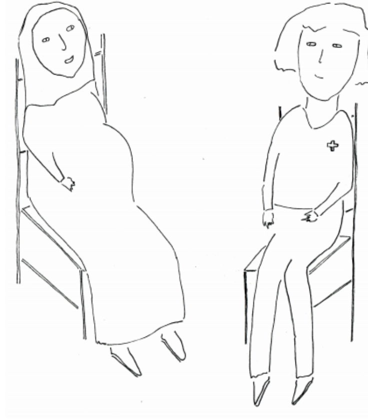
Perspectives of pregnant asylum-seeking women on implementation of a screening tool for anxiety, depression and PTSD.



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- UMCG, department of general practice and elderly medicine, unit Midwifery Science.
- Midwifery practice New Life.

This study was funded by Share Net International.

ABSTRACT

Background: Worldwide, in 2019, 4.1 million people fled their country of origin, out of which 20,353 applied for asylum status in the Netherlands. The prevalence of post-traumatic stress disorder (PTSD), anxiety and depression in pregnant asylum-seeking women is 48.2%, 41,8% and 42% respectively. The current Dutch guidelines for midwives concerning asylum seeking women, do not specify which method is most suitable to use to detect PTSD, anxiety disorder and depression within this population. This study aims to identify the most suitable and acceptable method to discuss psychiatric symptoms in pregnant asylum seekers.
Methodology: To answer the research question, semi-structured interviews with pregnant asylum seekers were performed. The women first filled out a questionnaire regarding their demographic, psychiatric and obstetric characteristics, and then a mental health screening test, the Refugee Health Screener 15 (RHS-15). During the subsequent semi-structured interview, we discussed the acceptability and suitability of the use of the RHS-15 to open up dialogue about PTSD, anxiety disorders and depression.
Results: Three main themes emerged from the semi-structured interviews: importance of mental health screening, talking about mental health and the RHS-15 as a screening tool for PTSD, anxiety and depression. All participants found it necessary and meaningful to talk about their mental health with a primary health care provider. Barriers and facilitators to start such a conversation and use of the RHS-15 in pregnant asylum seekers were also highlighted. Examples of enablers or barriers are the language barrier, cultural differences, relationship with the health care providers and other practical barriers such as the long waiting time or difficulties in arranging appointments.
Conclusions: This study elucidates how to screen pregnant asylum seekers for mental health from their perspective. Using the RHS-15 as a screening tool for mental health is acceptable and suitable for this population. Recommendations on how to use the RHS-15 were discussed which can be used for implementation in clinical guidelines for midwives taking care of pregnant asylum seekers in the Netherlands.

NEDERLANDSE SAMENVATTING

Achtergrond: 4,1 miljoen mensen wereldwijd ontvluchten in 2019 hun land van herkomst. 20.353 van deze vluchtelingen vroegen in Nederland asiel aan. De prevalentie van posttraumatische stressstoornis (PTSS), angst en depressie bij zwangere asielzoeksters is respectievelijk 48,2%, 41,8% en 42%. De huidige Nederlandse richtlijnen voor verloskundigen met betrekking tot asielzoeksters specificeren niet wat de meest geschikt methode is om te screenen op PTSS, angststoornis en depressie binnen deze populatie. Het doel van dit onderzoek is om in kaart te brengen wat de meest geschikte en aanvaardbare methode is om psychologische symptomen bij zwangere asielzoekers te bespreken.
Methoden: Om de onderzoeksvraag te beantwoorden vonden semigestructureerde interviews met zwangere asielzoekers plaats. De vrouwen hebben vragenlijsten over hun demografische, obstetrische en psychiatrische kenmerken ingevuld en daarna hebben ze een screening test voor mentale gezondheid, de Refugee Health Screener -15 (RHS-15) ingevuld. Tijdens de interviews werden de aanvaardbaarheid en geschiktheid van de RHS-15 besproken om het gesprek over PTSS, angststoornissen en depressie aan te gaan.
Resultaten: Uit de semigestructureerde interviews komen drie hoofdthema's naar voren: belang van screening op mentale gezondheidsproblemen, het praten over mentale gezondheid en de RHS-15 als screeningstest voor PTSS, angst stoornis en depressie. Alle deelnemers vonden het nodig en zinvol om met een eerstelijns zorgverlener over hun mentale gezondheid te praten. Belemmerende en bevorderende factoren om een dergelijk gesprek te beginnen en de RHS-15 te gebruiken met zwangere asielzoekers, kwamen ook naar voren. Voorbeelden hiervan zijn de taalbarrière, culturele verschillen, de relatie met de zorgverleners en andere praktische barrières zoals de lange wachttijd of moeilijkheden bij het regelen van afspraken.
Conclusies: Dit onderzoek verduidelijkt het perspectief van zwangere asielzoekers op hoe zij zouden kunnen worden gescreend op mentale gezondheidsproblemen. Een screeningstest in de vorm van de RHS-15 voor mentale gezondheid is in het algemeen aanvaardbaar en geschikt voor deze populatie en er zijn enkele aanbevelingen verschenen die kunnen worden gebruikt voor de klinische richtlijnen voor verloskundigen die zwangere asielzoekers in Nederland begeleiden.

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INTRODUCTION

With 3.5 million asylum seekers worldwide in 2018 and 4.1 million in 2019[1] the 21st century has been defined as the age of migration[2]. The number of people on the move or forced to flee their home is continuously increasing and migration carries many health risks[3]. An asylum seeker is an individual who seeks international protection, whose claim for refugee status has not yet been determined[4]. In 2019, 22,533 people applied for asylum in the Netherlands[5].
In the past years there has been a "feminization of migration" with female migrants in Europe comprising 51,2% of the total migrant population in 2019[1,6]. Being a woman on the move carries many risks and oppressions. Asylum seeking women are often exposed to sexual abuse, violence, unwanted pregnancies, sexual transmitted diseases, unwanted marriages, forced prostitution and little to no access to reproductive health care[3,6]. The Lancet commission on Health and Migration of 2018 states that there were approximately 20 million pregnant women migrating to high income countries[3].
Once a pregnant woman decides to flee her country of origin, she is exposed to a large number of stressors. These stressors can be pre-migratory or post-migratory[7]. Pre-migratory stressors include forced migration, persecution, war, famine, adverse social and political situation[7]. Post-migratory stressors include a loss of social network, a lower social status, and insecurity regarding the asylum status[7]. All these stressors can increase the risk of psychiatric disorders. The prevalence of PTSD, anxiety and depression in pregnant asylum-seeking women is high: 48.2%, 41,8% and 42% respectively[8]. Perinatal psychiatric disorders increase the likelihood of adverse pregnancy outcomes in the general population, including preterm birth, small for gestational age infants, caesarean delivery and admittance to a neonatal care unit[9]. Among women with psychiatric disorders, suicide is one of the main causes of maternal death in the postpartum period[9] and it accounts for 9-13% of all maternal mortality[10]. Symptoms of antenatal depression are associated with an increased risk of premature delivery[11]. Also, associations between anxiety disorders, preterm birth and low birth weight have been described[11] and PTSD is linked with low birth weight and low rates of breastfeeding[12]. Considering the high risk of adverse pregnancy outcomes in asylum seeking women increasing the quality of antenatal care and paying attention to mental health is of great importance.
Antenatal care for this population is still substandard[13]. Substandard factors of care include delays in consulting medical advice, delays in symptom recognition by healthcare providers and delays in referral[13]. Asylum-seekers experience more mental health problems, such as PTSD, anxiety and depression symptoms when compared to the Dutch population[14,15]. Yet, asylum seekers visit health care providers (HCPs) and psychiatric clinics less often than the Dutch population[15]. It is therefore extremely important to screen them and then treat their symptoms of mental health disorders. Without early screening and treatment, symptoms of perinatal mental health disorders can drag on for years and cause poor perinatal outcomes[16]. In the general pregnant population, there is a lack of a routine screening test for mental health disorders and this can cause up to 80% of perinatal depression and anxiety cases to be undetected[16]. Integrating early preventive interventions for maternal mental health is beneficial in underserved and marginalized populations[16]. Early screening in pregnancy for PTSD, anxiety and depression and subsequent referrals are highly recommended in the asylum-seeking population. The screening needs to be suitable and valid in order to identify women who may benefit from referral. Currently, the Dutch guidelines for midwives (Koninklijke Nederlandse Organisatie van Verloskundigen; KNOV) advises a psychosocial

interview during the prenatal care period[17]. However, there is no specific advice on how to conduct the interview and how to assure that it is trans-culturally appropriate[17]. A recent systematic review on migrant women's experiences of pregnancy, childbirth and maternity care in Europe concluded that future research and policies should address women's social and mental health problems alongside their maternal wellbeing, in a culturally competent way[18]. The suitability of screening pregnant asylum-seeking women and how mental health disorders may best be discussed has not yet been studied in the Netherlands. The majority of studies addressing mental health screening in pregnant asylum seekers, refugees or migrants were performed in Australia, Canada and the Thai-Myanmar border[19-30]. Until now, studies that investigated the implementation of screening tests in the perinatal period for mental health, focused mainly on perinatal and postnatal depression and anxiety[8,19-30]. Only two studies include screening tests for PTSD[20,23]. The most widely used screening test is the Edinburgh Postnatal Depression Scale (EPDS). Studies using the EPDS in the migrant population highlighted shortcomings of the EPDS in this population and did not deem the EPDS transculturally appropriate[19,23,24,26,28,29]. The RHS-15 (refugee health screener 15) is a transculturally validated screening test, available in multiple languages, for the screening and detection of PTSD, anxiety disorders and depression symptoms in refugee populations[31,32,33]. The RHS-15 questionnaire focuses on tangible symptoms such as muscle pain, feeling sad, crying a lot and so on[32,33].
Semi-structured interviews were chosen to be used in this study as we sought to gather information on pregnant asylum seekers' personal experiences, attitudes, perceptions and beliefs related to the diagnosis of mental health disorders[34,35]. During a semi-structured interview, the researcher asks a participant probing, open ended questions in a safe and comfortable enviroment[34,35].
This study aims to identify a suitable method to open up the dialogue and screen for PTSD, anxiety disorders and depression in pregnant asylum seekers in a culturally appropriate way. We want to study whether a mental health screening test in the form of the RHS-15 could be a valuable addition to the current Dutch guidelines regarding obstetric care for asylum-seeking women (ketenrichtlijn geboortezorg asielzoekers)[17].

RESEARCH QUESTION

The main research questions are:

1. What is the most suitable way to open up dialogue about PTSD, anxiety and depression in pregnant asylum-seeking women from their perspective?
2. Is the use of the RHS-15 suitable for the screening of PTSD, anxiety and depression to pregnant asylum seekers in the current Dutch guidelines regarding obstetric care for asylum seekers?

Sub-questions:

1. Is it important to screen asylum seekers during pregnancy for psychiatric disorders according to pregnant asylum seekers?
2. Can complaints of stress, anxiety and depression be discussed in group centred care?
3. What are the barriers and facilitators to implementation of the screening test?

MATERIAL AND METHODS

To answer our research questions, we conducted a qualitative study using semi-structured interviews with pregnant asylum seekers living in the asylum seeker centre (ASC) of Ter Apel. The COREQ (COnsolidated criteria for REporting Qualitative research) checklist was used in order to ensure all relevant aspects of the research were reported in this report[36].

Population

Pregnant asylum-seeking women who were admitted to the Central Reception Location (Centrale Ontvangst Locatie (COL) or Process Reception Location (Procesopvanglocatie (POL)) of the Centraal Orgaan opvang Asielzoekers (COA) in Ter Apel were asked to be recruited as participants. All pregnant asylum-seeking women were registered at the local midwifery clinic NewLife. Ter Apel is the only central location of the COA in the Netherlands so all asylum seekers who enter the country are accommodated here first.
Due to the low numbers of pregnant asylum seekers available during the time of the study, because of the Covid-19 pandemic, the sampling method used was one of convenience sampling, meaning that we recruited every patient who was available. During the recruitment phase women were asked by their midwives whether we could approach them for participation in the study. If so, women were visited by the investigator (supported by an interpreter) to receive further information about the study (oral and written information). Women were asked to read and sign the informed consent form before participating in the study.

Inclusion criteria

In order to be eligible to participate in this study, a potential participant had to be a pregnant asylum-seeking woman older than 18 years old who recently (within the last 3 years) arrived in the Netherlands.

Exclusion criteria

Pregnant asylum-seeking women who were known to suffer from psychotic symptoms (confused speech, hallucinations, delusions, etc.) were excluded from the study. This was determined on the impression of the midwife and the researcher in consultation with a psychologist.

Sample size calculation

Within qualitative research, data saturation is defined as the number of participants at which no new information is generated from further data collection[37]. Given that the same set of questions is used in all interviews, six to twelve semi-structured interviews were enough to reach data saturation[38].

Outcomes

The main study endpoint is to understand how to best detect symptoms of PTSD, anxiety and depression in pregnant asylum-seeking women in the Netherlands and how to best implement a screening test in the current Dutch guidelines, according to the pregnant asylum seekers.
The main outcomes are asylum seeking women’s opinion on:

1. The importance of screening pregnant asylum seekers for psychiatric disorders.

2. How to open up dialog about mental health problems.
3. Use of the RHS-15 for pregnant asylum-seeking women.
4. How the screening test should be performed: alone, in groups, together with a healthcare professional etc.
5. Barriers and enablers for implementation of the RHS-15.
6. Whether referral to a specialist or a general practitioner would be accepted.

Data collection

After giving informed consent to participate, the study consisted of 3 parts:

1. An anonymous questionnaire about their demographic, obstetric, psychiatric and social history (Appendix 1). The questionnaire provided data regarding the women's health status and social situation to give an overview of the study participants.
2. A transculturally validated screening test, the RHS-15 (Appendix 2). To be able to discuss the use of a questionnaire for the screening of PTSD, anxiety and depression in pregnant asylum-seeking women, women were asked to fill out the RHS-15.
3. The semi-structured interview, which lasted 60 to 90 minutes. Interviews were led by a moderator (Elena Soldati) accompanied by an observer (Anouk Verschuuren), a psychologist (Lise Hacquebord or Aurora Maria Ulgiati) and an experienced interpreter. Interviews took place inside the ASC of Ter Apel in the "women's room" inside the activities building.

To ensure cultural sensitivity, the anonymous questionnaire, the screening test and the interview script (Appendix 3) were reviewed by prof. W. Veling (psychiatrist and expert in transcultural psychiatry) Ms. C. Clous (medical anthropologist working at "Centrum voor Transculturele Psychiatrie Veldzicht") and Ms. K. Alharba (Syrian woman, former asylum seeker, now Dutch resident and mother of two children). Their feedback was implemented in the different documents. A pilot of the semi-structured interview was performed with Ms. A. Afolabi, a medical student, to test whether the interview could be performed within 90 minutes and get a final feedback on the cultural sensitivity of the questions asked.

Semi-structured interviews

Semi-structured interviews offer a contained and safe environment, which gives the opportunity to obtain detailed and in-depth information from the women [39,40]. A way to generate discussion, keep the conversation flowing and clarify difficult concepts is by use of visualisation tools[41]. Using such tools is helpful when participants speak a different language or have low literacy levels[42]. Drawings by artist Kenneth Moreno-Kiernan, especially made for this study, were used. It is also important that the moderator is experienced in leading interviews. The participants need to feel comfortable and at ease, to be able to disclose their opinions. The moderator (Elena Soldati) attended a course for conducting focus group interviews and qualitative research techniques and performed a pilot interview before starting with the data collection. Anouk Verschuuren, PhD student, assisted during the interview as an observer. Finally, the team present during the interviews; moderator, observer, interpreters and psychologist, was purposefully only composed of women, so that the participants could feel more at ease during the interviews.

Qualitative analysis
Initially the data gathered from the semi-structured interviews was transcribed. Transcription was verbatim and native speakers were hired to transcribe the non-English parts of the interviews. During transcription any personal information that could reveal a participant's identity was anonymized. Once the text was transcribed and translated into English the data analysis started. The data analysis was divided in six steps and was performed for each interview[41]. First, all meaningful text fragments were highlighted. Afterwards, each fragment was assigned one or more labels (or codes). This process continued until there were no more labels or no more fragments left and is called open coding[41]. Once done with one interview, we checked the validity of the labels created by checking if they could be used in a subsequent interview. After open coding of the first 3 interviews, we looked for links between different labels and to see if they could be incorporated into a more inclusive label. This is called axial coding and aims to make an overview of all remaining labels[41]. Then all the other interviews were analysed. Once the labels were checked a few core labels were created from the existing ones. These core labels are necessary in order to answer the research questions[41]. These core labels, or categories are systematically interrelated and they brought to a broader understanding and relevance of the data[42]. Finally, the content was compared between interviews, to analyse whether similar answers have emerged in different interviews. Atlas.ti 8© was used to analyse data. The final analysis was performed by Elena Soldati and Anouk Verschuuren under supervision of Dr. Esther Feijen-de Jong.

Ethical considerations
This study was reviewed and approved by the Medical Ethical committee of the university hospital of Groningen, the Netherlands. The METc reference number is 2020/301.

RESULTS
We conducted eight individual interviews with pregnant asylum-seeking women over a period of one month. During the course of the study twelve women agreed to participate and signed the consent form. Three women did not attend the interviews because of a transfer to another ASC. One woman did not attend multiple appointments for the interview because she felt too tired. No participants left during the interviews. The duration of the interviews varied between 36 and 84 minutes.

Background of the participants
The participants' country of origin was various: Uganda, Tunisia, Turkey, Syria, Nigeria, Gambia, Turkey and Iraq. Most of them spoke English, three didn't and professional interpreters were used for the interviews. The participants were all between 18 and 40 years old. The time they had spent in the ASC in Ter Apel varied between 1 week and 1 year, with most women having spent at least 3 months there. Only one participant was alone in the Netherlands, the others had children and / or a partner. Their family was the main reason for the participants to be strong and have hope. Regarding their obstetric history, two women were primipara and six were multipara. Six of them didn't have any complications in their current pregnancies, whereas half of them experienced complications in previous pregnancies and/or deliveries. Three women interviewed had been diagnosed with a psychiatric disorder in

the past and five had been victims of either mental or physical abuse or both. For further details, see Table 1 to Table 3. All data from the demographic questionnaire was self-reported. During the meetings with participants, we measured the time it took to fill in the screening test. On average it took 10 minutes to fill in the RHS-15 with the shortest time being 7 and longest 17 minutes. The longest time being with the assistance of an interpreter.

Table 1: demographic characteristics of interview participants

Participant number	Age (years)	Country of origin	Language spoken	Arrival in ASC	Relatives in the Netherlands	Relationship status	Hope, strength and resources
1	25-30	Uganda	English	Last month	No	Single	Praying, kids & friends.
2	30-35	Tunisia	English	12 months	Husband & Children	Married	The belief that tomorrow will be better. Praying, sport, sitting alone and husband.
3	25-30	Turkey	English	Last week	Husband	Married	Religion, family and future baby.
4	25-30	Syria	Arabic	Last 3 months	Partner	Married	Family, partner, faith and sport.
5	30-35	Nigeria	English	Last 3 months	Children	Partner, not married	Kids, especially playing with kids.
6	18-24	Gambia	English	Last 3 months	Children	Single	Baby and child.
7	35-40	Turkey	Turkish	12 months	Husband & Children	Married	Family: support and doing activities.
8	25-30	Iraq	Arabic	5 months	Husband & Children	Married	My son.

Table 2: Obstetric history

Participant number	Gestational age	Complication in current pregnancy	Number of past pregnancies	Living children	Previous delivery	Complications past pregnancy
1	19 weeks	None	3	2	Vaginal	Delivery before 37 weeks
2	12 weeks	None	2	1	Cesarean section	High blood pressure
3	28 weeks	None	1	None	-	-
4	13 weeks	None	3	None	-	-
5	38 weeks	Diabetes	4	3	Cesarean section	Diabetes
6	40 weeks	Hepatitis B	2	1	Vaginal	Uterine rupture
7	22 weeks	None	2	1	Vaginal	None
8	37 weeks	None	2	1	Cesarean section	None

Table 3: psychiatric history

Participant number	Psychiatric disorder	Psychiatric disorder during or after a past pregnancy	Mental abuse	Physical abuse
1	Depression	Depression	Yes, in the past	Yes, in the past
2	None	None	No	No
3	Panic attacks	None	Yes	No
4	Anxiety	Anxiety	No	No
5	None	None	Yes	Yes
6	None	None	Yes	Yes
7	None	None	No	No
8	None	None	Yes. In the past	No

Results from the semi-structured interviews

Three overarching themes emerged from the interviews: 'Importance of mental health screening', 'Talking about mental health' and 'Use of the RHS-15'. Each theme includes multiple closely interrelated sub themes shown in figure 1 for a general overview. A more comprehensive overview with sub themes can be found in appendix 4.

Within qualitative research there are three main ways to define saturation. Theoretical saturation: when new data does not lead to new themes, data saturation: when new data is a repetition of what was already expressed in the previous data, and, finally, a hybrid form of the previous two[43]. In this study both theoretical saturation and data saturation were reached after five interviews. As the data were collected via interviews with the same script an extensive repetition of answers was noticed, despite participants' varied backgrounds. As themes emerged from the data, we noticed consistent overlap between the different themes and the new interview data. As shown in Appendix 5, only seven out of 31 themes are relatively unique to one or two participants. All main themes (appendix 4 and 5) were repeated by every participant.

The quotations from the participants are highlighted in italics and questions to the participants are marked as "Q" and their answers as "A".

Figure 1, main themes.

Importance of mental health screening

There was consistency throughout the interviews concerning the necessity of mental health screening during pregnancy for the asylum-seeking population.

<u>Vulnerability</u>

All women interviewed mentioned and recognized that pregnant asylum seekers experience many difficulties that render them suceptible for mental health problems. Next to pregnancy itself, issues that emerged were loneliness, lack of support system, traumatic past experiences,

lack of an occupation, worries regarding family and future and insecurities regarding the asylum procedure.
"If you are alone as a pregnant woman in a different country you can also be depressed. If you don't have people around to help you and guide you... They are alone to deal with these kinds of issues that can be new for them. They need your support to help them, to guide them, to keep it up with this pregnancy because it's a very long journey." (participant 4)
The participants also expressed lack of coping mechanisms. Back home they would have distractions like friends and family or a job. Here they are alone with their thoughts all day. Women mentioned being alone, crying, calling relatives or friends on the phone or trying to stay strong by themselves for their other children as ways of dealing with stress.
"*I don't know nobody here. It is only me and my baby [...] I would sit down, I would cry, I will not talk to nobody." (participant 6)*

You don't ask, I don't tell
Most pregnant asylum-seeking women would not spontaneously initiate a conversation about mental health with an HCP. The HCP should take initiative and ask specific questions.
''If no one asks you your problem, I don't think anyone wants to explain their problem.'' (participant 3)
Reasons for not telling an HCP spontaneously were difficulties to start such a conversation, seeing mental health symptoms as normal, the language barrier, blaming themselves and not knowing they could have a problem. Most pregnant asylum-seeking women also would not come up with the idea of talking to a psychologist on their own.
"Because for me, when I have a bad mood or I feel really sad or stressed, I just want to be alone, like I will think alone and at the end I will try to push myself up. I will not really think to go see a psychologist or to talk with somebody else." (participant 2)
Three women mentioned a lack of encouragement or guidance as the main reason why they never received mental health care or talked about mental health problems with their midwife or doctor. Encouragement to talk about mental health and guidance navigating the mental health system would facilitate seeking mental health care.
A: "For sure if a pregnant woman thinks she need a psychologist she will go, but someone has to support her for that."
Q: "Ok, who should encourage her?"
A: "The doctor who follows my pregnancy, or someone who is responsible on checking up on us" (participant 8)

HCPs should know
Women agreed that their midwife and doctor should know their story, personal problems and mental wellbeing. Understanding a woman's context was considered necessary for proper treatment. At the same time women mentioned that nobody had asked about their past or mental wellbeing since they arrived in the ASC.
''It is important for me that a doctor or midwife knows what I have been through. Especially under these circumstances'' (participant 7)

Accept treatment
When talking about mental health women stated that ''asking is not enough''. All women agreed that HCPs should not only ask pregnant asylum-seeking women about mental health, but also offer help if necessary.
Q: ''Do you think it would be good if a midwife would start asking you this question?''

A: ‘‘That would be good, I think, but not only asking. … if you give only that questions and then no treatment, that doesn't help.’’ (participant 3)
Seven women agreed that HCPs could help them relieve stress or other mental health problems. When asked how women think HCPs can help them, women suggested just talking, asking the right questions, providing advice and offering medication for pain or sleeping problems. Only one woman stated that the symptoms and mental stress she experienced were related to the pregnancy and she didn’t want to disturb the doctor or midwife with her problems. She didn’t think that the HCP could help her with these problems.
“Even sometimes when I go there, she says, are you OK? Are you feeling any pain? Even though I feel pain, I say, no, I don't feel pain. Because you will not take away the pain for me.” (participant 5)
All women agreed to accept psychological treatment if their doctor or midwife recommended it. Three women mentioned that other asylum-seeking women might have restraints because of family pressure, shame or stigma. Two women had already asked for or had an appointment with a psychologist in the past. Three women wanted the researchers to get in touch with their midwife to schedule an appointment with a psychologist.
“If someone asked me: you need to go to a psychologist. I would accept it. I'm sure my husband also [..] Supports me” (participant 3)

Talking about mental health

Willingness to talk and tell their own story

The asylum-seeking women considered being able to tell their own story and express their own feelings essential.
“It's me who knows how I feel, not you out of my story.” (participant 1)
All women were willing to talk about mental health as long as it was a certified HCP asking. One woman, however, mentioned that maybe not all asylum-seeking women will accept other people asking about mental problems.

Barriers and facilitators

During the interviews women mentioned a language barrier, cultural barrier, practical barriers, relationship with HCP and confusion about the Dutch health care system as barriers to talking about mental health and seeking help.

- Language barrier
  One woman made an observation regarding the difficulty of talking about mental health when there is a language barrier.
  “If no one asked you your problem, I don’t think anyone wants to explain their problem. And the language problem also they have. And also, maybe Middle East people, maybe don't like to share this kind of problems directly to another person without asking, especially.” (participant 3)

- Cultural differences
  Stories about mental health treatment and stigma in the women’s countries of origin varied greatly. In general, it was not simple to receive mental health care for women back home. Some women mentioned a psychologist was only accessible to the wealthy and normal people often got traditional medicine treatments. Other women mentioned that mental problems were often kept secret. In some home countries shame and taboos were associated with mental health. When asked about the perception of mental health in the ASC, the perception of the women changed. They

had seen other people going to a psychologist or they understood that due to past traumatic experience it is normal for people to need mental support.
“Before in Iraq, if you go to the psychologist, they think that you are crazy, but because of the situation now everything has changed. Because it has been too much now people already accept the idea, they accept to go to a psychologist because it helps them.” (participant 8)
Another cultural factor identified was the importance of family. Family support was a significant factor mentioned with regards to talking about mental health and seeking help. Some women feared the judgement and disapproval of their family or partner, while others said that they would receive encouragement to seek psychological care.
“Yes, it is normal now in Iraq, if a person is psychologically not feeling well, his/her family members advise that person to see a psychologist.” (participant 8)
“If your family doesn't support going to a psychologist, maybe they would tell you I don't have a mental problem. I am not crazy and my husband doesn't want it.” (participant 3)
The partner had also a lot of influence on the decision of the women and one woman suggested that he should also play a role as the HCP takes the screening test or discusses mental health.
“Yes, I would like him to be with me, you can also answer some questions for me because he lived with me during that period, so he knows my situation” (participant 4)

- Relationship with HCP

All women interviewed had great trust in Dutch midwives, doctors or psychologists. Women had trust in them even if they had unpleasant experiences in the past.
“For me, these kinds of people or this kind of specialist, I trust them, um, uh, immediately. So I don't need like to know her or uh, uh, for me, I have no problem that she will ask, uh, this kind of question, uh, because I know it's in my own good.” (participant 2)
Factors mentioned that would improve this trust, were HCP taking enough time and showing real interest. Explanation from the HCP about their role was also deemed necessary. While all women attended the same midwifery clinic, women had different opinions on whether their midwife took enough time.
“When I go there, they really take care of me and give their time to me [..] I am really thankful, like they really showing their interest. And that makes me happy and made I just, um, I trust them like this, uh, once they give their interest, uh, trying to help you when you see these kind of people. OK, this person is a real good person. They are trying to help me.” (participant 3)
“*The truth is that ever since I started going to the midwife here, she doesn't have time, too much time to talk so long. No, I don't know if we are many here. I don't know. But she just checks the baby she goes speed. You don't have time to sit there like for five minutes or ask you how you feel or what. That's the truth.” (participant 1)*
Many women complained that their midwife or doctor paid no attention to their mental health. All women stated that nobody in the ASC had asked them questions about their mental wellbeing or past experiences before. One woman made a strong argument regarding prejudices HCP have about asylum seeking women. She argued that the fact that HCPs assume how she feels without asking her hurts the relationship.

"It's me who knows how I feel. Not you telling or telling... Like the way we used to go to the hospital. Yeah. They just look at you and hear about your story and the doctor predicts how your stress is or what without you filling in anything." (participant 1)
Women also recognized that confidentiality was meaningful for the relationship between asylum-seeking women and their HCP. Not all women were aware that in the Netherlands HCPs have the duty to keep patient confidentiality. Knowing that HCPs can't reveal personal information makes it easier to share.
"But another person like psychologist, uh, they have, um, duty to, uh, keep secrets. And for example, I don't know this, uh, psychologist. I know the name, but first time I see and I can tell whatever I want. And I know that she doesn't know my family or my husband or anyone from my family." (participant 3)

- Confusion about the Dutch health care system
  During the interviews it became apparent that almost all participants had trouble navigating the Dutch health care system. One woman was unsure whether her missed past appointment at the clinic for victims of abuse and human trafficking, which she missed because of transfer to another ASC, would be followed up. Three women confused their midwives with doctors or social workers. One woman considered asking her midwife for psychological care but was afraid that asking for an appointment with a psychologist would negatively influence her asylum application procedure. All women agreed on the need for guidance from HCPs to navigate the system.
  Q: "Do you want them to talk with the midwife and let the midwife know that you would like some help from a psychologist if you still need it?"
  A: "If this doesn't affect my permit application, yes no problem. I hope I will not get into problems because I am complaining or something." (participant 4)

- Practical barriers
  The proximity of the due date, long waiting times, not knowing who to ask and difficulties arranging an appointment were the practical barriers to mental health care mentioned. One woman said that it was easier to arrange a psychologist appointment in her country of origin.
  "At the moment because I live in Ter Apel and I want to have sometimes an appointment and I don't feel good and you have to really wait for an appointment. It can take one month or even longer and also very difficult to just go and have an appointment as quick as possible. And you don't feel good mentally. So, it's not easy. But in Syria, I did it in Syria, it's easy. I can just make an appointment and go and see the doctor." (participant 4)

Use of the RHS-15.
Logistics
The RHS-15 is a tool to initiate the conversation about mental health and it was discussed with the women which HCP would be the most suitable to take it. Two women preferred to have the screening test taken by a doctor or psychologist. One of them knew the doctor and had never met a midwife and the other argued that a doctor knows more about mental health problems. Two women didn't care whether it was their midwife or a doctor who took the test.
"I don't know, they arrange the appointments for me, what's important for me is to find a person who understands me" (participant 4)

The last four women preferred the RHS-15 to be taken by their midwife. Reasons to prefer the midwife were that she knows the situation of the pregnant woman, women have many appointments with the midwife and people go to a doctor only if they are sick.
“Because a doctor, you will call him only when you are sick or only when the midwife will transfer you to him. So I think the midwife, she is the first person that she is in contact with, the pregnant lady.” (participant 2)
Most women agreed on the fact that the RHS-15 could be introduced during their first appointment with an HCP. This mainly due to the trust they have in HCPs. One woman also mentioned that mental health problems can be quite stressful and taking such a test in the first appointment can help women. Some women also suggested that it could be useful to repeat the test over time, to see if someone is healing or not.
Q: “From the first appointment, do you think so?”
A: “Yes” (participant 8)
The women’s opinions concerning the discussion of mental health in a group with other pregnant asylum seekers varied. Three women commented that discussing mental health in a group would not work because women would safer disclosing such personal information in individual meetings.
“Cause everyone has his own past. How she got pregnant. ... Everyone would like privacy” (participant 1)
Two women found both discussing mental health problems in a group and individually acceptable. The last three women strongly preferred group care. Reasons mentioned were, possibility to share experiences with women in similar situations, learning from each other, knowing that other women are experiencing similar problems and having the opportunity to get to know other women in the ASC.
“So everybody have problem. Maybe when I talk to another person, talk, maybe we give ideas [...] I learn from them. Maybe they learn from me. Is just like a school” (participant 6)

<u>A good way to start</u>
All participants were positive about the RHS-15 as a screening test. When asked to mark it on a scale from one to ten, the lowest score given was an eight. All women would recommend the test to other pregnant asylum-seeking women.
“I will explain with our situation that we are passing. And since we are both pregnant. So, we are more or less we know each other feelings. ... I would advise her to do this test.’’ (participant 2)
Women considered the RHS-15 a good way to start talking about mental health. The women felt comfortable filling in the test and didn’t consider the questions too shocking or traumatic. Filling in the RHS-15 was considered less confrontational than if an HCP would start with talking about mental health. One woman said that before filling in the test she felt she had to keep all her emotions inside, whereas after she finished it, she was more open and more willing to share her story.
“Yes, it is. Maybe like to not shock the lady with the personal question in the first step. Yeah, it's a good start.” (participant 2)
The RHS-15 helped women explain their feelings and emotions. Women felt the test made their feelings measurable and that could help them be more specific.
“A: I think this is good then. Bringing a person and ask her about her story and measure it with a story without knowing how she's feeling inside. But here it's easier.
Q: Why is it easier?
A: Because you because it's just measured.” (participant 1)

The RHS-15 also made women more aware and reflect on their past experiences and mental wellbeing.
"Sometimes while you are in, uh, being really busy in this life, you will forget what you really what you are really feeling from inside. So this, this questions it make me realize how I feel really. Am I really stressed or no? Can I really handle the stress? Especially in this situation" (participant 2)
Women felt like the test could make HCPs understand them better because it gives them a general impression of the pregnant asylum-seeking women. Filling in the test even made women feel less stressed or relieved. It made them feel supported because someone was really willing to listen to them.
Q: "Why would you advise the test?"
A: "I do not know, but when I read the questions and answered them I felt a relieve. [..] Yes, I felt there is someone to hear me, someone I could talk to."

Suitability

- Understanding the screening test
  Five women were able to fill in the screening test on their own while three women needed help. One woman needed help because the RHS-15 is unavailable in Turkish, we used an interpreter to orally ask the questions. Two women were illiterate so we read the RHS-15 questions out loud as they filled it in. Overall, six women considered most of the questions clear and understandable. One woman added that with primary education, any pregnant asylum-seeking women would be able to understand the RHS-15. The two illiterate women couldn't read the test on their own, however the questions of the screening test were understandable and clear if the researcher read them out loud.
  "When you read it for me, I understand it. Yeah. Perfectly." (participant 5)
  It was noticed that all but one woman asked the researchers clarifications about question 14. The question was clear, but women did not understand how to fill it in since the format differed from the other questions. One woman also needed extra clarification on question 10 (see appendix 2 for question 10 and 14).
  Regarding the need for an interpreter while filling in the RHS-15, opinions differed. The women who could understand English said that they didn't need an interpreter, but other women might. The women who needed an interpreter really appreciated that we had one, even when the test was written in their native language.
  "Because we have now a translator. So it's very clear what's going on and what's happening. So it will be very nice if you guys have a translator because then is clear for both sides." (participant 4)

- Symptoms
  All women agreed that the symptoms asked in the RHS-15 related well to the situation of pregnant asylum-seeking women. Six women currently related to the symptoms described in the RHS-15.
  Q: "And what do you think about the symptoms asked?"
  A: "They are real." (participant 1)
  Two other women said that they didn't relate to the symptoms at the moment, but that that they could apply to other pregnant asylum seekers.
  "Sure, asking them these kind of things, I think it's OK, but to be honest, most of them I don't feel like this way. ... But I'm sure there are some pregnant women who feel that way" (participant 3)

We asked women's opinion on the combination of physical and mental symptoms asked in the screening test. The answers were generally positive as women experienced the physical symptoms and thought they could be related to mental problems.
"Cos as a human being of feelings and body pain, it's always related. So if you would feel really bad, your body will feel bad. So it's always related. Of course. Yeah" (participant 2)
One participant considered the symptoms in the RHS-15 as normal, simply belonging to pregnancy, and didn't think an HCP could help her with them.
"Yeah. Ask me every time I go there. That's when I say I'm stressed. It can't take it away from me. For that I will say I'm okay. I'm not having stress because when I say yeah, I have stress, you can do anything to help me because it's the symptom of the pregnancy. Nothing you can do about it." (participant 5)

- Generalizability
  One of the strengths of the RHS-15 mentioned by women was that the test applies to all refugees. Although all asylum-seeking women have their own story, their situation is somewhat similar.
  "Yes, especially in people who went through tough situations like I did. These questions are a relief, it makes you feel that someone is caring about you, someone is thinking about you. I think these questions are important, yes!" (participant 8)
  The women thought it was a good idea for all pregnant asylum seekers to take the test since all pregnant asylum-seeking women experience difficulties and need help.
  "Because everybody have problem. If you actually know the problem. But if you don't ask, you will never know somebody's problem." (participant 6)

- Suggestion on the test
  Most women found the screening test sufficient for a first general impression of their feelings and past experiences. A few suggestions were mentioned. One woman suggested that she would like some more specific questions about her traumatic experiences in the past. Another woman would have liked a question about her personal relationships and the support she has at home from her partner.
  "It's just maybe you can you can try to add some more questions to the married life for a lady." (participant 2)
  One woman interviewed thought that the time period asked by the screening test, the past 30 days, was too general. She arrived in the Netherlands only two days before the interview and in her case, stress levels before arriving in the Netherlands and after arriving differed greatly. She argued that a distinction should be made in the test.
  "What's happened the stress level is changing. Depends on you are still at that country in danger or not? I'm not in danger because I'm not in Turkey anymore. I'm safe. My husband is safe. So, I think maybe the question can be like based on before you come here and after I come here." (participant 3)
  As a last suggestion one woman mentioned that she would have appreciated it if she had the choice to involve her partner in the mental health screening process and possible therapy. Some women might feel less alone if their husband or partner knows their problem.
  ''I prefer if he [husband] is with me so that he can see my answers, and maybe he could additional information about my mental situation as well.'' (participant 4)

DISCUSSION

This is the first research aiming to study how to open up a dialogue on PTSD, anxiety and depression in pregnant asylum-seeking women in the Netherlands and how to implement a screening test for mental health disorders in antenatal care, from the perspective of pregnant asylum seekers. The ultimate goal was to make recommendations to the current Dutch guidelines on implementation of a screening questionnaire for mental health problems.
Main findings are that pregnant asylum seekers find themselves in a very underserved, vulnerable and isolated situation. They find it therefore meaningful and acceptable to talk about mental health with their midwife or other HCP, but they would not initiate a conversation on mental health if not asked about it directly by the HCP. The pregnant asylum seeker would appreciate encouragement in disclosing matters regarding their mental health and navigating the Dutch health care system. The RHS-15 was deemed suitable for screening mental disorders, women could relate to the symptoms asked and didn't find the questions in the screening test uncomfortable. Some barriers and enablers to talk about mental health were identified, such as language barrier or the intrinsic trust in HCPs as an enabler. These barriers and enablers should be taken into account when implementing the RHS-15 in the Dutch guidelines for midwives treating pregnant asylum seekers.

Screening for mental health disorders

From the interviews, it became apparent that asylum-seeking women find themselves in an extremely oppressed and marginalized position. Therefore, more attention on their mental wellbeing by their primary HCPs is required. This is in line with previous studies[8,43,44] among which a systematic review that investigated the perceptions of migrant pregnant women in the EU and highlighted the disadvantages and isolation of this population. Our data showed that asylum-seeking women find it important that their HCPs are aware of their past traumatic experiences and if advised so, would accept psychological treatment. Asylum-seeking women mentioned that they would never spontaneously initiate a conversation on their past experiences or their mental health.
This is in line with another study in which pregnant refugees suggested that answering a screening test helped them express feelings with the HCPs that would have otherwise not come up[19]. This study also concluded that the refugee women would accept further referral for mental health if advised so[19]. Thus, pregnant asylum seekers need to be solicited to talk about mental health by a healthcare provider. Yet, all women interviewed had never been asked about their mental health by an HCP since they arrived in the ASC of Ter Apel. Implementing a standard screening test would give women the opportunity to talk about mental health problems and possibly increase the rate of pregnant asylum seekers who receive psychological treatment. The benefits of implementing mental screening tests during pregnancy have also been highlighted in a previous study: antenatal screening for mental health improved disease detection, facilitated the access to mental health clinics and improved clinical outcomes[16]. All women interviewed found it essential to be able to tell their own story, which is in line with another study on perinatal screening for mental health in asylum seekers and migrants[19].

Barriers and facilitators

Some barriers and facilitators to initiate a conversation about mental health with HCPs were identified. Women mentioned that a language barrier makes it difficult to talk about mental health which shows the importance of a translator during appointments with HCPs. A publication by Pharos (Dutch Centre of Expertise on Health Disparities)[45] and other studies on

pregnant asylum seekers or migrants also highlight the importance of using a translator during pregnancy care[22,23,25,26,27].
In our study stigma associated with mental health problems in participant's countries of origin was not perceived as a barrier to talking about mental health. Multiple women explained that the stigma associated with mental health problems in their country would not influence their decision of talking about their mental health in the ASC. This is in line with another study with immigrant women with postpartum depression: participants' cultural differences were not found to be a barrier themselves, however, having trans-culturally competent or culturally diverse HCPs was a facilitator to address or treat mental health disorders in pregnant immigrants[25].
It became clear in this study that asylum-seeking women have a lot of intrinsic trust in HCPs. Nonetheless, the participants highlighted some factors that would enable talking about mental health. A clear introduction and explaining the duty of confidentiality of HCPs is an enabling factor. Previous studies also found that pregnant refugees and migrants highly value confidentiality when talking about sensitive matters and the role and duties of the HCPs. Interpreter's confidentiality should also always be clarified as the women could have some concerns, mainly if the interpreter belongs to the same community or culture[19,22,24,29]. We also found that HCPs should take enough time and show genuine interest and not make assumptions about how a patient feels, but ask that directly. Another facilitator for the women to talk about mental health was to provide information and guidance regarding how the Dutch health care system works. This is in line with other studies which investigated factors that influence the use of mental health services or the implementation of a mental screening test in the pregnant migrants' and refugees' populations[23,25,29]. These studies also found that women value a trustful relationship with the healthcare providers, taking time showing interest, being culturally sensitive and making the mental health services accessible[23,24,29]. The family and, or partner of the patient could be either a barrier or a facilitator for talking about mental health. It emerged from the data that family and partner are significant relationships to pregnant asylum seekers, in fact, the main suggestion brought up by the participant was to add a question about personal relationships in the RHS-15 and to involve the partner during the mental health screening if the pregnant woman requires so. In previous studies family and partner also played both a supportive role or a cause of shame and stress in relation to mental health[19,22,23,25,29]. Personal relationships should not be ignored when screening pregnant asylum seekers for mental health and women should be offered the choice to involve or not their partner or near family members.

Screening and RHS-15

Participants had a positive response to the screening test deeming it useful and didn't feel uncomfortable while filling it in. Such positive and welcoming responses towards a pregnancy screening test for mental disorders in populations of refugees and migrants had transpired also in a previous study[19]. The screening for mental health should be done by midwives as they have the most contact with the pregnant asylum seekers and it is possible to do it already during the first appointment. This statement is supported by previous research with pregnant refugees and migrants: the participants in these studies also felt that it should be someone from primary health care services or a midwife to screen for mental health during pregnancy[19,25]. As the contacts with a midwife are frequent, women don't feel uncomfortable disclosing sensitive information[19] and they can be guided navigating the health care system by the midwives too[25]. Another article also recommends for the screening to be done by midwives; however, treatment should be interdisciplinary[26]. The opinions on discussing mental health issues in group were very personal, so it could be offered, but should not be

standard care. Regarding the screening test itself, the participants thought it was a good way to start talking about mental health and had only positive evaluations and responses of the test. They could relate to the symptoms asked in the test and they thought most pregnant asylum seekers would relate to such questions. Most participants thought the questions were simple enough to be understood, however to avoid misunderstandings, it is preferable to let the woman take the screening test together with a HCP and if necessary, an interpreter. Other studies which tested the RHS-15 with refugees also recommend the presence of an interpreter in order to be able to answer any question from the patient or overcome possible problems with low literacy of patients[34,35].

Strengths and limitations

Despite the plethora of evidence on the importance of psychological care when treating underserved pregnant women such as refugees or asylum seekers[30,43,44], this is the first study in Europe that assesses the suitability of a screening test for mental disorders in pregnant asylum seekers from their perspective. To our knowledge this is also the first study on this topic that focuses specifically on asylum-seeking women, instead of combining them with the refugee and / or migrant population. This research has some limitations. A main drawback was the language barrier, although all participants interviewed in English were quite proficient with the language, some were not native speakers. Although we didn't encounter any major difficulties, it is possible that some women experienced difficulties expressing themselves. To minimize this, we took enough time for participants to understand all the questions and if necessary asked women to rephrase their answers to avoid any misunderstandings. Regarding the participants that spoke other languages, professional interpreters were hired and native speakers translated the scripts so that the analysis could be based on the words of the participant and not on what the interpreter had translated on the spot. Another limitation is that, because of the current Covid-19 pandemic there was scarcity of possible participants. Even though there were enough pregnant asylum seekers to reach saturation. To sample participants, we had to rely on convenience sampling: thus, collecting every patient from the clinic who was willing and available to participate. If the pool of possible participants had been larger, we could have performed simple random sampling and have more representative results. The demographic, obstetric and psychiatric information from the anonymous questionnaire was self-reported so it is possible that some data is incomplete as it was not possible to confirm the data. Lastly, asylum seeker populations and their health care protocols vary in different countries. Thus, despite our main results being applicable to other countries, the study itself may not be directly transferable to other countries.

Regarding the methodology, this study has various strengths. The script for the semi-structured interview used was always the same ensuring consistency throughout the research. The interview script was reviewed by multiple experts in the field to make sure that the questions were appropriate to the research questions, promoted discussion and were culturally appropriate and. During data collection the script was evaluated with the research team and revised to minimize possible bias that could arise from the interview such as leading questions or maintaining neutrality during the interviews. The data analysis was performed by two researchers independently and differences in findings were discussed until unanimity was

reached. Independent data analyses by two researchers aims to reduce researcher bias, so that the results objectively reflect participants opinions. Semi-structured interviews offered the participants a safe environment to express their thoughts and emotions. During all interviews there was a psychologist and an observer present. The psychologists offered women support in case of strong emotions or distress and provided a safe environment enabling them to disclose more information. If the interview would become emotional or difficult, the psychologists also offered comforting words and asked supplementary questions adding a new perspective to the interview.
Finally, when performing qualitative research, it is relevant to reflect on the role of the researcher and moderator. Being aware of my own privileges, when performing research on an underserved and oppressed population is important. Even though it is impossible to fully understand what the participants have experienced in the past or what they are going through now, everything was done in order to report their voices and opinions accurately and objectively. During the semi-structured interviews, we tried to make the women as comfortable as possible and not having the interview seen as an imposition, but more as an informal conversation. It was made clear to the women that their opinion was extremely important so that they knew that their thoughts were relevant and necessary for the research.

Implications for clinical practice

This study highlights the importance and necessity of introducing mental health screening for pregnant asylum seekers. The RHS-15 could be a good way to assess psychological symptoms and start the conversation on mental health issues. This study also provides detailed information and clear recommendations for HCPs for addressing mental health issues with pregnant asylum seekers.

CONCLUSION

In conclusion, a screening for mental health disorders in the perinatal period is not only important but also acceptable and suitable to the pregnant asylum seekers in the Netherlands. The results of this study emphasise the necessity and importance of implementing a screening test for mental health for pregnant asylum seekers and provide information on how to start a conversation on mental health and how to use the RHS-15. The RHS-15 is valid and appropriate as a screening test for PTSD, anxiety and depression which are the most common psychiatric disorders in this specific population. Mental health screening should be implemented in the clinical guidelines for routine care for midwives who treat pregnant asylum seekers in the Netherlands. In order to achieve better health for mothers and children, the guidelines should aim to identify the psychological disorders of this oppressed and therefore vulnerable population. Further research should investigate the replicability of this study in other countries. In addition, the implementation of the RHS-15 in the midwifery clinic of the ASCs, should also be investigated. Moreover, its feasibility and sustainability from the perspectives of the HCPs should be researched.

ACKNOWLEDGMENTS
I am grateful to the women who offered their time for this research and shared their stories and thoughts with us. I am also thankful for my supervisors and everyone else who helped me through the development of this study.

Funding
Share Net international assigned a total of 9765,00 euro to this research project. Share Net is a knowledge platform for Sexual and Reproductive Health and Rights.

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Appendix 1 – Anonymous questionnaire

How old are you?	◯ 18-24 ◯ 25-30 ◯ 30-35 ◯ 35-40 ◯ >40
Which country do you come from?	◯ Syria ◯ Eritrea ◯ Afghanistan ◯ Nigeria ◯ Other:
When did you arrive in Ter Apel?	◯ Last week ◯ Last month ◯ Last 3 months ◯ Other:
Did you live in other countries for longer than 6 months before arriving in the Netherlands? (You can select multiple options)	☐ Lebanon ☐ Turkey ☐ Greece ☐ Italy ☐ Germany ☐ Other: ☐ Not applicable
Do you have family members in the Netherlands? (You can select multiple options)	☐ Husband ☐ Partner ☐ Children ☐ Parents ☐ Siblings ☐ Other:
Are you using any medications prescribed by a doctor at the moment?	______________________
Have you used medications prescribed by a doctor in the past?	______________________
Have you been diagnosed with a disease and/or an allergy?	______________________
Have you ever undergone an operation? Which?	______________________
How far ahead in the pregnancy are you now? If you know, please specify also how many weeks.	◯ First trimester ◯ Second trimester ◯ Third trimester ◯ I don't know

Question	Answer
How many weeks pregnant are you?	______________________
During this pregnancy have you had complications? If yes, which? (You can select multiple options)	☐ High blood pressure ☐ Diabetes ☐ Ultrasound malformations ☐ The baby is too small ☐ Preeclampsia or HELLP syndrome ☐ Other: ☐ No complications ☐ I don't know
How many pregnancies have you had?	○ 1 ○ 2 ○ 3 ○ 4 ○ Other:
How many living children do you have?	○ 1 ○ 2 ○ 3 ○ 4 ○ Other:
How old were you when you had the other child or children?	______________________
What type of delivery did you have before?	○ Vaginal ○ Cesarean section ○ Both
Did you have any complication in your previous pregnancy? If yes, which? (You can select multiple options)	☐ Diabetes ☐ Blood loss: > 1 liter or requiring transfusion ☐ High blood pressure ☐ Preeclampsia or HELLP syndrome ☐ Infections requiring antibiotics treatment ☐ Delivery was too soon: before 37 weeks ☐ The baby had low birthweight < 2500 g ☐ Still birth or miscarriage ☐ Ultrasound abnormalities ☐ Other: ☐ No complications ☐ I don't know
Have you been diagnosed with a psychiatric disorder before? By who?	○ General practitioner ○ Psychiatrist ○ Other:
Have you been diagnosed with a psychiatric disorder before? Which? (You can select multiple options)	☐ Anxiety ☐ Depression ☐ Post-traumatic stress disorder ☐ Psychosis ☐ Bipolar disease ☐ Panic attacks ☐ Other: ☐ No psychiatric disorder

Question	Answer
Have you been diagnosed with a psychiatric disorder during or after a previous pregnancy? (You can select multiple options)	☐ Anxiety ☐ Depression ☐ Post-traumatic stress disorder ☐ Psychosis ☐ Bipolar disease ☐ Panic attacks ☐ Other: ☐ No psychiatric disorder
What is your relationship status?	○ Married, ○ Partner, not married ○ Widow ○ Single ○ Engaged ○ Other:
Is your actual marriage/relationship: (you can select multiple options).	☐ Arranged? ☐ Forced? ☐ Out of love? ☐ Arranged and out of love? ☐ Other:
Do you know who the father of the child is?	○ Yes ○ No
Is the partner you have now, the same as the father of your child?	○ Yes ○ No
I believe I have been mentally abused (now and/or in the past).	______________________________
I believe I have been physically abused (now and/or in the past).	______________________________
Have you been victim of genital female mutilation?	○ Yes ○ No
What gives you hope and strenght?	______________________________
What are your resources?	______________________________

Appendix 2 – RHS-15

REFUGEE HEALTH SCREENER (RHS-15)

Instructions: Using the scale beside each symptom, please indicate the degree to which the symptom has been bothersome to you over the past month. Place a mark in the appropriate column. If the symptom has not been bothersome to you during the past month, circle "NOT AT ALL."

SYMPTOMS	NOT AT ALL	A LITTLE BIT	MODER-ATELY	QUITE A BIT	EXTREMELY
1. Muscle, bone, joint pains	0	1	2	3	4
2. Feeling down, sad, or blue most of the time	0	1	2	3	4
3. Too much thinking or too many thoughts	0	1	2	3	4
4. Feeling helpless	0	1	2	3	4
5. Suddenly scared for no reason	0	1	2	3	4
6. Faintness, dizziness, or weakness	0	1	2	3	4
7. Nervousness or shakiness inside	0	1	2	3	4
8. Feeling restless, can't sit still	0	1	2	3	4
9. Crying easily	0	1	2	3	4

The following symptoms may be related to traumatic experiences during war and migration. How much in the past month have you:

10. Had the experience of reliving the trauma; acting or feeling as if it were happening again?	0	1	2	3	4
11. Been having PHYSICAL reactions (for example, break out in a sweat, heart beats fast) when reminded of the trauma?	0	1	2	3	4
12. Felt emotionally numb (for example, feel sad but can't cry, unable to have loving feelings)?	0	1	2	3	4
13. Been jumpier, more easily startled (for example, when someone walks up behind you)?	0	1	2	3	4

REFUGEE HEALTH SCREENER (RHS-15)

14. Generally over your life, do you feel that you are:

Able to handle (cope with) anything that comes your way 0

Able to handle (cope with) most things that come your way 1

Able to handle (cope with) some things, but not able to cope with other things......................2

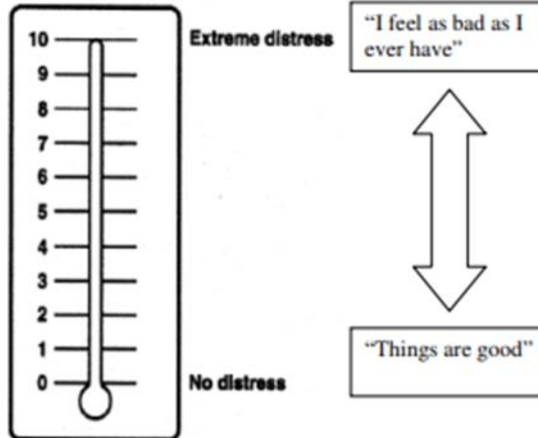
Unable to cope with most things...3

Unable to cope with anything 4

15.

Distress Thermometer

FIRST: Please circle the number (0-10) that best describes how much distress you have been experiencing in the past week including today.



ADD TOTAL SCORE OF ITEMS 1-14: ___

SCORING

Screening is POSITIVE

1. **If Items 1-14 is ≥ 12 OR**
2. **Distress Thermometer is ≥ 5**

Self administered: ____

Not self administered:____

CIRCLE ONE: **SCREEN NEGATIVE** **SCREEN POSITIVE REFER FOR SERVICES**

Appendix 3 – Semi-structured interviews script

Research team present:

- Elena Soldati: moderator
- Anouk Verschuren: observer

Others:

- Lise Hacquerbod / Aurora Maria Ulgiati: psychologists
- ..... : translator

Part	Duration	Activity
0	10 minutes	Having some drinks, snacks and asking her to fill in the questionnaires
1	5 minutes	Introduction: explaining purpose of focus group, introducing everyone present
3	10 minutes	Introductory question
4	20 minutes	Question regarding the screening questionnaire
5	20 minutes	Question regarding sharing stress and past experiences with health care providers
6	5 minutes	Closing question and last remarks

PART 1: INTRODUCTION

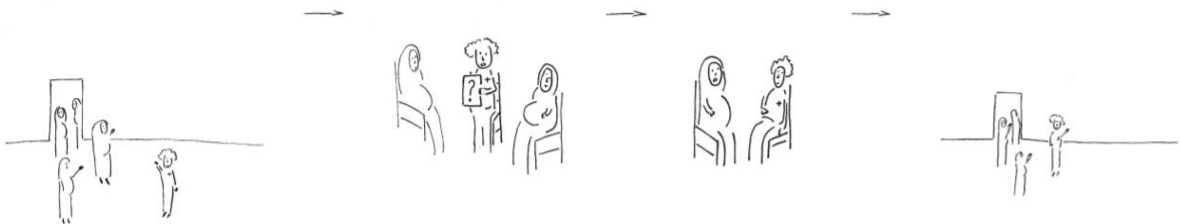
Welcome!

Thank you for participating in this interview. My name is Elena Soldati and I am a medical student from the University of Groningen. We will soon start a discussion regarding the screening questionnaire on mental health you just filled out and have in front of you. Mental health problems can influence pregnancy and childbirth in a negative way. You do not have to share your answers to the questionnaire or any personal details. I will moderate the discussion and ask questions. This is Anouk Verschuuren, who is a researcher at the University of Groningen, she will help me and observe the discussion. This is Lise Haquerbod, a psychologist who is here to help you in case you don't feel well or if you want to talk to someone. This is ...., the translator. All of us in the room have the duty to keep private what is being discussed. We are using a recorder, recordings will only be used for research and you will stay anonymous, we will erase any information in the recording that is personal. Now, I would like you to introduce yourself and after that we will start recording.

.......woman introduces herself.....

Switch the recorder on

As I told you earlier, today we will discuss the screening questionnaire you just filled in. We want to know whether we can use this screening questionnaire for pregnant asylum seekers in the Netherlands, in order to offer mental support to the women who need it. Today, we will discuss your opinion on the screening questionnaire and how we can best use it. This screening questionnaire checks for symptoms of depression, anxiety and post-traumatic stress disorder. The information gathered will stay private and will only be used for the purpose of this study. First, we will talk about the screening questionnaire then we will talk on how you feel about sharing your mental health symptoms with a healthcare professional. Let me know if you want to ask any questions or take any break during the conversation.



PART 3: INTRODUCTORY QUESTION

Introduction question

1. Would you recommend this screening questionnaire to other pregnant women? Why?
   First have the women tick yes/no on their piece of paper then compare

PART 4: CORE QUESTIONS
Screening test

2. What did you think about the screening questionnaire?
3. Could you understand what was asked in the screening questionnaire?
4. Would you need a translator to help you read and understand the questions?
5. How long did it take you to fill in the screening questionnaire?
6. Which health care worker would you prefer? Why?

7. Do you think the screening questionnaire is helpful to talk about your past traumas, stress and anxieties?

Sharing anxieties, stress and experiences

8. What do you think about the symptoms (stress, muscle pain, fear...) that were asked about in the screening questionnaire?
9. Has any HCP asked you about these symptoms before?
10. How do women deal with similar symptoms in your country?
11. Could your anxieties and past experiences be discussed in a group with other pregnant asylum seekers?

12. Or you prefer doing that alone with a healthcare worker? Why?
13. In what way do you think sharing your anxieties, stress and past experiences with a health care worker may help you?
14. How would you feel about being referred to a psychiatrist or psychologist to receive treatment?
15. What would you think we should do differently to talk about trauma, stress and anxieties with pregnant asylum seekers like you?

Closing question

16. Imagine you have to describe the screening questionnaire to another pregnant woman. How would you do that?

Appendix 4

Figure 2 – Importance of mental health screening.

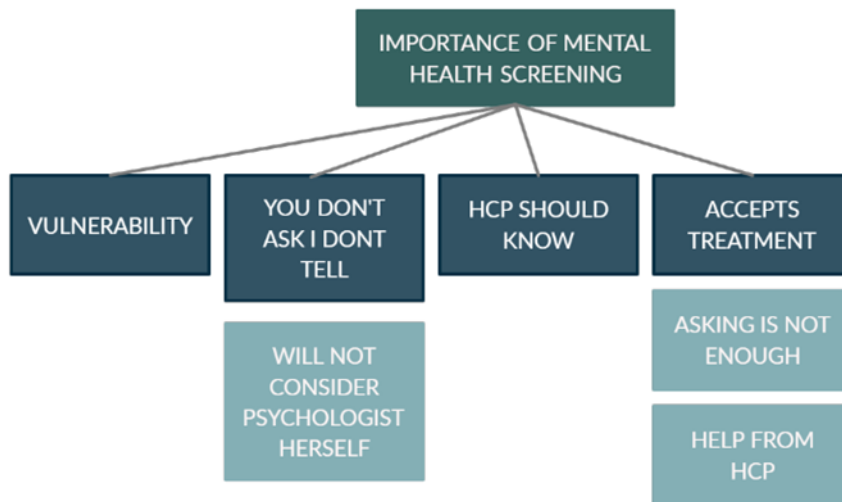


Figure 3 - Talking about mental health.

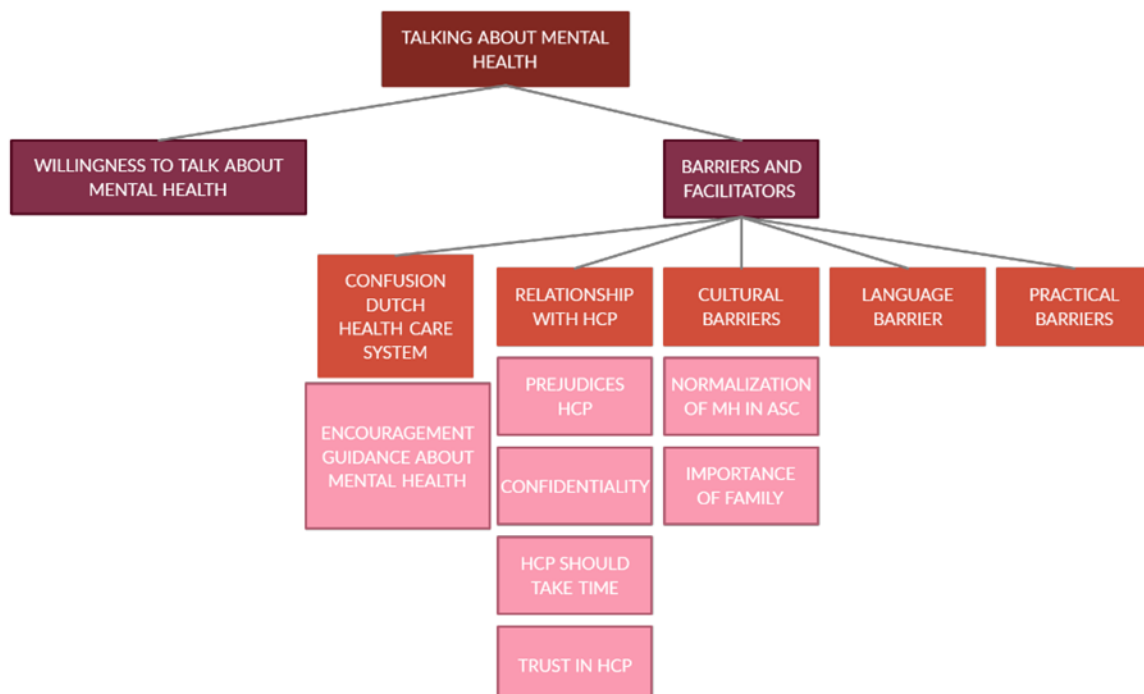
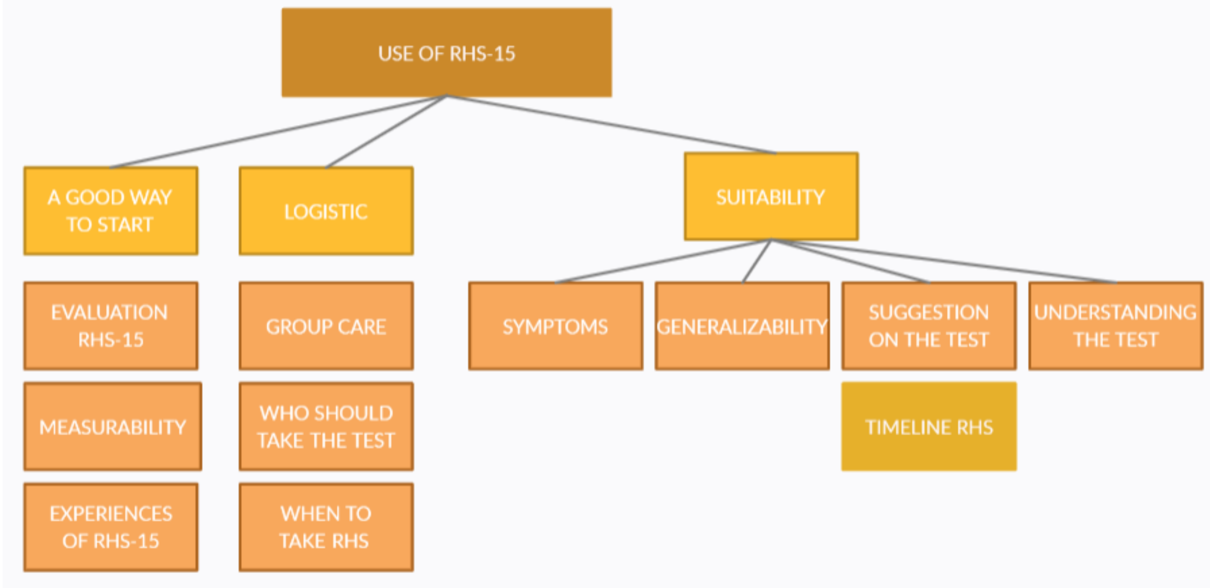


Figure 4 - Use of mental health questionnaire.



Appendix 5: saturation table

Code groups	1	2	3	4	5	6	7	8
Accepts treatment	10	8	9	2	9	7	1	2
Asking is not enough	0	0	4	0	0	0	0	1
Confidentiality	1	0	3	0	0	0	0	0
Confusion on Dutch health care system	5	0	0	10	0	2	1	1
Cultural barriers	5	2	6	2	5	5	1	2
Encouragement /guidance about mental health	5	5	3	2	0	7	2	6
Evaluation of the RHS 15	5	7	9	5	7	2	5	4
Experiences of the RHS 15	6	6	6	2	5	2	7	9
Generalizability	1	0	2	11	3	3	5	2
Good way to start	3	4	5	0	4	1	2	3
Group care	4	3	3	1	10	4	3	3
HCP should know	4	0	3	1	2	16	5	1
HCP should take time	5	2	3	1	3	2	0	2
Help from HCP	5	2	4	0	15	2	1	1
Importance of family	0	0	2	8	0	2	2	1
Language barrier	0	0	1	1	0	0	1	0
Measurability	4	1	0	0	0	0	0	0
Normalized MH in AZC	1	1	0	0	0	0	0	0
Practical barriers to mental health	0	0	0	3	0	0	2	5
Prejudices HCP	3	0	0	0	0	0	0	0
Suggestions on the test	1	4	1	8	5	3	0	1
Symptoms	5	4	3	8	17	11	6	2
Timeline RHS	0	0	8	0	0	0	0	0
Trust HCP	7	1	6	0	2	0	0	1
Understanding screening test	3	2	3	3	6	1	5	4
Vulnerability	11	10	22	8	29	19	5	0
When to take the RHS-15?	2	1	0	0	0	1	0	1
Who should take the test	3	3	2	8	4	4	8	3
Will not consider psychologist herself	0	1	0	0	0	2	1	0
Willingness to talk about MH	5	4	1	4	7	6	6	2
You don't ask, I don't talk	0	4	2	1	0	5	3	0