



Enhancing Menstrual Hygiene Management (MHM) in Refugee Camps in Greece – An intersectional perspective on “leaving no one behind” in water, sanitation and hygiene (WASH) programmes

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Enhancing Menstrual Hygiene Management (MHM) in Refugee Camps in Greece – An intersectional perspective on “leaving no one behind” in water, sanitation and hygiene (WASH) programmes

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Abstract

Integrating Menstrual Hygiene Management (MHM) in water, sanitation and hygiene (WASH) programmes is crucial for the safety, health and dignity of people who menstruate, as well as for advancing the sustainable development agenda. Yet there continues to be a lack of approaches and strategies to address different menstrual needs and intersectional inequalities in the access of WASH facilities and services in humanitarian settings. The purpose of this thesis was to examine the WASH sector's efforts to improve MHM in refugee camps in Greece to address the diverse menstrual needs of women, girls and others. A qualitative approach was implemented where data was gathered through semi-structured interviews with 12 humanitarian actors supporting WASH programmes and MHM. The core results revealed that the unique environment of camp settings and the cultural diversity of the camp population in Greece is challenging when providing adequate, safe and private WASH facilities that comply with the diverse menstrual needs of the camp population. Challenges remain in short-term planning of emergency response, gaps around MHM-supportive WASH infrastructure, and activities around monitoring and evaluation (M&E). This research demonstrates that only efforts towards an intersectional approach in emergency response will ensure that WASH programmes more comprehensively meet the diverse menstrual needs of women, girls and others while "leaving no one behind".

Keywords: WASH, Menstrual Hygiene Management, Refugee Camps, Greece, Intersectionality

Popular Scientific Summary

Greece is one of the main entry points to Europe for many displaced people, which is why the Greek Government and international humanitarian organisations established refugee camps on the mainland and islands to provide shelter, food, clean water and medical care for the displaced people. However, several refugee camps in Greece, particularly those on the islands, have reported critical overcrowding and poor living conditions, with major issues concerning the access to water, sanitation and hygiene (WASH). Adding to this, barriers in camp infrastructure, limited humanitarian support and the proximity to strangers are among the many challenges that may not provide people who menstruate with appropriate menstrual hygiene supplies, the privacy or hygienic facilities to maintain good menstrual health and hygiene – all central components of an effective Menstrual Hygiene Management (MHM).

Building on this background, the research is centred around the programme delivery of MHM within WASH programmes and investigates the WASH sector's efforts to improve MHM in refugee camps in Greece to address the different cultural practices, sanitation behaviours and menstrual needs and preferences of the camp population.

In this context, the research demonstrated that there are only little efforts to improve MHM in the refugee camps in Greece and the process of improving MHM while “leaving no one behind” is still very slow. Women, girls and other people who menstruate continue to be disproportionately affected by the limited access and improper design of sanitation and washing facilities in the refugee camps in Greece due to the fact that menstrual health solutions are underfunded, or completely overlooked. Especially, the lack of assessing peoples’ experiences, needs and preferences, lead to inadequate interventions, and wrong design of sanitation facilities. Besides, there are often many different humanitarian actors and sectors involved, leading to different outcomes or overlaps in programme delivery. Furthermore, the temporary nature of refugee camps on the islands only allows for short-term solutions, like the set-up of portable toilets or simple bucket showers that are not connected to the municipal water system. Another issue is the lack of “menstruation-friendly” WASH facilities that lack gender-segregation, privacy, waste bins to dispose of used materials, and no facilities to wash and dry reusable menstrual hygiene products. Another reported challenge is the provision of regular data on the implementation of interventions and progress towards planned outcomes. Beyond that, the Covid-19 pandemic and stricter regulations magnified many of these existing challenges and inequalities for the camp population, but also slowed down the delivery and prioritisation of MHM.

Therefore, to improve MHM, WASH programmes must recognise the diversity of the refugee population, their diverse menstrual needs, and overcome existing inequalities in refugee settings. In doing so, humanitarian actors need to better engage with the community to allow people to voice their preferences and menstrual needs. It also needs enough time and resources, as well as sufficient funding and well-trained staff to address MHM from the onset of an emergency. In addition, humanitarian actors need to better coordinate and collaborate with actors who address MHM in their programmes. It also needs innovative, improved and more protective WASH facilities to better support the displaced population. For an effective programming, interventions must also be adjusted based on community feedback and monitoring results.

Taking all these efforts together, improving the programme delivery of MHM within WASH programmes is the way forward to contribute to the safety, health and dignity of displaced women, girls and others, and to drive necessary change toward the sustainable development agenda by promoting gender equality, social inclusion and water and sanitation for all.

Disclaimer

It is important to note here that I recognise gender as socially constructed, non-binary and fluid; thus, a) not all people who menstruate are women, and b) not all women menstruate. Therefore, using gender-inclusive language is an integral part of my research, which is why I use terms like “people who menstruate”, “menstruating people” or “menstruators” in some parts of my thesis. However, in my research area, there is too little academic work on the experiences of transgender men and non-binary people who menstruate. Accordingly, most research around menstruation and reproductive health reflect on the gender binary. Therefore, some parts of my thesis refer to “women” and “girls” to better reflect the nature of existing research.

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Abbreviations

ASB	Arbeiter-Samariter-Bund
DRC	Danish Refugee Council
ECOSOC	Economic and Social Council
EU	European Union
FGD	Focus Group Discussion
GCR	Greek Council for Refugees
INGOs	International Non-Governmental Organisations
IOM	International Organisation for Migration
IRC	International Rescue Committee
LGBTQI+	Lesbian, Gay, Bisexual, Transgender, Queer, Intersex and other variants for sexuality and gender identity
M&E	Monitoring and Evaluation
MHM	Menstrual Hygiene Management
PMS	Pre-menstrual syndrome
RICs	Reception and Identification Centres
SDGs	Sustainable Development Goals
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organisation

1. Introduction

Natural disasters, armed conflicts and ongoing wars in the Middle East and Africa resulted in a large influx of refugee migration to Europe since 2015 (IRC 2016; IOM 2021). Greece is one of the entry points to Europe for many displaced people, which is why the increasing numbers of refugees¹ in the country caused a humanitarian emergency that demonstrated the acute vulnerability of certain people such as women, children, people with disabilities, etc. (IRC 2016). Hence, humanitarian and international organisations play a central role in protecting and providing shelter, food, clean water and medical care for the displaced people (Sphere Project 2018). While these basic services are necessities for all affected people, humanitarian organisations often overlook gender-specific needs, including menstrual health and hygiene, in their provision of aid (Budhathoki et al. 2018; VanLeeuwen & Torondel 2018b).

Although Menstrual Hygiene Management (MHM) is receiving growing attention within the humanitarian aid community (House et al. 2013; Sommer et al. 2017, Sphere Project 2018), current approaches in emergency responses are often inadequate and not provided in a timely or holistic manner (Schmitt et al. 2017; Bobel et al. 2020). Additionally, challenges such as barriers in camp infrastructure, crowded conditions, limited humanitarian support and the close proximity to men may not afford women, girls and others the privacy or the hygienic facilities to maintain good menstrual health and hygiene in camps settings (Budhathoki et al. 2018; VanLeeuwen & Torondel 2018a; Schmitt et al. 2021). Accordingly, the construction and maintenance of improved water, sanitation and hygiene (WASH)² facilities are fundamental for menstruators to change, wash and safely dispose of menstrual products (Sommer et al. 2019; Schmitt et al. 2021). Since the refugee migration to Europe continues and women and girls make up about half of the displaced population in Greece (IOM 2021; UNHCR 2021a), the importance of addressing menstrual needs cannot continue to be ignored. Therefore, improving the programme delivery of MHM into WASH programmes is critical for advancing

¹ A refugee is someone who is forced to leave their country because of war, violence and persecution but has the right for international protection and lifesaving support (UNHCR 2015a).

² WASH is an acronym, which stands for water, sanitation and hygiene. WASH represents a growing sector of organisations providing WASH services and facilities around the world.

gender equality, social inclusion and the safety, health and dignity of people who menstruate (House et al. 2013).

1.1. Thesis Outline

This thesis is organised into eight chapters. After this introductory chapter (1), chapter 2 summarises and reflects on existing literature on MHM in humanitarian settings, including beliefs, experiences and practices around menstruation (2.1), MHM in humanitarian response (2.2), challenges of MHM in humanitarian settings (2.3), the refugee migration and camp situation in Greece (2.4) and concludes with the research gap (2.5). Chapter 3 presents the research aim and the questions related to MHM programme delivery within WASH programmes in refugee camps in Greece. Chapter 4 introduces the key concepts and theories of gender mainstreaming (4.1) and intersectionality (4.2) and ends by presenting an analytical framework to support the research analysis (4.3). Chapter 5 outlines the methodology adopted in the research, including the philosophical worldview and research design (5.1), the qualitative data collection (5.2), the data management and analysis (5.3) and ends with the clarifications and limitations of this research (5.4). Chapter 6 presents the empirical results of the research, which is divided into the key thematic themes that arose out of the analysis. Chapter 7 discusses the results in relation to the presented concepts and theories of chapter 4 and with attention to the presented literature in chapter 2. Finally, chapter 8 concludes on the research outcomes, provides recommendations and ends with further research ideas.

2. Literature Review on Menstrual Hygiene Management (MHM) in Humanitarian Settings

The rationale behind this chapter is to provide a critical review of existing literature, knowledge and evidence on MHM in humanitarian settings and to demonstrate the importance of the research project by presenting the results of other related studies, synthesising knowledge and lastly identifying problems and research gaps on MHM in the refugee camps in Greece.

2.1. Menstrual Health and Hygiene: Beliefs, Experiences and Practices

Menstruation is the periodically recurring bleeding from the uterus through the vagina and part of the female reproductive system. It is an undeniable biological process for almost half of the people worldwide for a significant time of their lives. Thus, good menstrual hygiene is essential for the health and well-being of women and girls and fundamental to the realisation of a whole range of human rights, including equality, reproductive health, education, protection, water and sanitation, and more (House et al. 2013; Sommer et al. 2017).

Around the world, women and girls experience their menstrual cycle differently, as the menstruation can vary in flow, length, duration, regularity and can change with reproductive age. Some women and girls might experience pre-menstrual syndrome (PMS), which includes emotional and physical symptoms such as abdominal or back pain, cramps, bloating, mood changes, etc. Others even experience severe pain during their menstruation, which often needs medical attention. All these different menstrual experiences result in different menstrual needs, and product preferences. Some women prefer using menstrual products such as tampons or disposable sanitary pads, others prefer sustainable options, like reusable sanitary pads, period panties or menstrual cups to catch menstrual blood (House et al. 2013).

Although menstruation is an integral and normal part of human life, the overall topic around reproductive health is still a sensitive topic in many communities,

leading to shame and embarrassment around menstruation. In some cases, menstruation is associated with negative cultural attitudes, perceiving that menstrual blood is dirty or impure (House et al. 2013). For example, a study by VanLeeuwen and Torondel (2018a) in a refugee camp in Greece reported that many women and girls feel very anxious around bloodstained cloths and being seen with menstrual products by others. Another review on MHM and waste disposal indicated that women and girls feel more stressed when menstrual waste disposal system in sanitation facilities do not exist, which often leads to products ending up in the toilet (Elledge et al. 2018). Another study revealed that some women also prefer burying their menstrual products as they fear others being able to see their used menstrual products in the toilets (Schmitt et al. 2017). The same study also revealed that cultural beliefs and practices lead to a number of social restrictions for women and girls during their menstruation, including limited mobility, dietary restrictions, and exclusion from everyday activities, such as limited access to water and sanitation (ibid.). Hence, these cultural beliefs and practices impact negatively on the lives of women and girls and reinforce gender inequality and exclusion, particularly for those living in vulnerable situations (House et al. 2013; Budhathoki et al. 2018).

2.2. MHM in Humanitarian Response

The World Health Organisation (WHO) and the UN International Children's Emergency Fund (UNICEF) were one of the first to identify menstruation as a global development issue and advocate for and integrate MHM into their programmes. In 2012, WHO and UNICEF proposed the following working definition of MHM in the Joint Monitoring Programme for water supply and sanitation:

"Women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of a menstrual period, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials." (WHO & UNICEF 2012:16)

The three central components that are addressed in MHM include 1) appropriate MHM materials and supplies, 2) MHM-supportive WASH facilities, including safe and private sanitation and washing facilities for changing, washing, drying and disposing of menstrual products and 3) basic menstrual hygiene promotion and menstrual health education (Sommer et al. 2017). Responsibilities around MHM cut across a number of different sectors, i.e. WASH, health, protection, shelter and education (House et al. 2013). According to House et al. (2013), the health sector

is potentially responsible for the provision of information around reproductive and maternal health, while actors working in the protection sector could potentially address vulnerable groups and issues of sexual and gender-based violence. In the context of emergencies, the shelter sector, which include the distribution of non-food items such as tents, blankets or clothes, can also potentially provide hygiene materials for menstruators (ibid.). MHM within WASH is described in the next sub-chapter 2.2.1.

2.2.1. MHM within Water, Sanitation and Hygiene (WASH)

The internationally recognised Sphere Project (2018) on Global Emergency Standards, initiated by a number of humanitarian actors in 1977, has included MHM as a key priority intervention of hygiene promotion within WASH. Accordingly, the Sphere Standards have become a primary reference tool for humanitarian actors to improve the quality of their work during times of emergencies. Based on this, the WASH sector is responsible for the provision and maintenance of adequate infrastructure and services that enable menstruating people to be in an environment, where they can maintain good menstrual health and hygiene (ibid.). This includes access to gender-sensitive washing and sanitation facilities that are private, accessible, clean and safe. Additionally, MHM within hygiene promotion also includes raising awareness and promoting information on menstrual hygiene. It also includes investing in culturally appropriate disposal mechanisms for used menstrual hygiene supplies (House et al. 2013; Sommer et al. 2019).

2.2.2. MHM and the Sustainable Development Goals (SDGs)

The 2030 Agenda for Sustainable Development, agreed by the Member States of the United Nations (UN) General Assembly, is a global commitment that aims to "leave no one behind" in achieving the 17 Sustainable Development Goals (SDGs). "Leaving no one behind" in the realisation of the SDGs, means that the targeting of service provision at all levels is inclusive of the needs and rights of all and through every stage of life (WWAP 2019). Across a range of academic literature, MHM is widely recognised as a key opportunity to realising a whole range of SDGs and human rights (Schmitt et al. 2017; Elledge et al. 2018; Hennegan et al. 2019). For example, one important SDG linked to MHM includes the human right to water and sanitation, which is incorporated in SDG 6 to "*ensure the availability and sustainable management of water and sanitation for all (UN Water 2019:3)*". Accordingly, the UN calls for transformative action by all Member States, to strive towards universal access to water and sanitation and to provide services that are sufficient, physically accessible, equally affordable, safe and culturally appropriate for all people, especially those who live in vulnerable situations. Although MHM is not officially defined in the SDGs, SDG targets 6.1

(*“equitable access to water”*) and 6.2 (*“equitable access to sanitation and hygiene”*) and *“paying special attention to the needs of women and girls”*) suggest that addressing the different components of MHM is fundamental for further improvements in gender empowerment and equality (SDG 5). Thus, the interconnections of SDG 5 and 6 are indispensable for preserving healthy livelihoods and essential for upholding the human dignity of all people (UN Water 2019). Further literature identified MHM also as relevant to achieving SDG 3 (*“good health and well-being”*), SDG 4 (*“quality education”*) and SDG 12 (*“responsible production and consumption”*) (Elledge et al. 2018; Sommer et al. 2019).

2.3. Challenges of MHM in Humanitarian Settings

The provision of adequate MHM by humanitarian actors remains a significant concern during times of displacement. The needs for safe menstrual health and hygiene are often ignored or overlooked in immediate relief support and thus creates multiple challenges for many displaced women and girls to manage their menstruation safely, comfortably and with dignity (Sommer et al. 2016; Budhathoki et al. 2018).

One major challenge in refugee settings is the inadequate access to safe, clean and private sanitation and washing facilities (Schmitt et al. 2017). Especially privacy is non-existent, as toilets lack sufficient locks, doors, lighting, and gender-segregation (Oxfam 2016; Schmitt et al. 2017). This can lead to increased experiences of stress (Kayser et al. 2019), physical discomfort, and gender-based violence (Pommells et al. 2018). A qualitative assessment on menstrual practices in the Ritsona refugee camp in Greece also reported long distances between tents and sanitation facilities, as well as long queues and waiting times to use the toilets (VanLeeuwen & Torondel 2018a).

The literature has also identified insufficient provision of adequate menstrual hygiene supplies, such as sanitary pads, underwear and other hygiene products that are necessary for adequate MHM in emergencies (Schmitt et al. 2017; Budhathoki et al. 2018). A study examining MHM challenges of displaced women and girls in Myanmar and Lebanon revealed that the absence of culturally appropriate menstrual hygiene products could lead to some women and girls using whatever they find, which puts them at risk of reproductive and urinary tract infections (Schmitt et al. 2017). Especially the WASH infrastructure of a camp setting has been reported to be influential on the menstrual hygiene practices and preferences of menstrual hygiene products. Accordingly, several studies revealed significant preferences for disposable sanitary pads as they were considered to be clean, convenient and easy to use with limited access to WASH facilities (Schmitt et al. 2017; Budhathoki et al. 2018; VanLeeuwen & Torondel 2018a). However, the

increased use of disposable sanitary pads has revealed that WASH facilities continue to lack safe disposal systems for menstrual waste, which results in improper waste management and adverse effects on beneficiaries, sanitary systems and the environment (Elledge et al. 2018). Although reusable menstrual products are the better option in terms of sustainability and menstrual waste reduction, their usability in camp settings lacking proper washing facilities is unfeasible (House et al. 2013).

Considering all these challenges, persistent beliefs, cultural taboos and stigmas generated by stereotypes around menstruation worsen the lived experiences of displaced women and girls in humanitarian emergencies (Schmitt et al. 2017; VanLeeuwen & Torondel 2018a). Shame and embarrassment around menstruation are often exacerbated for displaced women and girls, who might live in close proximity with men or strangers (House et al. 2013). The overall taboo around menstruation hinders women and girls from making their own choices, seeking help or demanding improved services or supplies (Oxfam 2016; Schmitt et al. 2017). This issue is also related to the limited information provided to women and girls and the lack of education on menstrual health and hygiene in camp settings due to difficulties in communicating with humanitarian actors and language barriers (ibid.).

Another important issue highlighted in the literature is that challenges to MHM are amplified for people with specific menstrual needs (House et al. 2013; Sommer et al. 2016; Morgan 2017). For example, people with physical or mental disabilities face various types of discrimination during menstruation due to the lack of accessible WASH facilities and appropriate support (House et al. 2013). This is primarily an issue because government and humanitarian actors are poorly trained and equipped to identify vulnerable people (ibid.), and secondly, because camps do not meet standards for accommodating people with special needs (Morgan 2017). These barriers can lead to additional health burdens, dangers and social isolation for people with disabilities (Wilbur et al. 2019). Similarly, transgender men and non-binary people who already face rejection of their gender identity face also inequalities that affect the experience of their menstruation. Transgender and non-binary people are particularly vulnerable as they are at higher risk of experiencing gender-based violence due to societal power structures, including transphobia (Chrisler et al. 2016). Yet humanitarian organisations still reflect on a gender binary of “women” or “men”, which is particularly evident in the definition of MHM, resulting in the exclusion of transgender men, non-binary people and others who menstruate (Thomson et al. 2019). Furthermore, unaccompanied or orphaned girls were reported to be significantly vulnerable as they might lack a social support network (Sommer et al. 2016b; Bobel et al. 2020). In addition, overlapping or the intersection of multiple forms of exclusion can increase the risk or vulnerability in

emergencies, which can lead to greater inequitable access to WASH resources and thus improper MHM (House et al. 2013).

Finally, the literature review also identified a few challenges that hinder effective MHM programme delivery in humanitarian settings (Schmitt et al. 2017; VanLeeuwen & Torondel 2018b). For example, Birchall (2016) criticised that existing approaches and strategies in refugee settings are still developed in a way that leaves out factors such as gender, age, religion and disability, which play influential roles for the living experience of displaced people. In addition, challenges remain in coordinating responsibilities of MHM activities during emergency response and clarity on which sector (i.e. WASH, health, education, protection and shelter) should take the lead in coordinating MHM (Sommer et al. 2016; Schmitt et al. 2017; Bobel et al. 2020). Furthermore, activities around monitoring and evaluation (M&E) in emergency responses remain insufficient, leading to limited data and information on the effectiveness of interventions (Sommer et al. 2016). Additionally, the lack of initial assessments on menstrual needs and preferences of the affected population was reported to be impacting the ultimate success of MHM during an emergency response (Schmitt et al. 2017).

2.4. The Refugee Migration and Camp Situation in Greece

The fact that Greece lies at the crossroads of Europe, Asia and Africa makes the country a major entry point for refugees trying to enter the EU. Most of the displaced people that arrive in Europe come from countries where conflict, war and violence are ongoing and need international protection. Some of them enter Greece via the Greek-Turkish land border of Evros and others take the dangerous route across the Aegean Sea to the islands of Lesbos, Chios, Samos, Leros and Kos that are across the Turkish coastline (GCR 2019). With the assistance of the UN High Commissioner for Refugees (UNHCR) and International Non-Governmental Organisations (INGOs), the Greek Government has established refugee camps both on mainland and on the Greek islands (see Appendix 1) that serve as temporary emergency shelters to meet basic human needs, such as food, clean water, and medical care (Sphere Project 2018).

In 2014, the European Union (EU) recorded a significant increase in forced migration, which reached its highest influx in 2015 at more than 850,000 arrivals by sea (UNHCR 2015a). Due to this dramatic increase of refugees and migrants³ on the Eastern Aegean islands, the European Commission introduced the "hotspot

³ A migrant is often referred to as someone who moves either internally or outside their country of origin. Unlike a refugee, a migrant often leaves their place of residence voluntary to e.g. follow family members that are already abroad or to seek better livelihoods (UNHCR 2015b).

approach" and established so-called Reception and Identification Centres (RICs) on the Aegean islands to coordinate, identify, register and relocate arriving migrants and provide operational support. In early 2016, the EU and Turkey reached an agreement aimed at closing the Western Balkan route (see Appendix 2) to stop the influx of irregular migration. This EU-Turkey agreement resulted in a "geographical restriction" for asylum seekers⁴ restraining them from leaving the islands before receiving asylum or protection status. After the imposition of border restrictions, several temporary camps have been established on the mainland to increase the capacity of shelter for the people remaining in Greece (GCR 2019).

Although the European Commission declared the refugee crisis to be over in March 2019, refugees and migrants continue to arrive in the EU. As of February 2021, around 92,000⁵ people were recognised as refugees by Greece and around 81,000 as asylum seekers (UNHCR 2021b). On the mainland of Greece, around 25,000 people currently live in one of the 32 open accommodation sites, coming from Afghanistan (46%), Syria (26%) and Iraq (11%) and a variety of other countries (17%), including many minorities (IOM 2021). There is not much detailed information on the demographics in each camp on the islands (see Appendix 3), but according to the General Secretariat for Information and Communication (2021), there are currently around 11,000 people remaining on the Eastern Aegean islands, of which around 10,000 reside in the RICs (General Secretariat for Information and Communication 2021). The majority of the population on the Greek islands are from Afghanistan (50%), Syria (15%), Somalia (8%) and a wide range of other countries (27%). Women account for 21% of the population, and children for 26% of whom the majority is under 12 years old (UNHCR 2021a). For more detailed information on the refugee population see Appendix 3.

The overall camp conditions vary across the mainland and the islands, as different types of shelter and services are offered in different camp sites (GCR 2019). Since 2015, a few camps on the mainland have improved by providing apartments, rooms or containers with their own toilets and showers (IOM 2021). However, several facilities on the mainland continue to operate below (inter-) national standards, which makes long-term living in the camps not feasible. The main challenges concern overcrowding, remote and isolated location, lack of security, and insufficient provision of services. Especially health and social services for vulnerable people that need different forms of special support and protection (e.g. minors, people with disabilities, older people etc.) are lacking (Morgan 2017; GCR 2019).

⁴ An asylum seeker is someone who is forced to leave their country because of war, violence and persecution and who is seeking international protection, but hasn't been legally recognized as a refugee (UNHCR 2015a).

⁵ The actual number of refugees present in Greece may be lower.

Regarding the camp facilities on the islands, the ongoing geographical restrictions have led to critical overcrowding and thus, substantial deterioration of camp conditions. Especially the Moria refugee camp on Lesbos, where 20,000 people lived at times, led to unsafe and unhygienic conditions due to overcrowding. In September 2020, a major fire destroyed Moria and resulted in some of the camp residents being moved to the Greek mainland. Around 8,000 of the migrants were moved to a newly set up temporary camp Kara Tepe 2, which is now after Moria the biggest refugee camp in Greece (GCR 2019).

According to the literature, one of the main risks to health and safety in a number of camp facilities in Greece is the insufficient provision of water and sanitation for people (GCR 2019; Tsismelis et al. 2020). A recently published assessment of the WASH conditions of 12 refugee camps, both on the mainland and islands in Greece, revealed that the majority of the examined camps have access to clean water, but less than 20% of the camps provide hot water during the cold winter months (Tsismelis et al. 2020). One especially negative example was observed in the camp Kara Tepe 2 on Lesbos during the last winter of 2020-2021, where the lack of hot water and the fact that people were living in uninsulated tents, posed serious health risks to the camp population (GCR 2019). The study of Tsismelis et al. (2020) also revealed an insufficient number of showers and latrines in the majority of the camps, lacking gender-segregation as well as regular maintenance and cleaning. In this manner, more than 80% of the examined camps were under "very high" and "extreme" hygiene risk, posing an additional health risk for menstruators in managing their menstruation safely and hygienically. Moreover, washing machines were only provided in less than 17% of the camps, which potentially hinders the use of washable menstrual products. Additionally, daily provision of hygiene items, as well as hygiene promotion activities and information sessions were only available in less than 10% of the camps (ibid.), which suggests that access to menstrual products and information is not sufficiently guaranteed. Overall, the unhygienic conditions in the camps make it almost impossible for the camp population to follow public health guidelines around the prevention of Covid-19, which poses an especially dire risk within the current global pandemic (GCR 2019⁶).

2.5. Research Gap

The literature review demonstrated the importance of menstrual health and hygiene in humanitarian settings. It also shows that there is a wide range of academic and grey literature addressing the multiple barriers of MHM during times of emergencies and displacement. However, while the literature collected mostly

⁶ The report was updated on the main measures of Covid-19 in the Greek refugee camps in June 2020.

information on the challenges faced by menstruators, there is only limited academic research that focuses on the multiple challenges that hinder effective programme delivery of MHM within WASH programmes, particularly in refugee camp settings. Additionally, only little research addresses diverse menstruators and varied menstrual experiences, such as of those with specific needs. As a result, there is not sufficient knowledge on approaches and strategies within the WASH sector that consider the diverse needs of displaced populations in their programmes. On this account, there is a wealth of practical experience of humanitarian actors in the WASH sector that has not yet been documented and synthesised to understand the gaps of delivering effective WASH facilities and services to better support MHM. Therefore, the camp situation in Greece provides a unique opportunity to gather the missing knowledge from humanitarian actors across the WASH sector on the situation in refugee camps and to analyse the various challenges that hinder effective programme delivery of MHM.

3. Research Aim and Question

Building on the literature review and the research gap, the aim of this research is to explore the WASH sector's efforts to improve MHM in refugee camps in Greece to address the diverse menstrual needs of women, girls and people who menstruate in an appropriate and inclusive way. To achieve this goal, this research examines the whole programme cycle of WASH, from planning to implementation and M&E. In doing so, the research reflects on the current state of MHM in the refugee camps in Greece and the existing challenges that hinder effective programme delivery of MHM within WASH programmes. In this context, this study aims to answer the following research question along with three guiding sub-questions:

What are the WASH sector's efforts to contribute towards more appropriate and inclusive MHM in refugee camps in Greece?

- How are existing WASH programmes planned and designed to meet the diverse menstrual needs of women, girls and other people who menstruate, including those with specific needs?
- What is the progress of implementation of MHM-supportive WASH facilities and services in refugee camps in Greece?
- How are existing WASH facilities and services monitored and evaluated in relation to MHM?

To answer these questions and to get a holistic picture of the possibilities to enhance MHM in refugee camps, this research gathers information on the current state of MHM, existing challenges and approaches from humanitarian actors supporting WASH programmes in the camps. Additionally, an intersectional perspective is employed to understand how diverse needs of menstruators are taken into account in WASH programmes (see sub-chapter 4.3).

4. Concepts and Theories

The previous chapter (3) has introduced the background context of MHM in humanitarian settings. The following chapter presents the concepts and theories in order to explicate the research questions and to analyse the collected data in the upcoming chapters. To this end, this research uses feminist theory to frame the concepts of gender equality and social inclusion in terms of gender mainstreaming and intersectionality to better address the specific menstrual needs of the refugee population.

4.1. Gender Mainstreaming

Within the humanitarian aid community, the idea of a women-centred approach has increasingly shifted towards gender-sensitive policies and programmes. This coincided with broader efforts to move from a Women in Development approach in the 1970s to a Gender and Development approach since the 1980s (Freedman 2010; Fisher et al. 2017). This shift from women to gender has led to a series of broader transformations in development and humanitarian action (Fisher et al. 2017). However, the increasing awareness and commitment to a gender perspective since the 1970s was not addressed until the Fourth World Conference on Gender and Development in Beijing in 1995, when gender mainstreaming was perceived as a key concept in gender policy. Henceforth, gender mainstreaming was an international strategy to promote gender equality and the empowerment of women and girls at all levels and stages of development planning and policy (United Nations 1996). The concept of gender mainstreaming was later adopted by the General Assembly as an official UN policy and was defined by the UN Economic and Social Council (ECOSOC) as:

“[...] the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality.” (ECOSOC 1999:24)

The application of gender mainstreaming as a concept and policy in humanitarian response is central to ensure safe and dignified conditions for all gender-discriminated people and to be consistent with international human rights obligations and gender equality standards for humanitarian emergencies (UNICEF 2017). Since the introduction of the concept of gender mainstreaming at the governmental and international policy level, there have been increasing efforts to mainstream gender as an overarching policy in various development sectors (Moser & Moser 2005). For example, in recent years, the WASH sector intends to mainstream a gender perspective into its programmes and policies and seeks to contribute to gender equality and social inclusion (Fisher et al. 2017; Leahy et al. 2017). By doing so, one of the widespread tools of Gender Mainstreaming within WASH was proven to be gender analysis to examine gendered WASH-related roles and responsibilities and the resulting inequalities in different contexts (Fisher et al. 2017). In the context of refugee protection, there is increasing interest in better addressing the gendered needs of displaced populations (Freedman 2010). For instance, UNHCR has officially incorporated gender mainstreaming into its policies and actively seeks to contribute to gender equality in all its operational activities (UNHCR 1999).

Although gender mainstreaming as a development tool has been embedded into some policies and programmes of humanitarian organisations, the potential of a gender approach remains controversial (Moser & Moser 2005). Especially in academic literature, gender mainstreaming is increasingly being subjected to considerable criticism. Some of the major criticism include inconsistent terminology, challenges to move from policy to practice, lack of M&E of practices and outcomes, limited gender training, and difficulty assessing accountability and internal responsibility (Riley 2004; Moser & Moser 2005). Hence, the concept of gender mainstreaming has fallen short in its implementation (ibid.).

The substantial criticism of the concept of gender mainstreaming goes back to the fact that many organisations follow an "integrationist" approach rather than an "agenda-setting" or "transformative" approach (Moser & Moser 2005). The "integrationist" and "agenda-setting" approaches to gender mainstreaming, distinguished first by researcher Rounaq Jahan, influence the process of gender mainstreaming in different ways. In the "integrationist" approach, a formal gender perspective is introduced into existing policy paradigms, but is not questioned, leading to failure in transforming policy into practice (Jahan 1995). UNHCR, for example, primarily adopts an integrationist approach to gender mainstreaming that merely inserts gender into existing policy frameworks rather than transforming these frameworks and introducing new understanding. Accordingly, policies and programmes in refugee protection have not been sufficiently translated into practice (Freedman 2010). Therefore, the agenda-setting approach defined by Jahan (1995)

may have a more substantial impact on decision-making structures and processes, as it aims to realign the mainstream policy agenda from a gender perspective.

Another useful categorisation of gender mainstreaming made by Jahan (1995) is the distinction between institutional and operational activities, which both are closely related and should be implemented together. However, according to Moser & Moser (2005), most organisations only take an institutional approach and focus more on the internal dynamics, including the policies, structures, systems and procedures of the organisation. Thus, organisations are less concerned with operational activities, which mainly means a lack of systematically monitoring and evaluating the outcomes and impacts of gender mainstreaming efforts. This gap in M&E is particularly evident in the WASH sector, where there is a lack of data on implemented activities and best practices (Cavill et al. 2020). Also, a recent literature review by Dery et al. (2020) revealed a great lack of empirical evidence on gender and social equality outcomes in the WASH sector. Accordingly, the overall lack of operational activities in gender mainstreaming means significant obstacles in promoting women's needs on the ground (Freedman 2010; Leahy et al. 2017) and thus a lack of effective MHM.

While the above approaches and activities are useful to some extent in gender mainstreaming, some organisations attempt for a transformative approach to gender mainstreaming to better address inequality (Cavill et al. 2020). The transformative approach aims to redesign structures and processes to become more gender equitable, rather than introducing gender into existing political systems or putting women in political positions. Also, a transformative approach seeks to uncover gender discrimination that is embedded in institutional norms (ibid.).

Some researchers argue that the transformative potential of gender mainstreaming is mainly slowed down by not including other axes of identity such as age, ethnicity, sexuality, economic status, health, disability and other characteristics that intersect with gender (Riley 2004; Jones & Shinnars 2020). Moreover, this argument also supports the criticism that the definition of gender mainstreaming only assumes the binarity of women and men, which assumes that all women and men are universally homogeneous (Jones & Shinnars 2020). Ultimately, mainstreaming needs to incorporate a broader agenda that considers other ways that difference is constituted and regulated (Riley 2004). Therefore, many scholars and researchers suggest that gender mainstreaming as a concept and policy should be combined with an intersectional approach to acknowledge people's overlapping identities and experiences (Riley 2004; Bastia 2014; Sommer et al. 2019; Jones & Shinnars 2020).

4.2. Intersectionality

The concept of intersectionality offers an approach that not only takes into account gender discrimination, but also allows to question how people are vulnerable to multiple forms of discrimination (Hunting & Hankivsky 2020). Accordingly, intersectional feminism (third-wave feminism) significantly differentiates itself from first and second-wave feminism⁷ by addressing the diverse backgrounds and identities of women of colour, women who are poor, immigrant women and other marginalised groups (Wallaschek 2015).

Within feminist research, studying the social- and structural complexity of gendered inequalities has gained significant popularity since the introduction of the term intersectionality by the feminist Kimberlé Crenshaw (Collins 2015). In her study, Crenshaw (1989) exemplified the experience of oppression and compounding discrimination against women of colour in the United States by highlighting that an intersectional approach considering gender, race and class was needed to show the multiple dimensions of black women's experiences. In particular, Crenshaw criticises the concept of a "single-axis framework", which means analyses and discourses that only address gender privileged white people and exclude people of colour. With that being said, Crenshaw set the foundation for a new feminist movement that uses intersectionality as a starting point to shift the focus from the most privileged to the multiply disadvantaged.

Today, intersectionality has become a key theoretical and policy paradigm that has expanded to encompass many other social and political identities besides gender and race such as ethnicity, socio-economic class, sexual orientation, religion, age, (dis)ability and other factors that are sources of systematic discrimination, social oppression and injustice. All of these characteristics function not as single and mutually exclusive entities, but as constitutive, fluid and flexible phenomena that shape complex social inequalities and constitute an individuals' particular lived experience (Hankivsky & Cormier 2011; Collins 2015).

Especially in the context of displacement, the refugee population is framed by a range of intersecting and overlapping identities, and also by a range of societal power structures, including racism, patriarchy, homophobia, cisnormality etc. that could create additional inequalities (Bastia 2014). Accordingly, humanitarian aid, including MHM interventions cannot be considered to be universally effective. The menstrual needs of people are affected by their identities; thus, humanitarian organisations need to provide services that are adapted to diverse people's needs. According to Hankivsky and Cormier (2011), policy makers and humanitarian actors can be encouraged to incorporate an intersectional approach into their work

⁷ The 19th- and late 20th-Century Feminist Movements that did not acknowledge the diversity of people and those who are multiply marginalised by discrimination and oppression.

if they understand that it has the potential to lead to more effective, responsive and thus efficient decision-making.

4.3. Towards an Analytical Framework

The concepts of gender mainstreaming and intersectionality can be used to develop an analytical framework (Figure 1) to examine the WASH sector's efforts to improve MHM in refugee camps in Greece. For this purpose, the analytical framework is based upon the three core stages of humanitarian programme cycles, including strategic planning, implementation and M&E (UNICEF 2017). Hence, the three stages of programming will help to ease the interpretation of the data in a manageable way and facilitate addressing the research question and sub-questions from an intersectional perspective.

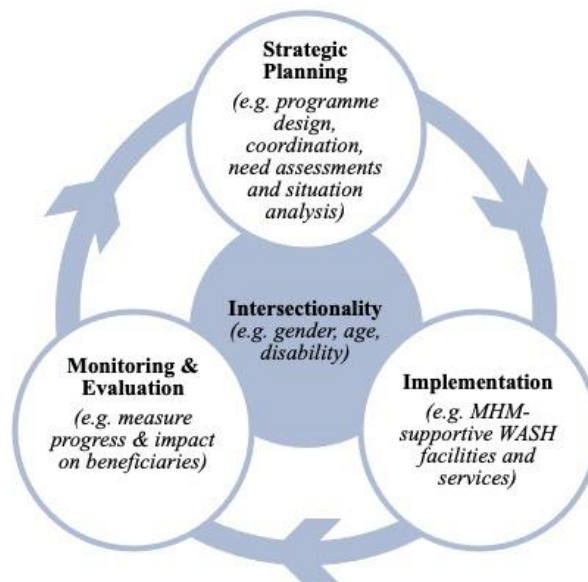


Figure 1. Analytical framework based on the WASH programme cycle of UNICEF (2017) (illustrated by author)

Following the analytical framework, the strategic planning of WASH programmes, including the programme design, coordination and the need assessments and situation analysis, can shed light on the efforts to acknowledge the different menstrual needs and preferences of women, girls, and others in programme planning. In essence, in seeking to capture intersecting dimensions of inequality within WASH, particular emphasis is given to the relationship between gender mainstreaming and intersectionality (sub-question 1). Following that, the research will also explore the extent to which MHM-supportive WASH facilities and services are implemented in refugee camps, including safe and private

sanitation and shower facilities, safe disposal systems, access to hygiene information, etc. (sub-question 2). Further, the research examines how existing implementations are monitored and evaluated to inform new programmes to better target the diverse camp population (sub-question 3).

5. Methodology

This chapter outlines the methodological approach chosen to address the research aim and questions defined in chapter 1. First, the underlying philosophical worldview and the research design are presented, followed by an overview of the research process in terms of collecting, managing and analysing the data. Finally, this chapter discusses the clarifications and limitations of the research process. Throughout the chapter, reflections on the research process and the choices that were made are described.

5.1. Philosophical Worldview and Research Design

According to Creswell and Creswell (2018), a philosophical worldview shapes the research design and its methods and, thus, influences the practice of any study. In this research, the fundamental philosophical orientation arises out of the philosophical assumptions of the transformative paradigm. This paradigm draws upon critical theorists, including feminists, racial and ethnic minorities, people with disabilities and people of the LGBTQI+⁸ communities. The transformative research aims to reshape the political action agenda to raise the voice of marginalised people and to address social issues, such as discrimination, social oppression and injustice. Moreover, it seeks to study inequalities *“based on gender, race, ethnicity, disability, sexual orientation, and socioeconomic class that result in asymmetric power relationships”* (Creswell & Creswell 2018:51). In this research, following a transformative worldview supported the intersectional perspective in this research to focus on the diversity of the refugee population, their diverse menstrual needs, and the existing inequalities in WASH programmes. Besides that, the transformative worldview helped to construct a better understanding of the issues and people being studied and, most importantly, of the political and social changes that are needed.

Based on the transformative worldview, the research follows a qualitative research design to explore and understand *“the meaning individuals or groups ascribe to a social or human problem”* (Creswell & Creswell 2018:43). Thereby,

⁸ LGBTQI+ stands for Lesbian, Gay, Bisexual, Transgender, Queer, Intersex and other variants for sexuality and gender identity.

the research intends to develop a holistic picture of the efforts of a more appropriate, inclusive, and sustainable MHM and draws upon the complex problem of gender inequality and social exclusion in refugee camps. This involves reporting multiple perspectives and standpoints of humanitarian actors within the WASH sector, identifying the multiple factors and challenges involved in MHM programme delivery in refugee camps, and generally outlining the larger picture that emerges why MHM is still not sufficiently prioritised in WASH programmes.

5.2. Qualitative Data Collection

The main task of qualitative data collection is to obtain reliable and sufficient primary qualitative data by conducting semi-structured interviews. In doing so, the research intends to explore the depths of the research problem from a relatively small sample of respondents and to gather valuable information from them (Creswell & Creswell 2018).

5.2.1. Semi-structured Interviews

This research conducts semi-structured interviews as they are an insightful research method that serves several purposes for this research. First, interviews provide a detailed understanding of individual attitudes, perceptions, opinions, meanings and experiences that respondents bring to the research problem. These insights could fill potential gaps that were identified in the literature review (Bryman 2012; Creswell & Creswell 2018). Second, interviews help obtain qualitative data to investigate further the efforts and challenges of prioritising MHM into WASH programmes. Interviews also allow for a broader discussion to gather additional information about the current state of MHM in the refugee camps and related challenges of the emergency response. Eventually, the interviews can also raise awareness for the significance of the research topic and might convince the respondents of the necessity of adopting an intersectional approach in their work. As the respondents are asked to reflect upon gender and inclusion components of their work, shortcomings regarding the integration of intersectional menstrual health and hygiene concerns into WASH programmes and practices can potentially be highlighted (Bryman 2012).

The interview questions were semi-structured, which allows the researcher to prepare an interview guide based on the literature review and the research questions, which includes a list of open-ended questions or topics to be covered. Key topics included the organisation and responsibility of MHM in refugee camps in Greece; the measurement of diversity of the refugee population; gender equality and social inclusion in practice; M&E activities; and finally, recommendations for improved MHM in refugee settings. In this regard, a semi-structured interview can guide the

discussion through follow-up and more specific questions and can be very insightful regarding respondents' individual opinions, experiences and attitudes (Bryman 2015; Creswell & Creswell 2018). The interview guide also served as a protocol, including the purpose of the interview, the consent form, background information on the research, the interview content probing questions and closing instructions (Creswell & Creswell 2018). However, the interview guide changed and adapted as the data was collected, and new questions arose. The final interview guide and instructions can be found in Appendix 5.

The interviews, and thus the primary data collection, took place from the 6th of March until the 24th of March 2021. In total 12 interviews, lasting an average of around 40 minutes, were held via video or phone call (see Appendix 6). Although online interviews did not attain the same level as face-to-face interviews, they still allowed the respondents to share their experiences and to respond to follow-up questions. Besides that, the online interviews enabled broad geographical access and avoided physical presence during the ongoing Covid-19 pandemic.

5.2.2. Respondent Sample and Recruitment

For this research, a purposive sampling strategy was used to recruit various staff members from different humanitarian organisations that provide WASH services to beneficiaries. Four weeks before the data collection started, an invitation was sent to various humanitarian organisations. Additionally, two posts were published on two discussion forums, one on Sustainable Sanitation Alliance (SuSanA) and the other one on the Rural Water Supply Network (RWSN) for Young Water Professionals, to find interested people (see Appendix 4). In total, 17 people responded to the email invitations and forum posts, out of which 12 agreed to be interviewed. All respondents came from various organisations that offer WASH services, including hygiene promotion, health services, provision of water and sanitation and MHM.

The selected study area of this research mainly concerns the country of Greece and its refugee camps. Therefore, it is important to mention here that most examples of the respondents draw upon refugee camps in central Greece (around Athens and Ritsona) and Northern Greece (Serres) and on the Eastern Aegean islands (Lesvos and Samos). Not all respondents referred to specific camps, but rather to a general assessment of the situation of Greece. Three of the respondents had no field experience with Greece but were familiar with refugee settings and MHM in general. In addition, the respondents had different professional backgrounds, including researchers, engineers, emergency staff, delegates and volunteers engaged in humanitarian and emergency response.

In order to increase the validity of this research and to capture a broader range of perspectives, the decision was made to interview WASH actors on both headquarter- and field-level (Bryman 2015). On the one hand, headquarter staff

might be more aware of the programme design that endeavour gender equality and social inclusion in refugee settings. On the other hand, field-based staff in refugee camps might have greater insight into the intersectional menstrual needs of refugees and the practical implementation of addressing them in the camps. These diverse professional backgrounds and roles of the respondents and their various insights of their work contributed to create a holistic picture of the MHM programme delivery, which frames the studied research problem. All personal information, such as the name of the respondents and the name of the organisation they work for, is excluded in this research for reasons of anonymity and confidentiality. For better clarity of the respondent sample, a complete list of the interviews, including their professional background, can be found in Appendix 6.

5.3. Data Management and Analysis

With the respondent's oral approval, each interview was recorded and subsequently transcribed with the help of the free data software oTranscribe. As this research follows a thematic analysis, the transcripts do not require the same level of detail as e.g., conversation, discourse or narrative analysis (Braun and Clarke 2006). Therefore, the transcripts of the interviews were slightly edited by correcting sentences, grammar mistakes and omitting irrelevant words or sentences to improve the readability and clarity of the transcripts. The final transcripts were then transferred into the software Atlas.ti for the subsequent analysis of the collected data.

For this research, building a holistic picture of a complex problem involved working inductively, which means building up *“patterns, categories and themes from the bottom up by organising the data into increasingly more abstract units of information”* (Creswell & Creswell 2018:299). Therefore, this research follows a reflexive thematic analysis, which was first introduced by Braun and Clarke (2006). It is a common method of analysis in qualitative research and is usually applied to a set of texts, such as transcripts of interviews, to identify common and repeated themes, ideas and patterns. Following, the approach of reflexive thematic analysis utilises a series of steps, including a) familiarising with data b) coding connections and commonalities c) generating initial themes, d) reviewing themes, e) defining and naming themes, f) writing up (ibid.). During the entire analysis, the researcher also worked back and forth between the themes and the collected data to determine if more evidence is needed. The final codes were divided into basic themes and into global themes, which also reflect the sub-chapters of the results (chapter 6). A complete list of the codes, basic and global themes can be found in Appendix 7.

5.4. Clarifications and Limitations

According to Creswell and Creswell (2018), one of the major characteristics of qualitative research is that the researcher itself is an integral part of all phases of the research and thus not invisible in the results' interpretations. Accordingly, it is essential to be aware of the influence of the researchers' subjectivity and personal bias throughout the process of research. In particular, the research was influenced by the researchers' understanding of gender, equity and inclusion, which is mainly shaped by the researchers' background, including culture and socio-economic origin (Creswell & Creswell 2018). Likewise, the personal experiences during the data collection and the personal values and beliefs of the researcher might also have shaped the interpretation of the results (Silverman 2015). Especially during the interviews, the researcher was more visible as it is the researcher's role to take over much of the interview's direction and thus, might have influenced the respondents' answers. This creates a so-called power imbalance between the researcher and the respondent (Silverman 2015; Creswell & Creswell 2018), which, for example, became visible when the researcher paved the way in helping respondents to think about aspects of gender and intersectionality in their work when asked about MHM. To avoid bias, the researcher aimed to remain open and reflexive to the experiences during the research and to the standpoints and opinions of the research respondents (Creswell & Creswell 2018).

Another issue regarding the validity of this research is that the WASH sector involves many different organisations and is thus not a homogenous network. Hence, the various organisations follow their own working procedures, aims and approaches (see Appendix 6). Accordingly, the extent to which gender equality and social inclusion are considered in the programme can vary across organisations within the sector. For example, some organisations might have mainstreamed a gender approach in their programmes, while others might only follow minimum standards and indicators that might be prescribed for their response.

Apart from that, it is also important to stress that this research is not intended to cover all organisations within the WASH sector and all refugee camps in Greece, which limits its generalisability. Hence, interviewing a different set of individuals might generate alternative results (Bryman 2015). Besides, due to the lack of data from the displaced population, the results cannot confirm the lived experience in the camps of people who menstruate. The research is focused on the issues most commonly raised by the selected humanitarian actors that work within the framework of WASH.

Another clarification to make is that qualitative research is emergent, which means that the initial plan for researchers or some phases of the process may change as the research progresses (Creswell & Creswell 2018). In this research, the research questions were constantly adapted, and the form of data collection was modified. For instance, the initial plan to conduct both interviews and focus group

discussion changed to interviews only due to time restrictions and the respondents' lack of access to video conferencing services. Some respondents worked abroad or in-the-field and were thus only reachable via phone for a short time. Other data collection methods, such as ethnographic observations in the refugee camps and interviews with refugees to gather first-hand feedback from the community, were also not possible due to travel restrictions and strict measures due to the on-going Covid-19 pandemic. Due to these shifts, it was not possible to use different types of data collection to triangulate the data in the sense of reviewing and cross-checking the results (Silverman 2015).

6. Results

This chapter presents the results of the interviews. The first sub-chapter (6.1) gives a brief overview of the current state of MHM in the refugee camps in Greece from the perspectives of the respondents. The second sub-chapter (6.2) lists the key challenges of short-term planning of emergency response, followed by the third sub-chapter (6.3), which illustrates the gaps around implementing MHM-supportive WASH infrastructure in the refugee camps in Greece. Finally, the fourth sub-chapter (6.4) presents activities around M&E that emerged from the interviews.

6.1. Current State of MHM and WASH in Refugee Camps in Greece

Respondents, who have worked in one of the refugee camps in Greece indicated major disparities in MHM programme delivery within different organisations that work within the framework of WASH. While some respondents work in organisations, where MHM is an integral part of their operational activities, others reported that the process of integrating MHM is very slow, as some camps are still organising or building up WASH infrastructure. Another respondent shared that: *“We don’t have proper space for MHM, because this is a topic that we don’t feel comfortable doing as the rest of the topics that we do, because we are working with community volunteers who spread some hygiene messages from tent-to-tent. For the community, MHM is something more personal and private (Respondent 10).”*

Moreover, camps on the mainland were reported to have a better infrastructure in terms of shelter and WASH, which according to some respondents provide a better environment for menstruating people. For example, one respondent described the living situation in the camp Serres on the mainland as *“a lot better than most of the camps on the islands.”* The respondent further explained that: *“(Refugees) live in caravans instead of tents. They all have access to bathrooms and water, so it’s more practical for them to just keep what they need with them because they are able to manage their periods well (Respondent 9).”* In contrary, camps on the islands, such as Kara Tepe 2 and Samos, were indicated as being challenging due to their temporary and overcrowding nature and the limited services for basic needs. For example, one respondent described the situation in Kara Tepe 2 by illustrating that:

“The rate of attempted suicide has mounted enormously. The women we talked to are at the end of their rope completely. They are cold, everything they own is wet and they're sitting on top of each other in those tents. The food they get is horrible. They only get once a day a meal that is half warm. There are no sanitary facilities and there is no options insight (Respondent 2).” Two respondents, who have worked in Kara Tepe 2, reported also that gender-based violence is an ongoing threat for many women, girls and other gender-discriminated people, leading to some migrants *“not using the toilets at night, because they are too afraid (Respondent 10)”*. One respondent added that due to the fear of gender-based violence, many women wear baby diapers or layers of sanitary pads to avoid using the toilets during the night. During the day, some respondents reported that women and girls also avoid using the facilities by changing their pads less frequently and not drinking enough water. Another respondent illustrated that most women and girls try to manage their menstruation largely in their tents, which *“is a bit of a difficult issue, especially as they sometimes live in tents with three other people or with another family. Also, some live in single woman tents, sometimes with ten women in a tent (Respondent 11)”*.

6.2. Issues of Short-Term Planning of Emergency Response

One of the key reported challenges that hinder effective MHM programme delivery within WASH was the short-term planning of emergency response in refugee camps in Greece, which led to the low prioritisation of MHM (6.2.1), inadequate donor support and limited funding (6.2.2) and lack of assessing beneficiaries' experiences, needs and preferences (6.2.3).

6.2.1. Low Prioritisation of MHM

Several respondents indicated that menstrual health and hygiene is not among the highest priorities in the initial phase of an emergency response. For example, one of the respondents explained this overall situation clearly by stating that MHM *“gets deprioritized below other things like the provision of food, water, sanitation and healthcare (Respondent 6)”*. Other respondents reported that MHM is often addressed at a later stage of an operation, as MHM needs expertise and resources in the camp settings.

A common explanation for the low prioritisation of MHM amongst respondents was that gender aspects are not taken into consideration when planning WASH interventions for an emergency response. This issue came up, when some respondents argued that mostly men are involved in planning and implementing WASH facilities and services. As one respondent put it: *“I don't see a tangible*

change in the sector yet, especially not in water and sanitation. It is a very male-dominated sector as are most sectors and I think that that has a significant effect on the provision of MHM (Respondent 6).” In this regard, there were some suggestions that more women are needed in WASH related positions. As one respondent demonstrated: *“We need to make sure that we have women that are members of these hygiene promotion teams that are able to discuss and talk about gender and particular MHM aspects with the community (Respondent 8).”* This argument was supported by another respondent pointing out that humanitarian actors also need to be trained on protection and gender issues as well as educated on menstrual needs and the variety of preferences to ensure that MHM is more salient in the planning and preparation of emergency response.

6.2.2. Inadequate Donor Support and Limited Funding

Another reported challenge that hinders effective MHM in WASH is inadequate donor support and limited funding. Some respondents stated that there is substantial funding for WASH, but nowhere near the amount that is required to address the challenges and menstrual needs of displaced people. One of the key issues, which was reported by several respondents, was the large donations of hygiene supplies, including menstrual products, from other European countries, which often do not consider menstrual preferences and the local infrastructure. One respondent reported that they receive a lot of donations, including tampons, reusable pads or menstrual cups, which the women strictly don't use for cultural reasons or the limited access to WASH and privacy. One respondent claimed: *“People cannot choose what they want. Often it is donated stuff coming from any European country, sent by a truck and given out to people without any choice. Often people don't like these items (Respondent 12).”* These simplified aid assumptions were criticised by some respondents as inappropriate or even unnecessary, as countable items are delivered to beneficiaries that are not adapted to the beneficiaries' preferences and needs. This view was echoed by a respondent who stressed that MHM cannot be approached in the short-term: *“If you invest in a rush, you might address the wrong items, because they are not culturally suitable for the community. You need to understand them first...but at the same time we can't leave this too much into the future, because then the consequences are going to be quite big (Respondent 8).”* Another respondent criticised the overall way of donating items to Greece by illustrating that: *“It is sometimes even a bit ridiculous how I see that people ship soap from Germany and tissues from the Netherlands. I can go to Lidl, buy it for the same price and just save a lot of money, and logistics time and whatever. There is even a market here on the small island. If you don't need specific products, you are fine (Respondent 11).”*

As a result, many respondents agreed that investing in menstrual health and hygiene is fundamental to achieving greater gender equality and to convince more

humanitarian actors to mainstream MHM into WASH strategies. Several respondents suggested that more financial support and a budget for MHM is needed to improve the menstrual hygiene situation for women and girls. One respondent suggested that some money should also be distributed among the community, so they can buy whatever they want to cover their menstrual needs.

6.2.3. Lack of Assessing Beneficiaries' Needs and Preferences

Several respondents raised the issue that initial assessments on the menstrual needs and preferences of the camp population are largely missing. As a respondent described: *"The needs of people are not taken very seriously, because there is no accurate information about the beneficiaries. We need to gather this information to see the extent of the problem (Respondent 1)."* Another respondent added: *"Most of the help is in a way wasted because nobody asks what people need (Respondent 11)."* Right now, migrants are not sufficiently involved in the planning process of interventions, and therefore, menstruators *"don't have a lot of voice on what goes on or what's provided (Respondent 4)."* Apart from that, one respondent claimed that it *"might be difficult to come up with simple and rapid tools to gather the information that allow us to capture everything without leaving gaps (Respondent 8)."* The same respondent claimed that in an emergency setting it is challenging to start progressing in MHM and gather information from every individual and at the same time balance time and resources.

A number of respondents also agreed that maintaining a quality of service that is meaningful for MHM and at the same time addresses the cultural and social challenges, is difficult in camp settings with a diverse range of people. As one respondent shared: *"We have a lot of people from Western-African countries, but also from Kongo, actually a big Kongo community. We have people from Somalia, this number is growing a lot in the last few weeks actually, but also a huge number of people from Afghanistan or Iran...very Muslim people and of course some Syrians, some people from Lebanon and some people from Pakistan. So, it is a very mixed population, which is of course very difficult to adapt to the needs, because it is of course not one community. So, we need to adapt to very different needs and behaviours (Respondent 12)."* Especially the wrong design of sanitation facilities was described as impacting sanitation behaviour and cleanliness. As one respondent noted: *"When planning WASH facilities, it is done by engineers who may not have a full appreciation of gender, cultural or social issues that may impact sanitation behaviours (Respondent 4)."* Another respondent added: *"It's a European Standard toilet, it is not a Turkish Toilet. Most people are used to squatting, (...) which makes the usage of it complicated and the hygienic condition worse (Respondent 12)."*

Another key issue, which was reported by several respondents, is the limited consideration of people with special needs, such as people with physical and mental disabilities, transgender men, non-binary people or young girls menstruating for the

first time in WASH interventions. As one respondent illustrated: *“The provision of services for people with special needs whether that is access to health centres, or the accessibility and usability of latrines is rather neglected (Respondent 6).”* One respondent stated that most sectors, including WASH, do not specifically target people with special needs. However, another respondent indicated that many WASH missions *“are lacking some of the tools and components that allow to properly identify the needs (Respondent 8)”* of people that are not easily identified as persons that might have menstrual hygiene needs, like transgender men or non-binary people. One respondent indicated that it would not be surprising that people with specific needs *“would find themselves completely ignored by the response (Respondent 6)”*.

Therefore, several respondents supporting WASH programmes in the camps stressed the importance of gathering information on the preferences and menstrual needs of the beneficiaries. As one respondent explained: *“The one is just really building information, what are the practices that are happening now, what are the preferences of the users in the settings and then go from there in terms of what types of facilities and programming would be useful to address the issue (Respondent 4).”* Some respondents agreed that holding focus group discussions (FGD) early on in the emergency response is helpful to get an overall picture of the menstrual needs and preferences for sanitary materials. Another respondent stressed that when trying to understand the camp population it involves *“recognizing differences, appreciating those differences and planning to address and help support those differences (Respondent 4)”*. One of the respondents, who worked in Kara Tepe 2 stressed that FGDs should be separated by gender and sometimes also by communities to collect cultural specificities and to build trust. Besides, some respondents pointed out that collecting socially disaggregated data of the camp population would also allow them to better respond to the different menstrual needs of people. As one respondent explained: *“I think socially disaggregated data would definitely have a huge effect, because it would make us more aware of who we are working with (Respondent 6).”*

6.3. Gaps around Implementing MHM-supportive WASH Infrastructure

Besides key challenges in the planning of MHM interventions, further gaps arose around implementing MHM-supportive WASH infrastructure. Thus, this sub-chapter presents the inadequate coordination of responsibilities (6.3.1), the temporary nature of refugee camps (6.3.2), lack of “menstruation-friendly” WASH facilities (6.3.3), progress towards protection, gender and inclusion (PGI) showers (6.3.4), and the limitations due to Covid-19 (6.3.5).

6.3.1. Inadequate Coordination of Responsibilities

Several respondents reported that delivering MHM in a camp setting is often challenging due to the variety of sectoral actors sharing responsibilities in MHM. Hence, some respondents criticised that different sectors often approach MHM in different ways, which often lead to different outcomes or overlaps in programme delivery. Several respondents were very critical of the poor communication on MHM among humanitarian actors and thus advocated for better collaboration in sharing gaps and best practices. As one respondent described: *“It is always tricky if it's a cross-cutting issue, but (MHM) belongs to protection, it belongs to health, it belongs to WASH...And we are here as a WASH actor and we don't do health. So, connecting those things is always important (Respondent 11).”* One respondent, for example, shared that they exchange information with other actors, when providing information on hygiene promotion with the camp population. Another respondent explained that in Kara Tepe 2 they have *“weekly hygiene and health promotion meetings with different actors to cover all the hygiene promotional messages and topics on MHM (Respondent 11)”*. Along with regular meetings, respondents discussed the importance for better clarity on content and responsibility on MHM with other actors. Therefore, one respondent suggested: *“I think that probably one of the changes (...) is trying to make sure that there is a unified position about MHM in the camps and that one actor takes the lead and the overall role in that whether it is the protection actor or the WASH actor. They need to look from the beginning to the end (Respondent 8).”*

However, the fact that many small organisations are working in the camps on a short-term basis, was reported to hinder effective MHM. Many of the small organisations carry out frequent assessment activities and different interventions, which are often not shared among organisations and thus do not cycle back to improve activities. Even within the WASH sector, organisations often share responsibilities on the provision of sanitation and washing facilities, but do not share information or practices. As one respondent criticised: *“At the moment, it's divided like we are responsible for the showers and other organisations are responsible for the toilets. We get a lot of complaints about the toilets, but we cannot do anything about that. It is not a really good situation. (Respondent 12).”*

6.3.2. Temporary Nature of Refugee Camps

Another recurring issue, reported by several respondents, was that the temporary nature of the RICs on the Aegean islands only allows for short-term solutions. For example, one respondent reported that the Greek Government declared that the camps on Lesbos, Kara Tepe 1 and 2, will be replaced by a new camp, which is why humanitarian organisations *“cannot actually implement something on a bigger scale (Respondent 2)”*. Another respondent added that long-term constructions in Kara Tepe 2 are also not allowed due the fact that the camp is on an archaeological

site. Accordingly, building water pipes to connect to the municipal water system is not possible. Therefore, water for the shower facilities and grey water is transported by trucks. Due to these circumstances, only portable toilets and simple bucket showers that can easily be removed are provided in Kara Tepe 2. Several respondents criticised the quality of these toilets and shower facilities as they are in poor hygienic condition and lacking sufficient maintenance and cleaning. Another respondent reported that sanitation and shower facilities on the island of Samos are even provided in insufficient quantity and quality, leading to an increase of open defecation in the campsite.

6.3.3. Lack of “Menstruation-friendly” WASH Facilities

Along with the temporary nature of the refugee camps on the islands, comes the issue of the lack of “menstruation-friendly” WASH facilities. Especially, the lack of gender-segregated sanitation facilities and the long distances from tents to the toilets, was reported to be a major privacy and protection issue for menstruating people. Also, the absence of appropriate waste bins in the sanitation facilities was reported to be an issue for safely disposing of used products. For example, one respondent, who worked in Kara Tepe 2, described that some waste bins were only provided in front of the sanitation facilities, but women and girls would not take their used sanitary pads outside, and therefore threw them into the portable toilets. Moreover, the promotion of reusable products in the camps was reported as problematic due to the absence of private spaces for discrete washing and drying of the supplies. As one respondent reported: *“We do not have the capacity or infrastructure for that. If you use washable pads, you need to have places, where people can wash it, ideally with hot water, you need the drying areas and you need a lot of fencing there because women don't want to show that...in many cultures...to men (Respondent 11).”*

Accordingly, many respondents agree that it needs more “menstruation-friendly” WASH facilities that include better disposal facilities, locks on the doors, enough lights and even mirrors, so menstruators can check their clothes before leaving. Another respondent added that hooks or shelves in the sanitation facilities are needed, so people can hang or put down their products that they are bringing. In addition, some respondents agreed that protective places for people are needed to wash their reusable products. Many respondents agreed that the basic component of improving MHM in the refugee camps would be to provide some protection for women in the camp. One respondent described that *“the biggest and most simple step is to separate WASH facilities for women and men (Respondent 2)”*. Another respondent suggested that the best way to add all these features would be to set up sanitation or shower containers that could improve the overall sanitary situation and MHM. As one respondent explained: *“A container gives a bit more privacy, can be appropriately gender-segregated and also a little bit warm in winter-times, so a bit*

more protected from wind. That would be a very big improvement in the camp (Respondent 12)."

6.3.4. Progress towards Protection, Gender and Inclusion (PGI) Showers

While the sanitation facilities remain in poor condition, a few respondents, who have been working in Kara Tepe 2 disclosed that they have most recently set up a few showers for people with special needs called protection, gender, and inclusion (PGI) showers. As one respondent explained: *"It is a shower area in a central location in the camp on the main road, which is easy to access. It is like a small area with only eight cabins, but with a lot of space there, and some volunteers who can assist, or who can help people to take care of the children, while they take a shower. And there is also enough space for people in wheelchairs and handles to hold on. So, for people with disabilities, it is a very good place...but it has just opened last week actually. We were very much delayed with that (Respondent 12)."* Another respondent explained that only older people, people with mobility issues, pregnant women, and parents with at least two kids under six are allowed to use these showers. Another respondent added that those PGI showers should be included in every shower area in the camps and not only in the centre, as it could be far away for people who live in the corners of the camp.

6.3.5. Limitations due to Covid-19

In the light of Covid-19, several respondents perceived significant challenges in the provision of MHM since the beginning of the pandemic. Even though respondents indicated that they were allowed to enter the camp sites during times of a lockdown in Greece, restrictions and social distancing led to limited access and reduced service provision to the community. One respondent described the overall situation by stating that: *"Covid has made it more difficult to provide support and relief to the vulnerable communities and to provide services that are required gathering evidence to the beneficiaries, making sure that their needs are addressed, particularly for women and girls (Respondent 8)."* Accordingly, one respondent reported that the quality of their interventions might be affected, because activities around MHM are slowed down.

Another reported problem due to Covid-19, was that migrants were *"locked up in the camps (Respondent 2)"*. Usually, people can leave the camp every day, but due to the pandemic people are only allowed to leave the camp once a week for only a few hours. These limitations caused several problems, especially for people who menstruate, as some respondents criticised that people were restricted from buying their own menstrual hygiene products. One respondent described that the problem is magnified for women who *"don't feel comfortable going out when they*

are bleeding” and therefore “feel forced to go out even if they don't feel well (Respondent 12)”. The respondent further claimed that the people living in the camps *“are not flexible, they can't decide themselves when they want to go, which is really bad for a lot of women (Respondent 12)”*. Along with these restrictions, some women and girls are also not allowed to go to Women Centres, which are initiatives that provide additional support for displaced women.

6.4. Activities around Monitoring and Evaluation (M&E)

Another reported challenge of MHM programme delivery is the provision of regular data on the implementation of interventions and progress towards planned outcomes. Accordingly, respondents stressed the importance of M&E activities, that include different feedback mechanisms, to assess whether WASH facilities and services were appropriate or needed to be adjusted. For example, one respondent explained how they monitor the usability of the shower facilities in Kara Tepe 2: *“The first one is to register everybody who is coming for showering and make sure that we have an overview of how many people and from which area they are coming. We asked them for their tent number and where they're from. You can see on the list how many people are coming, does the number increase, from which area are they coming, and then you can identify areas which are maybe not visible and go there and talk with people and inform them (Respondent 12).”* Another monitoring activity, indicated by some respondents, are transit walks in the camps to get an overall impression of the camp situation and the work they do. Additionally, some respondents reported that having volunteers in the camp proved also to be successful, as they are always available to provide important hygiene information to the camp residents and collect feedback from the migrants first-hand. It was suggested to engage with other humanitarian actors to secure the shower facilities as protected spaces for women to engage with volunteers. As one respondent described: *“We are talking with some of the other actors who work on MHM to use that space for women to make focus days there to have conversations there and to use that just as a safe women space, which you don't have anywhere else in the camp (Respondent 12).”* Furthermore, another respondent described questionnaires as a useful tool to receive feedback from the community, which already proved to be successful in Kara Tepe 2. As one respondent explained: *“We already improved the way that we give out black plastic bags for menstrual pads. People were asking for them, so this is something that we could provide easily and improve on that point (Respondent 12).”*

7. Discussion

This chapter forms the discussion of this research and links the empirical results to the literature, concepts and theories. Based on the analytical framework (sub-chapter 4.3), the following sub-chapters discuss the strategic planning of WASH programmes (7.1), implementation of MHM-supportive WASH facilities and services (7.2) and M&E for improved MHM (7.3).

7.1. Strategic Planning of WASH Programmes

One of the key fundamental aspects of effective MHM programme delivery during an emergency response was proven to be strategic planning of WASH programmes, including the programme design (7.1.1), programme coordination and collaboration (7.1.2) and need assessment and situation analysis (7.1.3).

7.1.1. Programme Design

While current WASH policies and guidance point out the importance of MHM in emergency settings (Sommer et al. 2017; Sphere Project 2018; UNICEF 2019), current WASH approaches in the refugee camps in Greece do not prioritise MHM, as the provision of basic sanitation and access to water are deemed more critical during the initial emergency phase. This low level of advocacy for MHM within WASH was reported to be reinforced by the fact that most engineers are men who might not feel comfortable with or lack the experience around that topic. These results also underline the respondents' assumption that progress on gender equality and social inclusion within WASH programmes is slow. Thus, the literature emphasises that mainstreaming a gender approach and conducting analysis on gendered inequalities are necessary to promote equality between men and women (ECOSOC 1999) and bringing gender-specific needs on the sustainable development agenda (UN Water 2019). Yet, in seeking to capture intersecting inequalities during an emergency response, the results revealed the importance of following an intersectional approach within WASH programmes to recognise that *“inequities are shaped by gendered forces and factors that are co-constituted by other diverse factors, systems, and processes”* (Hunting & Hankivsky 2020:3).

Therefore, to advance complex and accurate understandings of how gender intersects with other axes of diversity, the humanitarian community needs to seriously consider the relationship between gender mainstreaming and intersectionality in their programmes (Hunting & Hankivsky 2020). Based on the results, one way to enable change towards gender equality and social inclusion would be the facilitation of gender and other intersectional considerations throughout the programme cycle and at all management levels of organisations working in the WASH sector. Thus, a gender and intersectional approach should stretch from the planning and designing of interventions, through the implementation in humanitarian settings, right up to the M&E of operational activities. Similarly, a gender and intersectional strategy should be extended to all levels of management, including planners and advisors at headquarters, donors and partner organisations, down to volunteers and delegates in the field. As respondents emphasised, an important step would be to bring more women into the WASH sector to advance gender-sensitive issues. In addition, mainstreaming gender and intersectionality into WASH training is also considered to be crucial to better align with different experiences and needs of women, girls and others. Furthermore, the results also highlight that donor funding forms the basis of planning programmes in refugee response. Therefore, ensuring adequate resources and thus budgeting for menstrual hygiene activities and materials is key to be able to include MHM at all stages of the programme and project cycle (Sommer et al. 2019; Bobel et al. 2020).

7.1.2. Programme Coordination and Collaboration

Along with the need for a broader framework of intersectionality within WASH programmes, the results also confirm that adequate coordination and collaboration among sectors and actors are fundamental to better respond to the diversity of the camp population. Not without reason, the results support the idea that MHM is a cross-sectoral issue, meaning that besides WASH, sectors like health, protection, shelter and education also play a vital role in delivering effective MHM in the refugee camps in Greece (House et al. 2013). However, both in the literature and in the results, there is no clear consensus on which sector should take the lead in coordinating MHM in an emergency context (Sommer et al. 2016; Schmitt et al. 2017; Bobel et al. 2020). Accordingly, challenges remain across these sectors in reaching consensus on the basic contents of an emergency response and the division of responsibilities for different tasks of MHM at different stages of response (Bobel et al. 2020). Thus, more cross-sectoral coordination with a common strategy among organisations to promote MHM in the camps is needed.

Based on the latter, there was a general agreement among the respondents that there should be one lead sector that coordinates MHM from the beginning to the end. These results reflect those of Sommer et al. (2016), who also suggest a leadership role on MHM in emergencies, so that MHM, its different components,

necessary actors and funding can be coordinated from a unified position. While there are some suggestions in the academic literature that the WASH sector should take the lead in coordinating MHM interventions (Sommer et al. 2016; Schmitt et al. 2017), there were concerns among the respondents that they have limited expertise and resources to address diverse menstrual needs of the camp population from the onset of an emergency response. Accordingly, previous studies suggest that WASH should carry out the main coordination activities on MHM in close cooperation with the protection sector (Sommer et al. 2016), as they have the expertise and resources in capturing and working with vulnerable groups and issues related to sexual and gender-based violence (House et al. 2013).

Along with the cross-sectoral collaboration, a need for internal coordination across the WASH sector was also identified. This became evident when several respondents criticised the high staff turnover and the short-term contracts of many humanitarian staff members. This type of work arrangements leads to difficulties in finding an organisation to collaborate with or hand over key WASH responsibilities to and thus hampers the improvement of MHM (Sommer et al. 2016). While the statistics of the refugee camps on the mainland indicate mainly one WASH actor at each camp site (see Appendix 3), respondents operating on the islands reported a variety of organisations providing different WASH services. The number of different actors and the lack of an overview of operating organisations, often hinders sharing information and expertise. Hence, the overall lack of coordination across sectoral organisations may lead to incomplete and insufficient programme design, over-assessments, as well as gaps and overlaps in providing adequate WASH facilities and services. Accordingly, effective MHM requires greater collaboration between humanitarian actors, organisations and sectors to bring in more comprehensive and coordinated analysis, tools and expertise. In this regard, the literature and the results suggest that regular meetings with responsible actors can provide a good forum to identify synergies in programmes, coordinate responsibilities, and to share knowledge and best practices (House et al. 2013).

7.1.3. Need Assessment and Situation Analysis

In accordance with existing statistics on the camp population in Greece (see Appendix 3), the respondents indicated that the camp population is not universally homogeneous but represents a diverse group of people with different cultural attitudes, sanitation behaviours and thus also a variety of menstrual needs and preferences. As indicated by the respondents, women, girls and others might prefer different menstrual hygiene products, as well as have different sanitation behaviours, like squatting, due to their cultural habits. Such practices and preferences are good examples that should form the basis for planning any WASH programmes (Sommer et al. 2017).

Furthermore, some respondents argued that the vast diversity of the refugee population and the fact that the exact nature of the population is not known reinforce inequalities in the camp. For example, there is still not much evidence around menstruators beyond cisgender women and girls due to the lack of data and information on the numbers and experiences of transgender men, non-binary people and others who menstruate (UNICEF 2019). While academic literature does not reflect on other gender identities, the guidance on menstrual health and hygiene of UNICEF (2019) explained that identifying other people who menstruate is difficult, as drawing attention to someone's gender identity could leave them vulnerable to discrimination or violence. Accordingly, transgender, non-binary people and others continue to face additional barriers to accessing WASH facilities and services due to the lack of visibility and attention to their needs. In that regard, the literature suggests that the multiple axes of difference and intersecting dimensions of inequality among the displaced population should be recognised in humanitarian programming (Riley 2004; Bastia 2014; Sommer et al. 2019).

Based on the latter, interventions within MHM cannot be considered as “one size fits all” but require WASH facilities and services that also fit the specific needs of individuals. Hence, there is a growing need for improved understanding of the beneficiaries’ menstrual needs, practices and preferences before designing any intervention (Schmitt et al. 2017; VanLeeuwen & Torondel 2018a). Therefore, this research supports evidence from previous literature that an intersectional approach is able to produce the best kinds of evidence about the different experiences and needs of the affected population (Hunting & Hankivsky 2020). Hence the growing acknowledgement of how gender interacts with other factors, such as age, disability, religion, etc. through need assessments was proven to strengthen the evidence base for strategic planning and supporting humanitarian actors to make knowledgeable decisions about how to combat discrimination and inequalities. Moreover, for effective MHM programme delivery analysing the overall situation in the camps was also proven to be fundamental to identify barriers that hinder effective MHM, e.g. the lack of accessible WASH facilities for people with disabilities. Thus, situation analysis is key to explore opportunities to overcome identified barriers, e.g. PGI showers that meet people with disabilities’ needs.

On top of that, there was a clear agreement among humanitarian actors that capturing diverse menstrual needs and thus intersecting inequalities also requires disaggregated data to map trends and changes in age, gender and migration patterns. Yet, such data is largely missing both in the academic and grey literature, even though such information forms the basis for humanitarian response, informing policy discourse and driving necessary change (Kofman 2018). Thus, engaging the community from the beginning on and collecting socially disaggregated data could help to ensure that humanitarian actors deliver adequate services based on the most urgent needs of the affected communities.

7.2. Implementation of MHM-supportive WASH Facilities and Services

Consistent with the literature (Oxfam 2016; VanLeeuwen & Torondel 2018a; Tsesmelis et al. 2020), the results also suggest that refugee camps in Greece, particularly on the islands, continue lacking a safe environment for women, girls and others to maintain good menstrual health and hygiene. In addition to the above reason that gender specific needs are not at the forefront of an emergency response, local and infrastructural conditions are also barriers to improving WASH infrastructure in camps and thus promoting MHM. For example, the camp system on the East Aegean islands was intended primarily for temporary shelter but has become a permanent facility in the absence of a more suitable plan (GCR 2019). As a result, respondents highlighted that sanitation facilities for menstruating people remain inadequate as they are neither gender segregated, private nor adequately lighted. There is also a lack of safe disposal systems, causing menstruating people to dispose of their materials in toilets due to fear of being observed. In addition, access to clean water to wash menstrual hygiene products is a problem, as is finding private spaces to dry them. These examples are in accord with the literature review (see chapter 2) indicating several of these examples in other humanitarian settings.

While the literature suggests that the temporary interventions of the refugee camps on the islands do not provide the right to independent living in the long term (GCR 2019), the results of this research suggest a better connectivity between humanitarian and development efforts that allow for more long-term and sustainable solutions. This would include, for instance, a political decision that considers direct relocation of the refugee population to the mainland, where many camps have better infrastructure, including adequate shelters and water systems (IOM 2021). Other solutions could include clear instructions and permission to move from temporary interventions, such as portable toilets, to long-term structural changes, such as sanitary containers that are connected to the municipal water network or user-adapted showering facilities to better support vulnerable groups. For example, the provision of PGI showers in Kara Tepe 2 that are easily accessible and offer human assistance served to be successful and effective for people with specific needs. Additional long-term improvements should include private laundry washing areas to promote more development-oriented approaches, such as products that are economically and environmentally sustainable like reusable menstrual products (Bobel et al. 2020).

7.3. M&E for improved MHM

While there are some toolkits and indicators that assist humanitarian actors in their M&E activities (Sommer et al. 2017; Sphere Project 2018), current M&E

approaches of humanitarian actors proved to be insufficient to inform new programmes due to the lack of sensitive information from the camp population (Sommer et al. 2016). Hence, the literature and the results suggest expanding the range of M&E methods and strategies for better assessing MHM in refugee camp settings (ibid). For instance, one effective way to gather information on the outcomes of WASH implementations, beyond the use of indicators, was reported to be the practice of a wide range of participatory approaches. For example, in Kara Tepe 2 there seems to be increased efforts by humanitarian actors to actively engage migrants in the process for an improved WASH infrastructure in a camp setting through e.g. transit walks, questionnaires and regular consultations with the camp population.

Especially, the latter was perceived as an effective M&E approach to ensure that WASH facilities and services benefit the camp population. Such consultations are preferably held in female-friendly spaces, which most mainland camps have (see Appendix 3). On the islands, however, such protective spaces are largely missing, which is why respondents suggested that shower areas are good contact points to engage with the community around different concerns. Engaging with the camp population was proved to maintain people's endorsement over time and increase their willingness to continue to actively participate in assessments and feedback rounds (Schmitt et al. 2021). Therefore, further efforts to continuously engage the community can improve M&E activities and strengthen the evidence base for effective MHM within WASH programmes (Sommer et al. 2016).

8. Conclusion

This research revealed that women, girls and other people who menstruate continue to be disproportionately affected by the limited access and improper design of WASH facilities and services in the refugee camps in Greece. The unique environment of camp settings and the cultural diversity of the camp population in Greece is challenging when providing adequate, safe and private WASH facilities that comply with the intersecting needs of the camp population.

In an effort to improve MHM while “leaving no one behind”, WASH programming must therefore integrate gender in all levels and stages of institutional and operational activities, including strategic planning, implementation, and M&E activities. The need for this integration is to ensure that gendered needs do not become a silent issue from the onset of an emergency response and stays a high priority within the work of organisations. Above all, gender mainstreaming is central to the way humanitarian actors think about decisions and strategic progress but must be supported from an intersectional approach to capture other cross-cutting inequalities that affect the experience of the camp population.

Therefore, recognising the varying degrees of vulnerabilities and inequalities in the access of WASH facilities and services is fundamental to promote new ways of working together in humanitarian response. For this purpose, humanitarian actors need to go to the grassroots and ensure continuous consultation with women, girls and other people who menstruate, so that they can voice their preferences and menstrual needs. This research revealed the need for enough time and resources, as well as sufficient funding and well-trained staff to address MHM from the onset of an emergency and allow for continuous consultation with target groups. In addition, humanitarian actors are prompted to have a good overview of which actors are involved in the planning and designing of WASH facilities and services and need to better coordinate and collaborate with actors who address MHM in their programmes.

Moving forward, further research around perceptions and need assessments of diverse beneficiaries, as well as new approaches and practical insights on MHM-supportive WASH facilities and services in camp settings are necessary to determine how to best respond to the gender-specific needs of displaced people. In the case of refugee migration in Greece, more practical examples, are necessary, such as the implementation of PGI showers and community engagement to better

bridge the gap between humanitarian aid and development efforts. Moreover, it is vital to make more use of an intersectional approach within research around humanitarian response to examine intersecting dimensions of inequality and to understand the full spectrum of vulnerabilities. Therefore, a greater focus on overlapping or the intersection of multiple forms of exclusion e.g. gender and disability, could produce interesting results that account more for the risk of vulnerability and the inequitable access to WASH resources in emergency situations.

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Appendix 1. Location of Refugee Camps in Greece

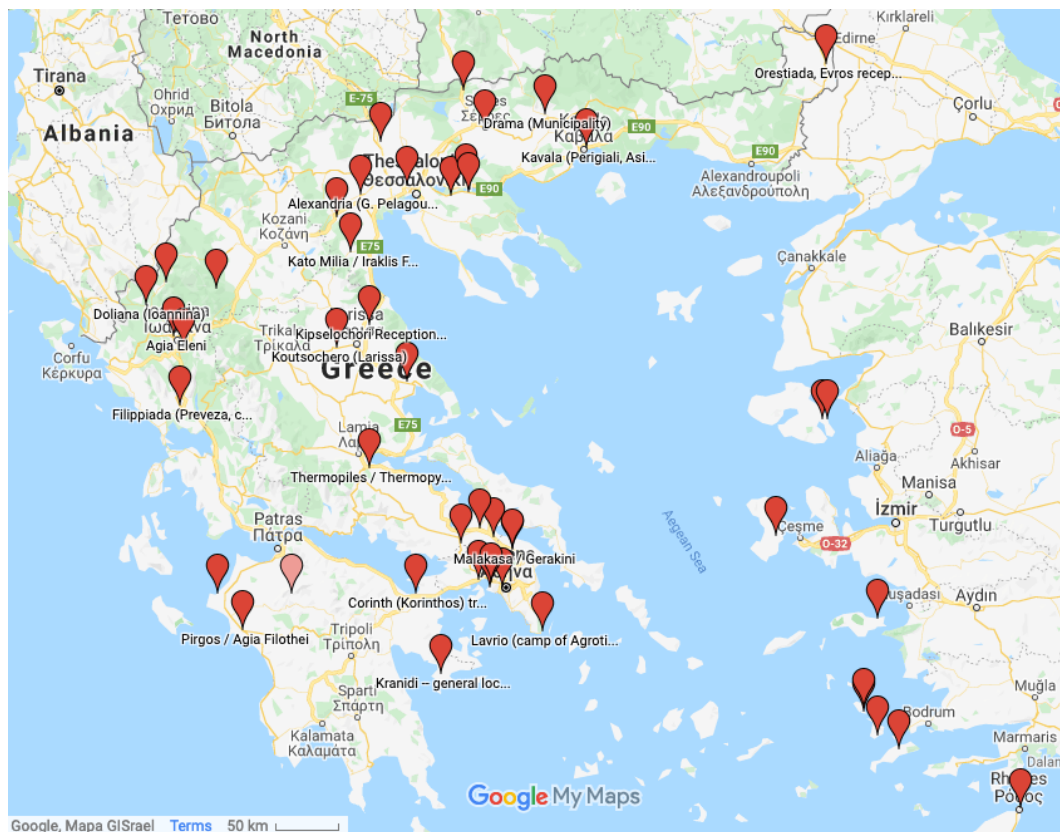


Figure 2. Location of Refugee Camps in Greece according to Zora O'Neill, for Information Point for Lesbos Volunteers (Map Data © 2021 Google Maps)

Appendix 2. Major Refugee Routes to Europe



Figure 3. Major refugee routes to Europe according to Frontex (2021) (Map Data © 2021 Google Maps; adapted by author)

Appendix 3. Statistics on Refugee Camps and Camp Population in Greece

Table 1. Open Accommodation Sites and Camp Population on Mainland Greece (data retrieved from IOM 2021)

Open Accommodation Sites and Camp Population on Mainland Greece (last Update: March 2021)												
Camp Sites	Total Population	Max. Capacity	Occupancy (%)*	Total Shelter Units	Total Area (m2)	Nationality (%)*				Gender & Age (%)		
						Afg.	Syria	Iraq	Others**	Men	Women	Children
Agia Eleni	266	385	69%	80	7,233	46%	12%	22%	20%	18%	25%	57%
Alexandria	694	584	119%	148	36,755	45%	31%	17%	23%	31%	20%	49%
Andravida	72	312	23%	53	50,000	-	86%	11%	3%	28%	32%	40%
Diavata	970	990	98%	170	50,000	49%	18%	18%	15%	34%	24%	42%
Doliana	111	177	63%	28	2,000	-	26%	32%	42%	19%	29%	52%
Drama	262	390	67%	70	41,000	-	67%	21%	12%	22%	19%	59%
Elefsina	162	180	90%	30	4,490	23%	44%	26%	7%	23%	19%	58%
Eleonas	2,086	1,980	105%	366	32,000	38%	28%	5%	29%	32%	27%	41%
Filipiada	689	737	93%	133	45,000	58%	18%	9%	15%	24%	24%	52%
Kato Milia	338	340	99%	340	13,050	27%	49%	12%	12%	31%	25%	44%
Katsikas	1,137	1,152	99%	236	48,000	58%	9%	12%	21%	33%	23%	44%

Kavala	947	1,207	78%	173	17,064	79%	3 %	8%	10%	24%	22%	54%
Klidi-Sintiki	388	492	79%	492	23,000	47%	8%	1%	44%	45%	28%	27%
Korinthos	700	784	89%	196	33,000	49%	18%	2%	31%	42%	27%	31%
Koutsochero	1,379	1,678	83%	403	123,181	56%	22%	7%	15%	41%	25%	34%
Lagadikia	413	426	97%	104	30,002	3%	29%	56%	12%	32%	24%	44%
Lavrio	235	269	87%	86	not defined	31%	29%	3%	37%	36%	21%	43%
Malakasa	1,827	1,785	102%	334	68,230	96%	-	-	4%	38%	24%	38%
Nea Kavala	1,558	1,500	104%	250	54,925	57%	18%	4%	21%	40%	22%	38%
New Malakasa	804	840	96%	210	not defined	27%	28%	1%	44%	41%	25%	34%
Oinofyta	523	621	84%	151	24,047	17%	77%	6%	-	38%	23%	39%
Pirgos	56	80	70%	12	456	55%	29%	11%	5%	-	39%	61%
Ritsona	2,717	2,948	92%	455	175,705	35%	43%	5%	17%	31%	25%	44%
Schisto	843	1,070	79%	194	38,264	66%	21%	7%	6%	31%	23%	46%
Serres	814	1,679	48%	230	84,840	19%	70%	7%	4%	29%	30%	41%
Skaramangas	2,510	3,196	79%	459	84,432	35%	39%	7%	19%	24%	35%	41%
Thermopyles	344	560	61%	110	not defined	-	74%	22%	4%	24%	22%	54%
Thiva	783	965	81%	141	38,000	64%	17%	13%	6%	36%	19%	45%
Vagiochori	768	792	97%	132	18,500	80%	14%	2%	4%	23%	26%	51%
Veria	416	489	85%	139	64,830	-	52%	27%	21%	27%	24%	49%

Volos	123	149	83%	33	9,515	-	34%	19%	47%	38%	22%	40%
Volvi	741	1,000	74%	392	41,000	29%	39%	9%	23%	29%	29%	42%
Grand Total	25,676	29,757	86%	5,704	1,232,519	46%	26%	11%	17%	33%	24%	43%

*rounded values

**including Bangladesh, Cameroon, Congo, Democratic Republic Congo, Egypt, Eritrea, Gambia, Ghana, Guinea, Iran (the Islamic Republic of), Kuwait, Mali, Morocco, Nigeria, Pakistan, Palestinian Territories, Sierra Leone, Somalia, Stateless, Sudan, Togo, Turkey, Yemen or other minorities (<1% each)

Table 2. WASH in Open Accommodation Sites on Mainland Greece (data retrieved from IOM 2021)

WASH in Open Accommodation Sites on Mainland Greece (last Update: March 2021)								
Camp Sites	Type of Shelter Unit	Main WASH Actor(s)	# of Shelter Units with Latrines	# of Latrines in Common Spaces	# of Shelter Units with Showers	# of showers in common spaces	Gender-Segregation of Latrines & Showers	Female-friendly Space
Agia Eleni	apartments/ rooms	Arbeiter-Samariter- Bund (ASB)	0	97	0	87	not defined	YES
Alexandria	apartments/ rooms, containers	Danish Refugee Council (DRC)	148	28	148	25	YES	NO
Andravida	apartments/ rooms	IOM	53	2	53	2	NO	YES
Diavata	containers	not defined	156	31	156	25	YES	YES
Doliana	apartments/ rooms	ASB	0	17	0	12	YES	YES
Drama	apartments/ rooms	IOM	0	54	0	32	YES	YES

Elefsina	apartments/ rooms	IOM	0	13	0	15	YES	YES
Eleonas	containers, tents	IOM	320	18	320	9	YES	YES
Filipiada	containers, partitioned rooms in rubhalls	ASB	104	20	104	12	YES	YES
Kato Milia	containers	IOM	85	5	85	0	NO	YES
Katsikas	containers, partitioned rooms in rubhalls	ASB	208	20	208	12	YES	YES
Kavala	partitioned rooms in rubhalls	IOM	162	9	162	9	YES	YES
Klidi-Sintiki	containers	IOM	0	62	0	48	YES	NO
Korinthos	partitioned rooms in rubhalls	IOM	0	61	0	31	YES	YES
Koutsochero	containers	DRC	403	4	403	6	NO	YES
Lagadikia	containers	DRC	104	13	104	8	YES	NO
Lavrio	cabins	DRC	22	42	22	34	YES	NO
Malakasa	apartments/ room, containers	IOM	293	60	293	30	YES	YES
Nea Kavala	containers	IOM	131	201	131	108	YES	YES
New Malakasa	partitioned rooms in rubhalls	IOM	0	131	0	80	YES	NO
Oinofyta	apartments/ rooms,	IOM	1	65	1	45	YES	YES

	partitioned rooms in rubhalls							
Pirgos	apartments/ rooms	IOM	1	6	1	6	not defined	NO
Ritsona	apartments/ rooms, containers	IOM	453	0	453	0	not defined	YES
Schisto	apartments/ rooms, containers	DRC	168	35	168	31	YES	NO
Serres	apartments/ rooms, containers	IOM	214	12	214	12	YES	YES
Skaramangas	containers	DRC	459	18	459	7	YES	YES
Thermopyles	apartments/ rooms, containers	IOM	59	32	59	28	YES	YES
Thiva	apartments/ rooms, containers	IOM	65	74	65	73	YES	YES
Vagiochori	containers	IOM	132	1	132	2	not defined	YES
Veria	apartments/ rooms	DRC	24	58	24	26	YES	NO
Volos	apartments/ rooms, containers	DRC	0	12	0	12	YES	YES
Volvi	apartments/ rooms	IOM	392	0	392	0	not defined	YES
Grand Total	-	ASB, DRC, IOM	4380 Units/ 73.04%	1201	4380 Units / 73.04%	872	24/32 Sites	24/32 Sites

Table 3. National Situational Picture on the Eastern Aegean islands (data retrieved from General Secretariat for Information and Communication 2021)

National Situational Picture on the Eastern Aegean islands (last Update: May 2021)													
Island	Reception and Identification Centre (RIC)			Ministry of Migration and Asylum			National Centre for Social Solidarity			Hellenic Police Facilities			Migrants present on the island
	Total Population	Max. Capacity	Occupancy (%)*	Total Population	Max. Capacity	Occupancy (%)*	Total Population	Max. Capacity	Occupancy (%)*	Total Population	Max. Capacity	Occupancy (%)*	
Lesvos	6,205	8,000	78%	695	757	92%	140	168	83%	10	-	-	7,050**
Chios	929	1,014	92%	311	320	97%	16	18	89%	1	-	-	1,257
Samos	2411	648	372%	-	-	-	14	17	82%	0	-	-	2,425
Leros	238	860	28%	-	-	-	-	-	-	0	-	-	238
Kos	136	816	17%	-	-	-	-	-	-	184	474	-	320
Others	-	-	-	21	52	-	-	-	-	10	-	-	31
Grand Total	9,919	11,338	87%	1,027	1,129	91%	170	203	74%	205	474		11,321

*rounded values

**excl. Kara Tepe 1 (due to closure)

Appendix 4. Interview Invitation Letter

Dear [insert name],

I would like to invite you to participate in my master's thesis research project on Menstrual Hygiene Management (MHM) in refugee camps in Greece.

My name is Daphne Manolakos, and I am studying Environmental Science in Sweden. I am currently working on my thesis, which explores the challenges and gaps of the current MHM in refugee camps and the need for a broader progressive and inclusive MHM in refugee camps in Greece.

As part of my research, I would like to conduct interviews with humanitarian actors that plan, design or provide WASH facilities and services at headquarter- and field-level. I would like to discuss topics that include the organisation & responsibility of MHM in the refugee camps in Greece, the measurement of the diversity of the refugee population and their diverse menstrual needs, gender equality & social inclusion in practice, monitoring & evaluation of MHM, and recommendations for improved MHM.

Ideally, I would conduct the interviews in March via video or phone call (for approx. 30 minutes). I would appreciate your help and input to participate in an interview and support my research project.

I am looking forward to hearing back from you!

Best regards,

Daphne Manolakos

Appendix 5. Semi-Structured Interview Guide

Introduction

Hello, my name is Daphne Manolakos, and I am studying Environmental Science in Sweden. You have volunteered to participate in an interview, which will last for around 30 minutes. This will be a semi-structured interview, which means that I will be providing some guiding questions. By participating in the study, I assure you that all personal information will be treated confidentially and anonymously.

Purpose

The purpose of this study is to gain further understanding of the current state of MHM in refugee camps in Greece. Therefore, I would like to analyse the efforts to integrate specific menstrual needs of the refugee population into humanitarian response and assess the key challenges that hinder the prioritisation and improvement of MHM in the WASH sector. With this interview, I want to gather current knowledge, attitudes and practices of various people that are involved in emergency response, MHM and have experience with refugee settings.

Consent Form

Finally, and before we start, I would like to ask you for your permission to record the interview. This recording is only for my personal use, which helps me for my research analysis. All records will be made available only to me and will be deleted upon completion of the thesis.

Content Questions *[set of questions that depend on the professional backgrounds and management levels of the respondents]*

Organisation and Responsibility of MHM

1. Can you introduce yourself and how you or your organisation is involved in MHM in refugee settings?
2. Who is responsible for the planning and implementation of MHM interventions in the refugee camps? Is it organised cross-sectoral (e.g. education, health, community development sector)?

3. Is there some form of information sharing between sectors/organisations on MHM?
 - a. If yes, how is it performed? How do organisations distribute the tasks of MHM? What is going well and what not?
 - b. If not, how would you like to accomplish this?
4. Are the beneficiaries actively involved in the planning of MHM?
5. How is the situation in the refugee camps on the mainland and on the islands of Greece? What are the differences in MHM?
6. How is the situation now during the pandemic? What measures are taken and how is MHM carried out?

Measurement of Diversity of the Refugee Population

7. Are there any existing measures to ensure that the most vulnerable amongst the refugees (i.e. persons with disabilities, injured people, orphans, transgender men and nonbinary people, etc.) are able to access WASH services in terms of managing their menstruation?
8. How are these people identified and how are their menstrual needs considered in the planning and implementing of MHM interventions?
 - a. Can you see any gaps or areas for further improvement?
9. Do you believe socially disaggregated data, including nationality, age, socio-economic class, religion, (dis)ability etc. of the refugee population can help to enhance MHM responses by government agencies, humanitarian agencies, INGOs and other stakeholders? Why (not)?

Gender Equality and Social Inclusion

10. In your opinion, what does a commitment to gender equality & social inclusion (in your organisation) mean in practice in terms of MHM?
11. When incorporating a gender approach into programmes & practices of humanitarian response, do you believe the diversity amongst people is adequately addressed?
12. In your opinion, how can we enhance MHM to contribute to gender equality and social inclusion?
13. Do you believe an intersectional approach (*recognising the multiple axes of difference that account for people's identities, including gender, race, ethnicity, socio-economic class, religion, age, (dis)ability and other factors*) would help to broaden the gender approach?

Monitoring and Evaluation

14. When integrating MHM into humanitarian and emergency response, do you follow any toolkits/checklists? Do you adapt these toolkits to suit to the camp population and the camps setting and if so, how? (point out to Sphere

standards, MHM emergency toolkit Columbia University and International Rescue Committee etc.)

15. What monitoring and evaluation activities do you have in place for the WASH services you provide to the refugees?
 - a. Who assesses whether MHM interventions are successful or not?
 - b. Are preferences, needs and aspirations adapted to the changing refugee population?

Recommendations for improved MHM

16. Based on your experience, what solutions or actions can be taken that most adequately respond to the diverse needs of refugees in relation to their MHM? In what ways could refugee camp settings be designed to better support people with managing their menstruation?
17. What are your/ your organisation's main plans/goals to improve MHM in refugee settings in the future?

Closing Instruction

18. Before we end the interview, is there any further information that you would like to share that we have not covered in the interview?

This is the end of the interview. Thank you so much for your time and contributions.

Appendix 6. Complete List of Interviews

Table 4. Complete List of Interviews

Respondent	Date of Interview	Length of Interview (h:mm)	Respondent's Role during the Interview	Reference to refugee camps in Greece	Professional Background/Activities related to WASH and MHM
1	06.03.2021	0:34	WASH engineer	-	Worked for an INGO that built sanitation and washing facilities in refugee camps
2	08.03.2021	0:38	Volunteer	Athens, Lesvos	Supported an Association for women by providing them with menstrual hygiene products, hygiene information, etc.
3	10.03.2021	0:47	Volunteer	Ritsona	Supported different INGOs with hygiene promotion
4	12.03.2021	0:26	WASH specialist and researcher on MHM	-	Worked for a Non-profit institute that provides research around environmental health issues
5	16.03.2021	0:38	WASH and MHM specialist	-	Worked for an INGO and promoted WASH and MHM in humanitarian settings

6	17.03.2021	0:25	WASH advisor	-	Worked in an Emergency Support Department that addressed the water and sanitation needs of displaced populations in the acute phase of the emergency
7	17.03.2021	0:36	Volunteer	-	Supported an INGO on hygiene promotion
8	18.03.2021	1:00	Global WASH coordinator	-	Managed the knowledge of WASH between organisations and coordinated the overall strategy of WASH programmes worldwide
9	18.03.2021	0:25	Volunteer	Samos, Serres	Worked in a female-friendly space in a refugee camp in Greece and provided menstrual hygiene products to the refugee population
10	19.03.2021	0:25	Environmental Health and WASH Officer	Lesvos (Kara Tepe 2)	Worked for an INGO on hygiene promotion
11	23.03.2021	0:57	WASH delegate and hygiene promoter	Lesvos (Kara Tepe 2)	Worked for an INGO on hygiene promotion in a six-month mission
12	24.03.2021	0:37	WASH delegate, hygiene promoter and nurse	Lesvos (Kara Tepe 2)	Worked for an INGO on hygiene promotion in a six-month mission

Appendix 7. Reflexive Thematic Analysis

Table 5. Reflexive Thematic Analysis

Codes (frequency of codes in interviews)	Basic Themes	Global Themes
MHM incorporated in operational activities (8) process of integrating MHM is very slow (6) no proper space for MHM (3)	Disparities in MHM programme delivery	Current state of MHM and WASH in refugee camps in Greece
Mainland: good WASH access (3) Mainland: refugees live in caravans or tents (2) Islands: overcrowded (5) Islands: limited services for basic needs (4) issue of gender-based-violence (5) limited privacy and protection (15)	Disparities in camp infrastructure across camp sites	
immediate needs are highest priority (4) MHM addressed at later stage of operation (5) limited expertise and resources (18) limited consideration of gender-specific needs (14)	Low prioritisation of MHM	Issues of short-term planning of emergency response

male-dominated sector (4) need for more women in WASH positions (3) need of training (11)		
substantial funding for WASH (2) limited funding on MHM (4) loads of donations from other European countries (5) purchase MHM products at local supermarket (2) need of more financial support (3)	Inadequate donor support and limited funding	
limited assessment on needs and preferences (20) need of community engagement (19) capturing diverse people in camps (6) wrong design of sanitation facilities (4) limited consideration of people with special needs (15) conducting FGDs with community (6) importance of socially disaggregated data (3)	Lack of assessing beneficiaries' needs and preferences	
different activities on MHM among actors and sectors (7) regular meetings on WASH activities (4) need of a unified position of MHM (3) many small organisations involved (5) poor level of intersectoral communication (5)	Inadequate Coordination of Responsibilities	Gaps around implementing MHM-supportive WASH infrastructure
only short-term solutions (6) lack of proper WASH facilities (10) poor hygienic conditions (8)	Temporary nature of refugee camps	
lack of gender-segregated sanitation facilities (5)	Lack of “menstruation-friendly” WASH facilities	

long distances from tents to toilets (2) limited privacy and protection (15) issue of safe disposal system (7) lack of protective places to wash reusable products (4) need of long-term constructions (4)		
shower area for people with special needs (3) assistance of volunteers (3) need of more PGI showers (2)	Progress towards protection, gender and inclusion (PGI) showers	
gap in the provision of MHM due to Covid-19 (10) Covid-19 protective measures (9) limited access to community (4) residents are limited to leave the camps (3) limited access to Women Centre (15)	Limitations due to Covid-19	
monitor usability of shower facilities (2) transit walks (2) involving community volunteers (3) questionnaires as a feedback tool (2)	Different M&E approaches	Activities around monitoring and evaluation (M&E)
different feedback mechanisms (5) secure protective spaces for women and girls (3) importance of community engagement (16) example black plastic bags (3)	Need for improved M&E activities	