humans and their actions only can be understood in the context where they act (Pilhammar Andersson, 2000). As ethnographic observations inherently make the researcher present in the setting studied, the possibility for a close dissection of the area of interest in its natural environment is created. Therefore this method was suitable for our study. Behaviour and interactions can be studied in complex environments consisting of multiple variables and actions, and the circumstances behind can also be observed (Pilhammar Andersson, 2006). The method was a given choice as we strove to capture all phenomena affecting health workers’ undertakings for ensuring proper hand hygiene in outpatient care.

4.1. Research Method

By participant observation, which according to Pilhammar Andersson (2006) is the main research strategy within the ethnographic research framework, we conducted observations of health workers’ work to promote proper hand hygiene as well as engaged in informal interview sessions with the observed in order to obtain a heightened understanding of our observations. The ethnographic study can be divided into four phases: preparation phase, field study phase, analysis and interpretations phase, and writing phase. This division has been the basis of our study, although analysis and interpretation was part of the overall ethnographic process (Pilhammar Andersson, 2006).

4.1.1. Preparation Phase

This phase involves making all preparations that can be carried out before arriving at the field (Pilhammar Andersson, 2006). We obtained permission from the leader of the organization in Manila to do our participant observations for this thesis. We reflected over our role as researchers and considered the ethical aspects of our study. Our preparation phase also included literature survey focused on hand hygiene, malnutrition, ethnographic method, cultural- and socioeconomic differences and similarities between Sweden and the Philippines.

4.1.2. Field Study Phase

The field study phase is the phase when the researcher is out in the field conducting observations. During this phase analysis also takes place in the form of reflections over field notes. In this way research is driven forward and the preliminary analysis may lead to focus on more specific areas (Philhammar Andersson, 2008; Pilhammar Andersson, 2006). In this thesis, collection of data using participant observations was further...
subdivided into the three phases: start, collection, and ending, as suggested by Merriam and Nilsson (1994).

**Start**
The first week in field consisted of establishing good contact with the staff. We also spent time in familiarizing ourselves with the environment. We took part in and showed respect for the health workers and their routines by showing interest for their work and assisted them when needed, which is in line with advice given by Merriam and Nilsson (1994). We also emphasized what we have in common with the participants. We told them about ourselves and asked questions to get to know them and create a relaxed atmosphere between us. We informed health workers in the organization about our study personally both orally and by giving them a written information letter (see Appendix 1), inspired by means of Olsson and Sörensen (2011).

**Collection**
The researcher’s role can vary on a scale from full participation to passive observer. These varying roles have their own pros and cons as well as ethical problems (Merriam & Nilsson, 1994; Pilhammar Andersson, 2006; Polit & Beck, 2006). Our role was mainly participant-as-observer, which means that participants were aware that we observed simultaneously as we acted as members of the group. This approach enables a from-within-perspective as well as the possibility to combine several collection techniques, e.g. photos and interviews (Merriam & Nilsson, 1994; Pilhammar Andersson, 2006). We set aside time every day for pure observations with mobile positioning, which means that we followed a nurse throughout a given activity without actively participating in his or her doings (Polit & Beck, 2006).

**Observations and Field Notes**
During week two in the field, our participant observations began and were based on the compressed model by Jeffrey and Troman (2004), which means that we tried to capture as much as possible. We tried to visit all relevant places and established contact with all health workers who took part in the study. The first week of observation tended more towards observing the environment while the coming weeks focused on the health workers’ work. To be able to follow the conversation between nurse and parents we asked the health workers to translate as much as possible in mean time.

During the participant observations field notes were registered in a small notebook with hard cover to facilitate writing standing. The right hand column contained notes and the left hand side contained own reflections. The foundation of participant observations is that the researcher has an open mind and as few theoretical preconceptions as possible in the beginning of the participant observation. The knowledge is supposed to evolve in a simultaneous interaction between data collection and analysis (Henriksson & Månsson, 1996). However it is impossible to observe everything, and therefore we used a guided questionnaire, (see Appendix 2) which is a choice recommended by several authors and researchers in order to get started (Merriam & Nilsson, 1994; Polit & Beck, 2006). The guided questionnaire also helped us organize information and record the data that should be found in the observations.

The notes described when an observation took place, what kind of activity it involved, what was being said and what took place (Pilhammar Andersson, 2006). During participant observations notes were not taken but were made in as close proximity as possible to the participant observations to affect natural interactions to a lesser extent. Keywords were used as time for thorough notes was limited (Merriam & Nilsson,
1994). The notes were later in the afternoon formed to a narrative story and analyzed with the help of a template developed by Pilhammar Andersson (2006), see table 1 in Appendix 3. Qualitative content analysis (step 1-5), was also carried out every afternoon when observations still resided clear in mind, see template in table 2, Appendix 3. Daily observations were reflected upon in dialogue between us and questions arising formed the basis for further data collection.

Informal Conversations

As a complement to participant observations, informal conversations with the health workers were held continuously, either directly during or in connection to the participant observations. Informal conversations were also used when questions arise during analysis of data. To complement with informal conversations is common in participant observations (Graneheim & Lundman, 2004; Pilhammar Andersson, 2006). The conversations were held with the purpose of sharing the participant’s experience of situations and therefore create a possibility for deeper understanding of the observed situation.

Sample

All collection of data took place at a foreign organization in Manila, the Philippines. The sampling period extended from 11/03/2013 to 12/04/2013. All health workers were willing to participate in the study (see ethical considerations). No other selection criteria was implemented. Altogether three nurses and five midwives were observed. Only the nature of the organization’s current operations controlled the focus of our observational sessions. The health workers carry out home visits in different slum areas in order to identify malnourished children, they also work at the organization’s two mother and child health clinics. The choice of location was therefore a conscious choice (Pilhammar Andersson, 2006).

Ending

Due to our school curriculum we had five weeks for the field study. All participants were being informed when we should cease our observations. Information regarding time of publication of the report and where the report will be made available was shared with everyone involved.

4.1.3. Analysis and Interpretative Phase

A continuous evaluation and analysis took place during the field study phase with the use of a template developed by Pilhammar Andersson (2006) (see appendix 3, table 2). Our method of choice was qualitative content analysis, which according to Graneheim and Lundman (2004) is applicable to various texts and also for interpretation of observation studies. Our step-by-step model was developed by Graneheim and Lundman (2004) and was being carried out in the following manner:

1. Field notes and reflections were written daily in the form of a narrative text.
2. The whole material (unit of analysis) was read through multiple times to achieve an understanding of the big picture.
3. Meaning units were identified.
4. The meaning units were condensed.
5. The condensed meaning units were abstracted and labeled with a code. Altogether we reached a number of 77 different codes. When coding both the big picture and context were regarded. Discussion and interpretation sessions were held between us until consensus was reached.
6. All codes were compared and sorted in different categories with respect to similarities and differences. Since hierarchical relations were discovered between the categories were also divided into sub-categories. When analyzing the codes three different categories were discovered. The categories were divided into seven sub-categories (see table 2).

Step 1 – 5 were carried out daily (see appendix 3, table 2). The final analysis, step 6, took place when all data were collected. When it comes to analysis and interpretative work in qualitative studies, the process is seldom as linear as described above. The analysis and interpretative phase is a process where we moved back and forth between the steps mentioned (Graneheim & Lundman, 2004).

Table 2. Categories and sub-categories.

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4.2. Trustworthiness
In qualitative studies the concepts credibility, dependability, confirmability, and transferability are used to account for trustworthiness. Therefore, in order to improve the quality of this thesis, the method of choice has been analyzed with respect to the proposed criteria for trustworthiness according to Polit and Beck (2006).

**Credibility:**
Our goal was to enhance credibility and reduce bias by employment of the triangulation concept. We made use of the method triangulation as we both used participant observation and informal interviews as tools of investigation. Furthermore investigator triangulation was applied as both of us observed, analyzed, and interpreted. Concrete examples describing how participant observations have been analyzed with respect to e.g. meaning units, condensed meaning units and codes are illustrated in appendix 4, in order for the reader to be able to assess the credibility of the analysis.

**Dependability:**
The dependability of our study was enhanced by the fact that we had two separate means of data sampling and that both observers carried out the analysis before results were merged. Our academic supervisor, Professor Kerstin Segsten, RN, took part of some of the data and analysis.
Confirmability:  
By systematically reporting the method of this study its confirmability was increased. A decision trail enables external readers and other interested to follow the logic of our workflow and possibly reproduce it.

Transferability:  
By a detailed description of context, culture, and other characteristics the possibility for generalizability was increased. The reader can then form his or her own opinion about the transferability of results to other contexts, which is also pointed out by Graneheim and Lundman (2004).

4.3. Ethical Considerations  
To consider ethical aspects is of prime importance for every researcher independent of research field (Olsson & Sörensen, 2011). Our ethnographical study involved human beings, therefore ethical considerations were important both during data sampling and publication of findings (Merriam & Nilsson, 1994). Our method has been inspired by “Ethical guidelines for nursing research in the Nordic countries”, adopted by The Nordic Nurses Federation (NNF) 1983, based on the human rights stated in UNs declaration as well as in the Declaration of Helsinki, as well as the paper “Forskningsetiska principer inom humanistisk-samhällsvetenskaplig forskning” (Northern Nurses´ Federation, 2003; Vetenskapsrådet).

Participating Information, Consent and Permission:  
In order to assure that information regarding our study reached all participants, we personally informed them during the first week of our field studies. Information was given both orally and in written form, inspired by guidelines suggested by Olsson and Sörensen (2011).

According to the leader at the organization and also according to our own observations, the employed in the Philippines have great respect towards authorities. Before our arrival at the field we achieved permission from the leader to conduct our study at the mission. On our arrival we also got permission from the head nurse. To make our role as researchers and authorities less prominent we therefore chose not to use the written consent form but we informed all participants orally and in written about our study. Since this study focuses on the health workers and their work, no signatures were collected from parents as we wished to downplay our role as researchers.

Confidentiality  
While the location of our study is revealed in our paper, it might be possible to find out more about the participants. We actively strove for the right to autonomy and integrity and therefore stated information in such a way participants remains confidential. All material were treated with confidentiality and locked up. The sampled data will only be used for our report and for no other purposes.

5. Results  
In this section we write about health workers in general. We only defined the professions nurse and midwife when a difference in their hand hygiene occurred. Our participant observations resulted in three categories: Health Workers Daily Work Situation, Education and Health Workers Hand Hygiene Routines. The categories were further divided into sub-categories.
5.1. Ethnographic Description

The physical environment varied a lot between the different places where the health workers at the organization worked. The main health care work they performed was at two mother and child health clinics and an outreach program to discover, treat and teach about malnutrition.

Both clinics are situated in poor areas around Manila. One of the clinics opened a year ago and the other one opened recently. The aim with the clinics is to offer health care to people in the neighbourhood who cannot afford to go to other clinics. Therefore the charges are held as low as possible. One nurse and one midwife worked at each clinic. The midwives did check ups on pregnant women and were also able to deliver babies at one of the clinics. During our five weeks in Manila no babies were born at the clinic. The nurses received mostly children with infections and/or malnutrition but also adults with high blood pressure, diabetes or infections for example. Once a week a doctor visits the clinics and receives the patients the nurses could not treat on their own. The patients who visited the clinics were preferable poor people from the neighbourhood. During our time of observations the nurses had from one to ten patients in a day. The health workers and the leaders of the organization thought the reason why more patients did not come was because they could not afford, despite the low charges, and/or that they did not know about the clinics.

When observing at the clinics we focused on health workers hand hygiene routines in check-ups and care for children with infections and malnourishment. The children were between 0-9 years old. The health workers took medical history and checked the children’s health status. The common routines included checking the temperature and weight of all children. Based on the condition of the child, the health workers then used different investigations and treatments.

We also spent time observing the staff working in slum areas outside Manila. Three midwives were responsible for this outreach program. After being granted permission from the leader in the area, the community-based project started with weighing, in order to discover malnourished children. The children were 0-6 years old. The weighing was done either at a local church or a central place in the area. It usually took one or two days and was done in the morning. The health workers used a manual scale. After the weighing project the health workers went back to the same area to do home visits to interview the parents regarding how they fed their children. They also advised the parents about proper nutrition. The final part of the project was eight parents´ classes when the health workers taught mothers about important health topics in the Philippines. The parents´ classes were twice a week for one month.

Even though the health workers had their specific tasks they also helped each other. The midwives at the clinics could help the nurses with weighing children and check the temperature for example. All health workers were also involved in the parents´ classes either by planning them or teaching. The structure of the health care work is quite new and both the health workers and the leaders of the organization emphasize that it is still not settled but under forming. The leaders told us they want the health workers to form the activities in the way they think is the best, since the health workers both know about health care and the culture. On the other hand we experienced the health workers wanted to do exactly as the leaders said and would not do anything without permission from the leaders. The leaders of the organization confirmed they had the same experience as us and thought this was caused by the Philippine culture where respect of
authorities is important. In total there are eight health workers employed by the organization, three nurses and five midwives. All of them were included in the study.

5.2. Health Workers Daily Work Situation

5.2.1. Physical Environment
At the clinics there were both hand disinfection, sinks, pouring water and soap available. At one clinic there was one room where the health workers received and examined the patients. In the room there were two tables, on both of them there was a bottle of hand disinfection. In the other clinic the disinfection was more difficult to access. There were bottles of hand disinfection in the drug cabinet and there was also one bottle placed in the inner of three rooms at the clinic.

At the restrooms the health workers used when they were working in the office, there was no soap. When the health workers were preparing food for the parents’ class, these were the restrooms available for hand washing. One time they prepared food, the drains in one of the restrooms were blocked which made it unusable for hand washing.

Compared with the health clinics the slum areas were more challenging when it comes to conducting proper hand hygiene. A difficulty outside the clinic was the limited resource of water. We saw no sinks nor soap at the places where we were weighing and interviewing.

We had the opportunity to visit three different slum areas during our participant observations. The first one we visited was a district where the government had built the houses and moved people here whom before lived and worked at one of the big garbage dumps outside Manila. The houses had both electricity and pouring water but the problem for people living here was that they could not find any jobs in the area. Therefore this was a very poor district even though the houses looked good.

The second area we visited was one of the garbage dumps. The whole place had a nasty smell from the trash. The children were dirty, many of them had a cold and cough and some had rashes and infective wounds. There were flies everywhere, even in the wounds of the children. Most people living here earned their money by sorting junk. In this district people lived in sheds built by garbage. They could earn from 50-300 pesos a day which is around 10-50 Swedish crowns. There was no electricity nor any water at all in the area. People living here had to go to the next village to buy water. The lack of water caused poorer hygiene among the people living here compared to other areas in the Philippines, according to the health workers. The water they could afford to buy was naturally used for drinking and cooking, not washing.

The third area we visited was on the country side. Here people lived in houses built by bamboo, the families usually had their own lot where they grow vegetables. There were also a lot of fruit trees in the area and it was not uncommon for the families to have a goat and some chickens. It was hard to find a job in the area and most people worked as farmers. Even though it was a very poor district, people still had the chance to get good and enough food from their own land.

Since all areas differed a lot, the possibilities to perform proper hand hygiene routines also differed between the clinics and the different slum areas. When we asked one of the health workers if she felt they could afford the hygiene material they needed for the clinics and outreach program e.g. hand disinfection, gloves and soap, we understood the
budget always is a concern. They were given a budget for the following three years and the money had to last all three years.

*She answered that they always have to handle their money and resources carefully in order not to exceed the budget.*

5.2.2. Physical Contact
As described above the environment in the poor areas made it hard for the health workers to maintain proper hand hygiene routines. One of our focuses in this kind of environment was to assess how health workers coped with difficulties in practicing good hand hygiene. There were often many children to weigh and not much time. One or two health workers therefore sampled all personal data from the children and mothers while another health worker weighed the children. During the weighing project the health workers had none or little body contact with the children. The health workers asked the mothers to hold the babies in their arms when weighing and the older children were asked directly to step on to the weigh by themselves. If the child needed help it was usually the mother or an elder sibling who lifted them up, not the health workers, except for a few times. Otherwise the body contact occurred when health workers a few times wrote down the weight on the hand of a child.

*The health workers did only touch the children a few times. When they had not had time to write down the child’s personal data before weighing they wrote the weight in the hand of the child to be able to remember right numbers.*

The health workers only touched the surroundings outside and two children of eleven households when interviewing. We were not able to conclude whether the minor body contact with the children was a coping strategy from the health workers side or not. But it is a way of handling the difficulties in practicing good hand hygiene routines in slum areas.

5.2.3. Health Workers View Upon Hand Hygiene Among the Population
To gain a greater understanding about how health workers’ reality appears, we had informal conversations with the staff, especially about hygiene habits among the population. We asked the staff what people in general in the Philippines think about hand washing and if people washes their hands before eating and after using the toilet. We attained several different and contradictory answers.

"Seven out of ten Filipinos wash hands before eating and after using the toilet. Cleanliness is an important part of the Philippine culture."

“The knowledge about the importance of a proper hand hygiene before cooking, eating and after using the toilet is low among the people."

Except from lack of knowledge, one health worker also said the poor hand hygiene in families may be due to parents working too much and because of stress. She thought it was important that parents taught their children about hand washing in their homes. She emphasised that the children’s knowledge has to come from their parents. Another health worker pointed out children as the ones to spread knowledge to their homes about hand hygiene since they learnt how and when to wash their hands in school. We also got different and contradictory answers about if children are taught hand hygiene in school.
“Hand washing is taught in all schools, both private and public, it is just that the private schools have more resources like sinks and stuff, than public ones.”

“It is just lately the schools started to teach children about hand hygiene, and it is still only taught in the private schools for higher and upper middle class.”

From informal conversations we understood that there was a difference between private and public schools regarding how much the children learnt about hand hygiene. All children in the slum areas we visited do not even have the possibility to go to school, and will therefore not be taught about hand hygiene.

One health worker told us that this difference between high-, middle- and low class is also present in health and medical care. She said there are different hygiene routines in different hospitals depending on if it is a public or private one. In private hospitals there is hand disinfection at every door and the staff has to disinfect their hands before and after patient contact which is shown to be most efficient. Public hospitals cannot afford hand disinfection, therefore the staff has to wash their hands with soap and water instead, according to the health worker with experience from hospital. She also said health workers are allowed to wear their wedding ring on duty and that the person in charge decides about the rules at the ward.

5.3. Education

5.3.1. Teaching Strategies
Twice a week the health workers visited slum areas to educate the mothers. The education programme called Parents’ Class consisted of eight different topics: Proper Nutrition, Common Child Illnesses and First Aid, Children’s Developmental Milestones, Tuberculosis, Family Planning, Spiritual Formation, Children’s Rights and Parenting. The different topics had different health workers from the mission as speakers and therefore the teaching and didactics varied. The arrangements of the parents’ classes were always the same and three of the health workers were responsible for planning and preparing. Those three were always present although the speakers shifted. The classes always started with a prayer since the organization was based on Christian ground. After the prayer the health workers sang an action song together with the mothers as an introduction and to create a relaxed atmosphere, one health worker told us. The songs were also related to the topic of the day. At the end of every class the health workers served food they cooked in advance. One health worker told us there were different meanings of serving food; to have a nice time with the mothers, to gain trust, to give examples of proper nutritious food and to share good recipes.

One speaker began by asking the mothers what they knew about the subject and another speaker used humour to make the mothers participating. When teaching the speakers asked questions, they told us this was both to make sure the mothers understood and to make them more active. The health workers said asking questions also helped them to adjust the level of teaching. The health workers used rewards like tooth paste, shampoo and washing powder. The rewards were given to the first mother arriving to the class, the mother who attended most classes and during lessons to mothers who answered questions correctly. The mothers could ask questions directly during class but there was also time for questions in the end of every lesson. One speaker told us after the lesson that she keeps the lessons on a low level, to make it easy to understand and remember for the mothers.
“Only the most important and basic of the topic, so that the mothers will be able to remember.”

The same speaker asked the mothers to spread what they learnt during the class to other mothers in the area.

The tuition and parental guidance which we observed took place in different locations and surroundings. During three of five sessions the surroundings were noisy due to other activities simultaneously taking place in the facility. Loud music, children playing and acoustic feedback often made it hard to hear the speaker. The mothers tried to move closer to the speaker to be able to hear the teaching and the health workers themselves said it was hard to translate because they could not hear what the speaker was saying. No attempt was made to improve the conditions nor to move to another available quieter place.

Hand hygiene was not treated as a standalone topic but was rather integrated into other subjects taught. While we did not have the opportunity to take part in all topics during parents’ class, however an informal conversation was carried out with one of the staff, responsible for parents’ class. We specifically asked about which topics hand hygiene was included in and were told that they try to integrate it into the topics “Common Child Illnesses” and “Proper Nutrition”. We were present when these two topics were covered in parents’ class. The speaker who taught “common child illnesses” talked about common illnesses affecting children such as cold, cough, fever, diarrhea, dengue fever and animal bites. Hand hygiene was mentioned together with diarrhea. The parents were told that diarrhea is caused by bacteria or virus being ingested and transferred into the body orally. Therefore it is important to wash ones hands often, especially before eating and cooking.

“It is important to wash one’s hands often in order to avoid diarrhea.”

The nurse also mentioned that children getting their first teeth often bring fingers into the mouth cavity. If the fingers are contaminated this might cause diarrhea. Other than emphasizing the importance of proper hand hygiene in order to avoid diarrhea, different treatments were also covered by the nurse. Mentioning the importance of hand hygiene was done several times throughout the lecture and also concluded it.

During the “Proper Nutrition” class when we were present, hand hygiene was not mentioned, despite the fact that it was included in the material used for the lesson. We were only present at one “Proper Nutrition” class and are not able to conclude whether not mentioning hand hygiene was an accidental circumstance or not.

In addition to parents’ class the health workers also held a more practically oriented teaching session called “Operation Bath. The mothers and their children gathered on an open area. After teaching a method for teeth brushing, two health workers demonstrated proper hand hygiene techniques with soap and water. They also told the parents that germs and bacteria often gather underneath the nails stressing the importance of keeping them short.

She soaped her hands thoroughly, all fingers, the finger tips, the back of her hands, the palms and in between all fingers. She explained that the procedure shall go on as long as it takes to sing “Happy Birthday”.

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After the demonstration all children were offered to take a bath in water brought by the health workers. They had also brought some nail scissors that the children and mothers could use.

At the clinics where health workers met mothers and their children, we never observed that the opportunity was used to teach proper hand hygiene. During an informal conversation with one of the health workers it was concluded that this was something which could be improved upon. She also told us that whenever she sees a child with dirty hands, she asks the mother to clean the hands of her child and talks about the importance of hand hygiene.

5.3.2. Educational Material
At one of the clinics there were posters with health advice, about breastfeeding and hygiene, in the waiting room. One of the posters was about leptospirosis, pictures and text explained the importance of good hand hygiene when cooking. A picture on the poster showed a woman washing her hands in the kitchen. Another poster described hand washing after using the toilet and before eating as an action to protect children against worms. Short nails were also promoted at the poster.

In parents’ class the speakers used different pedagogic tools in their teaching. Some of them just talked, some used educational material they had made themselves and some used material and books of reference from the UNICEF and Department of Health Republic Philippines, formed for the actual topic.

During “Operation Bath” the health workers distributed a brochure to mothers and older children about patient safety named “Clean Hands Save Lives, Hand Hygiene; Why and How”. The brochure consisted of text and pictures which explained why the hands spread infections and where the hands are most contaminated. There was also information about when hand washing should be performed.

“Proper hand hygiene has been proven by experts to be the best practice of preventing infection and decreasing the spread of diseases.”

According to the brochure, the best way of avoiding infections is proper hand washing with soap and warm water or with an alcohol based hand sanitizer. Correct hand washing and hand disinfection was illustrated by pictures and text. The brochure described when to use gloves and WHO’s “Five Moments for Hand Hygiene” in patient contact and was directed to health and medical workers.

The WHO guidelines about hand hygiene for health and medical workers in clinical situations and patient contact are described. How and when to do hand rub and hand wash are illustrated.

5.4. Health Workers Hand Hygiene Routines
5.4.1. Hand Hygiene Routines
Considering the knowledge on the importance of proper hand hygiene routines among the health workers, we were surprised by the gap between theory and practice as revealed during participant observation: We did not observe any of the health workers using hand disinfection at all during our time at the two clinics. On one occasion one of the health workers washed her hands with soap and water after having treated a patient. She had applied ointment on a child’s tummy and washed her hands to get rid of the
ointment when the patient had left. This was the only time we noticed hand washing at the clinics in connection with patient contact.

*During the afternoon five patients, their mothers and siblings visited the clinic. The health workers went from one patient to another and all health workers were involved in all patients. None of the health workers washed their hands or used hand disinfection during the entire afternoon.*

None of the health workers used hand disinfection nor washed their hands after touching the children when weighing them. Neither did they perform hand hygiene routines when they visited different households.

As described above one day of participant observations were conducted when the health workers taught children and mothers about tooth brushing and hand washing. This education project was called “Operation Bath”. This type of project had never been done before. Since the area did not have any water resources, the health workers brought water to offer the children a bath. The children were standing or sitting in a bucket or standing on the ground. Water was poured over the child by the mother or a health worker. Fresh water was used for each child. It was usually the mothers or an elder sibling who washed the children (0-6 years), but the health workers also helped with the shampoo and soap. Almost all children used the same shirt as a towel and a lot of them had a cold, a cough and/or infected wounds. During “Operation Bath” we did not find any consequent hand hygiene routines before or after patient contact even though the health workers sometimes wet their hands.

*The health workers went from one child to another and helped the mothers with the baths of the children. Sometimes they poured water on their hands sometimes not. There was no consequent hand washing among the health workers before or after washing a child.*

Regarding nails and jewellery we noticed a difference between the nurses and the midwives during our participant observations. All three nurses had short nails without nail polish. Among the midwives only one of the five had short nails and the other four had long nails usually with nail polish. Regarding jewellery two of three nurses did not wear any rings, bracelets or watches. This may be compared with the midwives whom all wore at least one ring, bracelet or watch. The nurses and midwives did not take the jewellery off in contact with patients.

5.4.2. Food Handling

Twice a week before parents’ class, the health workers prepared food for the mothers. The preparation was done in the office and in a small kitchen next to the office.

The two health workers who prepared the food when we were able to do participant observations, wore jewellery when cooking. Before preparing the chicken, one health worker washed a pot and in the same time got her hands wet. No other hand washing or hand disinfection among the health workers were observed before handling the food.

*One of the health workers brought a knife and a chopping board to start chopping the onion in the office. She did not wash her hands before starting.*

Mostly the food was served in cups and poured up with a ladle. In this way the health workers did not touch the food. On one occasion, when serving bread, two of the three health workers were careful not touching the food and used leaves as napkins. This
could be seen as a coping strategy to avoid transmission, in an environment where it is hard to practise hand hygiene routines. The health workers serving the food did not wash their hands before they served food, nor did they offer the mothers to wash their hands.

We often had lunch together with the health workers but only on one occasion we had the opportunity to observe health workers’ actions directly before eating lunch. Both health workers washed their hands with soap and water before eating.

6. Discussion

6.1. Method Discussion
The aim of the study was to attain a deeper understanding for how health workers ensured and maintained proper hand hygiene routines in outpatient care settings in the treatment of malnourished children. The ethnographic method was found most suitable for the research since the reality can be studied (Pilhammar Andersson, 2000). For observations as method of data sampling to be classified as a scientific tool, some criteria must be met. Except the fact that all observations must have a clear purpose, be carefully planned and that all information obtained must be systematically registered, the researcher has to consider trustworthiness. A common critique directed towards ethnographic studies is the cofounding influence and effect the researchers themselves have upon the study, i.e. how the presence of an observer interferes with the processes and events being observed. The participants can be anxious about being observed and therefore a behavioural change might occur according to their ideas of what is accepted and desirable (Merriam & Nilsson, 1994). There is a risk that participants feel inspected and discomforted, resulting in a change of behaviour so that it deviates from normal (Polit & Beck, 2006). In the beginning of our study we perceived the health workers as slightly reserved. This is a bachelor thesis on undergraduate level with the purpose of familiarizing ourselves with the research process; therefore we tried to downplay our role as researchers. We emphasized that we were two students who wished to learn about health workers’ experiences, daily work situation and familiarize ourselves with the research method. We actively counteracted any discomfort and risk for harm by trying to establish good relationships. We showed respect by being grateful and polite. Our questions were raised in a tactful manner and we were sensitive to any language and cultural differences that arose, according to the recommendations of Polit and Beck (2006). If we felt that the situation was such that a question could be perceived as criticism, we chose not to ask it.

Due to our ethical considerations to inform the participants about the study, their knowledge about the aim of the study might have had an impact on the result. Since the participants were aware of what was being observed there is a risk they changed their behavior (Merriam & Nilsson, 1994). We do not think the health workers changed their hand hygiene behavior since they were open with their lack of hygiene practice.

Critics also point to the fact that the nature of human perception is both insufficient and subjective (Merriam & Nilsson, 1994). To structure our participant observations we used a guided questionnaire, see Appendix 2. Despite this it was impossible to notice everything and there is a risk our preunderstanding impacted and diminished our perception. Our previous experiences of hygiene routines are based upon Swedish conditions, with greater resources available and mostly from hospital environment. This
might make it harder to see the particular challenges that are associated with conducting proper hand hygiene in areas where resources are scarce.

Reflection is an important concept within the ethnographic method to increase awareness about one’s preunderstanding (Pilhammar Andersson, 2006). During the whole study we reflected over our own impact, our relationship to the field of study, and which decisions we made and why. The fact that we as students doing a research study were part of the surrounding world is also one of the strengths of the method. The interactions that occurred not only affected the participants but also us as researchers (Pilhammar Andersson, 2006). The human being is best fit for the task of collecting and analyzing data when it comes to investigations that study meaning, context, and significance (Merriam & Nilsson, 1994).

The language difficulties naturally had an impact on our results. English is both our and the health workers’ second language. When talking to and teaching parents the health workers spoke their native language, Tagalog. The health workers translated the meaning of what was being said into English. Due to this and the noise in the surroundings there is a risk we missed important information. To minimize this risk we used informal conversations to achieve further, more detailed information. The possibility to conduct informal conversations helped us to gain deeper understanding of why the health workers acted as they did. The combination of participant observations and informal conversations made us able to notice differences between what the health workers said and what they actually did (Merriam & Nilsson, 1994).

As observers it was important to be able to switch from being close to observing at a distance, aware that factors such as emotions, understanding, values and expectations could have an impact on observations (Henriksson & Månsson, 1996; Polit & Beck, 2006). Being two observers in most participant observations was beneficial for the reflections and discussion about the sampled data.

To get the whole of all codes we printed and sorted them one by one. The most difficult part of our analysis was to make sure the codes only fit into one category. To avoid mistakes we went back and forth between the codes and the meaning units. We discussed different categories and other suggestions were excluded since some codes would fit in to more than one of them nor did they answer our specific objectives.

The limited period of time is a difficulty – five weeks passes quickly doing an ethnographic study in an unfamiliar setting in a poor country with a for us new cultural and social context. Jeffrey and Troman (2004) point out that an ethnographic research may be as short as a couple of days. Their compressed time mode model was the one we used. The health workers had new activities planned after our departure. More time on the field could have given us other codes and categories. To have time to analyze our material and supplement it with questions that arose we ceased our observations one week before leaving.

The results depend on where the study was conducted. Hand hygiene routines and teaching about hand hygiene in outpatient care may be different in other places in the Philippines.

6.2. Result Discussion
We experienced low awareness among the inhabitants about the importance of hand hygiene practice after using the toilet and when handling food. Compared to our own
previous experiences from low income countries the importance of washing hands before eating are more prominent in other countries. For example buckets of water and soap to wash hands were always sent around before meal in Togo. Cultural habits in a country may have an impact on health workers attitudes towards hand hygiene (World Health Organization, 2009). We tried to figure out the hygiene habits among the people in the Philippines, but it was hard to make a conclusion from the different answers. Due to our limited period of time, we chose not to examine the cultural habits further.

Adherence to hand hygiene routines among health-care workers is a worldwide problem and no country can claim they have solved the problem with HCAI (World Health Organization, 2009). Poor adherence to guidelines from WHO was observed among the health workers at the organization.

Factors affecting hand hygiene routines in developing countries is lack of hand hygiene products, running water, sinks and soap (Borg et al., 2009), this was also observed for the health workers when working in poor areas. At the clinics on the other hand, there were both alcohol based hand rub, sinks, soap and running water available. Despite this, the health workers did still not follow the hand hygiene guidelines given by WHO. The reasons for this are unknown to us and further studies are required to give a definite answer. However there are several plausible explanations, according to WHO (2009) poor hand hygiene practice could be due to for example the patients need is prioritized over hand hygiene and insufficient time. Lack of scientific evidence showing the positive impact of proper and hygiene in the specific type of health care facility (like outpatient care) could be another explanation (World Health Organization, 2009). Still feelings of the staff cannot be readily observed. Taking into consideration that the organization gives aid to a large population in and around Manila, it is likely that they feel pressure about not being able to help everyone who needs it.

Lack of knowledge might cause low adherence to hygiene guidelines (Felembam et al., 2012). When having informal conversations regarding hand hygiene routines we got the impression that the health workers were knowledgeable when it comes to how and when hygiene measures should be taken in accordance to WHO guidelines. One explanation to the gap in knowledge and practice arose during one conversation with a health worker. We were told about hand hygiene practices at Philippine hospitals. In the hospitals the routines were set forth by “the boss”. In other words it seemed to be local policies adopted, instead of general guidelines that set the standard of hygiene routines. This was further strengthen by the fact that we were told that wedding rings in some cases were allowed. This might serve as one of several explanations due to why WHO guidelines were not always followed.

According to one of the health workers at the clinics there were no written guidelines or rules about how they were expected to work at the clinics. This might have caused insecurity among the health workers at the organisation since they did not have any guiding principles. Uncertain leadership could cause insecurity and passivity among co-workers, even though the co-workers have an own responsibility to drive the activity forward based on their competence according to Tengblad, 2006a, 2006b.

Further explanations might be found in the newly formed organization. The leaders of the organization told us about the newly formed structure and that routines are not at all settled and still forming. During this transition period when a multitude of routines have to be formed where hand hygiene is one of them, it is hard to make everything function at once.
As written in the result one of the leaders of the organization told us compared to the Swedish culture it is a part of the Philippine culture to do as the manager says and take less initiatives on your own. Both the leadership and the activities gets more effective if the leader is able to trust the collaborators doing a good job and allows them to take own initiatives. Increased participation in decision making also leads to more motivated collaborators who finds the work more stimulating (Tengblad, 2006b). By discussing and forming guidelines together as leaders and collaborators, we think the collaborators contribution will be enhanced and there structure will be clearer.

Regarding nails and wearing jewelries, we distinguished a difference between the nurses and the midwives. In conversations with health workers we learnt that the education for becoming a midwife and nurse differed. To become a midwife in the Philippines you have to complete a two year college education whilst for the nurses it is four years at college. The length of the education may have had an impact on the compliance to hand hygiene guidelines. Furthermore it is also likely that the syllabuses differed considerably between the education programs regarding hygiene. One health worker told us midwives are experts on the reproduction system and their education focuses on this subject. The nursing education on the other hand is wider and they read about transmission and infections, the health worker said. Education is an important factor. It cannot be concluded from our limited time in the field if this is a contributing factor to the gap in theory and practice. However higher education level among health workers is one factor shown to increase patient safety (Estabrooks, Midodzi, Cummings, Ricker, & Giovannetti, 2005).

Our aim was to study the role of health workers in ensuring and maintaining proper hand hygiene routines in outpatient care settings in the treatment of malnourished children in the Philippines, not to conclude what was right and wrong. In the slum areas we visited, the supply of water was constantly short and practicing good hygiene in households was impossible. We seldom observed that health workers touched the children. Instead mothers and siblings often assisted, lending their hands when it came to weighing and bathing etc. To avoid physical contact when possible minimizes the risk for disease transmission and we interpreted this as a cooping strategy from the health workers in order to avoid spreading communicable diseases. Furthermore one could argue about the effect of hand washing by the health workers when children in the slum areas are constantly surrounded by contaminants. We never observed any severely sick or obviously highly contagious children; it is likely that the health workers would change their hygiene routines when encountering such a patient.

The health workers at the organisation had an important role to prevent illnesses and sicknesses in their education program, which is in accordance to the responsibility of nurses according to the International Council of Nurses (ICN) (2012). In parents’ class the health workers taught mothers about common illnesses and health problems in the Philippines. There are a number of different educational principles to be used in teaching (Friberg, 2012). We observed that the health workers’ use several of these in combination. The health workers promoted participation by starting the classes with an action song and a prayer. They also tried to make the mothers active by asking questions. To be more active by reflecting, observing, experimenting and relating to lived experience has been proven to be a more effective way of learning and is in accordance with the cognitive approach. The cognitive approach emphasizes the importance of the learner being active to form his or her own knowledge (Friberg, 2012). In parents’ class the mothers were also rewarded with prices when answering
questions correctly and we conceived the mothers as mostly passive receivers of information.

The health workers used different educational material such as pictures, texts, songs, brochures and posters when teaching parents. Activating and stimulating different senses increases the possibility to learn and remember (Kolb, 1984).

In all types of education it is important to adapt the level to the ones you are teaching, no education should be done on routine. Otherwise the students will not be able to make the knowledge their own (Friberg, 2001). In parent’s classes the level of teaching was adjusted after the mother’s knowledge and the material used was designed for each specific topic. The brochure given once to mothers and children during “Operation Bath” regarding hand hygiene, was directed to health- and medical workers and accordingly not adapted to the target group. We did not ask the health workers why they chose to hand out this brochure and did therefore not get to know if they had reflected over the target group.

In parents’ class hand hygiene was mentioned in one of the eight topics, although it could have been integrated to other topics as well. As far as we noticed hand hygiene was not mentioned when teaching about proper nutrition. Even though we may have missed some points since everything was not translated completely, we noticed the speaker did not show the material about hand hygiene produced for the lesson about proper nutrition. We never asked why this was the case and the health workers therefore had no chance to explain. This particular session was the first “parent’s class” in that area and gathering all the mother took longer time than on other placers were “parent’s class” already was established. This together with the fact that the distance between houses was longer resulted in that the session was delayed. Therefore the lecturing health worker probably had to make prioritizations about which subjects to cover, excluding hand hygiene. Proper nutrition is an important subject to prevent and treat malnutrition. Malnourished children have an abated immune system which increases the risk of infection (Björkman & Karlsson, 2006). Proper hand hygiene routines are the most effective way of preventing infections (Ericson et al., 2009; World Health Organization, 2009). Therefore good hand hygiene habits in the households are important. Due to the consequences for the children the awareness of hand hygiene among health workers and inhabitants needs to be increased. We did not observe health workers paying attention to the hand hygiene routines of parents other than during parents’ class. A study examining a combination of hand hygiene promotion in inter alia house-to-house visits, group discussions and hygiene promotion in schools, was proved to be cost-effective (Borghi, Guinness, Ouedraogo, & Curtis, 2002). According to our participant observations the health workers had some more chances to bring up and educate about proper hand hygiene beside the parents’ class.

The health workers had different ideas about whether parents should teach the children about hand hygiene or the other way around to improve the sanitary level in the homes. A study done by Song, Kim, and Park (2012) indicates parent education as one way of improving hand hygiene among families. According to them higher knowledge among parents about the importance of hand hygiene resulted in more hand washing. They also said that if parents wash their hands thoroughly the children do the same. Another study used schools as a platform to teach about hand hygiene. After a project of promoting safe water and proper hand washing in schools in western Kenya the children were less absent in school due to illnesses and the hand hygiene practices were improved both
among the children and in their families. The knowledge was transferred from the
children to their parents (Blanton et al., 2010). Other studies also indicate hand washing
programs in schools to be effective (Tousman et al., 2007). To improve hand hygiene
practices in families with malnourished children the organization’s schools might be an
alternative platform where the health workers could teach. According to Glanz, Rimer,
and Viswanath (2008) behaviour changes are easier to achieve and maintain if the
message comes from multiple sources compared to one.

6.2.1. Further Research and Conclusion
Our study focused on examining how health workers acted. Further studies need to be
done in order to conclude why the health workers acted as they did, to be able to
understand how the hand hygiene practice can be improved. Other research on hand
hygiene from the parents’ point of view could contribute to improvement and make it
easier to adapt the level of education. Today the health workers mostly engage with the
mothers in parent’s class, at home visits and at the clinics. It would be interesting to
investigate the fathers’ role in the family and how it would affect hygiene habits, if the
fathers also were included in educative efforts.

One conclusion of this study is that health workers should pay more attention to hand
hygiene routines in outpatient care. The compliance with hand hygiene among health
workers is a worldwide problem and the awareness needs to be increased to improve
patient safety and for a sustainable development, not only in the Philippines but
globally. Sweden is not an exception and it is important that we improve our hand
hygiene habits here. Studies done in other countries can also increase our
consciousness.
References


World Health Organization. (2012). Hand Hygiene in Outpatient and Home-based Care and Long-term Care Facilities


Information Letter to Health Workers

Dear Health Worker,

We are two Swedish nurse students, Lovisa Jansson and Sofia Henriksson, in our last year of education. In March to May 2013 we are going to complete our education by visiting your organization and write bachelor thesis in nursing.

We are very happy for the opportunity to visit you and learn about how you work, especially among malnourished children. We want to take part in your daily work to see and learn as much as possible.

During our time in Manila we will be writing a bachelor thesis in nursing. The thesis will focus upon the role of health workers in ensuring and maintaining proper hand hygiene routines in outpatient care in the treatment of malnourished children. We wish to learn about health workers’ actions and how the surrounding environment affects their work, as well as how the health workers involve parents in the infection-preventive work. Our aim is not to conclude what is right and wrong but to obtain an understanding for the health workers’ reality from a holistic perspective. Therefore, apart from taking part in your daily work, we will also take some notes, to help us remember how you work. We will also talk to you about what kind of possibilities and difficulties you meet in your daily work regarding hand hygiene, for a better understanding of your situation.

While writing our bachelor thesis we will not mention any names and it will not be possible to track whom said what. If you are interested we will send our thesis to you when it is finished.

If you have any questions, feel free to ask, any time.

Kind regards,

Lovisa Jansson and Sofia Henriksson

Sahlgrenska Academy
University of Gothenburg
Appendix 2

Guided Questionnaire

When:

Where:

Who:

Type of activity:

What is said:
(By who, to whom, in what way)

What is done:
Appendix 3
Table 1: Template for observation reports

<table>
<thead>
<tr>
<th>Place</th>
<th>Person</th>
<th>Observer</th>
<th>Activity</th>
<th>Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Analysis template for step 1-5 in the analysis and interpretative process

<table>
<thead>
<tr>
<th>Narrative</th>
<th>Meaning Unit</th>
<th>Condensed Meaning Unit</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4

Table 3. Examples of meaning units, condensed meaning units and codes from content analysis of observations.

<table>
<thead>
<tr>
<th>Meaning Unit</th>
<th>Condensed Meaning Unit</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>There was no sink or pouring water in the church. There was no hand disinfection available for the health workers.</td>
<td>No pouring water or hand disinfection.</td>
<td>No washing possibilities</td>
</tr>
<tr>
<td>The health workers wore rings and bracelets when washing the children.</td>
<td>Wore rings and bracelets when washing the children.</td>
<td>Jewellery</td>
</tr>
<tr>
<td>The health workers went from washing one child to another. Sometimes the health workers washed their hands, sometimes not. They washed their hands in the middle of the bathing children and there was no consistent procedure before or after each child.</td>
<td>Went from one child to another without consequently washing their hands.</td>
<td>Incomplete hygiene routines</td>
</tr>
<tr>
<td>Afterwards ”Maria” and ”Sarah” showed how to wash hands correctly by illustrating how you do.</td>
<td>Illustrated correct hand washing.</td>
<td>Illustration</td>
</tr>
<tr>
<td>I asked if hand hygiene is included in some of the topics in Parents Class. ”Christine” explained that hand hygiene is not a topic on its own, but that they try to integrate it into other topics. She mentioned that hand hygiene is included in the topics Common Child Illnesses and Proper Nutrition.</td>
<td>Hand hygiene was not an own topic, it was integrated in other.</td>
<td>Integrated in topics</td>
</tr>
</tbody>
</table>