



JÖNKÖPING UNIVERSITY
School of Health and Welfare

Self-care when suffering from gastroenteritis in Tanzania

Nurses perspective

MAIN SUBJECT: *Nursing*

FÖRFATTARE: *Ida Karlsson & Linnea Gärderup*

SUPERVISOR IN SWEDEN: *Ingalill Gimble Berglund*

SUPERVISOR IN TANZANIA: *Robert Masano*

JÖNKÖPING 2019-01

Sammanfattning

Titel: Egenvård vid gastroenterit i Tanzania - Sjuksköterskors perspektiv.

Enligt Världshälsoorganisationen dör 1,5 miljoner människor varje år på grund av diarrésjukdomar. Diarrésjukdomar kan bero på flera olika orsaker, däremot framhäver Världshälsoorganisationen att 58% av dessa orsakas av brist på rent vatten, sanitär utrustning och hygien. En kvalitativ studie utförd med sjuksköterskor som arbetar vid olika avdelningar på ett sjukhus i Tanzania. Semistrukturerade intervjuer genomfördes med 10 sjuksköterskor och intervjuerna analyserades med en kvalitativ innehållsanalys. Syftet var att beskriva sjuksköterskors upplevelse av arbetet med egenvård för patienter som är drabbade av gastroenterit. Sjuksköterskor beskriver att de upplever att patienter behöver mer kunskaper gällande egenvård, och den gemensamma uppfattningen är att patienterna är tacksamma för att få sjuksköterskans råd angående basal hygien. Det framkommer att sjuksköterskorna upplever att det saknas samhällsliga strukturer som kan hjälpa människor att kunna bibehålla en god hälsa, trots deras egna försök att upprätthålla en god hälsa så finns inte alltid förutsättningen att underhålla den. De lokala hälsoarbetarna som finns anses vara viktiga för alla människors rätt till upplevd hälsa, för mänskliga rättigheter och för att människor ska få rätt vård när de behöver det.

Nyckelord: Egenvård, Förebyggande åtgärder, Gastroenterit, Personcentrerad omvårdnad.

Summary

According to World Health Organization 1.5 million people die every year due to diarrhoeal diseases. Diarrhoeal diseases may be caused by a multitude of different reasons, though WHO highlights the fact that 58% of these, are caused by lack of clean water, sanitation and hygiene. A qualitative study conducted with nurses working at different departments at a hospital in Tanzania. Semi-structured interviews were performed with ten nurses and the interviews were analysed through content analysis. The purpose was to describe nurses' experiences of working with self-care for patients suffering from gastroenteritis. Nurses experience that patients need more self-care knowledge, and the common perception is that patients are happy to receive the nurses' advice regarding basic hygiene. It appears that the nurses find that there are no social structures that can help people maintain good health, despite their own efforts to maintain good health, there is not always prerequisite to maintain it. The community health workers are considered important for all people entitled to experienced health, for human rights and for people to get the right care when they need it.

Keywords: Gastroenteritis, Person-centred care, Preventative actions, Self-care.

Index

- Introduction 1**
- Background 1**
 - Water and sanitation..... 1
 - Definition of Gastroenteritis..... 2
 - Nurse's function and their core competencies 2
 - Definitions of Self-care 3
- Problem specification 4**
- Aim of the study 5**
- Research method 5**
 - Design..... 5
 - Participants 5
 - Data collection 5
 - Data analysis..... 6
 - Research ethics 6
- Result 8**
 - The patient in focus 8
 - Giving advice 9
 - Level of knowledge.....10
- Discussion 13**
 - Method discussion13
 - Result discussion14
 - The patient in focus.....14
 - Giving advice15
 - Level of knowledge17
- Conclusion 18**
- Clinical implications 18**
- Referenses..... 19**
- Appendix.....**
 - Appendix 1: Interview questions

Introduction

According to World Health Organization (WHO, 2014) 1.5 million people die every year due to diarrhoeal diseases. Diarrhoeal diseases may be caused by a multitude of different reasons, though WHO (2014) highlights the fact that 58% of these, are caused by lack of clean water, sanitation and hygiene. Referring to individual risk factors of death, 297 000 deaths are caused by diarrhoeal disease due to inadequate hand washing in low- and middle-income countries (WHO, 2014). It is a nurse's task to give adequate information to the patient (ICN, 2012).

Acute gastroenteritis is rarely officially reported about and there is not much statistics about the disease (Baum, 2016; Ford, 2016). Low-income countries are often affected because of poverty and crowded conditions which can cause weakened immune systems and makes people more vulnerable to diseases (Amzat & Razum, 2014). Lack of knowledge about medical recommendations to avoid gastroenteritis is a reason why people become ill. People act in accordance to the knowledge they have about healthy behaviour (Amzat & Razum, 2014). Changing behaviour is something that must be done on a social level. The structure needs to change where the different behaviours occur. People are more likely to change if the outcome is positive and if they believe that a change is possible. Family, community, media, and workplace have a strong impact on humans when it comes to changing behaviour (Baum, 2016). A big source to change is to make people understand that they are responsible for their health (Amzat & Razum, 2014; Baum, 2016).

Background

Water and sanitation

Number six of the United Nations (UN) sustainable development goals (SDG) is to "Ensure availability and sustainable management of water and sanitation for all." (UN, 2017). This is because of all the damage the contaminated water does by, for example, causing 1000 children each day to become ill in diarrhoeal diseases (UN, n.d.-a). In the sub-Saharan countries, where Tanzania is included, less than 20 percent of the population have facilities like soap and water at home (UN, 2017). However, data show that open defecation is increasing in Tanzania. This means that people are defecating in public areas, such as the bushes, forest, on beaches, in fields and other open spaces (World Bank, 2018c). In this way bacteria are easily contaminating the water system (Kumar, Abbas & Aster, 2015). The United Nations (n.d.-a) report that 1.8 billion people use a source of fecally contaminated water and 2.4 billion people have no access to sanitary services like toilets. SDG includes ending the open defecation, provide all people with clean water and develop the wastewater treatment (UN, n.d.-a). The World Bank reports that the number of undernourished people is increasing (2018d). Malabsorption and malnutrition are common causes of gastroenteritis. Inhibited growth and reduced immune function in the intestinal are also consequences of gastroenteritis (Kumar, Abbas & Aster, 2015). By correcting the water and sanitation conditions, one step is taken towards the second SDG, which includes "improve nutrition and promote sustainable agriculture" (UN, 2017).

To fight mortality and gastroenteritis, there is a lot to do about water conditions but also change in people's behaviour to prevent disease. Knowledge about having toilet separated from sources of drinking water to avoid contamination or that boiled water

is safer than unboiled water is relevant to stay healthy (Ford, 2016). World Bank reports that work for sanitation and water sources are improving in Tanzania, but still, 44,4 percent of the population doesn't have access to clean water (World Bank, 2018a; 2018b).

Definition of Gastroenteritis

Gastroenteritis is defined as an inflammatory process in abdomen and intestines. The inflammatory process cause injury on the gastric mucosa and thereby abdominal pain (Kumar, Abbas, & Aster, 2015). Gastroenteritis causes thin watery diarrhoea with repeated vomiting (Frykstedt, Hulting, Höjer & Ludwigs, 2010). Poor hygiene, contaminated water and sanitary conditions cause the disease (Ford, 2016; Kumar, Abbas, & Aster, 2015). It is spread rapidly between people (Ford, 2016). In general gastroenteritis is caused by viral infections. Watery diarrhoeas can also be caused by bacteria like Cholera and E. coli. Salmonella, Shigella, Campylobacter and Enterohemorrhagic E. coli (EHEC) cause despite watery diarrhoeas, also blood and mucus in faeces, fever and abdominal pain. Protozoans cause a long-time disease with repetitive diarrhoeas and malabsorption. Toxin from bacteria like Staphylococcus aureus can come with food and give diarrhoea and vomiting soon after food intake and the duration of the disease is 1-2 days. The duration of the disease differs greatly between individuals (Frykstedt, Hulting, Höjer & Ludwigs, 2010; Grabsch, 2013). Fever, weight loss and general symptoms are also commonly occurring. A differential diagnosis like meningitis and sepsis must be excluded if the patient also has fever, tachycardia, hypotonia and is cerebrally affected (Frykstedt, Hulting, Höjer & Ludwigs, 2010).

To treat Gastroenteritis, it is important to evaluate electrolytes and water since the diarrhoea and vomiting dehydrate the body. Blood pressure and pulse must be controlled since hypovolemia cause organ failure. Correction should be done under controlled conditions. Fluid should be taken per os in the greatest extent. When greatly dehydrated, parenteral fluid supply is necessary (Frykstedt, Hulting, Höjer & Ludwigs, 2010). When there are bacteria causing gastroenteritis, antibiotic treatment can be necessary (Kumar, Abbas & Aster, 2015).

Nurse's function and their core competencies

Institute of Medicine has developed core competencies that are needed to become a competent and respected nurse. Quality and Safety Education for Nurses (QSEN) (Cronenwett, Sherwood, Barnsteiner, Disch, Johnson & Mitchell, et al., 2007) addressed this issue of the mentioned competencies. QSEN defines the six core competencies; patient-centred care, teamwork, and collaboration, evidence-based practice, quality improvement, safety, and informatics. Teamwork and collaboration mention the importance of being able to work in teams, communicate well and respect each other in the team to achieve quality in the care. Evidence-based practice makes it clear that it is important to acquire the latest best working methods to achieve optimal care. Quality improvement is defined as "Use data to monitor the outcomes of care processes and use improvement methods to design and test changes to continuously improve the quality and safety of health care systems" (Cronenwett et al., 2007, p. 127). Safety is about minimizing possible risks the patient can be exposed for and informatics explain the importance of using technology and information to manage knowledge and communicate (Cronenwett et al., 2007).

Patient-centred care is called person-centred care in this study. Person-centred care is defined as "Recognize the patient or designee as the source of control and full partner in providing compassionate and coordinated care based on respect for patient's preferences, values, and needs." (Cronenwett et al., 2007, p. 123). To apply this definition nurse's need to show respect and understanding to patients, their families and community values. The nurse has to acquire knowledge about how to give physical and mental comfort to patients and empower the patients in their health care process, also respect cultural differences. The attitude of the nurse has to make it possible to see the situation through patients' eyes, which means to see the problem from patients perspective (Cronenwett et al., 2007). To value the patients' expertise and knowledge about their health status. This also means that the nurse has to recognize their own personal attitudes towards people with different ethnicity and background. To cooperate with patients to plan a good care and appreciate different mindsets when conflicts occur. Person-centred care also involves skills as create a good environment, evaluate barriers and involve the patient in the care (Cronenwett et al., 2007).

International Council of Nurses (ICN) (2012) clarifies that nurses should give best possible care to everyone in need of it independent of ethnicity, skin colour, sexuality, age, disease or disability and spiritual belief. The nurse demonstrates integrity and the value of each individual to provide an environment of respect, trustworthiness and withhold personal information of the patient. The nurse also needs to give information to the patient about their health status and care (ICN, 2012).

In European Federation of Nurses Association (EFN) (2015) guidelines, it is written about nurses' professional qualifications. Person-centred care should be provided in the care. Some professional qualifications are required, to respect and encourage individuals' different values, beliefs and opinions. The nurse should honour the confidentiality of healthcare information, also ensure the right to privacy and respect human rights. The nurse needs to understand that it is important to have individually aimed care (EFN, 2015).

Definitions of Self-care

The International Council of Nurses ethical guidelines promotes nurses to give information understandable to patients, according to culturally appropriate level as a foundation for care. The concept of self-care is a controversial topic, with many different definitions (ICN, 2012). SDG concerning basic health care is to "ensure healthy life and promote well-being for all at all ages" (United Nations, 2017, Goal 3). The global prevalence of chronic diseases is increasing which will further on demand higher knowledge and implementation about self-care to decrease health costs and increase the quality of life (Vos, Abajobir, Abate, Abbafati, Abbas, Abd-allah, et al., 2017; Wilkinson & Whitehead, 2009). According to Riley (2003) the definition of self-care is when you can attend to the needs of the whole body, mind and spiritual beliefs, a definition where the holistic perspective of the person is the main goal.

Every individual has a choice to take care of themselves, their children and closest related people. To make an active choice to promote health, decrease unhealthy lifestyle choices and therefore keep up well-being, physical and mental health (Department of Health, 2005). Department of Health (2005) in Great Britain claims that society requires more self-care instructions due to the society's development. Attitudes towards individuals own health are changing, bigger independency and making personal choices about once own health are requested.

Self-care includes the actions people take for themselves, their children and their families to stay fit and maintain good physical and mental health; meet social and psychological needs; prevent illness or accidents; care for minor ailments and long-term conditions; and maintain health and wellbeing after an acute illness or discharge from hospital. (Department of Health, 2005, p. 1).

A Swedish definition of self-care (Self-care, n.d.) is "performance of activities or tasks traditionally performed by professional health care providers. The concept includes care of oneself or one's family and friends". This definition allows a broad perspective of what self-care stands for and can be adaptable for a wider range of diseases.

Problem specification

In Sub-Saharan countries, gastroenteritis may be associated with death. Self-care can be a crucial factor in people's lives when they suffer from gastroenteritis, since lack of sanitation, deficient handwashing and unclean water can be a cause of death (WHO, 2014). Because it's a nurse task to help the patient (ICN, 2012), it is important to know their experiences of the problem. This study intends to find out the nurses' perception of self-care regarding gastroenteritis.

Aim of the study

To describe nurses' experiences of working with self-care with patients suffering from gastroenteritis in Tanzania.

Research method

Design

A qualitative design was used. To get a broader understanding of nurses' experiences semi-structured interviews were performed. Qualitative interviews are suitable when you want to find out peoples lived experiences (Bryman, 2011; Henricson & Billhult, 2017).

Participants

The interviewers got permission to perform the study with interviews at the hospital through contact with the supervisor before traveling to Tanzania. After arrival the interviewers had a meeting with the hospital administrator about the study performance. Thereafter the administrator got in contact with nurses suitable for participation with reference to inclusion and exclusion criteria. The administrator chose ten nurses and all of them said yes to participate. The inclusion criteria were participants with at least one year working experience as a nurse and speaking adequate English. Accordingly, the exclusion criteria were no participants under 18 years of age and people without nursing education. To get a broader perspective, ten interviews were performed with four male and six female nurses who worked in hospital wards. Participants ages were between 20 to 55 years of age and had between 1-30 years of working experience. Just interviewing nurses means that this specific target group was chosen and further, it means that the selection is a purposive sampling. Purposive sampling is a method used when a target group has defined answers for the specific research question (Bryman, 2011). With purposive sampling, diverse stories are sought, then it is beneficial with the participants being of different age, gender and with varying work experience. A purposive sampling is also to find participants who have experiences from the area which is focus in the study (Henricson & Billhult, 2017).

Data collection

A certain amount of questions was addressed for qualitative interviews to nurses at the hospital in Tanzania. There were ten interviews conducted in two weeks. The interviews were ended when all questions were asked and the participants didn't have anything to add. The interview time varied between 10-15 minutes. The interviews took place in separate rooms at the ward where the participant worked. The participant chose the rooms by themselves before the interview and interviews were performed during working hours.

To ensure the confidentiality, all personal information about the participants were omitted. In the result, only the participants own perceptions and opinions are reported. The questions asked in the interviews were approved by a supervisor at the hospital and a supervisor at Jönköping University before the interviews were performed. The semi-structured interviews were based on a questionnaire, concerning self-care in relation to gastroenteritis (Appendix 1). Semi-structured interviews are based on open questions where the participant can speak openly about experiences, feelings, opinions

and knowledge. The interviewer can use support questions if the interview loses focus or the conversation decreases (Danielson, 2017).

Each interview started with a short presentation of the interviewer and the aim of the study. All interviews were recorded with a Dictaphone and every participant was told about informed consent. The process of participating in the study have been through two steps of informed consent, since the administrator of the hospital first asked specific nurses if they were willing to participate before the interviews took place. Also, the interviewer told each participant that they had the right to stop the interview, to decline recording of the interview and had the right to the time of consideration. Participants in interviews have the right to decline recording, the interview can still take place and the interviewers have to take notes. Participants also have the right to time of consideration (Kjellström, 2017). No participant declined interviewing or recording. Both interviewers attended every interview but only one was asking questions. The interviewers performed five interviews each.

Data analysis

Verbatim transcription of the data was performed before the analysing process started. This is time consuming and means to listen to recorded material and writing it down. It is important to comprehend nuances in communication in order to be able to make a fair interpretation of the material, for example stresses in speech (Danielson, 2017). According to the study's aim a content analysis method was suitable for the qualitative purpose. In the process of a content analysis it is important that the authors take the interviews into a careful consideration (Hsieh & Shannon, 2005).

The data was analysed by the authors alone and then together after the transcribed interviews was read and processed several times. The condensed meaning units with content that answered the aim of the study were picked and placed in a chart. Thereafter converted into codes, subcategories and categories. Meaning units, condensed meaning units and codes means that the text is summarized with one or few words. It means to make smaller fragments of information recurring in interviews. These are then used to see if they have something in common that can be built into a subcategory. After that the categories are formulated. Categories illustrate the subcategories' common denominator (Danielson, 2017). The data belonging to the respective subcategory was thereafter compiled in continuous text under categories and constitutes the result with associated quotes from participants.

Research ethics

The purpose of research ethics is to protect peoples equal value, their self-determination and integrity as well as human rights (Kjellström, 2017). Information requirement highlights that researchers had to inform the participants that their participation is voluntary and had the right to whenever they wanted to terminate their participation. The participants had the right to know the different stages of the study and its implementation. They got information about that the study will be published as Bachelor thesis in Sweden and that they will get access to the study. The requirement of consent means that every participant have their own right to decide if they want to be a part of the study or not (Bryman, 2011). A claim of confidentiality means that information about every participant are taken care of with the greatest confidence. Personal information about participants are kept safely on a computer with password where unauthorized cannot reach them. The recordings were deleted from the

Dictaphone. It is highly important to highlight the importance of confidentiality when conducting interviews with participants' whose content may be perceived as sensitive or could be harmful to the participant (Bryman, 2011; World Medical Association, 2008). Furthermore, it is important that researchers be aware that the handling of information about individual participants must be handled with the highest degree of confidentiality and that individuals' participation should not be reflected in the study. The utility requirement means that the data collected may only be used for this research purpose. This demand of ethical principles also contains requirements for the researchers' to not represent their work for something else than what it is (Bryman, 2011).

Result

In the analysis three categories emerged with subcategories responding to the purpose of describing the nurses experience of working with patient suffering from gastroenteritis in Tanzania. The three categories are: *The patient in focus* with subcategories Individual care, Autonomy, Encouragement and Trust. *Giving advice* with subcategories Preventative actions and Development of knowledge. *Level of knowledge* with subcategories Lack of knowledge, Nurses teaching and Society structures.

Table 1: Overview of categories and subcategories.

<ul style="list-style-type: none"> • The patient in focus 	<ul style="list-style-type: none"> • Individual care • Autonomy • Encouragement • Trust
<ul style="list-style-type: none"> • Giving advice 	<ul style="list-style-type: none"> • Preventative actions • Development of knowledge
<ul style="list-style-type: none"> • Level of knowledge 	<ul style="list-style-type: none"> • Lack of knowledge • Nurses teaching • Society structures

The patient in focus

In this category the nurses talk about seeing the whole patient and their needs. To create a relationship with the patient and encourage self-determination.

Individual care

Participants mean that depending on the patients' health status they could determine the patients need of help thus, individual advises according to the situation are given, for example, exercise or help with drugs. Further, participants explained how to educate the patient according to the disease the patients are suffering from.

We try to personalise because patients got different problems, they can have the same disease and the same problem but different needs. So normally we advise them personally.

Individual health education on a suitable level to the patient is important so that the patient would be able to assimilate the information they have got. The patients' age could be good to keep in mind as well. The patients' need to understand their disease and the transmission to be able to understand how to take care of their selves. The importance of how to give individual health education and how to promote good health at home was mentioned.

Autonomy

Patients act passively if they get help with everything which inhibits their ability to apply self-care and individual activity. If the patients are to take care of their own health, their self-esteem will increase.

...Let us give an example – eating food, if somebody, if you are being fed by another person of course you get satisfied, but you feel more good and more better if you take food and eat on your own.

Encouragement

It was important to encourage the patients' to take care of themselves. To make it possible the patient needs a proper instruction. Participants believe that more education about basic hygiene is needed. In order to achieve the knowledge about basic hygiene that people need to experience health, individuals need to be encouraged to take responsibility for their own health and thus their basic hygiene.

Trust

To build a relationship with the patient to get reliance, trust is earned when using a good language and encourage. Participants argue that patients usually tell the truth if there is a trust between the nurse and the patient. By using a language that most people understand and encourage good health, they will take care of themselves.

Giving advice

In this category nurses talk about measures that prevent the patient from becoming ill in gastroenteritis and about their approaches to increasing the knowledge of the disease and disease prevention in the patient.

Preventative actions

The patients are informed about keeping the environment clean, the importance of clean drinking water and to have a good body hygiene. Participants experience was that patients have an interest in learning about preventative actions to avoid infections. Patients are open to get concrete advice about hygiene. Something not to forget is the importance of vaccination for children to prevent diarrhoeal diseases. Importance of a clean environment and recommendations about installing a tipping pit for waste disposal and keep dishes and drinking bottles clean to prevent spreading infection to the baby.

...yeah to prevent, make the surrounding clean, everything they should make it clean in order to prevent gastroenteritis...

Advice about washing the nipple before breastfeeding the child to avoid getting infections like gastroenteritis.

...so if you see that the patient is very dirty and she give the breastfeeding without cleaning the breast wart before she give the... she can prevent an diarrhoea to the child. To herself too.

Participants declare that it is common among people in the community fetch water from wells or holes. Repeatedly participants mention the importance of boiling the drinking water and underlines that they advise patients about boiling the water they use for drinking to avoid infections. Further, they advise patients about the importance of a good food preparation.

...Make sure that they use, prepare in a good way their food and they should drink safe water which is boiled...

It appears that participants inform patients about the importance of using soap while washing their hands. Advice is given about buying soap for hand washing, though many people have a hard time to afford to buy it. After visiting the bathroom or after diaper

change on children the recommendation is to carefully wash your hands with soap. To wash the hands before and after a meal is also something to prioritize. The participants explain the importance of hand washing with soap both as a preventative action to not get sick in gastroenteritis and not spread the disease when a family member already is sick.

They will be more careful with hygiene and when the child is admitted and has diarrhoea and vomiting she have to buy soap... changing the diaper she must wash her hands with soap and clean water....

Development of knowledge

During the interviews, participants discussed how there has been a development regarding knowledge about maintaining health. Participants mention a development on the area of knowledge about self-care or a suggestion on how development can take place. They are working with collective education. Once a week they educate the inpatients about a specific disease and one of these occasions includes gastroenteritis.

We will gather them. We stand in front of them and teach in health education. We have a special day of giving health education and we give by duty. A special day in the week, maybe every week on the Thursday we give education in gastroenteritis to many patients at the same time.

It appears through participants that the development of community health workers has led to a knowledge development among the population. Participants tell that health care workers go out to distant villages far away from the hospital every week, informing people how to apply self-care, for example how to have good hand hygiene. They believe that through this approach they actively work to prevent the spread of infections and knowledge about how to prevent infection on themselves. Participants also want to point out that after they have taught people about self-care actions in the villages, they urge the people to spread the information further to increase the spread of knowledge overall.

Level of knowledge

In this category nurses talk about the lack of knowledge of the patients and about the role of society in human health.

Lack of knowledge

Participants claim that lack of knowledge is the main reason why people get ill in gastroenteritis. They reflect on how the number of people who are uneducated in Tanzania gets a harder time to take care of themselves, because they don't know how to, due to the knowledge deficit.

...let me say, the challenges you face in Tanzania most are uneducated or let me say, in the hospital here most patients' are uneducated. So, it's very hard to be open to take care of themselves.

Furthermore, participants argue that patients have a bad perception of the benefits of having good hygiene due to lack of knowledge. Participants also believe that the distance to hospitals often causes the knowledge gap to grow, thus they have more difficulty in acquiring new knowledge. If patients have long distances to hospitals or health care centre, they will rarely go to hospitals for conditions they consider

themselves able to handle to the greatest extent, participants in the study mean that this is a contributing factor to the lack of knowledge mentioned in the interviews. On a follow-up question according to if the participant knows why some people don't boil their water, the participant quotes what many of their patients often give for an answer when health care providers encourage them to boil their water.

Most of them they don't think that it's an issue, not have the education, because sometimes they say that 'We have never boiled water and been surviving for years, our great fathers and grandmothers they stayed here and didn't boil water and they survived until late ages.' So, they don't think that is why they become sick. ... They are not educated.

Participants claim that there is a widespread disinterest about using toilets and having to take care of their human waste themselves. They mean that people do not understand why they should have a toilet and the meaning for themselves and for other people, so they choose not to care about dealing with human waste at all, instead they defecate openly.

Nurses teaching

The interviews raise consequence awareness and what impact it has on the rehabilitation of the patient. Participants mentioned a theory of how patient education should be taught so that the patient understands how to apply their knowledge in daily life. Specifically, it is talked about the importance of taking professional help when suffering from gastroenteritis and talk about its further complications.

The complications of which can face the child or the adult because of the delaying of going to the hospital, they can suffer dehydration, electrolyte imbalance and also fever that's the first one. [...] That is why we council them to go to a health facility as you see the first signs of diarrhoea, because only the find diarrhoea three times, three times or four is diarrhoea...

Further participants believe in a specific concept of patient education, a combined teaching method would reach most people for learning and understanding.

[...] in our communities many has poor educations and when you advise them through explanations, he/she don't care or he/she will not take care, but most of them they need demonstrations. [...] So, through demonstrations they will catch me better, but through explanations they will not catch me better. These people they need more demonstrations rather than explanations. [...] This is when the community see the whole picture [...].

Society structures

Throughout the interviews it appears that participants are critical against certain structures in the society regarding lack of education in remote areas, accessibility to information through the internet and that people who don't have access to education tend to get sick more often.

Participants usually encourage patients to use a toilet but direct criticism against the society that there should be a toilet and running water in villages if there isn't it will

affect people's health negatively. Accordingly, the villages should have toilets because it's a way to avoid infections, everyone should have a toilet and running water.

Participants believe that many people have access to radio where they can acquire the knowledge in need, but few people have access to the internet. Though participants also point out that there has been a development that led to people nowadays know more thanks to radio update and some have access to the internet. Though still far from everyone.

The question was asked what conditions people have at home to promote good health.

Yeah, of course nowadays most people generally, even those from remote areas, they seem to be a bit civilised, they are a bit educated, of course they able to use these details, especially soap, in bathing and washing because it is available, and it is cheaper. They know the importance.

During interviews, it shows that people who are poor and have lack of education more often suffer from disease. Participants reflect about poor and uneducated people and what impact their socioeconomic status have on their health.

Gastroenteritis in development areas is not common. It is common for people who don't understand the meaning of cleanliness. [...] But most of them it is poor and uneducated people, because they didn't know the self-care.

Discussion

Method discussion

The concept of self-care in Sweden was also the perception the authors had when they chose to write about self-care. After a meeting with Tanzanian nurses in Sweden, it became clear that self-care is an area where there is potential for development, and it became more obvious while collecting international data about self-care. The discovery was going to be that the amount of international data on self-care were less than the initial thought and hence had to leave the pre-understanding behind and look at the information that was available outside Sweden. Throughout the study, authors left their pre-understanding of self-care at an appropriate distance in the implementation of the study to be able to listen to participants' stories at a new, discovering level. Reflection on one's own pre-understanding increases the dependability of the study (Henricson, 2012).

The selection of doing an interview study with nurses with good spoken English was a criterion to be able to collect usable data. That the nurses should have at least one year of practical experience was a requirement to increase the credibility in the data. What also increase the credibility is the variation of gender participating in the study (Danielson, 2017). The administrator at the hospital was helpful with finding participants with sufficient English skills and good knowledge in caring for patients with gastroenteritis. The disadvantage of getting help by the administrator could be that the administrator chose participants the administrator was personally attached to. Depending of inclusion criteria, the administrators personally relations to the participants was not assumed to influence the interviews.

Throughout the interviews a problem encountered that a certain amount of participants spoke inadequate English. After the first interview and pervading in all interviews' participants had difficulties understanding the questions processed in the interview guide because of the level of English. This resulted in that questions had to be asked in different ways and often rephrase the actual question, occasionally the questions asked lost its purpose which is disadvantageous for credibility or dependability in the study. By conducting test interviews, awareness would arise that there was a difficulty and there would be an opportunity to re-process the questions before the interviews. Another option that could have been helpful is to use an interpreter. This would have made the interviews more prepared for the language barrier and the difficulties of it (Danielson, 2017).

A problem that may arise from having an interview during working hours is that the participant is feeling time pressure, which is not a favourable situation for an interview. It is important for continuous interviews that the environment is beneficial for conversations. Also, the risk of being disrupted could be a stress factor for the participant (Danielson, 2017).

When problems arose regarding communication difficulties, the decision was made to increase the number of participants in the study to ten people instead of six to eight people which was the plan from the beginning. This was also the result of the interviews being shorter than previously predicted related to the same difficulties. The length of the interviews were about 10-15 minutes each, the short interviews can be a result of the occurred difficulties with language. It can be discussed if 10-15 minutes is enough

per interview for a qualitative study. However, the increase of participants in the study also increases the credibility of the study. According to Danielson (2017) ten interviews is a suitable number of interviews for a qualitative study to get a satisfying amount of data for a content analysis, optimally would be if a few more interviews were performed in terms of their length which would strengthen the credibility even more (Danielson, 2017).

The interview guide was at first processed in Sweden and in Tanzania after a week of attendance in the different wards' minor changes were made so the interview guide would be suitable for this specific place. By attending different wards, the participants' dependability to the authors increased by building relationships. To increase the transferability and make the interview guide more suitable and being more prepared, test interviews could have been performed (Danielson, 2017). The transferability of the study is considered reasonable since the study is inspired by SDG, which can be considered a prerequisite for the study to be repeated in other countries (United Nations, 2017). It is assumed that all countries work in accordance to SDG and thus advocate self-care, on the other hand, all countries' application of knowledge and their social structure look differently. Therefore, the same results will not be achieved in all countries, which affects the study's transferability. However, the transferability of the study cannot guarantee a specific result in a repeated study because the study is conducted on individuals about their experiences and their life events (Henricson, 2012).

The advantage of the interviews being recorded with a Dictaphone is that nothing said was omitted. This strengthens the study's credibility (Mårtensson & Fridlund, 2017). The data was analysed together after the transcribed interviews were read and processed several times by both authors. To minimize the risk of misinterpretations of the material the recorded interviews were listened through several times before, under and after transcribing data. By listening to the interviews repeatedly, shades of tone and long pauses can enhance the understanding of the interview and the participant. This strengthens the credibility of the study (Danielson, 2017). The difficulties were to condense the sentences in the most speaking and useful way without losing the content. In the process of analysing, the codes, subcategories and categories naturally became resembling. Because of the aim where experiences were sought, a content analysis was suitable (Hsieh & Shannon, 2005).

During the course of this study, group supervision has been applied, which means that the study has repeatedly been read by third parties who have given their feedback for improvement in the material. To allow third parties to criticize the study increases its confirmability as it is ensured that the study is based on current data (Danielson, 2017).

Result discussion

The patient in focus

During the interviews it was mentioned that personal care and advice are given to patients due to their issue. Information about health issues on a suitable level, to make it possible to understand is important. Nurses' ought to apply person-centred care to the work according to QSENs requirements (Cronenwett et al. 2007). To work with person-centred care is also standards of nursing proficiency in Tanzania. Tanzania Nursing and Midwifery Council (2014) emphasizes is the nurse mission to teach the patient about their health. According to the participants at the hospital, they are

working towards the national requirements for nurses. By giving individually adapted advices to the patient, the patient is more committed to conduct the advices to his daily life. According to earlier studies, having a personal dialogue also makes the patient feel included and informed about his situation (Tobiano, Marshall, Bucknall & Chaboyer, 2015). Nurses has a significant role in humans health. Gaining the patients trust and showing respect is important for the patient to be able to take the given advice. To realize the patient's own potential is a key for giving counselling and advice (Komatsu & Yagasaki, 2014).

To keep a professional relationship to the patient is something to underline. Griffith and Tengnah (2013) means that it is often reported about nurses crossing professional borders. The nurse is in a caring and superordinate position while the patient is in dependence of the nurse (Griffith & Tengnah, 2013).

Participants talk about how the patients need to be encouraged in the process of learning to take care of themselves. Earlier studies notify patients participation in their own care got boosted by the nurse way of being encouraging in the dialogue with the patient (Tobiano, Marshall, Bucknall & Chaboyer, 2015). Thinking about what voice to use as a nurse while talking to the patient can have significant impact for how the patient will assimilate the information or not. Facial expression and body language are also a big part of communication and important to keep in mind. A good atmosphere is created if the nurse is aware of what voice and expressions to use to different patients when giving information (Johnsson, Boman, Wagman & Pennebrant, 2018).

Participants informs about the point of building a relationship with the patient to make the patient feel comfortable to talk about the home situation and health issues. To get reliance and trust from the patient is a key to make sure the advice the nurse give is well received and assimilated. To have a smooth dialogue with the patient and give information is a giving, though complex task for the nurse. There are numerous barriers that can disturb good information to reach the participators like language level, intelligence and the participators emotional status (Johnsson, Boman, Wagman & Pennebrant, 2018; Kreps, 2018). By building relationships and getting trusted is not only making the patient assimilate the given advice to make the third SDG possible to reach, it is also baby steps towards the sixteenth goal about promoting peaceful and inclusive societies. By showing respect for the patients and building a good atmosphere, creates a good environment for people to live in (UN, 2017).

Giving advice

Participants talked about how they inform about preventative actions to avoid getting affected by gastroenteritis. To notice, the self-care concept was not mentioned by the nurses while they were giving information about self-care actions to the patients. By acknowledging the patients' health status and inform about ways to get healthy the nurses work according to the core competencies of nursing. This means that they meet the requirements of QSEN of working with person-centred care, evidence-based practice and safety and informatics (Cronenwett et al. 2007). People drinking contaminated water is a well-known issue in Tanzania according to the participants. Concrete advice like drinking boiled water was given. By informing patients about preventative actions to avoid water-borne and communicable diseases, the nurses also work according to the third SDG, to ensure healthy lives and promote well-being for all at all ages (UN, 2017).

Participants talk about the importance of using soap when washing their hands. The usage of soap is less than 20 percent according to UN (2017) which makes the nurses information important to the patients to be able to increase the usage of soap. Preventative actions, for example, washing the nipple before breastfeeding is given advice to avoid spreading infections to the child. In Orimadegun and Obokon (2015) article it is shown how non-nutritive sucking habits make the child sick in diarrhoeal diseases in greater extent than in exclusively breastfeeding cases. This shows the connection between non-nutritive sucking habits and breastfeeding with dirty breasts, both methods increase the risk of getting an infection. The study shows how children to women with lack of education had a bigger tendency to non-nutritive sucking than children to educated women (Orimadegun & Obokon, 2015).

Vaccination for children as a preventative action is a good method to avoid getting infected. The third SDG declare the importance of working for vaccines and medicines accessible for all in aim to decrease communicable diseases in developing countries. UN especially expresses the importance of free and accessible vaccines and medicines for all (United Nations, n.d.-b). A study from Taiwan shows how gastroenteritis caused by rotavirus has decreased in a ten-year period since the vaccination against the virus started. The vaccination was performed on children under the age of five and rotavirus infections are no longer as common as earlier (Yu, Chen, Tsai, Chao, Kong, Chang & Chiu, 2018). A similar study from Kenya also shows that the incidence of rotavirus has increased in a five-year period (Wandera, Mohammad, Bundi, Komoto, Nyangao, Kathiiko, et al., 2017).

Participants mention that there are community health nurses working in the villages far from the hospital. Thanks to these community health workers and their efforts to educate the population in, for example, hand washing and soap use, awareness of disease prevention has increased. According to Lewin, Munabi-Babigumira, Glenton, Daniels, Bosch-Capblanch, van Wyk, et al. (2010) lay health workers increase knowledge about breastfeeding, reduces the rates of child morbidity and mortality in comparison to usual hospital care. Effects of prehospital care can also be seen improvement on tuberculosis outcomes, though the study couldn't determine if community health nursing had any other significant impact beside usual hospital care. A lay health worker is a person from the community who received education in health promotion, although they are not professional health care workers (Lewin et al., 2010). SDG number four want to ensure learners who are supposed to give rural people basic education, are acquiring the relevant knowledge to provide and promote knowledge about sustainable development, sustainable lifestyle and human rights (United Nations, n.d.-c). Consequently, this also demonstrates all children's right to education and the ability to knowledge, as well as lifelong learning as part of the fourth SDG (United Nations, n.d.-c).

Nurses claims that if those as healthcare professionals teach the patient who sought medical care about what they can do to prevent gastroenteritis, then the patient will in their turn tell the new knowledge to people in their surroundings. This can be a beneficial way of spreading knowledge about preventative actions. The individual affects society with new ideas and knowledge, but in order for the individual to inject new knowledge, society has the effect of influencing education (Fenwick, 2008). There was a conviction that the message was passed on, the nurses felt that patients were pleased to receive advise and knowledge from health care professionals.

Level of knowledge

Some participants raise the topic of education affecting human health. People use the knowledge they have to take care of their own health, which means that if you do not know how to work preventively against gastroenteritis, there is no possibility to use the knowledge. Tilak (2002) confirm the participants thoughts when she argued that education is in direct relation to human well-being and sense of freedom.

As a result, a key to better health and disease avoidance is that more people need self-care education. Previous research speaks for people needing motivation to understand that they are responsible for their own health (Amzat & Razum, 2014). However, participants in cite their patients who mean that they have managed for many years without boiling water without someone dying from it, so they do not understand why they need to boil the water before drinking. Shi and Zhang (2010) claims that education in food preparation in a person's natural environment can contribute to sustainable development and can help remove cultural and traditional assumptions about nutrition. Shi & Zhang (2010) somehow confirm the participants citation of the patient, that cultural and traditional problems concerning food preparation exist and that education could be a proper solution to decrease diarrhoeal diseases and increase health.

According to Tanzania Nursing and Midwifery Council (2014) it is part of a nurse's profession to be able to convey information so that the patient understands it in order to promote, restore or maintaining their own health. The view on education and teaching patients about self-care values the fact that people are different and have different ways of learning, so why not teach in a way so that everybody has a possibility to learn (Wilkinson & Whitehead, 2009; Vos, et al., 2017).

Participants seems to agree that there is something missing in society that is difficult to solve on its own without the support of society. A recurring problem is the lack of toilets and running water. As participants describes it, the lack of knowledge is combined with disinterest that causes people to defecate openly. Less than 20 percent of the population in sub-Saharan countries have access to water-bearing facilities (UN, 2017), which can also be a contributing factor to the increase in open defecation. It was discussed how it should be reasonable for all people to have a toilet in every village. There are few people who have access to the Internet and thus lack a part in being able to apply new knowledge (Madle, Kostkova, Mani-Saada, Weinberg & Williams, 2004).

Throughout the study it has been difficult to avoid noticing that there are not always resources to carry out everything on their own for the people living in very poor villages on the savannah. Several times it has been clear that people must use the means they have and sometimes the assets are not close to satisfying to maintain health. People can change and embark on new challenges if they believe that change can be made and end up in something good (Baum, 2016). Changes need to be done on a social level, with help from the society. Family, community and media has a big impact regarding people to acquire new knowledge and development (Baum, 2016).

People with lower socioeconomic status tend to have poorer health than those living in more developed areas. Participants claims that this is because the level of education is low due to poverty. Tilak (2002) mean that education affects social change and is strongly linked to economic stability. The study show that education can decrease poverty because it creates productivity and results, however poverty itself leads to

deprivation of education (Tilak, 2002). Gastroenteritis is common in people who do not understand the purpose of self-care related to poverty and lack of knowledge. The SDG number ten declares that children are up to three times more likely to die before they have turned five years of age in the poorest 20 percent of developing countries. The SDG is therefore to promote and ensure social and economic equalities (United Nations, n.d.-d). This can be seen in relation to the person-centred care nurses' ought to apply by giving equal care to everyone and see what the patient needs despite inequalities between patient and nurse (Cronenwett et al. 2007).

Conclusion

Nurses experience a great responsibility in teaching patients about what self-care is and why it should be applied, that there is a broader knowledge of basic hygiene. They also think that there is a difference between people living in more developed areas and those living in remote areas. Nurses claim that their advice gets a good impact on the patients they encounter with gastroenteritis and community health workers are of great importance when it comes to promote people's health and well-being. The purpose of the study is of importance in order to further develop and research on how people experience their own health and what they do to maintain it.

Clinical implications

Through this study, the clinical implications can be that nurses reflect to a greater extent on what self-care entails. This means that they see the importance of informing about self-care and what significance it has for the patient in the long term, so that people can live a healthier life.

The people who read this study will hopefully have a different view of diversity among people. That it is easier to understand that people may have had different conditions for self-care in life depending on the background. Reflecting on this is a valuable knowledge for nurses to bring with them in their professional life.

Referenses

- Amzat, J. & Razum, O. (2014). *Medical Sociology in Africa*. Switzerland: Springer.
- Baum, F. (2016). Part 4 Health inequities: Profiles, Patterns and explanations. part 7 Health promotion strategies for achieving healthy and equitable societies. (4th ed.). *The New Public Health*. Australia: Oxford University Press.
- Bryman, A. (2011). *Social Research Methods*. Malmö: Liber.
- Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson J., Mitchell, P., ..., Warren, J. (2007). Quality and safety education for nurses. *Nursing outlook*, 55, 122-131. doi: 10.1016/j.outlook.2007.02.006
- Danielson, E. (2017). Kvalitativ forskningsintervju. In M. Henricson (Edit.), *Vetenskaplig teori och metod, från idé till examination inom omvårdnad*. (p. 143-154). Lund: Studentlitteratur.
- Department of Health (2005). *Self Care - A real Choice*. London: Department of Health.
- European Federation of Nurses Associations. (2015). *EFN Competency Framework. EFN Guideline to implement Article 31 into national nurses' education programmes*. Brussels, Belgium. Retrieved April 25, 2018, from: <http://www.efnweb.be/wp-content/uploads/EFN-Competency-Framework-19-05-2015.pdf>
- Fenwick, T. (2008). Understanding Relations of Individual– Collective Learning in Work: A Review of Research. *Management Learning* 39(3), 227-243. doi: 10.1177/1350507608090875
- Ford, T. (2016). Water and Health. In H. Frumkin (Edit.). *Enviromental health; from global to local*. (3rd ed.). (p. 413-450). United States of America: Jossey-Bass.
- Frykstedt, J., Hulting, J., Höjer, J., & Ludwigs, U. (2010). *Akut medicin*. Lund: Studentlitteratur.
- Grabsch, H.I. (2013). Alimentary System. In S.S. Cross, (Edit.). *Underwood's Pathology a clinical approach*. (6th ed.). United Kingdom: Churchill Livingstone Elsevier.
- Griffith, R. & Tegnah, C. (2013). Maintaining professional boundaries: keep your distance. *British journal of community nursing*. 18(1), 43-46.
- Henricson, M. (2012). Diskussion. In M. Henricson (Edit.), *Vetenskaplig teori och metod, från idé till examination inom omvårdnad*. (p. 471-479). Lund: Studentlitteratur.
- Henricson, M. & Billhult, A. (2017). Kvalitativ metod. In M. Henricson (Edit.), *Vetenskaplig teori och metod, från idé till examination inom omvårdnad*. (p. 111-119). Lund: Studentlitteratur.
- Hsieh, H-F. & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, 15, 1277-1288. doi: 10.1177/1049732305276687
- ICN. (2012). *The ICN code of ethics for nurses*. Retrieved May 1, 2018, from: https://www.icn.ch/sites/default/files/inline-files/2012_ICN_Codeofethicsfornurses_%20eng.pdf
- Johnsson, A., Boman, A., Wagman, P. & Pennebrant, S. (2018). Voices used by nurses when communicating with patients and relatives in a department of medicine for older people—An ethnographic study. *Journal of clinical nursing*. 27(7-8), 1640-1650. doi: 10.1111/jocn.14316.
- Kjellström, S. (2017). Forskningsetik. In Henricson, M. (Edit.), *Vetenskaplig teori och metod. Från idé till examination inom omvårdnad* (p. 57–80). Lund: Studentlitteratur.

- Komatsu, H. & Yagasaki, K. (2014). The power of nursing: Guiding patients through a journey of uncertainty. *European journal of oncology nursing*, 18, 419-424. doi: 10.1016/j.ejon.2014.03.006.
- Kreps, G.L. (2018). Promoting patient comprehension of relevant health information. *Kreps Israel Journal of Health Policy Research*. 7(56). doi: 10.1186/s13584-018-0250-z
- Kumar, V., Abbas, A., & Aster. J. (2015). *Robbins and Cotran Pathologic Basis of disease*. (9th edit.). Philadelphia: Elsevier Saunders.
- Lewin, S., Munabi-Babigumira, S., Glenton, C., Daniels, K., Bosch-Capblanch, X., van Wyk, BE., ..., Scheel, IB. (2010). Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. *Cochrane Database of Systematic Reviews*, 3, 1-208. doi: 10.1002/14651858.CD004015
- Madle, G., Kostkova, P., Mani-Saada, J., Weinberg, J. & Williams, P. (2004). Changing public attitudes to antibiotic prescribing: can the internet help? *Informatics in primary care*. 12(1), 19-26.
- Mårtensson, J. & Fridlund, B. (2017). Vetenskaplig kvalitet i examensarbete. In Henricson, M. (Edit.), *Vetenskaplig teori och metod. Från idé till examination inom omvårdnad* (p. 421-438). Lund: Studentlitteratur.
- Orimadegun A. & Obokon, G. (2015). Prevalence of non-nutritive sucking habits and potential influencing factors among children in urban communities in Nigeria. *Frontiers in Pediatrics*. doi: 10.3389/fped.2015.00030
- Riley, J. (2003). Holistic Self Care – Strategies for Initiating a Personal Assessment. *AAOHN Journal*, 51(10), 439-447.
- Self-care (n.d.). I *Svensk MeSH*. Retrieved January 8, 2019, from: <https://mesh.kib.ki.se/>
- Shi, L. & Zhang, J. (2010). Recent Evidence of the Effectiveness of Educational Interventions for Improving Complementary Feeding Practices in Developing Countries. *Journal of Tropical Pediatrics*, 57(2), 91-98.
- Tanzania Nursing and Midwifery Council, (2014). *Standards of proficiency for nursing and midwifery education and practice in Tanzania*. Dar es Salam, Tanzania. Retrieved September 22, 2018, from: <https://www.tnmc.go.tz/data/Download/Revised%20Standards%20of%20Proficiency%20for%20Nursing%20and%20Midwifery%20Education%20and%20Practice%20in%20Tanzania.pdf>
- Tilak, J. (2002). Education and Poverty. *Journal of Human Development*, 3(2), 191-207. doi: 10.1080/14649880220147301
- Tobiano, G., Marshall, A., Bucknall T., & Chaboyer, W. (2015). Patient participation in nursing care on medical wards: an integrative review. *International journal of Nursing Studies*, 52(6), 1107-1120. doi: 10.1016/j.ijnurstu.2015.02.010
- United Nations. (2017). *The sustainable development goals report*. Retrieved April 26, 2018, from: <https://unstats.un.org/sdgs/files/report/2017/TheSustainableDevelopmentGoalsReport2017.pdf>
- United Nations. (n.d.-a). *Clean water and sanitation*. Retrieved April 26, 2018, from: <https://www.un.org/sustainabledevelopment/water-and-sanitation/>
- United Nations. (n.d.-b). *Sustainable development goals. Goal 3; ensure healthy lives and promote well-being for all at all ages*. Retrieved November 20, 2018 from: <https://www.un.org/sustainabledevelopment/health/>

- United Nations. (n.d.-c). *Sustainable development goals. Goal 4; Quality education*. Retrieved November 29, 2018, from: <https://www.un.org/sustainabledevelopment/education/>
- United Nations. (n.d.-d). *Goal 10: Reduce inequality within and among countries*. Retrieved December 1, 2018, from: <https://www.un.org/sustainabledevelopment/inequality/>
- Vos, T., Abajobir, A.A., Abate, K.H., Abbafati, C., Abbas, K.M., Abd-allah, F., ..., Murray, C. (2017). Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, 390, 1211-1259. doi: 10.1016/S0140-6736(17)32154-2
- Wandera, E., Mohammad, S., Bundi, M., Komoto, S., Nyangao, J., Kathiiko, ..., Ichinose, Y. (2017). Impact of rotavirus vaccination on rotavirus and all-cause gastroenteritis in peri-urban Kenyan children. *Vaccine* 35(38), 5217-5223. doi: 10.1016/j.vaccine.2017.07.096
- Wilkinson, A. & Whitehead, L. (2009). Evolution of the concept of self-care and implications for nurses: A literature review. *International Journal of Nursing Studies* 46, 1143–1147. doi: 10.1016/j.ijnurstu.2008.12.011
- World Health Organization, (2014). *Preventing diarrhoea through better water, sanitation and hygiene. Exposure and impacts in low – and middle-income countries*. Retrieved November 20, 2018, from: http://apps.who.int/iris/bitstream/handle/10665/150112/9789241564823_eng.pdf?sequence=1
- World Bank. (2018a). *Improved sanitation facilities (% of population with access)*. [Electronic version]. Retrieved March 23, 2018, from: http://databank.worldbank.org/data/reports.aspx?Code=SH.STA.ACSN&Id=7f18f0c5&Report_Name=Health&populartype=series
- World Bank. (2018b). *Improved water source (% of population with access)*. [Electronic version]. Retrieved March 23, 2018, from: http://databank.worldbank.org/data/reports.aspx?Code=SH.H2O.SAFE.ZS&Id=7f18f0c5&Report_Name=Health&populartype=series
- World Bank. (2018c). *People practicing open defecation (% of population)*. [Electronic version]. Retrieved March 23, 2018, from: http://databank.worldbank.org/data/reports.aspx?Code=SH.STA.ODFC.ZS&Id=7f18f0c5&Report_Name=Health&populartype=series
- World Bank. (2018d). *Prevalence of undernourishment (% of population)*. [Electronic version]. Retrieved March 23, 2018, from: http://databank.worldbank.org/data/reports.aspx?Code=SN.ITK.DEFC.ZS&Id=7f18f0c5&Report_Name=Health&populartype=series
- World Medical association, (2008, October). *Declaration of Helsinki*. Retrieved from: <https://www.wma.net/wp-content/uploads/2016/11/DoH-Oct2008.pdf>
- Yu, W., Chen, S-Y., Tsai, C-N., Chao, H-C., Kong, M-S., Chang, Y-J. & Chiu, C-H. (2018). Long-term impact of suboptimal rotavirus vaccines on acute gastroenteritis in hospitalized children in Northern Taiwan. *Journal of the formosa medical association*, 117, 720-726. doi: 10.1016/j.jfma.2017.09.009

Appendix

Appendix 1: Interview questions

1. What is self-care for you?
2. Is self-care important?
 - Why?
 - Howcome?
 - Is there potential for development on the area?
3. Do you perceive/think that patients are open to take care of their own health?
4. Do you perceive/think that patients are open to get advice regarding their health?
5. What knowledge do you think there is about basic hygiene among the patients you treat?
6. Do you inform about ways to avoid gastroenteritis?
 - When do you inform about preventative actions towards gastroenteritis?
 - Do you individualize the information you give to every patient?
7. What kind of conditions do you think patients at the hospital have to promote good health outside the hospital?