

Bachelor Thesis

The accessibility of sexual and reproductive health for young adults through the lens of health literacy

A case study of the town of Meppel, the Netherlands



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Abstract

There is a persistent lack of knowledge about sexual and reproductive health (SRH) and ongoing unsafe sex practices among Dutch young adults. The COVID-19 pandemic disrupted much-needed access to information and care related to SRH. This research is about understanding the accessibility of SRH for young adults in towns in the Netherlands using the health literacy (HL) concept. The central research question reflects this and is *'How can the accessibility of sexual and reproductive health for young adults in towns in the Netherlands be understood through the health literacy concept?'* The answer to this question is found through qualitative research involving semi-structured in-depth interviews with a diverse group of nine participants between the ages of 18 and 25. After coding the interview transcripts a thematic analysis was performed. The main results show that urbanisation, time, financial situation, social environment, availability & clarity of information and HL all impact the accessibility of SRH for young adults. The important role of HL in accessibility can be seen through participants being able to find the right information and help, understand this information and the healthcare provider, and be critical about the received information and help. HL adds a new perspective to look at the accessibility of SRH. HL can not be seen as separate from accessibility and urbanisation. Further research should look into the role of distance and location within cities.

Keywords: health literacy, accessibility, urbanisation barriers to entry

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Introduction

Background

In 2015, the United Nations announced the sustainable development goals (SDGs) (UN General Assembly, 2015). The goals stimulate development in areas deemed vital to human development. Sexual and reproductive health (SRH) is seen as a cornerstone in reaching the goals (Kanem, 2018). The World Health Organisation (WHO) defines sexual health as follows:

“...a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled.” (WHO, 2006a cited in WHO, 2023)

Several human rights apply to sexual and reproductive health (WHO, 2023). To understand sexual health, sexuality needs to be understood as well. According to the WHO (2023), sexuality includes among others biological sex, gender identities, gender roles, sexual orientation and reproduction. As a part of human rights, sexual and reproductive health and rights (SRHR) are concerned with e.g. equal marriage rights, the spacing and number of children (family planning) and access to education (WHO, 2023; OHCHR, 2023). These rights must be guaranteed around the world.

Research commissioned by the Dutch government called ‘Sex under 25’ studied the trends and developments in the lifestyle and health of young adults regarding SRH. The research found a lack of knowledge and ongoing unsafe sex practices among young adults (Rutgers & Soa Aids Nederland, 2017). They are also most at risk of catching an STI (sexually transmitted infection) (CBS, 2017). The COVID-19 pandemic affected the provision of healthcare as it was often postponed, its form was changed (online) or it was cancelled completely (RIVM, 2021). Much-needed information and care became inaccessible while exactly that was necessary to improve the situation of young adults surrounding e.g. unplanned pregnancies and STD (sexually transmitted disease) testing (Rutgers & Soa Aids Nederland, 2017).

In 2022, 37 social organisations, youth organisations and centres of expertise advocated for better sex education at school through a manifesto initiated by Rutgers (NOS, 2022). They deem the current state of sex education to be inadequate. Moreover, in 2022 and 2023, the Dutch government is undertaking a campaign to vaccinate all willing young adults against the human papillomavirus (HPV) (RIVM, 2022). For this campaign to be successful, the population must be well informed.

The focus area of this paper is Meppel. In the Netherlands, SRH care is organised through the Municipal Health Service (GGD) (GGD GHOR, 2023). Figure 1 shows the sexual and reproductive healthcare and infrastructural context of Meppel. Meppel falls under GGD region Drenthe (located in Assen) (GGD Drenthe, 2023b). Iosti (2019) found that physical distance and transportation play an important role in the accessibility of healthcare services. It is interesting to see whether the accessibility of SRH would change if people could go to the GGD in Zwolle instead.

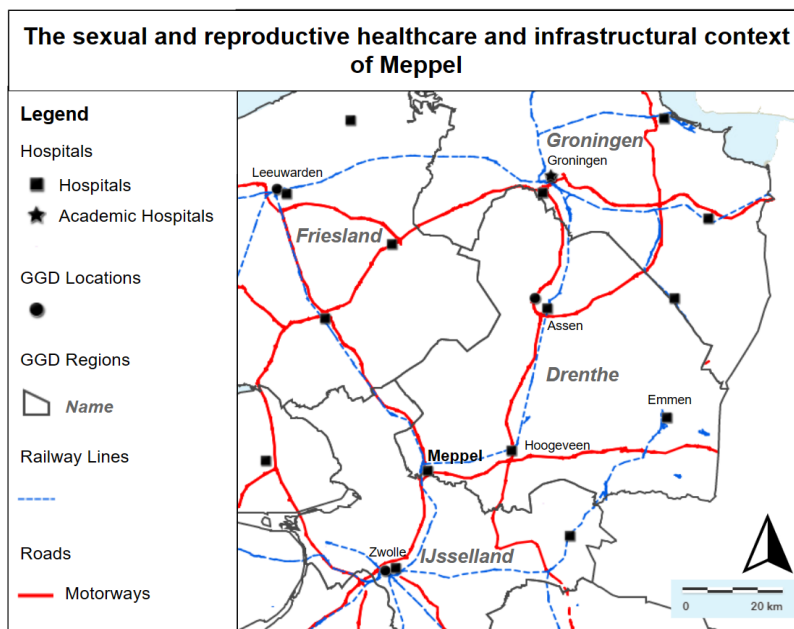


Figure 1. A map of the sexual and reproductive healthcare and infrastructural context of Meppel.

Source: by author.

An important concept to understand when studying the accessibility of healthcare services is health literacy (HL). HL is an individual's capability to gather, process and understand health-related information necessary to make health decisions (Nutbeam, 2008; Oosterhoff, 2015). It is shown to be a factor influencing accessibility and patients' usage of healthcare

facilities in countries such as Germany and Sweden (Altin & Stock; 2015; Berens et al., 2016; Viktorsson et al., 2019).

To make the comparison of data easier, young adults are defined as people between the ages of 18 and 25 years. This age category corresponds with the one used by the Central Bureau for Statistics in the Netherlands (CBS, 2020) and with the 'Sex under 25' report (Rutgers & Soa Aids Nederland, 2022). Furthermore, the GGD also focuses on people below the age of 25 (GGD Drenthe, 2023a).

Research Problem

Little research has been done on the accessibility of SRH using the HL concept in a Dutch context. In this research, the accessibility of SRH is the access to good health outcomes through the acquisition of the right information and care. This study aims to see whether HL is a useful tool to use when studying the accessibility of SRH for young adults in towns in the Netherlands. The goal of this research is to see whether a better understanding of HL could improve the understanding of the accessibility of SRH. The findings will add to the existing literature by showing how HL impacts the accessibility of care and information in a Dutch context. This goal will be realised by answering the central question: *'How can the accessibility of sexual and reproductive health for young adults in towns in the Netherlands be understood through the health literacy concept?'.* To answer this central question, two sub-questions were formulated:

- Which factors play a role in the accessibility of (sexual and reproductive) health for young adults?
- What is the role of health literacy in the experiences of young adults?

The research questions will be answered through qualitative research consisting of in-depth interviews with young adults in Meppel.

Theoretical Framework

This research uses three main concepts: urbanisation, barriers to entry and health literacy.

Urbanisation

Healthcare facilities' location impacts their accessibility for young adults (Ambresin et al., 2013). Physical distance and transportation to care providers are important factors in accessibility (Cordasco et al., 2011; Iosti, 2019). Cordasco et al. (2011) found that distance affects accessing healthcare, especially among those with limited English proficiency. Language proficiency helps with arranging transportation to healthcare services.

Central place theory describes the relationship between settlements' role as regional service providers and their spatial arrangement. Facilities in smaller settlements provide basic services, while facilities providing specialised services cluster in larger settlements (Atzema et al., 2014). The places between cities (larger urban settlements) and villages (smaller rural settlements) are defined as towns. The hierarchy between these places is based on the function they fulfil within the region (King, 1985).

Figure 2 shows central place theory in the context of Meppel. The hexagons show the service areas. The black hexagons are the service areas for the villages, orange for the towns, blue for the cities and red for even larger settlements. This corresponds with the healthcare facilities shown in figure 1. It could be said that Meppel has the function of a town, while provincial capitals (Zwolle and Assen) perform a city function. In general, the more urbanised a place is, the more facilities it offers.

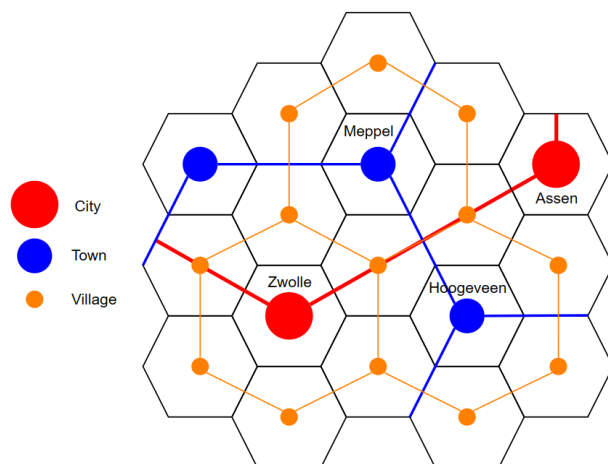


Figure 2. Central place theory in the context of Meppel.

Source: by author, based on central place theory as described by Atzema et al. (2014).

Barriers to entry

Accessibility is influenced by different barriers. Accessibility includes both physical access to healthcare and availability of information. *Time* plays a role in different forms. Waiting times and the time young men spend in the hospital affect whether they seek help (Buzi & Smith, 2014). Flexible appointment times are also important due to peoples' work or school schedules (Ambresin et al., 2013; Buzi & Smith, 2014).

Buzi & Smith (2014) found that *social* constructs including masculinity and social stigmas form barriers to seeking help such as seeking help not being manly and young men preferring a female practitioner (out of fear of a male doctor being gay). Care seekers want to be treated with respect and taken seriously (Ambresin et al., 2013; Buzi & Smith, 2014). The participants often wanted clinics to offer more than simply STD tests to conceal their visits, as there is a perceived negative stigma around going to an STD clinic (Buzi & Smith, 2014). Communication with a partner and being empowered to ask questions improve health as well (Buzi & Smith, 2014).

An individual's *economic* situation is often a barrier to entry on top of other factors. Buzi & Smith (2014) found that the costs of healthcare affect accessibility, which is supported by Ambresin et al. (2013). In combination with other factors, such as a lack of information and social stigmas around needing help, emphasising the low costs of an STD test could result in more people using the available services (Buzi & Smith, 2014).

When looking for *information* about SRH, most Dutch young adults look for information online (Rutgers & Soa Aids Nederland, 2022a). Communication about SRH information should consider clarity, tone and active listening of care providers (Ambresin et al., 2013).

Health Literacy

HL is often used to study the accessibility of healthcare (Altin & Stock, 2015; Berens et al., 2016; Viktorsson et al., 2019) and as a tool in making health decisions (Nutbeam, 2008; Oosterhoff, 2015). HL is an individual's capacity to gather, process and understand information necessary to make health decisions and consists of three levels (Nutbeam, 2008). Functional HL are the abilities needed for basic functioning including reading and writing skills. Interactive HL refers to the abilities needed to participate in daily life and to apply knowledge in different circumstances e.g. communication with health professionals. Critical HL entails having the capability to analyse information and exert control over events and situations (Nutbeam, 2008).

Conceptual Model

Based on the literature, a conceptual model was developed. Figure 3 shows that barriers to entry, urbanisation and HL are all related. The barriers experienced related to any of the three concepts are expected to be affected by the other concepts. Examples of this are language proficiency and communication amplifying the effects of urbanisation and the barriers to entry, the distance to healthcare making it more costly and more difficult to travel, the clarity of information determining the skills needed to comprehend it and stigmas preventing people from seeking help regardless of facilities being nearby. The relationships in this model will be tested in this research.

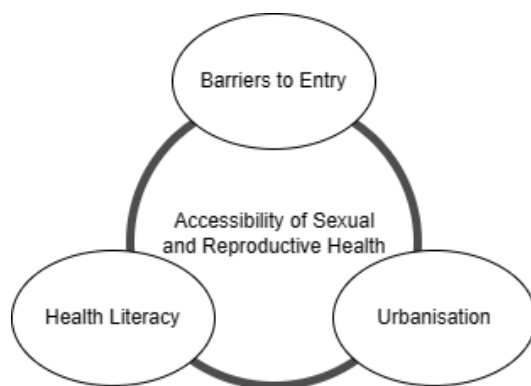


Figure 3. Conceptual model of the accessibility of sexual and reproductive health where urbanisation, barriers to entry and HL are related and affect accessibility.

Expectations

For this study, certain results are expected based on the literature and will be tested. The expectation for *'Which factors play a role in the accessibility of (sexual and reproductive) health for young adults?'* is that urbanisation together with time, economic situation, social environment and availability of information influence the accessibility of SRH. Moreover, an individual's level of HL is expected to be of importance on its own.

'What is the role of health literacy in the experiences of young adults?' is expected to show that HL plays an important role in accessing SRH. Urbanisation and the barriers to entry are expected to be amplified or weakened by an individual's level of HL.

The final expectation for the central question *"How can the accessibility of sexual and reproductive health for young adults in towns in the Netherlands be understood through the health literacy concept?'* is that HL is a useful concept to use when looking at accessibility as it influences people's ability to acquire information and care.

Methodology

Research design

To answer the central research question, the two sub-questions will be answered through the collection and analysis of primary data. This qualitative research makes it possible to gain a holistic view of the subject matter and it helps with gaining insight into the way individuals understand and manage the topic (Punch, 2014a). Qualitative methods are commonly used for case studies (Hill & Walkington, 2016). The data was collected through in-depth interviews. In-depth interviews are useful when studying the experiences of a small group of people.

Participants

The participants were recruited through stratified purposeful and convenience sampling (Punch, 2014b). The researcher actively selected participants based on personal characteristics. The inclusion criteria were age and place of residency. All participants are between 18 and 25 years of age and lived full-time in Meppel at the time of the interview. Other characteristics that the participants were selected on were gender and education level. The participants were recruited through the researcher's network by asking (using WhatsApp and social media) people fitting the criteria whether they would want to participate. The participants are not part of the researcher's inner circle or from the same social circle.

Data collection instruments

The data collection instruments are an interview guide (Appendix A) and the researcher. The interview guide consists of three main parts. The introductory questions are meant to start the interview, get a view of who the participants are and what their understanding of SRH is. The core questions are used to extract as much information as possible from the participants. The three topics are based on the previously discussed concepts. The concepts are operationalised, meaning the questions are formulated in such a way that the responses show the participants' experiences without explicitly mentioning the concepts. The closing questions are meant to find information that was not mentioned yet and give the participants room to share more information they deem fitting. Next to the interview guide, the researcher's interviewing, communication, listening, analysing and interpreting skills are vital in collecting data. Punch (2014b) mentions

the sequence of questions to be of importance. The structure of the interviews is flexible (semi-structured) and does not necessarily follow the structure of the interview guide. This gives the participants the freedom to discuss relevant topics throughout the interview.

Ethical considerations

Oancea (2014) identifies three main ethical considerations: autonomy, trust and beneficence. *Autonomy* consists of access to and understanding of the research setting, acknowledging the sensitivity of the setting and caring for the participants through voluntary informed consent. The researcher is part of the target group and is familiar with and has access to the research setting. Recruiting participants may be easier, but some might not feel comfortable talking with an insider about SRH. The participants received information ahead of the interview about the research and their rights (Appendix B). Moreover, they were asked to sign a voluntary informed consent form (Appendix C).

Trust involves the collection, usage and storage of the data and privacy, anonymity and confidentiality for the participant. Permission was asked to audio record the interviews and participants were informed about the usage and storage of the data. The data will only be used for this project. The audio recordings are stored in a locked folder on the researcher's phone and will be deleted right after the research project is completed. The interviewees could withdraw from the research at any time without any explanation necessary, which means their data would be deleted immediately. Information will not be shared with third parties and the interview transcripts were anonymised.

Beneficence refers to non-maleficence, beneficence and fairness. It was important to make the participants feel comfortable before, during and after the interviews. The interviews were conducted at a time and in a setting that suited the participants. The research could benefit the participants as it may discover potential future improvements to SRH care and the provision of information. Lastly, the positionality of the researcher is important. The researcher should strive to be as objective as possible and put personal values aside.

Data collection process

Nine interviews have been conducted with a duration between 30 and 60 minutes. Eight interviews were audio recorded, during one the researcher typed along and one was held online over Discord. No major problems were experienced during the interviews. All participants were open and willing to talk about their experiences. New topics showed up that were not yet included in the interview guide. Therefore, the interview guide was adjusted to make it more efficient in the following interviews. It can be determined that the data reflects the experiences, opinions and views of the participants quite well because all participants were willing to share their experiences. Afterwards, the interviews were transcribed for later analysis.

Data analysis

A deductive code tree was made based on the theoretical framework to analyse the transcripts. The themes and categories correspond with the concepts in the conceptual model. The codes themselves are based on the operationalisation of the concepts for the interviews and the participants' responses. In the first round, open coding with descriptive codes was used to get the first insight into the results (Punch, 2014c). The comment function in Word was used to select sections and attach codes. In the second round, axial coding was used to merge the open coding codes into categories (Punch, 2014c). Lastly, selective coding (Punch, 2014c) was used to identify the main themes. While coding the interview transcripts, more inductive codes arose. These new codes were added to the existing categories or a new category/theme was created. These new inductive codes, categories and themes are grey in the code tree as shown in figure 4. Figure 4 shows an indication of the most common codes.

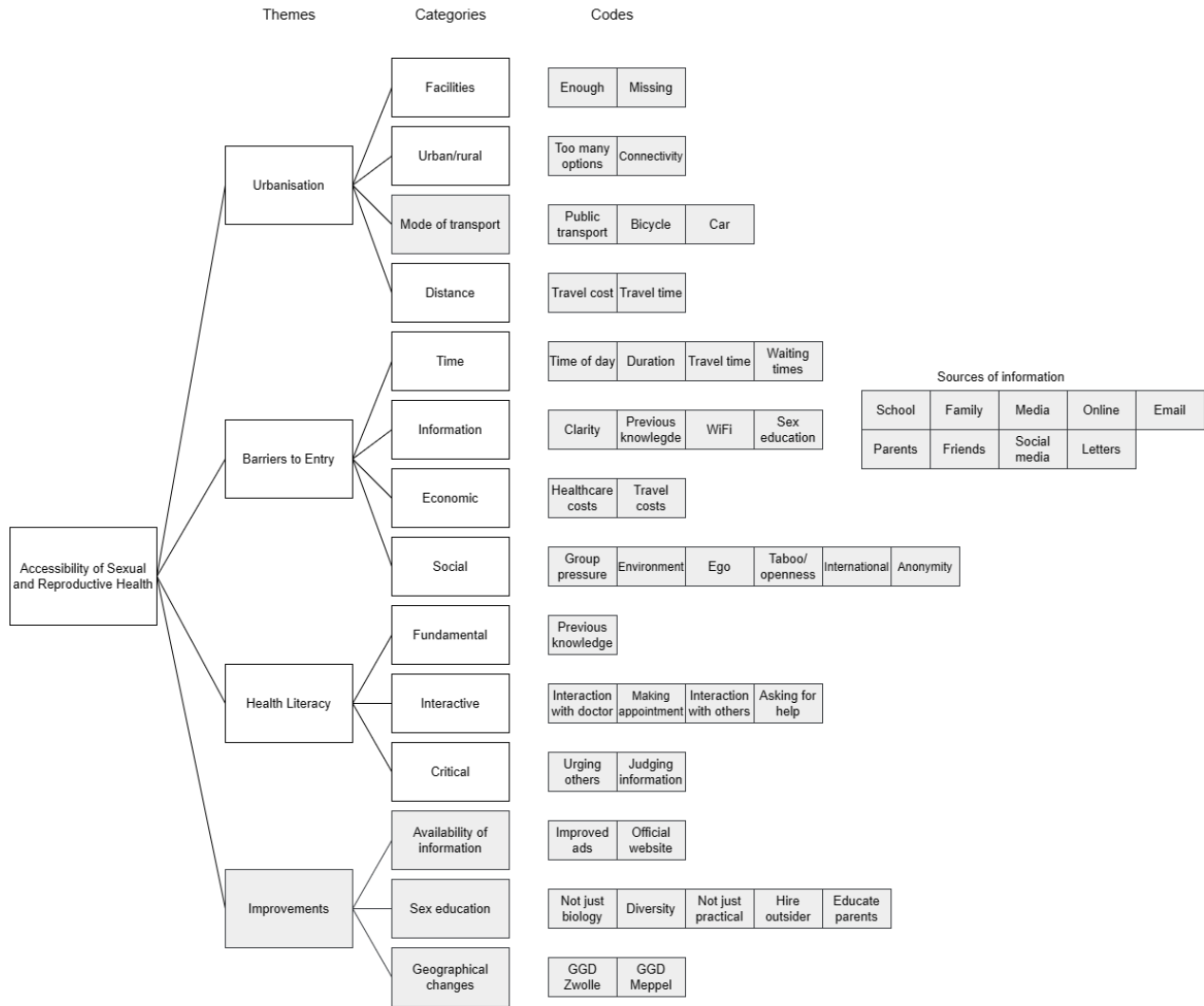


Figure 4. Deductive and inductive code tree on SRH.

New codes arose in all interviews, thus saturation was not reached. A thematic analysis was performed after the coding. A thematic analysis is used to identify and analyse patterns (themes) in data and explores the context of the open-ended responses and leaves room for interpretation when analysing (Castleberry & Nolen, 2018). Coded sections within the same categories were analysed together. This way, trends, patterns and commonalities were identified. Based on the themes, the research could determine which factors play a role in the accessibility of SRH for young adults in towns in the Netherlands.

Results

Participant's characteristics

All participants currently live in Meppel (ranging from two years to their entire life) and live in different neighbourhoods. The youngest participant was 18 years old at the time of the interview and the oldest was 24 years old. They form a mix of lower and higher-educated individuals and a mix of men and women. Two participants are not heterosexual, six participants are currently in a relationship and one participant lives together with their partner. Moreover, two participants are care workers and one works in a refugee shelter. No patterns emerged based on the participant's characteristics.

Interviews

Four major themes were identified in the interviews and the results will be discussed per theme. The defined themes are urbanisation, barriers to entry, health literacy, and improvements.

Urbanisation

Urbanisation played the smallest role in the experiences of the participants. The distance to health providers was the main factor of influence, but it was only seen as a minor inconvenience as they have access to transportation.

"No [problem], because I race my way there in my car in no time if I have to, but it's not that I'm excited to go all the way to Assen." - Interview 3

Needing more time if it is further away was the main obstacle. Most participants do not experience a lack of facilities in Meppel and can thus access all services by bike. The majority did not see how their experiences would be different in more urban or more rural places. Some think SRH is more accessible in larger cities (more options and better connectivity), while others say it would be worse (too many options, less social cohesion and longer waiting times).

"Maybe if you live in a very large city, that waiting times are longer than they are here, [...] That you think 'if I have to wait another four weeks, screw it.'" - Interview 8

Barriers to entry

When it comes to the barriers to entry, it should be noted that most participants did not experience any factors as a problem in receiving healthcare or information. However, some barriers were experienced. Time and economic factors barely played a role, but the clarity and availability of information and social factors did affect SRH.

Social factors

Openness was mentioned in all interviews. The consensus is that the taboo on SRH is still present in today's society, but the conversation is opening up. Two participants compared the Dutch context to an international one and concluded that the taboo is not a major issue here.

"I do notice that [...] some people from other countries sit around more uncomfortably and sometimes even find it awkward to take notes if the words vagina and penis are used during lectures about sex." - Interview 5

Other participants explained that SRH is not a topic people openly talk about in the Netherlands. A participant specifically stated that they feel like it is harder for men to be open and honest about this topic due to it not being socially accepted. One participant experienced this themselves and described ego and wanting to be independent playing a role.

"Yes, that is at least very much the case for me. That I just think 'Yo I can solve this myself, [...] I'm a strong person, I'll manage this.' I think that other people often experience a step like 'I don't want to be a burden to others.' [...] Then I think 'yeah you know, that shouldn't be an issue.' However, taking that step [to get help] is difficult for me personally." - Interview 6

For some these feelings result in preferring to receive help or information anonymously.

Information

The preferred options to get help are the general practitioner (GP), internet and GGD depending on the situation. Other responses include family and friends. The GP was most popular as it was deemed the most logical first step, more confidential and they have professional secrecy.

“I have the idea that that’s the first place to go. I don’t know if that’s right, but from my perspective, I think I would just call the GP and see what they say.” - Interview 5

The GGD was seen as more anonymous and specialised. Before looking for help, most look online for information about what they are dealing with. All participants use the internet and some social media as a source of information. Social media was said to help with reducing taboos, combating stigmas and informing about consent.

“I think that that’s the case because you can find more information, it [sex] is more talked about, especially also on social media, there you get a lot of information. [...] it is much more openly discussed.” - Interview 9

Next to online sources, all participants have had some form of sex education. Information comes from different sources. Schools mostly provided practical information about how sex works biologically, its risks and anticonception. If parents taught their children, it is often about the social side of sex such as consent and setting boundaries.

“School was mostly about safety during sex, having sex and making sure that you don’t get children [...] And my parents were more about... for myself. ‘Only do things when you feel okay with it, if you’re ready.’” - Interview 4

Friends, siblings and peers mostly share their personal experiences. None of the participants felt like they needed more information at the time of the interview, but three of them stated that they needed more information in the past. One participant admitted that they only recently learned from friends that you can get an STD from oral sex.

“For example, they never told me that you can get an STD from licking and stuff. When you find that out later you think oh shit, that sucks.” - Interview 2

This shows a clear knowledge gap. Moreover, some said they might use more SRH-related health services if they had more information.

Health literacy

Functional

Functional HL only played a minor role for the participants as they are all able to read and write. However, some participants had a limited understanding of SRH which could point to lacking functional HL. The participants were asked what SRH encompasses and which related organisations, authorities and media they know. STDs were the most common response. Some participants had no clue what SRH is, while other responses included risk prevention & contraception, pregnancy & fertility, sexuality & gender, consent & communication, sexual and gender-based violence & inequality and mental health. The GGD and the GP are the most mentioned authorities. Other responses were hospitals, STD clinics, abortion clinics and the GGZ (mental healthcare). Most participants showed an understanding of the activities of these organisations, authorities and media channels. The responses included providing information, vaccinations, STD tests and care.

“I believe they campaign for [...] vaccinations now in this case and indeed also STD-tests and that kind of stuff, but also providing information.” - Interview 7

Some participants showed a lack of awareness and related knowledge. The GP may have been so obvious that it was overlooked. The GGD was mentioned by most, but there was a lack of understanding about their activities. One participant mentioned the GGZ, but could not explain what they do.

“No, I know that it exists, but what they do? No, no idea.” - Interview 3

The GGD might not be associated with SRH as the organisation is currently most known for its COVID-19 pandemic-related activities. One thing to keep in mind is that the common Dutch term for SRH is ‘sexual health’, although the full SRH can also be used. During the interviews, only ‘sexual health’ was used, which could have resulted in the emission of topics and organisations related to reproduction in the responses.

Only one participant said to have used SRH-related healthcare services. Later, multiple participants turned out to have used SRH-related services.

“Oh yes I do have that one [HPV vaccination], but I didn’t know that that was against an STD.” - Interview 4

Some participants received (multiple) vaccinations, one participant has an IUCD (intrauterine contraceptive device) and another was tested and treated for an STD. That means at least six participants experienced SRH-related healthcare but were not all aware of it at first. Furthermore, all participants know someone that has used SRH-related healthcare, most of whom did an STD test.

Interactive

Nobody experiences problems communicating with the doctor anymore, but for some that were different in the past. Important to mention is the fact that only a few had ever seen the doctor for SRH-related issues. Some participants know people who have a fear of calling over the phone. The minority prefers the option to make an appointment online. The benefits include not having to awkwardly explain your symptoms to the doctor's assistant and it being easier to plan your appointment. Most prefer calling and say it is only the initial mental barrier that makes it difficult and it becomes easier afterwards.

“I think that, in this case, calling is easier as you directly get a response and can directly make an appointment. [...] I think that if you have to plan an appointment for the long term that it [online] would be easier as you often also receive an email if you reschedule your appointment.” - Interview 6

All participants ask their doctor questions if clarification is necessary. The questions range from basic information about the quantity of medication to advice for a faster recovery. One participant has had a negative experience during a doctor’s appointment. The negative experience did only slightly influence the participant’s future decisions to seek help.

“I wouldn’t immediately have the same feeling again that it was absolutely useless and now I would really try with her again” - Interview 1

A clear trend is a preference for a doctor of the same sex only when it involves their SRH as they feel more comfortable and better understood. An experienced doctor is preferred, but not a requirement.

Critical

Multiple responses showed participants judging the trustworthiness of information. Especially the internet is not always experienced as the most trustworthy source of information.

"...I notice that you end up in some sort of bottomless pit with a lot of 'personal research' and a whole lot of bullshit and that just doesn't work." - Interview 1

Participants not only look after themselves but also urge others to get help when they recognise symptoms in others.

"I think that I would do that more easily because I do know from my work how things go. That you see the results of it [getting help] and I think that I would urge people to just do it, because it really helps to say it to clients" - Interview 7

Improvements

The interviewees were asked what could be improved. Three main categories were identified: sex education, availability of information and geographical changes.

Sex education

The majority were not satisfied with the way sex education was taught to them in school. All participants agreed that the way it was taught could be improved upon. Many participants mentioned having already forgotten what they were taught in school. Improvements mentioned are that sex education should include more diversity, discuss more than strictly the practical and biological information, and be taught over a longer period.

"There has to be more, I think. And clearer, I think that if you do it more often, giving information, it becomes much easier to talk about for everyone. And sex education should be more extensive instead of only 'look this is a condom and this is how you put it around a banana'."

- Interview 9

Other improvements mentioned include hiring an outsider to teach sex education, making it better possible to ask questions in private and teaching it not only in biology class for people without biology classes.

Availability of information

Availability of information could be improved. Participants experienced the internet to be a good source of information, but not always trustworthy. A single website by e.g. the government or specialists in their field with easy access to clear information based on symptoms would help.

“Maybe there needs to be a specific search engine for all doctors in general online where you can submit your symptoms [...] And then thereafter maybe just a list of possible things that may be your issue.” - Interview 6

Reaching young adults is easiest through social media platforms. Ads on these platforms should be catchy and short. However, not all participants use social media and therefore prefer a (government) letter or email.

Geographical changes

In the current context, the population of Meppel falls under the GGD region Drenthe, meaning they need to travel to Assen to go to a GGD. All participants agreed that it would be much easier if they could go to Meppel or Zwolle instead. Having access to a GGD in Meppel (even occasionally) would make it easier to receive the right SRH-related healthcare.

“I would rather go to Zwolle. Just because in Meppel you are already dependent on Zwolle for many things. [...] But [a GGD in] Meppel is not necessarily necessary for me. I also get that there might be too few people around for that and an ageing population.” - Interview 5

Discussion

In this paper, the aim is to see whether HL is a useful tool to use when studying the accessibility of SRH for young adults in towns in the Netherlands. The goal of this research is to see whether a better understanding of HL could improve the understanding of the accessibility of SRH.

Factors at play

It was expected that urbanisation, time, economic situation, social environment, availability of information and HL affect the accessibility of SRH care for young adults. Overall, SRH is properly accessible in Meppel. Relating to urbanisation, only distance to healthcare facilities played a minor role. This contradicts the findings of Cordasco et al. (2011), Ambresin et al. (2013) and Iosti, (2019) who all found that distance and location of healthcare facilities play a major role. This difference could be explained by the Netherlands being better connected than the countries they studied. Central place theory (King, 1985; Atzema et al., 2014) turned out to be mostly irrelevant as none of the participants experienced a lack of facilities in Meppel.

Clarity and availability of information were of importance. The GP, GGD and the internet were the first choices to receive help, with the internet being the primary source of information. The internet being such an important source is in line with the “Sex under 25” report (Rutgers & Soa Aids Nederland, 2022). Sex education was done by schools, parents, (social) media and friends, but was often deemed to be lacking. Although no participant said to be needing more information, there was a lack of knowledge about SRH among some of the participants. The openness needed to freely communicate about SRH (including social stigmas, social environment taboos and wanting to be treated with respect) could be improved, although the Dutch openness was perceived to be better than in other countries. Although Ambresin et al. (2013) and Buzi & Smith (2014) all found time and economic factors to be at play too, these findings do support the importance of social factors, such as social stigmas and taboos, and clarity of information. Moreover, the findings support the relevance of communication (Ambresin et al., 2013).

The role of health literacy

It was expected that HL would play an important role in accessing SRH for young adults. Urbanisation and the barriers to entry experienced related to accessibility were expected to be affected by an individual's level of HL. The findings support these expectations. The barriers to entry and distance become bigger problems when individuals have a low level of HL, as was found by (Cordasco et al., 2011). A higher level of HL made accessing information and care easier as well. The findings support Nutbeam's (2008) levels of HL. Functional HL only played a minor role among the participants. Some of the participants showed a lack of knowledge about SRH as they did not realise they made use of SRH-related services. This could point at a lack of functional HL. Interactive HL played a role in the communication around SRH with e.g. care workers and family. Although communication was sometimes seen as awkward and difficult, most participants preferred calling to make an appointment. One participant had a bad experience with SRH services, but that did not seem to impact any future decisions in seeking help. A care worker of the same sex was preferred as it makes people feel more comfortable and understood. Difficulties with communication make it difficult to acquire sought-after information, dismantle taboos and stigmas and cross a distance to a facility when e.g. needing to ask to borrow a car. Critical HL was shown by individuals judging the quality of data provided online and looking after and recognising symptoms in others. All these findings support the literature that claims HL to be of importance in the study of the accessibility of healthcare (Nutbeam, 2008; Altin & Stock; 2015; Oosterhoff, 2015; Berens et al., 2016; Viktorsson et al., 2019).

Conceptual model

Based on the previously discussed findings, the conceptual model should be adjusted to fit the context of Meppel. The improvements as mentioned by the participants show that HL and barriers to entry both affect accessibility. Improving sex education in schools by including more diversity, not just discussing practical information, teaching it over a longer period, hiring an outsider to teach the classes, providing more privacy and opportunities to ask questions, not just teaching it in biology class and updating the knowledge of parents all results in individuals having more HL skills and knowledge to access needed SRH-related information and care. Other demands for better access and clearer information in the form of e.g. a single official website and catchy ads on social media show the importance of the previously discussed barriers to entry of information clarity and reducing social stigmas. On the other hand, urbanisation could be reduced to just the distance to SRH services. Due to the distance to Assen and Zwolle only being a minor factor, it could be seen as another barrier to entry. Therefore, the conceptual model may be adjusted as shown in figure 5.

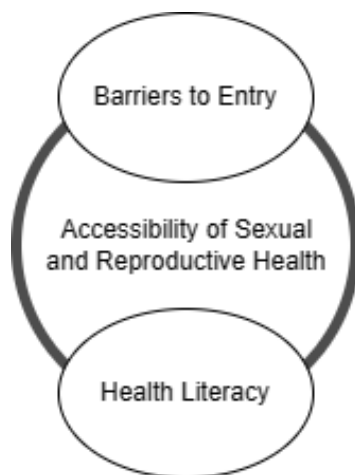


Figure 5. Conceptual model of the accessibility of sexual and reproductive health where barriers to entry and HL are related and affect accessibility.

Conclusion

This research aimed to see whether HL is a useful tool to use when studying the accessibility of SRH for young adults in towns in the Netherlands. The factors influencing accessibility have been examined through in-depth interviews and a thematic analysis. According to the literature, important factors are urbanisation (Cordasco et al., 2011; Iost, 2019), time, availability and clarity of information, economic and social factors (Ambresin et al., 2013; Buzi & Smith, 2014). As expected, these factors did reoccur in this study, however, the influence of time and economic factors were negligible in the context of Meppel. Furthermore, except for distance, no data was found to support that urbanisation is of importance to the same degree as found in other studies. Evidence was found for the clarity and availability of information and social factors impact the accessibility of SRH. Moreover, an individual's HL appears to affect whether participants had access to SRH and is in line with previous literature (Altin & Stock; 2015; Berens et al., 2016; Viktorsson et al., 2019). To answer the main research question: *'How can the accessibility of sexual and reproductive health for young adults in towns in the Netherlands be understood through the health literacy concept?'*. HL is a useful tool when studying accessibility of SRH in towns in the Netherlands. HL is not only a barrier to receiving the correct information and healthcare in itself, it also helps with understanding the other experienced barriers. The three levels of HL each show the individual's capacity to collect, process and use information related to SRH resulting in better accessibility. Additionally, HL affects the experienced barriers to accessing SRH such as language proficiency impacting the experienced barrier of distance (Cordasco et al., 2011).

Strengths and weaknesses

This research could delve deeper into the lived experiences of the participants due to it being qualitative research. It sheds more light on which factors influence people's behaviour. An important point to acknowledge is that towns in the Netherlands differ and may have different experiences. The interviews are not representative of the population, therefore no generalised conclusions can be made. Moreover, only one participant knowingly used SRH-related care. Experiences may differ for individuals who actively use SRH-related care more often.

Recommendations

Future research should look at the role of distance and location of healthcare facilities within cities in the Netherlands as this research focused on the distance between settlements. As sex education was perceived to be lacking substance, it is recommended to improve the way it is taught in schools. It seems that young adults in Meppel rarely use SRH-related facilities and for most this is unlikely to change when more facilities are offered. Therefore, it is not necessary to add permanent SRH-related facilities in Meppel. An official website by either the government or specialists with all information could make information more accessible.

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Appendix

A Interview Guide

Pre-interview

The researcher will introduce himself and the interviewee will be informed about the goal of the interview. The researcher will ask whether the interview may be audio recorded and explains what will happen with the recording. Then the consent form will be discussed and signed after it is explained that the participant can always opt out of the research. The interviewer will start with some small talk to make the participant more comfortable and the interviewee will already be thanked for participating. As all respondents are most likely to prefer Dutch over English, the questions will also be in Dutch.

Introduction questions

1. Hoe oud ben je?
2. Hoe identificeer je jezelf?
3. Heb je een relatie?
4. Op welk niveau was je meest recente opleiding?
5. Woon je in Meppel? Zo ja, heb je hier altijd al gewoond?
6. Is je gezondheid iets waar je veel mee bezig bent in je dagelijks leven? Hoe uit zicht dat?
7. Wat komt er in jou op bij 'seksuele gezondheid'?
8. Welke diensten, organisaties en media ken jij die zich bezig houden met seksuele gezondheid?
9. Weet je waar deze instanties zich mee bezig houden?
10. Je hoeft niet in detail te treden, maar heb je ooit contact gezocht met een of meerdere van deze organisaties? Weet je ook of mensen uit je omgeving dit weleens hebben gedaan?
11. Waar zou jij heengaan als je hulp nodig hebt?
12. Heb je het idee dat je meer informatie of hulp nodig hebt dan je nu hebt? Waar komt dit door?
13. Denk je dat je meer gebruik zou maken van de diensten als je meer weet over wat er allemaal mogelijk is en wordt aangeboden?

Core questions per topic based on the conceptual model

Hier de participant informeren over wat seksuele gezondheid inhoudt in dit onderzoek:

Risico's en praktische zaken: soa's, hpv (baarmoederhalskanker), voorbehoedsmiddelen en vaccinaties.

Andere onderwerpen: vruchtbaarheid, gezinsplanning, abortus, aangeven van grenzen (consent), seksueel geweld, ongelijkheid, uiten van emoties, mentale gezondheid, seksualiteit, moedersterfte, morele keuzes, gender gerelateerd geweld.

→ **Health literacy**

1. Zijn er nog onderwerpen die ik net genoemd heb die je zelf niet gelijk gekoppeld zou hebben aan seksuele gezondheid?
2. Heb je ooit naar informatie gezocht binnen het onderwerp seksuele gezondheid en hoe ging dat? Denk bijvoorbeeld aan seksualiteit, soa's, vaccinaties of het krijgen van kinderen?
3. Hoe was jouw seksuele voorlichting? Ouders? Broers/zussen? School (niveau)? Vrienden? Zelf?
4. Waar haal jij tegenwoordig je informatie over seksuele gezondheid vandaan?
5. Hoe ervaar je in het algemeen de interactie met bijvoorbeeld een dokter. Denk hierbij aan het bellen voor een afspraak, het bespreken van klachten en het stellen van vragen? Heb je een voorkeur in met wie je contact hebt? Hoe verliep dat contact de laatste keer dat je zoiets meemaakte? Is dat hoe het vaker gaat?
6. Denk je dat dit anders is wanneer je het met een dokter/gynaecoloog/huisarts/GGD arts/verpleegkundige/zorgverlener hebt over je seksuele gezondheid? Waar komt dat door?
7. Heb je enig idee hoe dit onderwerp speelt in jouw omgeving? Bespreek je dit bijvoorbeeld ook met anderen? Hebben zij invloed op jouw keuzes?
8. Rust er volgens jou een taboe op dit onderwerp? Hoe zie je dit terug in jouw omgeving?
9. In hoeverre zou jij je seksuele gezondheid bespreken met je partner?

→ **Factors of accessibility**

1. Welke factoren zijn voor jou van belang om makkelijk aan informatie of de juiste hulp te komen over seksuele gezondheid?
 - Probes: tijd, geld, een gebrek aan of onduidelijke informatie, ervaring met de hulpverlener, omgeving, etc.
2. Welke factoren zouden het voor jou moeilijk maken om hulp te zoeken voor of informatie te krijgen over seksuele gezondheid?
 - Probes: tijd, geld, een gebrek aan of onduidelijke informatie, ervaring met de hulpverlener, omgeving, etc.

→ **Urbanisation**

1. In hoeverre denk jij dat het feit dat je in Meppel woont een rol speelt in je keuzes? Denk je dat je andere keuzes zou maken als je in een grotere of kleinere plaats zou wonen?
2. Heb je het gevoel dat er faciliteiten missen in Meppel die wel van belang zijn voor jouw seksuele gezondheid?
3. Maakt het voor jou uit of dienstverleners, zoals bijvoorbeeld de GGD, in de buurt zitten? Kun je uitleggen waarom?
4. Voor context, Meppel valt onder GGD Drenthe, wat inhoudt dat je naar Assen moet om de GGD te bezoeken. Mocht je daar een keer heen moeten, hoe zou je dat dan aanpakken? Ga je alleen of samen? Met de auto of het openbaar vervoer?

Closing question:

1. Zijn er nog andere factoren die voor jou een rol spelen om wel of geen hulp te zoeken voor je seksuele gezondheid die we nog niet hebben besproken?
2. Denk je dat jouw ervaringen worden beïnvloed doordat je je identificeert als ...? Of door je seksualiteit of je afkomst?
3. Wat moet er volgens jou verbeteren om de informatie en de dienstverlening toegankelijker te maken?
4. Hoe denk jij dat jongvolwassenen het beste bereikt kunnen worden? Hoe ben jij het beste bereikbaar?
 - Probes: format & plaats: video, tekst/website, podcasts, muziek, reclames, school, sociale media, televisie, radio, film, omgeving, etc.
5. Zorgen deze veranderingen ook voor een duidelijke verandering voor jou?
6. Heb je na dit interview het idee dat je meer informatie of hulp nodig hebt dan je nu hebt? Kun je dat toelichten?
7. Heb je nog iets dat je graag toe wilt voegen of heb je nog een vraag aan mij?

Dan bedank ik je hierbij nog een keer voor het interview.

B Information to participants

Before the interviews, the participants received some basic information about the interview and the project. More detailed information was given before the interview in person and there was room for additional questions. The following message was sent to the participants in advance:

Hallo hallo [Name]! Ik zal even wat context geven. Voor mijn scriptie doe ik onderzoek naar de toegankelijkheid van seksuele gezondheid. Mijn doelgroep is jong volwassenen (18-25) in Meppel. Het interview gaat niet over je seksleven, maar over barrières tot de zorg en toegang tot informatie.

Het interview duurt waarschijnlijk rond de 30 tot 45 minuten. Het is volledig vrijwillig en je mag altijd nog uit het onderzoek stappen, ook na het interview. Bij voorkeur wordt de audio opgenomen tijdens het interview, wat ik nodig heb om het interview achteraf uit te kunnen typen en te analyseren. De transcriptie wordt geanonimiseerd en is dan niet meer naar jou te herleiden. De opname wordt verwijderd op het moment dat het onderzoek is afgerond. Dit zal in januari of februari 2023 zijn. Mocht de opname echt een probleem zijn, geef het vooral aan.

Als je nog vragen hebt, stel ze vooral!

Mocht je wel mee willen doen, heb je ergens deze week een gaatje in je agenda? Anders is volgende week ook nog een optie.

C Voluntary Informed Consent Form

Consent form for the research project 'Accessibility of sexual and reproductive health'.

In this research, the accessibility of sexual and reproductive health for young adults in towns in the Netherlands is studied in the case of Meppel, Drenthe. By using your interview the researcher tries to answer the following question: *'In which ways can the concept of health literacy be used to understand the accessibility of sexual and reproductive health for young adults in towns in the Netherlands?'*

I fully understand the research project. I was able to ask questions and my questions were answered clearly. I had enough time to decide to participate in the research.

My participation is completely voluntary. I can withdraw from the research at any time, without having to give a reason.

I give my permission for using the research data for educational research purposes.

I agree to participate in this research.

Name and signature of the research participant. Date.

I declare that I have informed the research participant about the research. I will notify the participant about matters that could influence his/her participation in the research.

Name and signature of the researcher. Date.

Note: The researcher offered the participants to translate the consent form to make sure it was understood correctly.